



WEST BASIN MUNICIPAL WATER DISTRICT

FISCAL YEAR  
2018-2019  
OPERATING BUDGET



# Table of Contents

<b>General Manager’s Message</b> .....	1-1
<b>About West Basin Municipal Water District</b> .....	2-1
Board of Directors .....	2-2
Service Area - Division Boundaries .....	2-3
History .....	2-8
<b>Financial Highlights for FY 2018-19</b> .....	3-1
Staffing and Program Budgets.....	3-4
Strategic Business Plan .....	3-5
Long-Range Financial Plan .....	3-8
Five-Year Forecast.....	3-10
Fund Balance (Designated Funds) .....	3-14
Summary of Financial Policies .....	3-16
Performance Metrics .....	3-21
<b>Budget Process and Timeline</b> .....	4-1
Budget Basis.....	4-2
Budget Timeline .....	4-3
Budget Process.....	4-5
<b>Source of Revenue</b> .....	5-1
Revenue Highlights .....	5-2
Water Rates and Charges.....	5-4
Other Sources of Revenue .....	5-13
<b>Use of Funds</b> .....	6-1
Water Purchases and Charges.....	6-2
Debt Service .....	6-6
Salaries and Benefits .....	6-12
Capital Improvement Program .....	6-19
<b>Operating Program Expenses</b> .....	7-1
Overhead Program Costs .....	7-2
Water Recycling Operations.....	7-10
C. Marvin Brewer Desalter Operations .....	7-16
Water Policy and Resource Development.....	7-18
Public Information & Education .....	7-22
Conservation.....	7-26
Water Quality Monitoring Program.....	7-31
<b>Supplemental Information</b> .....	8-1
Capital Improvement Program .....	8-1
Organization Memberships and Sponsorships .....	8-20
<b>Acronyms</b> .....	9-1
<b>Glossary</b> .....	9-3



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished  
Budget Presentation  
Award*

PRESENTED TO

**West Basin Municipal Water District  
California**

For the Fiscal Year Beginning

**July 1, 2017**

*Christopher P. Morill*

Executive Director

*California Society of  
Municipal Finance Officers*

*Certificate of Award*

***Operating Budget Excellence Award  
Fiscal Year 2017-2018***

*Presented to the*

***West Basin Municipal Water District***

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

***February 7, 2018***



*Drew Corbett*

**Drew Corbett  
CSMFO President**

*Craig Boyer*

**Craig Boyer, Chair  
Professional Standards and  
Recognition Committee**

***Dedicated Excellence in Municipal Financial Reporting***



Section 1  
General Manager's  
Message







## General Manager's Message

May 29, 2018

### **To the Honorable Board of Directors and Customers of West Basin Municipal Water District**

West Basin Municipal Water District (West Basin) staff is pleased to present the operating budget and supplemental information for the Fiscal Year (FY) beginning July 1, 2018 and ending June 30, 2019 (FY 2018-19). Each year staff makes careful consideration in its budget development to ensure West Basin's mission, strategic goals, and commitments are being financially supported. West Basin balances its budget by appropriately setting water rates and charges to address the many challenges facing the water industry, such as more frequent and severe droughts due to climate change, the impact of water conservation and education on water demand, and the commitment to replace imported water deliveries with drought-resilient supplies.

The following objectives were considered in the development of the FY 2018-19 budget including: 1) meeting the debt coverage target set by the Board of Directors; 2) having sufficient net revenues to pay for Refurbishment and Replacement (R&R) projects; 3) implementing a new fixed charge on imported water customers; and 4) incorporating the goals relating to long-term planning.

The total operating revenue budget is \$217,450,904 for FY 2018-19 representing an increase of \$12,400,161 (6.1%) from the prior year with several factors contributing to the higher budgeted revenues. An increase in the overall debt coverage to 1.86 from 1.80 and is a conscious decision by West Basin to offset the drop off of fixed revenue in the coming fiscal years. As a result, designated funds are budgeted to increase \$1.5 million from \$19.2 million to \$20.7 million.

In FY 2018-19 the combination of a Metropolitan Water District Tier 1 imported water rate increase of \$35 per acre-foot (AF), and an anticipated increase in imported water consumption of 2,700 AF, from 98,800 AF to budgeted water sales of 101,500 AF, will result in an \$6.3 million increase in budgeted revenues. West Basin anticipates a modest rebound in imported sales in FY 2018-19 due to the Governor's executive order lifting the drought emergency requirement in 2017.

Recycled water revenues are expected to increase by \$2.0 million due to an increase in potable water rates and an increase in sales of 2,105 AF.

Another significant change is the implementation of a new Fixed Service Charge and the elimination of the Water Service Charge, generating additional revenues of \$1.6 million.



## **Progress toward West Basin's Strategic Business Plan (Plan) Goals and Commitments**

Updated and adopted on August 28, 2017, West Basin's Strategic Business Plan (Plan) provides for a five-year planning horizon (and beyond). The update of this Plan reaffirmed West Basin's vision, mission, and value statements and the five goals that set the framework for the strategies and objectives. Highlighted below are a few of the accomplishments where West Basin has provided value during the current fiscal year and shaped our objectives for FY 2018-19. For a complete listing of West Basin's accomplishments, see Section 7, Operating Program Expenses, and Section 8, Supplemental Information.

### **Water Supply Reliability**

- Successfully completed five (5) free Rain Barrel Distribution Events and distributed 2,000 rain barrels.
- Implemented five (5) Rainwater/Greywater classes and five (5) Greywater Design Workshops, free through public workshops.
- Provided monthly updates to the customer agencies regarding the State Water Resources Control Board's mandatory water conservation reporting.
- Completed the California Environmental Quality Act (CEQA) and 30% design for the Palos Verdes Recycled Water Pipeline Project.
- Achieved milestone of 200 billion gallons of recycled water produced at the Edward C. Little Water Recycling Facility (ECLWRF) since program inception.

### **Sound Financial and Resource Management**

- Received \$50,000 Water Research Foundation Grant for the Custom Engineered Microfiltration Pilot on ozonated secondary effluent water.
- Initiated a pipeline condition assessment program to evaluate the health of the pipelines within the treatment facilities.
- Monitored the District's budget versus actual reports and provided quarterly updates to the Board on the District's ability to achieve targeted debt coverage of 1.75.
- Distributed and received 100% completed Annual Employee Performance Evaluations from Senior Management.



## Water Quality

- Completed annual customer water quality reports for participating retailers both purveyors served by the program were in compliance with the Department of Drinking Water requirements for a public water system.
- Completed laboratory services required to comply with Federal Safe Drinking Water Act and California Title 22 Drinking Water regulations such as analyses of all inorganic, organic compounds, and radioactivity.
- Completed the design of the Chlorine Contact Basin Rehabilitation Project to ensure continued adequate chlorine contact time for disinfected tertiary recycled water, per West Basin Title 22 permit issued by the Los Angeles Regional Water Quality Control Board.
- Continued construction of the Reverse Osmosis (RO) Clean-in-Place Waste Discharge project to allow RO cleaning chemicals to be discharged to the sewer rather than being combined with RO brine and discharged to Hyperion Treatment Plant's ocean outfall.

## Customer Service

- Updated Board-approved Strategic Business Plan in August 2017 which provides the overall policy direction for the District.
- Represented and promoted West Basin's programs at over 100 community events in partnership with the South Bay Environmental Services Center.
- Successfully partnered in Metropolitan Water District (MWD) of Southern California education programs; sponsored three high school Solar Cup teams and engaged over 500 students in the Water is Life art contest.
- Served more than 8,000 students in grades 3 - 12 with free water education programs.
- Offered free, public water education programs including a new Lunch and Learn series that launched in February 2018.





## Environmental Stewardship

- Partnered with several environmental organizations in the development and implementation of its water efficiency programs.
- Partnered with the South Bay Chapter of the Surfrider Foundation to provide greater support for its local Teach & Test Program.
- Completed design of the Chemical Containment R&R Project to ensure chemicals used in West Basin's recycled water program are thoroughly contained and prevented from release into the environment.
- Conducted an informational outreach campaign, including hosting two public meetings, to increase public engagement regarding the draft environmental impact report on the potential desalination project.



## Key Factors Impacting the Budget

The development of the budget incorporates a multitude of decisions, including but not limited to water sales assumptions, achieving the goals and strategies of the Plan, consideration of funding and timing for capital projects, and weighing any future risks or financial commitments of West Basin. Each item is carefully considered to ensure that West Basin is focused on meeting its mission of providing a safe and reliable supply of water in a cost-effective manner.

West Basin understands that strong credit ratings can allow an agency to obtain lower-cost financing for its capital projects. When reviewing credit ratings, rating agencies evaluate a number of factors including achieving targeted debt coverage at each security interest level, maintaining strong cash reserves, having an economically strong service area, and providing an essential and critical service. To achieve strong credit ratings, West Basin has internally established budgeted debt coverage goals, enhanced its financial policies, and added additional fixed revenues to hedge against future unforeseen fluctuations in water demand. These factors allow West Basin to continue to maintain a financially sound organization.



In the FY 2018-19 budget West Basin has planned to continue to take an active approach to rehabilitate and replace critical parts of the aging infrastructure that provides recycled water to our customers. By undertaking this large rehabilitation and replacement effort, West Basin hopes to continue to enhance the recycled water process, provide reliability to the customers and achieve cost savings through a more efficient operation. To assist in this effort, the operating budget includes \$17.8 million for identified R&R projects and other smaller capital projects.

As a result of improvements made at its ECLWRF recycled water facilities to increase production of Barrier and disinfected tertiary water, West Basin anticipates an uptick in recycled water sales to its highest level at 41,215 AF in FY 2018-19. The increase in production allows West Basin to meet its contractual obligation of delivering 17,000 AF of Barrier recycled water to the Water Replenishment District (WRD) of Southern California.

### **New Fixed Service Charge**

In 2016, West Basin hired a consultant to conduct a water rate restructuring study to explore rate structure alternatives that promote revenue and rate stability. Similar to other water agencies, West Basin experienced sharp reductions in sales during the last drought and while water sales have recently rebounded, sales may not return to pre-drought levels due to permanent water conservation efforts and behavioral changes on the part of consumers. West Basin heavily relies on variable water sales for its imported water revenue and during periods of reduced demand, revenues have significantly declined. A fixed charge provides revenue stability, improved financial planning, and allows for more flexibility in encouraging conservation.



In FY 2017-18, staff presented to the Board the key policy options for introducing a fixed charge that included the pros and cons of a fixed charge, how much revenues can be collected by the fixed charge, how should the fixed charge be assessed and the appropriate transition. With the Board's support, staff met with its customer agencies to review the merits of the proposed fixed charge and the minimal impact that adopting the fixed charge would have on the customer.

The new Fixed Service Charge was adopted with West Basin's water rates and charges on April 23, 2018.

### **Water Sales Assumptions**

As nearly 90% of our revenues are generated from volumetric sales, careful consideration is made when determining sales assumptions. Staff reviewed past history for trends, spoke with customer agencies that produce groundwater for projected extractions, monitored the regional water provider, and also reviewed its current capital improvement projects to make appropriate assumptions for retail and Barrier imported sales, recycled water sales and the brackish desalter water sales.

In April 2017, Governor Brown issued Executive Order B-40-17 directing the State Board to lift the specific conservation provisions of its drought emergency regulations but to keep in place the temporary requirements for monthly water use reporting and prohibitions against wasteful water use practices while the State Board works to develop permanent reporting and wasteful use regulations. The temporary requirements ended in late 2017. The long-term conservation framework also released in 2017 included recommendations to establish permanent water



Conservation events hosted by West Basin transform communities with native and climate appropriate plants

conservation standards and improved urban water management planning to better prepare for more frequent and severe droughts due to climate change. West Basin recognizes the continued need for conservation measures and has included funding in this operating budget to support conservation efforts within its service area. However water consumption in FY 2017-18 has exceeded the budget and it is anticipated imported water sales will be marginally higher in FY 2018-19 which has budgeted 100,000 AF for retail imported water sales.

In review of the Barrier sales, staff looks at the history of sales to the Dominguez Gap Barrier and the West Coast Basin Barrier. The West Coast Basin Barrier sales have historically included injection of both imported and recycled water. In consultation with WRD and considering West Basin's goal to meet its contractual commitment of supplying 17,000 AF of recycled water, it is expected that West Coast Barrier deliveries in FY 2018-19 will be 18,000 AF based on expected demands from the County of Los Angeles. West Basin intends to deliver 17,000 AF with recycled water and the remaining anticipated demand of 1,000 AF will be supplemented with imported water. The Dominguez Gap Barrier is expected to decrease its injection of imported water and it is moving more towards recycled water delivered by Los Angeles Department of Water and Power (LADWP); imported water delivery therefore is expected to decrease to 500 AF.

### **Consideration of Funding for Capital Projects**

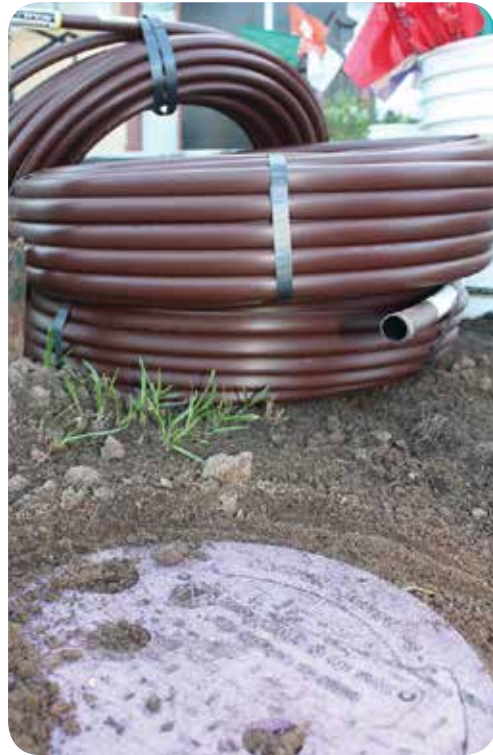
Planned capital expenditures for FY 2018-2019 are anticipated to be approximately \$60.8 million and more than \$196 million for the following four years. Based on the nature of the projects, staff anticipates using all avenues to fund the construction, including the use of PAYGO funds, commercial paper line, and the utilization of a low-cost loan through the State of California's Revolving Loan Program. The District has also secured approximately an \$8 million grant from the State Water Resources Control Board. Based on the type of projects and the evaluation of the best financing options, staff anticipates the need to enter the capital markets to debt finance approximately \$80 million for larger projects over a three-year period beginning in FY 2019-20.

At this time, West Basin does not anticipate it will need to draw upon its reserves. In addition, West Basin is active in pursuing grants and partnerships with local, state and Federal agencies as well as with for-profit entities to collaborate on the many important studies and projects that will benefit the water industry and our service area. All of the capital improvements projects reinforce West Basin's commitment and efforts to increase water reliability by augmenting local water supplies, as well as increasing its drought resiliency and sustainability.



## Future Risks and Other Considerations

With the passage of the Tax Cuts and Jobs Act of 2017, significant cuts were made to the corporate and individual tax rates. The new law also eliminated a critical tool local agencies use to enhance the sale of their bonds and save the taxpayers money. The bill eliminated the tax-exempt status of advance refunding bonds. Local agencies may still issue them but the interest is no longer tax exempt for bondholders. Historically, borrowers would advance refund their outstanding bonds to take advantage of lower interest rates, resulting in a reduction in their borrowing cost and would also free up resources for new capital projects. The impact on local agencies to not have the ability to lock in lower interest rates and secure a reduction in borrowing cost for outstanding debt is not known, however there could be a negative impact on construction of new capital projects



West Basin maintains a healthy level of reserves (designated funds) and invests its funds not required for cash flow requirements in compliance with the California Government Code Section 53600, et seq. The Board and Treasurer adhere to the “prudent investor rule” and follow the following three criteria (in order of importance) Safety of Principal, Liquidity, and Return on Investment when investing. Although “return on investment” is not the first criteria when investing, it is important in that West Basin relies on investment interest as part of its revenues to support the goals set by the Strategic Business Plan.

The Federal Reserve at its March 2018 meeting cited a brighter economic outlook thereby raising the expectation for additional interest rate hikes this year and next. With this trend in mind, West Basin, in consultation with its Investment Manager, increased its budget for interest earnings to nearly \$970,000 for FY 2018-19.

## Rate Projections

The largest portion of the West Basin's imported water rate is passed through to its customers from MWD's commodity rate. MWD adopted a two-year budget on April 10, 2018, setting their rates for Calendar Year (CY) 2019 to \$1,050/AF and Calendar Year 2020 to \$1,078/AF; the rate will change January 1st of each year.

In April 2018, MWD's Board of Directors authorized financing MWD's share of California WaterFix as a State Water Project contractor and to fully fund the unsubscribed share of the project up to 64.6% of total project costs. At this level of participation, MWD's capital cost commitment would be \$10.8 billion. MWD's latest 10-year financial forecast, updated in May 2018, projects that without any offsetting revenues, its investment in California WaterFix would increase long term overall water rates by an additional 1.1% annually, to 4.1% annually.

## In Conclusion

The FY 2018-19 operating budget supports the long-term financial and organizational goals and takes into account the future need to expand and diversify our water portfolio. West Basin is committed to demonstrate the value of its efforts and will continue to work with its customers and other stakeholders to ensure that rate increases are mitigated to the greatest extent possible while still being able to deliver a safe and reliable water supply.

West Basin's budget has been carefully considered by the Board of Directors and communicated to its customers. West Basin understands the impact the water rates have on its customers and balances those concerns with meeting the objective of diversifying water supply sources and identifying and addressing operational risks. West Basin is aware of the short-term and long-term risks that have an impact on its operations and achieving the successes of local projects to support Water Reliability and takes these into consideration as it develops the budget and water rates.

Respectfully,



Patrick Sheilds  
General Manager







Section 2  
About West Basin  
Municipal Water District







## About West Basin Municipal Water District

West Basin, an innovative and award-winning public agency, is a special district of the State of California that wholesales imported drinking water, produces recycled water and provides water-use efficiency and water education programs to approximately 870,000 residents within a 185-square mile service area. Located in the heart of southern California's coastal plain, it has a Mediterranean climate, characterized by warm, dry summers and wet, cool winters with moderate precipitations.

West Basin is governed by a Board of five directors who are elected by the public in alternating four-year terms. West Basin is a member agency of the MWD, a cooperative of twenty-six member agencies including cities and water agencies. West Basin sells the imported water it purchases from MWD to cities, water agencies and private water companies in coastal Los Angeles County.

Recycled water is the cornerstone of West Basin's efforts to increase water reliability by augmenting local supplies. The District's award-winning Edward C. Little Water Recycling Facility in El Segundo, California and its satellites are the only facility network in the world that produces five types of customer-tailored, "designer" waters. The system produces quality water for: irrigation; industrial cooling towers; high and low pressure boiler feeds; and seawater barrier water for groundwater replenishment purposes. West Basin provides recycled water to more than 400 industrial, commercial and public facilities in the service area.

To protect our local groundwater aquifer from seawater intrusion, West Basin currently provides highly purified recycled water to the WRD for injection into the West Coast seawater barrier. The seawater barrier protects and augments \$200 million dollars' worth of local groundwater supplies. While the groundwater pumping is not a direct sale of West Basin, it is another source of water for some customers to pump within our mutual service area.

In August 2017, West Basin's Board of Directors approved an updated Strategic Business Plan. In addition, West Basin is executing its Water Reliability Program with the goal of building a more diverse, locally-controlled and reliable water supply. This includes reducing dependence on imported water through continued water conservation, increased water recycling and the continued exploration of ocean water desalination as a new, drought-proof supply of drinking water.

West Basin continues to invest in staff, operations and programs to maintain high standards within our workforce and reach out to the community even more through conservation outreach, education, community partnerships, small and local business opportunities and other programs focused on providing value to our service area.



## Board of Directors



**Harold C. Williams**  
Secretary

**Division I:** Carson, Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills, Rolling Hills Estates, and unincorporated LA County areas of Rancho Dominguez



**Gloria D. Gray**  
Treasurer

**Division II:** Inglewood, and unincorporated LA County areas of Lennox, South Ladera Heights, West Athens, and Westmont



**Carol W. Kwan**  
Member

**Division III:** Hermosa Beach, Lomita, Manhattan Beach, Redondo Beach, and a portion of Torrance



**Scott A. Houston**  
Vice President

**Division IV:** Culver City, El Segundo, Malibu, West Hollywood, and unincorporated LA County areas of Del Aire, Lennox, Marina del Rey, North Ladera Heights, Topanga, View Park, and Windsor Hills



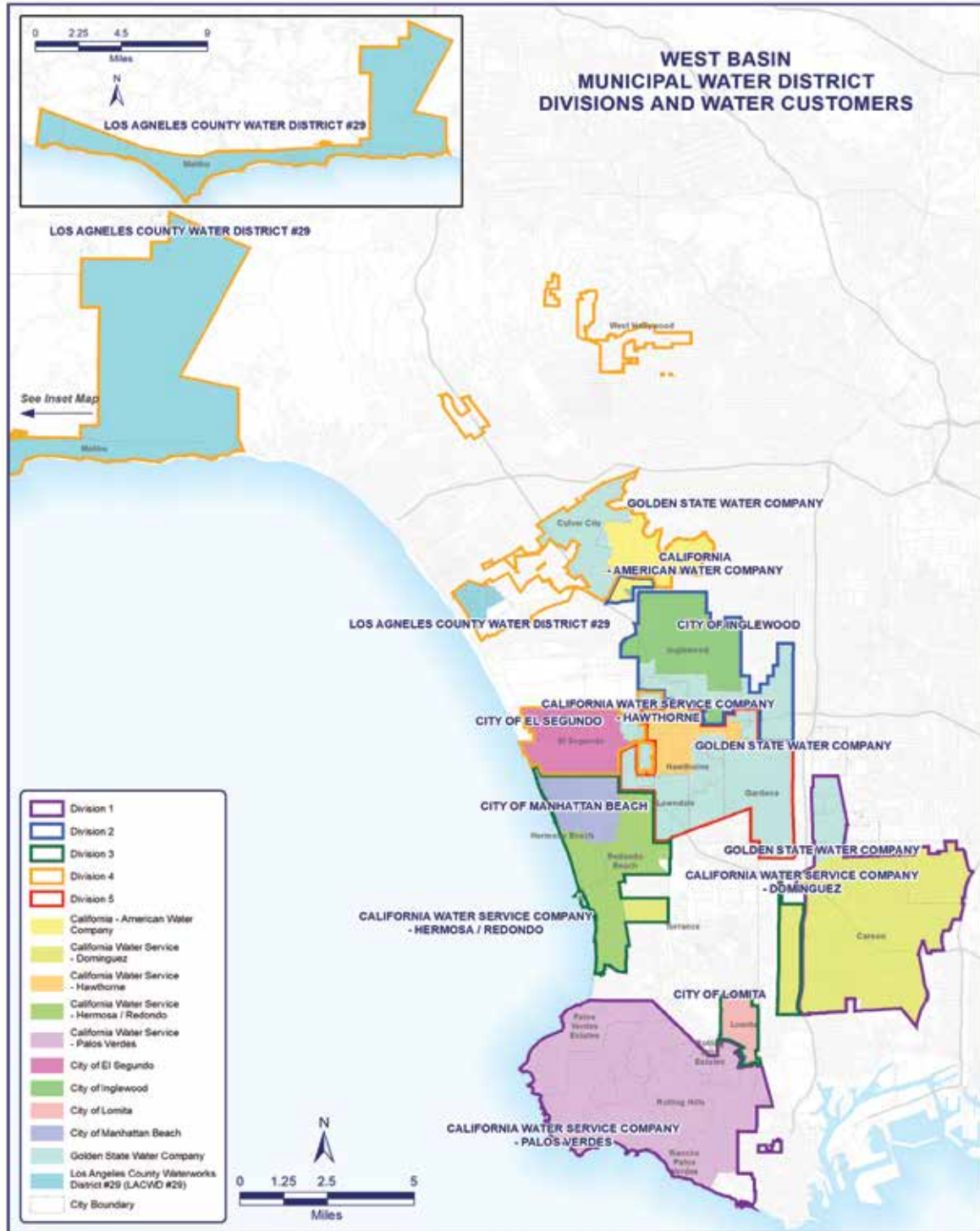
**Donald L. Dear**  
President

**Division V:** Gardena, Hawthorne, Lawndale, and unincorporated LA County area of El Camino Village

# Service Area

## Division Boundaries

West Basin Municipal Water District serves a diverse population in 17 cities and parts of unincorporated coastal Los Angeles County.



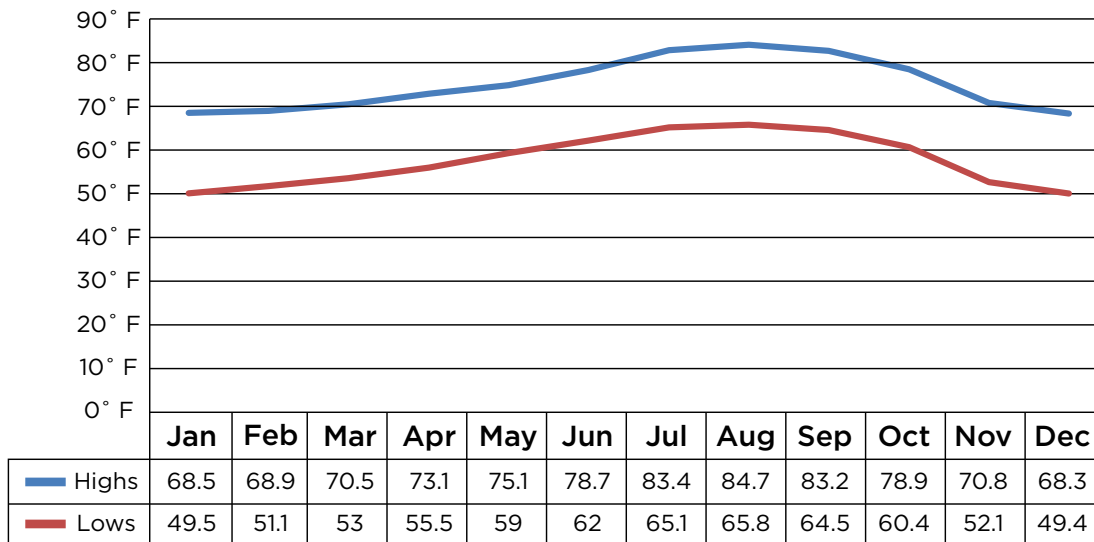


### District Statistics

Formed	<b>December 17, 1947</b>
Estimated Population	<b>870,000</b>
Area Served	<b>185 square miles</b>
Water Portfolio	<b>Potable, Recycled &amp; Desalted</b>
Average Residential Parcel Size	<b>9,240 square feet</b>
Lowest Median Income	<b>\$14,685 - Westmont</b>
Highest Median Income	<b>Over \$250,000 - Manhattan Beach Palos Verdes</b>

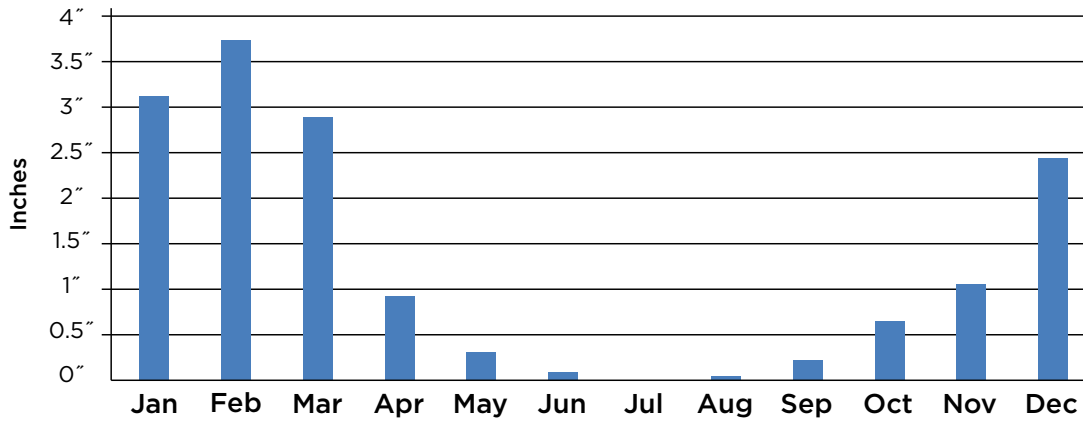
Los Angeles County’s average daily temperatures range from 47 °F in December and January to 76 °F in August and September. The average annual precipitation is approximately 12 inches, although the region is subject to significant variations in monthly precipitation. The average evapotranspiration (ETo) is almost 43 inches per year which is three and a half times the annual average rainfall.

### Southern California Average Temperature



Source: Western Regional Climate Center

### Average Precipitation

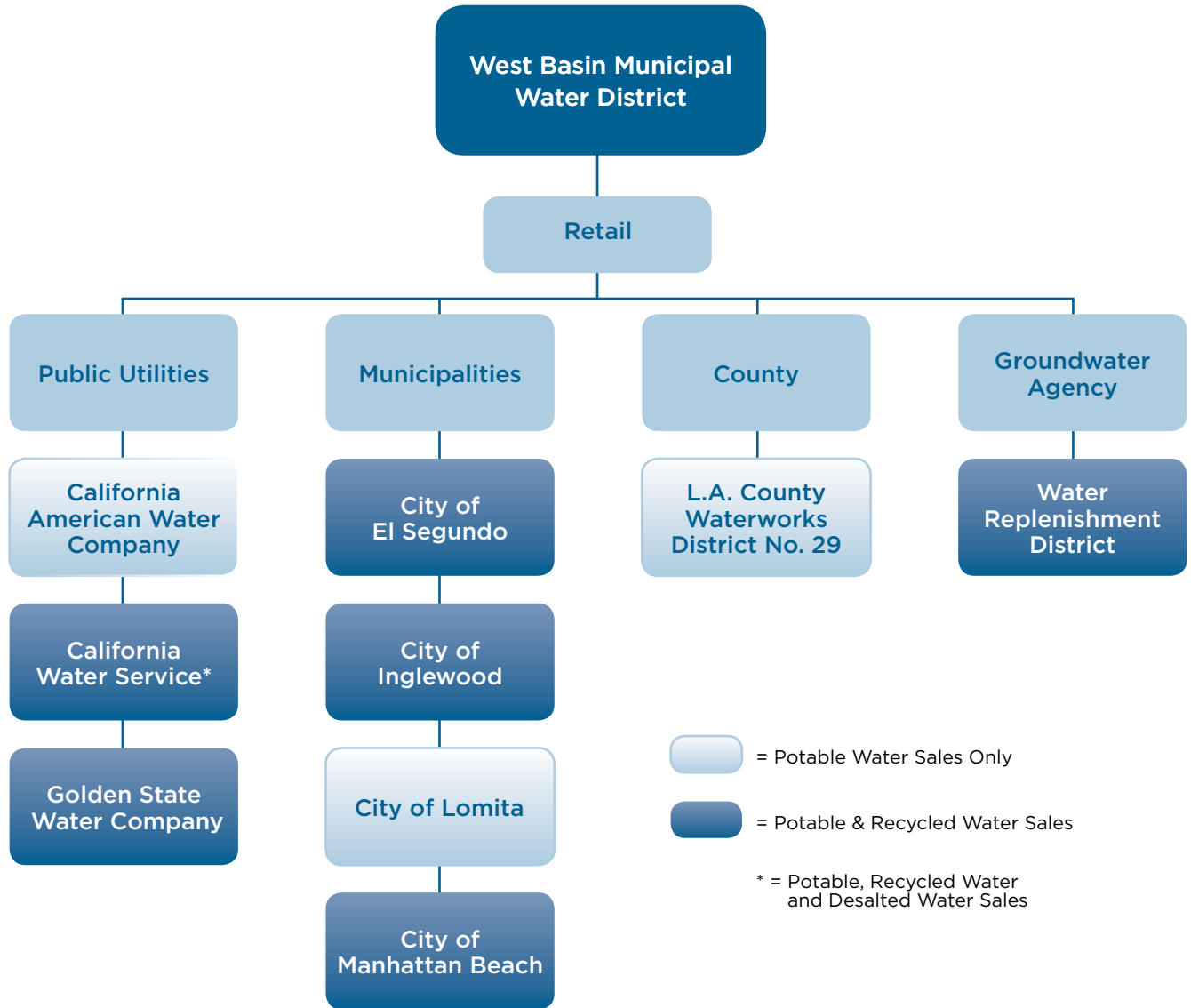


Source: Western Regional Climate Center

### Ten Largest Employers Within West Basin Service Area

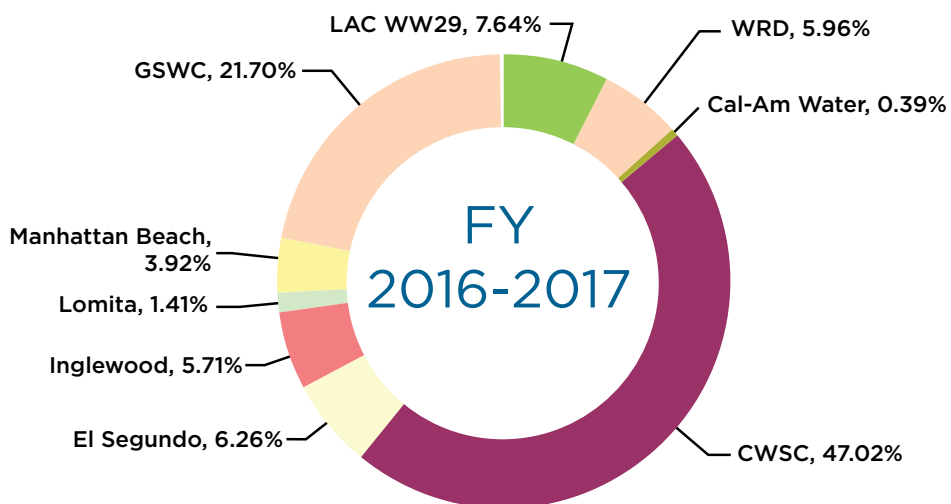
Employer	Number of Employees
Northrop Grumman Corporation	9,720
Raytheon Company	5,058
Space Exploration Technologies	4,781
The Aerospace Corporation	3,500
Sony Pictures Entertainment	3,400
Mattel	1,791
Palos Verdes Peninsula Unified School District	1,444
Chevron Products Company/USA Inc.	1,253
Accenture	1,238
Terranea Resort Hotel	1,226

Source: Finance Department

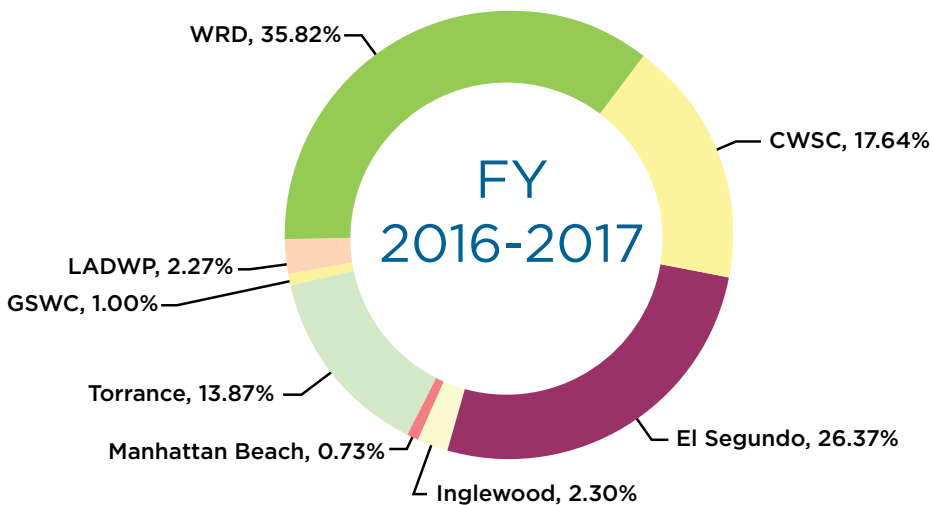




### Potable Water Customer Sales Distribution



### Recycled Water Customer Sales Distribution





## History

As early as 1918, the levels in local groundwater basins were dropping so low that salt water from the ocean was seeping in and contaminating groundwater. Lawns in coastal Los Angeles were dying from salty water, and well water was so salty it was often undrinkable. In the 1940s, studies showed that the local groundwater aquifer was being depleted at a much faster rate than it was being recharged or refilled. Each year, the aquifer was being over drafted by millions of gallons - resulting in more water being taken out than was put back in.



At that time, one solution was to supply the region with imported water through MWD. In 1947, West Basin was formed by a vote of the people to serve as a wholesale agency to distribute water throughout its service area. In 1948, West Basin became a member agency of MWD, an agency that imported water from the Colorado River, and later would also import water from Northern California. For several decades since that time, West Basin served its customer agencies and communities solely as a wholesaler of imported water.



As a result of the extreme drought of the late 1980s and early 1990s, West Basin leaders decided to diversify the agency's water portfolio to include conservation and water reuse to provide a more reliable supply of water for future generations. Early efforts included building the world's most unique water recycling facility that would convert treated wastewater into different types of high-quality recycled water suitable for groundwater recharge, irrigation, municipal, industrial, and commercial uses.

The benefits generated by the water recycling facility include more affordable water rates for customers, a reliable, locally-controlled supply of recycled water, reducing energy use by importing less water from hundreds of miles away, reducing wastewater and biosolids discharged to the ocean, and use of wastewater as a sustainable water resource. The drought of the early 1990s also increased awareness about water conservation and resulted in West Basin's addition of conservation as a new water supply alternative. West Basin currently offers free indoor and outdoor programs for residents and businesses to reduce their consumption of water and maximize water use efficiency.

Today, West Basin is an international water industry leader, hosting visitors from around the globe. West Basin is focused on providing value to its customers and delivering water reliability for the region through a diverse supply of water that includes imported, recycled, desalted and conserved water. All West Basin departments contribute to the agency meeting the goals and objectives of the Board of Directors Strategic Business Plan.







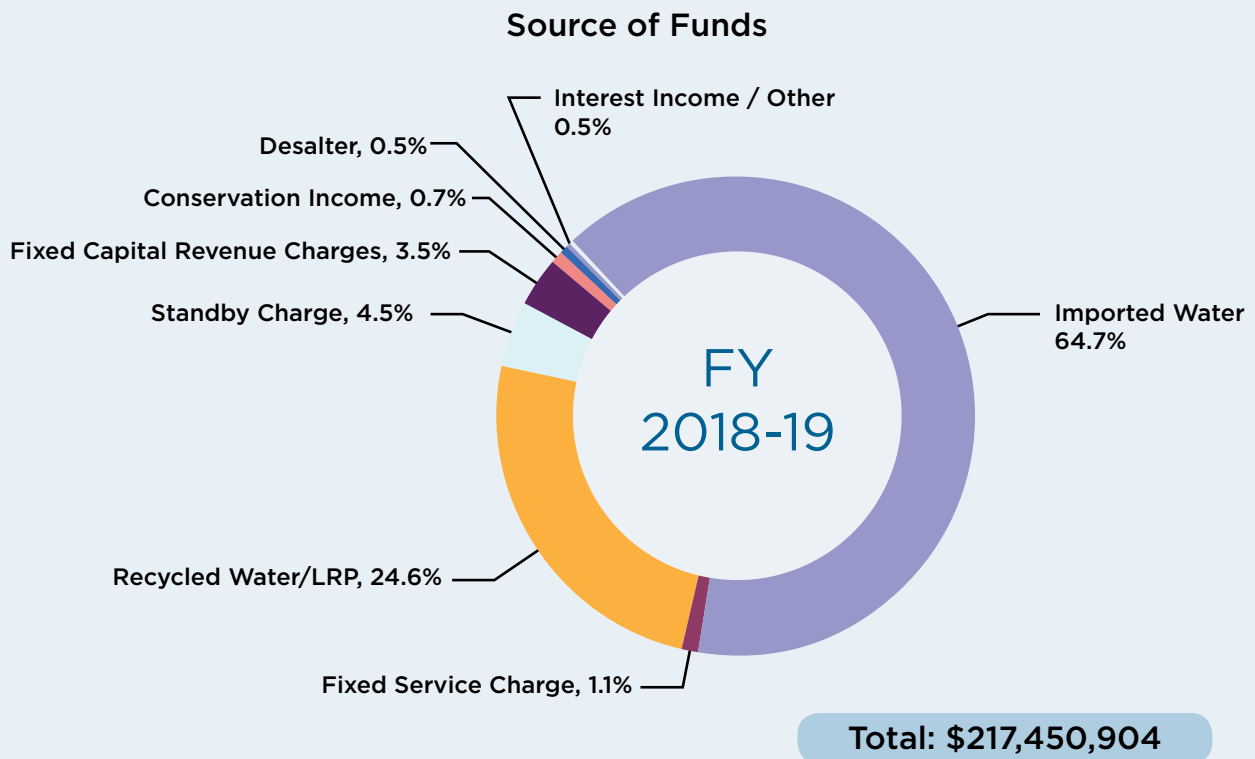
# Section 3 Financial Overview & Summary





## Financial Highlights for FY 2018-19

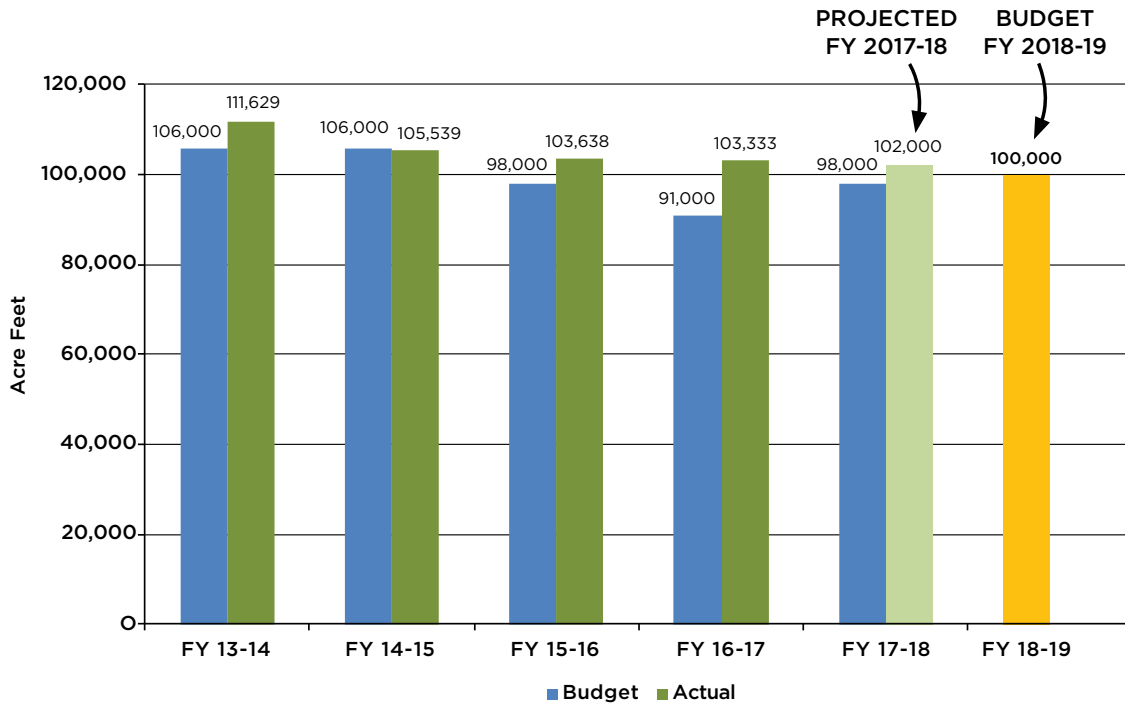
West Basin's operating budget of \$217 million for FY 2018-19 is \$12.4 million or 6.1% higher than the FY 2017-18 operating budget. Several reasons for the increase in the operating budget include higher revenues from imported water sales of \$6.3 million; an increase in recycled water sales of \$2.0 million (combined with Metropolitan Water District's Local Resources Program); a phase-in of a new fixed charge (Fixed Service Charge) in the amount of \$2.3 million and the elimination of the Water Service Charge of \$.7 million. Fixed capital revenue charges are also increasing by \$1.6 million. More information can be found in Source of Revenue section.





As imported water sales represent approximately two-thirds of West Basin's source of funds, significant attention is given to our water sales assumptions. Imported water sales are largely affected by hydrological conditions as 50% of West Basin's water usage is outdoors. A number of customer agencies have access to ground water thereby necessitating dialogue with our customer agencies to understand their needs and responses to today's water environment. Shown below is our recent five-year history showing the volatility of imported water sales.

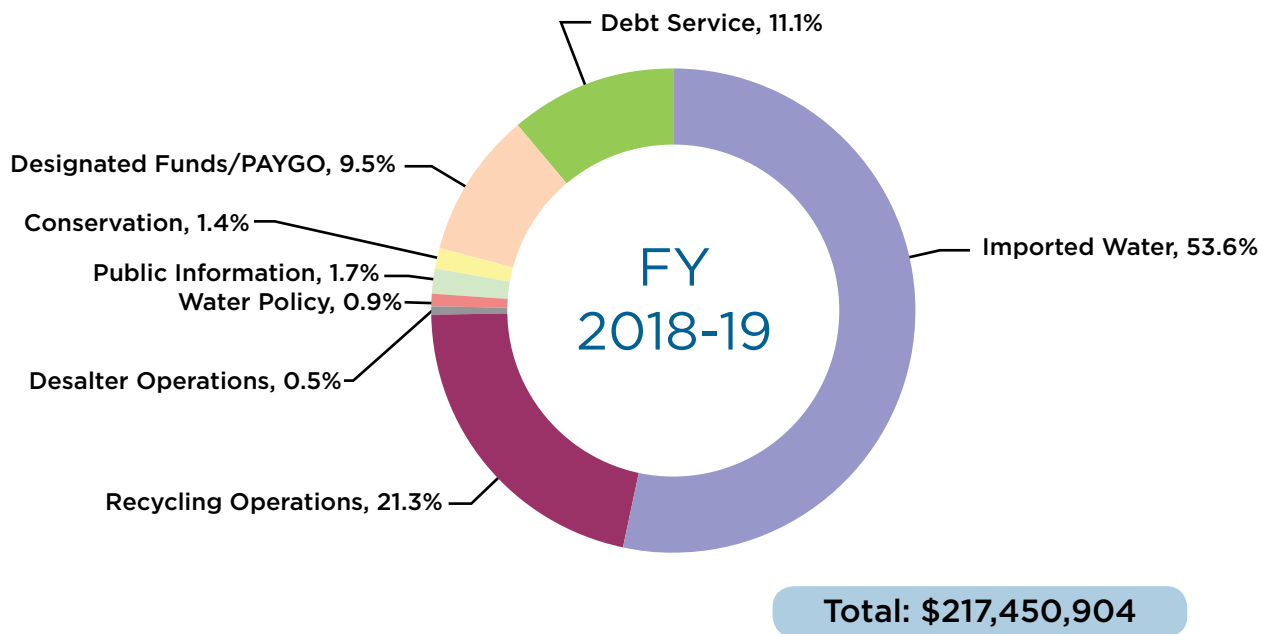
### Imported Water Sales FY 2013-14 thru FY 2018-19





Similar to the revenues, operating expenses for FY 2018-19 are budgeted at \$217 million. Imported Water purchases are expected to increase approximately \$6.2 million or 5.6% due to anticipated higher demand following the recent end of a four-year drought and less conservation messaging. West Basin anticipates higher recycled water production of approximately 5%, causing recycled water variable production costs to increase approximately \$3.8 million. Recycling operations budgeted costs also increased as West Basin committed additional funding in FY 2018-19 to continue its partnership with the City of Los Angeles (City) to pilot a Membrane Bio-Reactor (MBR) as replacement for the City’s High Purity Oxygen activated sludge secondary process. Improvements to the Hyperion Treatment Plant would improve water quality delivered to West Basin and would increase the volume and quality of recycled water produced by West Basin. All other West Basin program expenses varied slightly and are further described in the Use of Funds section.

### Use of Funds





## Staffing and Program Budgets

West Basin focuses on making appropriate decisions regarding department personnel requirements or reallocates work responsibilities that will best meet the needs of the organization. To better understand the staffing needs, West Basin tracks its personnel time by level of effort toward its various capital and operating programs. See the table in Section 6 “Use of Funds—”Full Time Equivalent (FTE) by Program (Not including interns)”.

Budget staffing levels for FY 2018-19 consists of fifty (50) full-time budgeted positions, six full-time limited term, three part-time and eight intern positions for an overall total of 67 positions. The FY 2018-19 budget staffing levels remain unchanged from FY 2017-18.

At the end of FY 2017-18 there were a few vacant positions remaining unfilled and the General Manager will be evaluating these positions with the department managers for their continued need and timing. Rather than adding new positions in the FY 2018-19, staff will concentrate on filling the current vacancies and then determine what staffing needs, if any, are still necessary to accomplish its goals.

<b>Budget</b>	<b>FY 2017-18</b>	<b>FY 2018-19</b>
Total Positions	67	67
Full-time regular	50	50
Full-time limited	6	6
Part-time	3	3
Interns	8	8

## Strategic Business Plan

Originally published in January 2008 and most recently updated and adopted on August 28, 2017, West Basin's Strategic Business Plan (Plan) provides for a five-year planning horizon (and beyond). The update of this Plan reaffirmed West Basin's vision, mission, and value statements and the five goals that set the framework for the strategies and objectives. Through a series of interviews and workshops over a three-month period, the Board of Directors and senior management identified strengths, weaknesses, opportunities and threats (SWOT analysis) that the plan should consider.

The Plan will be implemented and tracked through the annual budget process and subject to Board review and approval. It provides continuous direction for each year's planning, budgeting, implementation, evaluation and reporting, and sets the overall policy direction and strategic priorities established by the Board. It also determines whether staff and financial resources need to be realigned to achieve strategic objectives.

Based on the following five goals, West Basin develops the strategies, programs, and activities necessary to effectively implement the Board's directions.

### Water Supply Reliability

West Basin is committed to innovative planning and investments to provide water reliability and drought protection.

- Strategy 1:** Prepare and periodically update water supply plans.
- Strategy 2:** Increase supply diversification by promoting conservation.
- Strategy 3:** Increase supply diversification by promoting groundwater development.
- Strategy 4:** Increase supply diversification by promoting water recycling.
- Strategy 5:** Investigate ocean water desalination as a supply opportunity.
- Strategy 6:** Effectively manage West Basin's imported supplies.



## Sound Financial and Resource Management

West Basin is committed to best practices in capital asset management, financial management, human resources management, and internal controls.

- Strategy 1:** Provide effective overall capital facility asset management through the application of industry best-practices.
- Strategy 2:** Maintain facilities to manage and minimize risk of failure and liability exposure.
- Strategy 3:** Develop partnerships with public and private entities to facilitate capital asset development and implementation.
- Strategy 4:** Maintain or improve current bond ratings.
- Strategy 5:** Develop a formal Long-Range Financial Plan.
- Strategy 6:** Operate cost-efficiently and effectively, with robust internal controls.
- Strategy 7:** Ensure cost-effective recycled water operations through proactive contract management.
- Strategy 8:** Recruit and hire qualified candidates to fill all West Basin positions.
- Strategy 9:** Manage and reward performance.
- Strategy 10:** Develop a formal plan for workforce retention, training and succession planning.
- Strategy 11:** Ensure annual Board evaluation of the General Manager.

## Water Quality

West Basin is committed to providing safe, high-quality water by meeting current and anticipated water quality requirements.

- Strategy 1:** Achieve and maintain recycled water client satisfaction.
- Strategy 2:** Increase control over source water quality.
- Strategy 3:** Meet permit and contractual water quality requirements.

## Customer Service

West Basin is committed to providing value by understanding and meeting the water needs of our recycled water clients and the cities, water utilities, and communities we serve.

- Strategy 1:** Build community trust.
- Strategy 2:** Ensure recycled water client and customer agency satisfaction.
- Strategy 3:** Support the Board in maintaining a strategic business plan.
- Strategy 4:** Promote outreach and education programs.
- Strategy 5:** Engage small and/or local business in the procurement of services.

## Environmental Stewardship

West Basin is committed to sustainable and environmentally-friendly policies, projects, programs, and practices.

- Strategy 1:** Ensure social and environmental factors are considered in decision-making.
- Strategy 2:** Continue to gain environmental community support for West Basin programs.

Within the Operating Program Expenses section, West Basin has identified FY 2017-18 accomplishments and FY 2018-19 strategies identified above.



## Long-Range Financial Plan

With the foundation and direction provided by the Strategic Business Plan and through West Basin's Water Reliability program, West Basin is focused on developing more local resources through increasing its efforts in water recycling, considering a full-scale ocean-water desalination facility, and expanding its conservation programs (the latter not funded by debt). To further these goals and commitments, West Basin has identified two existing plans that are scheduled this fiscal year for updates; the Capital Improvement Program Master Plan and the Water Use Efficiency Master Plan. Each of these plans will help guide West Basin in determining the financial resources necessary and the associated timing to achieve the stated goals.

In particular the Capital Improvement Program (CIP) Master Plan is expected to be initiated in FY 2018-19 and completed in FY 2019-20 to provide a strategy to implement future capital facilities and identify corresponding operational impacts to West Basin. In addition, the costs and potential savings from future capital projects need to be considered in long-range financial planning due to the impacts from future debt financing and availability of PAYGO funds. The CIP Master Plan will evaluate recycled water service opportunities, identify potential required capital facilities to meet West Basin's objectives, and develop implementation schedules, costs, and priorities. The CIP Master Plan will be used to identify and prioritize the construction of new Capital facilities. With West Basin's aging infrastructure, the CIP Master Plan will look at the current condition of exiting equipment and systems to develop a schedule of needed rehabilitation or replacements in order to achieve quality and maintain capacity with the goal of extending the useful life of existing critical assets.



The Water Use Efficiency (WUE) Master Plan was initiated in late FY 2017-18 and is expected to be completed in FY 2018-19. WUE Master Plan will identify local customer agency needs as well as develop long-term programs and strategies with the main goal of supporting its customer agency efforts and meeting its own long-term water reliability goals. Additionally, West Basin's development of the WUE Master Plan will align with the state's efforts to develop new conservation goals and target as dictated by Governor Brown's Executive Orders B-37-16 and B-40-17.

To further its long-range financial planning a financial model has been developed to incorporate future capital and operating costs anticipated and to incorporate future sales assumptions. Also, West Basin has invested much time and effort to develop financial policies to assist with providing long-term fiscal guidance and direction. The financial policies are reviewed each year by the Board of Directors and are summarized later within this section.

The financial model begins with the adopted fiscal year budget and makes certain assumptions such as operating expense increases, water rates, capital project funding, designated funds, and debt coverage. The assumptions are re-evaluated each year and updated as necessary. In addition, the model is updated when West Basin changes and/or updates its financial policies and when new master plans are developed and approved. The model is also used to perform sensitivity analysis to determine the biggest drivers of potential water rate increases thereby eliminating any surprises in future years. This allows management the luxury of time to determine other options or avenues to accomplish its strategic goals and do so in a very fiscally responsible and thoughtful manner.



West Basin's annual conservation event provides 2,000 free rain barrels to District residents. Rain barrels allow residents to collect and use rainwater in their gardens, promoting water efficiency and reducing water flowing into storm drains and waterways.



## Five-Year Forecast

While West Basin has a financial model that supports its long-term financial planning, the five-year forecast provides a near-term outlook of the anticipated revenues and expenditures.

Just as it is important to understand the assumptions for the current year to develop the budget and associated water rates and charges, West Basin is mindful that the decisions made today could have a long-term impact. West Basin wants to be responsive to predictable rate increases and program activity that provides value to its customers. In addition, West Basin also understands that there may be future commitments or changes in its revenue streams that should be considered in the development of its annual budget. With the use of its Five Year Forecast, West Basin is able to monitor anticipated rate increases, understand the fiscal impact of future projects, and provide a clear picture when circumstances change.

### **Impact of Planned Capital Improvement Projects**

The financial impact from planned capital improvements projects have been incorporated into the five-year projected operating results table either through draws from the Commercial Paper Program, PAYGO, or anticipated long-term financing. In addition, operating expenses, including recycled water operations, in future years reflect the changes in expenses based on the volume, cost per acre-foot, including both variable and fixed costs, and timing of new sales. More detailed information regarding capital improvement projects and their related cost and benefits is reflected in the Supplemental Information section.



### West Basin Municipal Water District Projected Operating Results

	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
<b>REVENUES</b>						
Water Sales	138,941,320	140,061,418	145,619,519	150,320,170	155,013,209	159,958,845
Fixed Service Charge	2,284,411	4,614,326	5,787,287	5,931,969	6,080,268	6,232,275
Capacity Charge	1,836,150	1,782,660	1,807,080	1,807,080	1,807,080	1,807,080
Recycled Water Project Revenues						
Recycled Water Sales	43,198,772	45,685,277	48,866,611	50,555,276	52,295,087	53,471,647
Fixed Revenue Charges	7,509,196	7,509,196	7,420,260	7,420,260	7,420,260	7,420,260
MWD LRP Rebate	10,303,750	7,776,000	1,223,750	1,223,750	1,223,750	1,223,750
Standby Charges	9,750,000	9,750,000	9,750,000	9,750,000	9,750,000	9,750,000
Other Revenues						
Desalted Water Sales	1,121,175	1,149,885	1,180,248	1,213,735	1,247,207	1,281,683
Interest Earnings/Grants/ Other	1,000,000	1,335,000	1,600,000	2,000,000	2,000,000	2,000,000
Conservation Incentives	1,506,130	1,506,130	1,506,130	1,506,130	1,506,130	1,506,130
<b>Total Revenues</b>	<b>\$217,450,904</b>	<b>\$221,169,892</b>	<b>\$224,760,885</b>	<b>\$231,728,371</b>	<b>\$238,342,991</b>	<b>\$244,651,670</b>
<b>EXPENSES</b>						
Water Purchases/ RTS from MWD	114,685,900	116,925,736	119,799,882	122,984,221	126,260,712	129,751,509
Capacity Charge	1,813,435	1,754,790	1,774,960	1,774,960	1,774,960	1,774,960
Program Expenses						
Recycled Operations	46,441,406	46,042,448	46,373,122	47,805,515	49,280,881	50,759,307
Desalter Operations	1,088,701	1,115,919	1,143,816	1,172,412	1,201,722	1,231,765
Water Policy	1,856,158	1,902,562	1,950,126	1,998,879	2,048,851	2,100,072
Public Information	3,652,265	3,743,572	3,837,161	3,933,090	4,031,417	4,132,203
Conservation	3,088,241	3,165,447	3,244,583	3,325,698	3,408,840	3,494,061
Title 22 Water Quality Monitoring	34,200	35,055	35,931	36,830	37,750	38,694
Designated Funds/Other	20,705,189	19,869,847	19,964,550	19,030,187	20,785,404	21,802,764
2010A CP Line	1,223,600	1,194,100	773,000	1,302,200	955,200	1,012,600
2011A	5,210,138	5,219,350	5,235,833	5,234,958	4,780,083	3,350,229
2011B	2,993,250	2,993,250	2,993,250	2,993,250	3,392,000	4,797,063
2012A	4,390,017	4,390,688	4,388,458	4,389,396	4,389,042	4,391,292
2016A	9,925,204	10,256,650	10,231,667	10,171,750	10,421,104	10,440,125
State loan	-	-	454,068	454,068	454,068	454,068
Proposed Debt		2,560,479	2,560,479	5,120,957	5,120,957	5,120,957
Subordinate Debt						
2008B Series	343,200	-	-	-	-	-
<b>Total Expenses</b>	<b>\$217,450,904</b>	<b>\$221,169,892</b>	<b>\$224,760,885</b>	<b>\$231,728,370</b>	<b>\$238,342,991</b>	<b>\$244,651,670</b>
<b>NET REVENUES</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Coverage - All Debt</b>	<b>1.86</b>	<b>1.75</b>	<b>1.75</b>	<b>1.64</b>	<b>1.70</b>	<b>1.74</b>

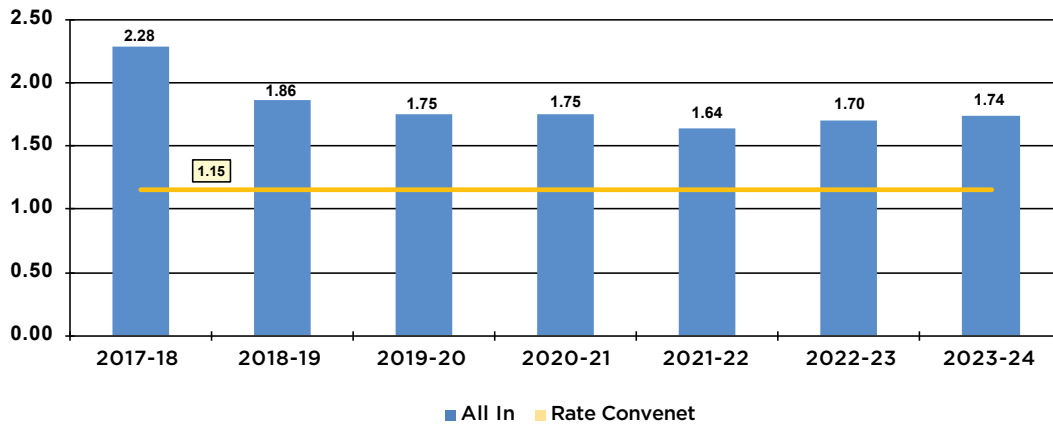
As shown in the five-year projected operating results, the internal target all-in debt coverage of 1.75 is anticipated to be achieved until FY 2021-22. West Basin recognizes with the expected increases for our operations and maintenance, there will be a need to either reduce our operational cost or increase our revenues.



### West Basin Municipal Water District Assumptions

	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
<b>COST (SALES PRICE) OF WATER (\$/af)</b>						
MWD Imported - Tier 1 (Jul)	1,015	1,050	1,078	1,110	1,144	1,178
MWD Treated NonInt - Tier 2 (Jul)	1,101	1,136	1,165	1,197	1,231	1,265
MWD Imported - Tier 1 (Jan)	1,050	1,078	1,110	1,144	1,178	1,213
MWD Treated NonInt - Tier 2 (Jan)	1,136	1,165	1,197	1,231	1,265	1,300
MWD RTS Commodity Charge (Jul)	102	98	97	99	99	99
MWD RTS Commodity Charge (Jan)	98	97	99	99	99	99
MWD Seawater Barrier - Tier 1 (Jul)	1,015	1,050	1,078	1,110	1,144	1,178
MWD Seawater Barrier - Tier 2 (Jul)	1,101	1,136	1,165	1,197	1,231	1,265
MWD Seawater Barrier - Tier 1 (Jan)	1,050	1,078	1,110	1,144	1,178	1,213
MWD Seawater Barrier - Tier 2 (Jan)	1,136	1,165	1,197	1,231	1,265	1,300
Title 22 Within WB - Recycled Water	1,131	1,173	1,246	1,295	1,344	1,394
Title 22 - LADWP - Recycled Water	1,173	1,215	1,288	1,337	1,386	1,436
Title 22 - Torrance - Recycled Water	1,173	1,215	1,288	1,337	1,386	1,436
Reliability Service Charge	252	267	306	321	336	351
MWD LRP Rebate	250	250	250	250	250	250
Desalted Water (Jul)	1,117	1,148	1,175	1,209	1,243	1,277
Desalted Water (Jan)	1,148	1,175	1,209	1,243	1,277	1,312
Capacity Charge - MWD	8,700	8,600	8,800	8,800	8,800	8,800
Capacity Charge - MWD (Jan)	8,600	8,800	8,800	8,800	8,800	8,800
Capacity Charge-Cust	7,300	7,200	7,400	7,400	7,400	7,400
Capacity Charge-Cust (Jan)	7,200	7,400	7,400	7,400	7,400	7,400
<b>SALES VOLUME (afy)</b>						
Non-Interruptible (retail)	100,000	99,743	99,500	99,400	99,300	99,300
Seawater Barrier	1,500	1,000	1,000	1,000	1,000	1,000
Recycled Water	41,215	41,472	41,715	41,815	41,915	41,915
Title 22 Within WB	8,400	8,800	9,000	9,100	9,200	9,200
Title 22 - LADWP	1,050	1,050	1,050	1,050	1,050	1,050
Barrier	17,000	17,000	17,000	17,000	17,000	17,000
LPBF	1,800	1,800	1,800	1,800	1,800	1,800
LPBF (2)	4,450	4,336	4,450	4,450	4,450	4,450
HPBF	2,400	2,400	2,400	2,400	2,400	2,400
Nitrified - Recycled Water	900	971	900	900	900	900
Desalted Water (Jul)	495	495	495	495	495	495
Capacity Charge-MWD	217.5	201.7	201.7	201.7	201.7	201.7
Capacity Charge-MWD (Jan)	201.7	201.7	201.7	201.7	201.7	201.7
Capacity Charge-Cust	262.2	244.2	244.2	244.2	244.2	244.2
Capacity Charge-Cust (Jan)	244.2	244.2	244.2	244.2	244.2	244.2
<b>WATER REVENUES (\$)</b>						
Treated Non Interruptible (Jul)	71,188,000	73,390,899	76,626,940	79,100,214	81,515,182	84,061,327
Treated Non Interruptible (Jan)	67,200,000	69,038,115	72,372,638	74,604,878	76,880,111	79,279,460
Seawater Barrier (Jul)	1,067,820	735,800	770,120	795,777	820,898	846,539
Seawater Barrier (Jan)	1,008,000	692,160	727,363	750,552	774,221	798,383
Recycled Water	43,198,772	45,685,277	48,866,611	50,555,276	52,295,087	53,471,647
MWD LRP Rebate	10,303,750	7,776,000	1,223,750	1,223,750	1,223,750	1,223,750
Desalted Water (Jul)	552,915	568,260	581,625	598,623	615,112	632,095
Desalted Water (Jan)	568,260	581,625	598,623	615,112	632,095	649,588
Capacity Charge	1,836,150	1,782,660	1,807,080	1,807,080	1,807,080	1,807,080
<b>TOTAL REVENUES</b>	<b>\$196,923,667</b>	<b>\$200,250,796</b>	<b>\$203,574,751</b>	<b>\$210,051,263</b>	<b>\$216,563,536</b>	<b>\$222,769,869</b>
<b>WATER COST (\$)</b>						
Treated Non Interruptible/RTS	113,138,200	115,862,296	118,706,358	121,857,892	125,100,593	128,556,587
Seawater Barrier	1,547,700	1,063,440	1,093,523	1,126,329	1,160,119	1,194,922
Capacity Charge	1,813,435	1,754,790	1,774,960	1,774,960	1,774,960	1,774,960
<b>TOTAL COST</b>	<b>\$116,499,335</b>	<b>\$118,680,526</b>	<b>\$121,574,842</b>	<b>\$124,759,181</b>	<b>\$128,035,672</b>	<b>\$131,526,469</b>

**Debt Coverage**  
**Projected, Current Budget and 5-year Projection**  
**FY 2017-18 thru FY 2023-24**



Although West Basin's bond covenants' require an All-In debt coverage ratio of 1.15, West Basin has set a higher target of 1.75. West Basin's Board of Directors selected the higher target in order to maintain its excellent credit ratings of Aa2 and AA- with Moody's and S&P rating agencies, respectively.

The five-year forecast currently indicates the All-In debt coverage will drop below the Board selected target of 1.75 beginning in FY 2021-22. Staff understands the reasons for the decline in the ratio and will work with its financial advisor to seek strategies to improve the ratios in order to maintain the 1.75 target.



### Historical Debt Coverage Comparison with Other Water Agencies FY 2012-13 thru FY 2016-17

Name of Agency	2012-13	2013-14	2014-15	2015-16	2016-17
Central Basin MWD	0.20	1.03	1.56	1.17	0.77
Calleguas MWD	2.44	2.02	1.64	1.42	1.93
Eastern MWD	2.00	2.10	2.30	2.80	2.50
Las Virgenes MWD	2.92	2.71	2.47	2.61	2.90
Inland Empire Utilities Agency	2.20	2.09	2.75	3.42	3.67
San Diego County Water Authority	1.50	1.50	1.50	1.50	1.50
<b>West Basin MWD</b>	<b>1.55</b>	<b>1.73</b>	<b>1.45</b>	<b>1.84</b>	<b>2.27</b>
Western MWD	2.75	4.34	2.69	3.40	4.38

## Fund Balance (Designated Funds)

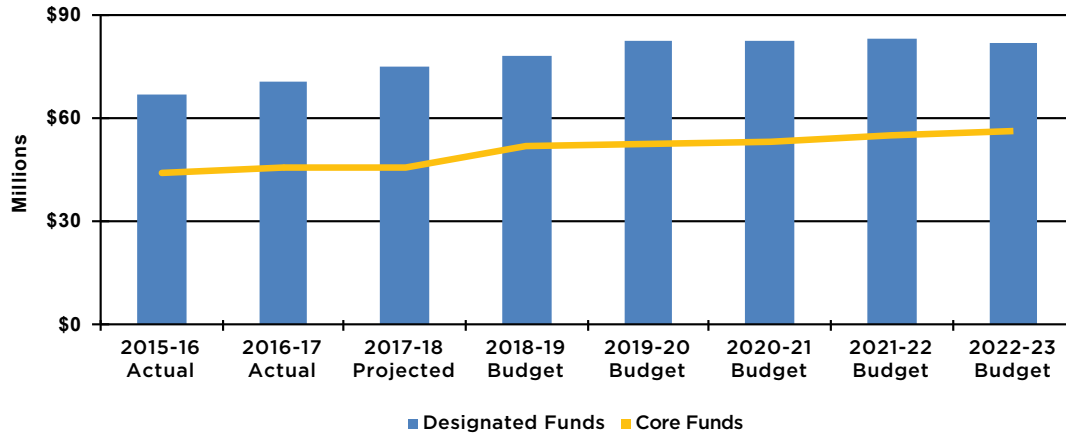
West Basin maintains two major types of funds, both restricted and unrestricted. Restricted funds consist of custodial accounts and bond reserves; the latter is subject to the conditions of the respective bond financing documents. The unrestricted reserves may be designated by the Board of Directors.

Designated Funds are a strong indicator of an agency's financial health. West Basin's Designated Funds Policy is sometimes referred to as a reserve policy and was designed to ensure West Basin has adequate funds to protect its financial health and the furtherance of West Basin's mission. The Designated Funds Policy is reviewed annually; however, it was substantially changed in FY 2013-14 in conjunction with the Long-Range Financial Plan by combining certain funds, revising target levels to be based on a calculation, and adding a new fund for Standby Charge Defeasance.

The policy does not specifically state a target amount but staff has established an internal target approach to fund West Basin's Designated Funds. The policy allows for the fluidity of a target and will change each year based on the anticipated expenditures. The target amounts are based on West Basin's experience, the current operating budget and capital improvement program. The sum of all the core components provide an overall target amount that serves as a trigger for the Board of Directors to consider options when funding levels fall near or below the overall target. If reserve levels exceed the minimum, the Board may consider retiring outstanding debt or reducing future debt by considering funding certain capital projects with cash. Annually, staff calculates the overall target to ensure the Board approved Designated Funds policy is met.

The chart below shows the actual, projected and budgeted designated fund levels from FY 2015-16 through FY 2023-24.

### Designated Funds Per Fiscal Year



Below are the actual revenues and expenses for FY 2015-16 and FY 2016-17, the projected revenues and expenses for FY 2017-18, as well as the budgeted revenues and expenses for FY's 2018-19 through FY 2023-24.

### Designated Funds Cash Flow (In 000's)

Fiscal Year	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Description	Actual	Actual	Projected	Budget	Budget	Budget	Budget	Budget	Budget
Designated Funds (Beg Bal)	\$68,669	\$66,686	\$70,827	\$74,873	\$77,771	\$82,125	\$82,281	\$82,749	\$81,979
Imported Water Revenue	136,330	145,042	150,684	143,062	146,459	153,214	158,059	162,901	167,998
Recycled Water Revenue	56,496	64,132	65,306	70,762	70,720	67,261	68,949	70,689	71,866
Other Revenues	1,846	1,280	1,360	3,627	3,991	4,286	4,720	4,753	4,788
<b>Total Revenues</b>	<b>194,672</b>	<b>210,454</b>	<b>217,350</b>	<b>217,451</b>	<b>221,170</b>	<b>224,761</b>	<b>231,728</b>	<b>238,343</b>	<b>244,652</b>
Water Purchases	114,263	118,280	122,559	116,499	118,680	121,575	124,759	128,036	131,527
Program Expenses	39,065	42,599	41,213	56,161	56,005	56,585	58,272	60,010	61,756
Net Debt Service	25,002	23,589	23,532	24,086	26,615	26,637	29,667	29,512	29,566
PAYGO	18,325	21,845	26,000	17,807	15,516	19,808	18,561	21,555	21,803
<b>Total Expenses</b>	<b>196,655</b>	<b>206,313</b>	<b>213,304</b>	<b>214,553</b>	<b>216,816</b>	<b>224,605</b>	<b>231,259</b>	<b>239,113</b>	<b>244,652</b>
<b>Designated Funds (End Bal)</b>	<b>\$66,686</b>	<b>\$70,827</b>	<b>\$74,873</b>	<b>\$77,771</b>	<b>\$82,125</b>	<b>\$82,281</b>	<b>\$82,749</b>	<b>\$81,979</b>	<b>\$81,979</b>



## Summary of Financial Policies

### Budget-Related Policies Summaries

West Basin's Board of Directors has approved a number of financial policies to effectively manage the agency. All financial policies and non-financial policies are maintained by West Basin through its Administrative Code and are reviewed periodically to ensure compliance with legal statutes and incorporate other considerations. All recommendations for new or revised policies are brought to the Board of Directors for consideration and/or adoption and require a Board resolution to record the change.

In order to stay in compliance with each of its financial policies, staff performs periodic reviews, prepares quarterly reports, and has its policies reviewed by the independent external auditors. Each of the financial policies supports the assumptions within our Long-Range Financial Plan.

### Policy Additions and Modifications

West Basin reviews its policies to ensure they remain relevant and address any new best practices or regulations that may impact the usefulness of these financial policies. As part of its annual review process, staff, West Basin's financial advisor, and bond counsel reviewed the Debt Management, Swap, and Standby Charge Policy. As a result of that review, language was added to the Debt Management Policy to reflect the regulations set forth under Title 4 Business Regulations, Division 9.6, California Debt and Investment Advisory Commission (CDIAC). Along with updating the Debt Management, West Basin also reviewed its Swap Policy and noted the policy is sufficient; however, staff suggested several changes to the Standby Charge Policy that included changing a definition to better describe the intent, another definition was changed to align with the language used within West Basin's bond documents and the last recommendation was to remove language not deemed necessary. This information was brought to the Board of Directors in February and April 2018 for their review and consideration.

The West Basin Board also considered and re-approved in February 2018 its Investment Policy with alterations made to reflect the name change of an association referred to in the policy as well as a correction and revision to language relating to a section within the California Government Code.



Listed below, are key financial policies that the Board and staff must comply with when conducting business of the district.

### **Annual Operating Budget Policies**

- Annual budget is prepared under the direction of the General Manager.
- The budget is developed using the direction given by the Board of Directors through the Strategic Business Plan.
- A draft budget is to be presented to the Board within sixty days of the new fiscal year.
- The Board shall adopt a budget prior to commencing the next fiscal year.
- The General Manager will submit quarterly operating budget versus actual reports with explanation of significant variances.
- Adjustments to the Budget must be approved by the Board of Directors.

### **Investment Policy**

- Funds will be invested in compliance with the provisions of the California Government Code Section 53601 and other applicable statutes and may be more restrictive than the Code.
- Safety of principal, liquidity and return on investment, in that order, are the criteria in which the Treasurer shall invest.
- Investments shall be diversified and to the extent possible, and match its investments with cash flow requirements.
- Annual appointment of Treasurer is required and may be a staff person.
- The Treasurer shall submit a monthly report to the Secretary of the Board of Directors indicating investment by fund, institution, date of maturity, amount of deposit, and shall provide the current market value of all securities with a maturity of more than 12 months, rates of interest, and expected yield to maturity.
- May engage services of an external manager to assist staff in the management of the investment portfolio, and assist in trade execution.

### **Designated Funds Policy**

- Designated and undesignated funds can be used for any lawful purpose at the discretion of the Board of Directors.
- Policy will be reviewed annually to insure designated funds achieve an appropriate overall minimum target balance.
- Operating Liquidity Fund is for short-term or immediate purposes such as unplanned activities.
- Operating Contingency Fund provides protection against unforeseen expenses that cause actual expenses to exceed the budget.
- Capital Contingency Fund provides for unexpected cost increases/unanticipated capital projects.
- Rehabilitation & Replacement (R&R) Fund provides immediate resource for ongoing R&R of the system that is in excess of the amount included in the annual operating budget.



- Standby Charge Defeasance Fund is to repay outstanding debt that could eliminate the annual Standby Charge.
- System Expansion Fund provides for cash financing for future large-scale capital projects.
- Rate Stabilization Fund provides a resource to manage the level of water sales fluctuations from year-to-year.

### **Procurement Policy**

- Covers the purchase of professional and non-professional services as well as supplies, goods and equipment.
- A competitive process ensures that purchases are made at the lowest possible cost commensurate with acceptable quality.
- Provides for a local business enterprise incentive to encourage local business to bid on West Basin's procurement opportunities.
- Thresholds are established to determine if single source (<\$10,000), informal process (\$10,000-\$50,000) or a formal process (>\$50,000) should be followed.
- Critical repairs acquisitions are subject to the informal solicitation process and shall not exceed \$250,000 per each critical repair or critical acquisition.
- Cooperative agreements are allowed.

### **Capitalization Policy**

- Provides guidance for the capitalization and depreciation of assets to comply with the requirements of Governmental Accounting Standard Board Statement 34.
- Purchased or constructed assets will be reported at historical cost.
- Estimated useful life of an asset is determined using the Internal Revenue Tax Law requirements, general guidelines obtained from professional or industry organizations and information for comparable assets of other governments.
- Use the straight-line method with no salvage value for depreciating capital assets.

### **Accounting, Auditing and Financial Reporting**

- The General Manager shall implement an accounting system meeting the financial reporting needs of the Board, and complies with generally accepted accounting practices.
- The General Manager shall review and pay all financial obligations as they become due and shall submit a monthly register of disbursements for ratification of the Board.
- The General Manager shall prepare and submit to the Board at the end of the fiscal year a comprehensive annual financial report on the finances of West Basin for the preceding year, keep the Board advised of the financial condition and future needs of West Basin, and make recommendations.
- West Basin will use widely recognized and Generally Accepted Accounting Principles (GAAP) and guidance issued by the Government Accounting Standards Board (GASB).
- West Basin will hire an independent accounting firm to perform annual audits in conformity with GAAP.



## Debt Management

- Capital programs can be funded by debt.
- Long-term debt will not be used for operating and maintenance costs.
- Will maintain a debt coverage ratio consistent or greater than the legal of contractual requirements.
- Obtain the lowest cost of debt possible with the current ratings. (AA- Standard & Poor's and Aa2 - Moody's)
- Final maturity of the debt will not exceed the useful life of the assets being financed.
- Current refundings shall target to produce net present value savings of at least 3% of the refunded par amount. The target for advance refundings is at least 5% of the refunded par amount of each maturity being refunded.
- Quarterly reporting will be made to the Board of Directors that addresses current debt portfolio, variable rate exposure, remarketing experience and other considerations.

## Rates and Charges

- The rates, fees and charges will recoup the amounts paid for water, the cost of operations and maintenance expenses, and an amount necessary for reasonable designated funds.
- The revenue produced by the rates, fees and charges will be used to provide service to existing customers.
- Rates and charges will be reviewed annually and the Board of Directors will adopt a resolution fixing the rates and charges for the following fiscal year.

## Human Resources Management

- Determine staffing levels consistent with budgetary authority, available resources, and operating needs.
- The General Manager can modify positions and organizational structure to accomplish work within the budget approved by the Board of Directors for that fiscal year.
- The General Manager shall develop an employee performance evaluation plan to assess employee performance in accomplishing West Basin business.
- Salary ranges for positions shall be reviewed on an annual basis via a salary survey.
- West Basin will provide suitable training for staff.

## Risk Management

- West Basin will procure insurance for risk of loss involving a combination of property damage and third party claims.
- To the extent practicable, West Basin shall transfer risks to third parties through appropriate contractual provisions.

## Swaps

- Each swap will be structured by the CFO and members of the financing team.
- Board of Directors has final authority for approval of each swap.
- Quarterly reporting to the Board of Directors is required.
- Interest rate swaps, caps, floors, swaptions and collars are allowable.



- West Basin may execute a swap if the swap reduces exposure to changes in interest rates, or achieves lower net cost of borrowing, or manages variable interest rate exposure, or optimizes the timing and amounts of debt service payments.
- West Basin can only enter into swap transactions with qualified swap counter-parties and will utilize a qualified independent swap advisor to assist with the evaluation and executions of swap transactions.
- Each swap agreement shall contain terms & conditions as set forth in the International Swap and Derivatives Association, Inc.

### **Balanced Budget**

- The budget should be balanced with the current revenues equal to or greater than current expenses.

### **Standby Charge Policy**

- The Standby Charge is considered annually for adoption by the Board.
- The CFO is the designated administrator and has day-to-day responsibility for managing and monitoring.
- Standby Charge proceedings follow California Government Code Section 54984.
- The Board may consider eliminating the Standby Charge if it determines that the original estimate of 70,000 to 100,000 AFY will be or has been met and all associated debt to meet those deliveries has been paid.
- Staff will provide an annual report to include the Surplus Net Revenue, an account summary of the Standby Charge Defeasance Fund, and an analysis comparing the balance of the Standby Charge Defeasance Fund to the remaining principal and any accrued interest or prepayment penalties.

### **Disclosure Policy**

- Potential investors in obligations must be provided with all “material” information relating to offered obligation.
- When obligations are issued, the two central disclosure documents which are prepared are a preliminary official statement (“POS”) and a final official statement (“OS”).
- The Chief Financial Officer and other relevant staff are responsible for reviewing and preparing or updating certain portions of the District Section of the OS.
- All participants in the disclosure process are separately responsible for reviewing the entire OS.
- The Chief Financial Officer shall schedule one or more meetings of the financing team and the underwriter of the obligation and the underwriter’s counsel to discuss the OS and the District Section.
- The POS shall be provided to the Board of Directors in advance of approval to afford the Board of Directors an opportunity to review the POS, ask questions and make comments.
- Periodic training for the staff involved in the preparation of the OS shall be coordinated by the Chief Financial Officer.
- The District must comply with the specific requirements of each Continuing Disclosure Certificate.
- The Chief Financial Officer shall be responsible for preparing and filling the annual reports and material event notices.

## Performance Metrics

Performance metrics is defined as a measure of an organization's activities and performance, and support a range of stakeholder needs from customers to the Board of Directors and employees. While they are traditionally financial based and focus on the performance of the organization, metrics can also focus on performance against customer requirements, effective use of resources, and adherence to policy and reporting requirements.

West Basin continues to explore and identify key performance metrics that provide meaningful information that the Board of Directors and staff can use to measure the success of the programs, services and related resources that are funded and within the budget. In addition, staff has provided the accomplishments and strategies under the Operating Program Expenses and CIP section to reflect how the use of funds will benefit the agency.

The following table is a sampling of some of the key performance metrics that reflect the progress made towards strategic goals.

Metric	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
Description	Actual	Target	Projected	Target
On time submission of annual bond disclosure	100%	100%	100%	100%
Investment Benchmark – meet or exceed BAML 0-3 Yr US Treasury Index	Actual: Exceeded	Actual: On track to meet BAML 0-3 Yr UST Index	Actual: On track to meet BAML 0-3 Yr UST Index	Benchmark: BAML 0-3 Yr UST Index
Maintain AA credit rating from Moody's and Standard & Poor's	Aa2/AA-	Aa2/AA-	Aa2/AA-	Aa2/AA-
Water Exploration School tours – number of students	1,285	3,500	2,624	3,250
Splash Science Presentation Participants	893	1,500	1,512	1,500
Distribution of Rain Barrels	2,000	2,000	2,000	2,000
Water-Use Assessment Surveys	N/A	50	150	50
Secure 25% Outside Funding for Conservation Programs	48%	25%	50%	25%
Achieve internal all-in Debt Coverage target of 1.75	2.27	1.75	2.28	1.75
Improve Recycled Water O&M Cost per Unit	\$981/AF	\$1,089/AF	\$865/AF	\$1,127/AF
Have 100% submittal of Performance evaluations	100%	100%	100%	100%





# Section 4

## Budget Process & Timeline





## Budget Process and Timeline

Public agencies develop budgets as a performance tool to measure accountability to its stakeholders. For West Basin, the budget is developed based on meeting the priorities, goals and objectives established by the Board of Directors through its Strategic Business Plan, which was updated last year and adopted by the Board of Directors in August 2017. The Plan provides direction for planning, budgeting, implementation, evaluation and reporting. The Plan is a “living” document in that it does not have a termination date, but it is constantly changing and evolving as the needs of West Basin change and evolve.

The budget process for West Basin is designed to produce a document that is:

- A policy document that provides the rationale for the budget;
- A communications device that effectively communicates how the budget helps implement the long-range goals and strategies;
- An operational guide representing the efforts to control operations and measure performance; and
- A long-term financial plan to guide West Basin’s allocation of resources.

The budget is used as a communication tool. Interested parties, such as bond holders, credit rating agencies, and its customers can review the budget to obtain a wide variety of information on West Basin’s short- and long-term strategic planning and financial policies, as well as the current and future fiscal stability. For West Basin, the budget further demonstrates West Basin’s commitment to fiscal responsibility and transparency of its operations. The budget shows how the agency will invest its revenues derived from user fees and fixed revenue sources to support its mission and programs. The General Manager communicates the goals and the current year budget objectives to the managers to ensure the budget includes the financial requirements necessary to achieve these goals and objectives. To ensure completion, the goals are also incorporated into individual staff’s performance goals. Furthermore, the high level goals are also included in the monthly board memos to reflect the commitment to meet the Board’s directives.





**Key Budget Drivers**

- Meet targeted debt coverage ratio
- Fund PAYGO projects including Refurbishment & Replacement projects
- Stabilization of Revenues
- Meet Strategic Plan goals
- Negotiate future recycled water agreements

**Addressed**

- ✓
- ✓
- ✓
- ✓
- ✓

West Basin is not required by law to adopt a budget and therefore does not appropriate funds. However, as a good business practice, West Basin does prepare, adopt, monitor, and report budgeted information.

The budget can be adopted in one of three ways: 1) by motion, 2) by resolution or 3) by ordinance. Historically, West Basin has adopted its budget by motion and will continue to adopt the budget in this manner due to the rule of “equal dignity”. The rule of “equal dignity” requires an entity that takes action by motion, resolution or ordinance to use the same method for any subsequent action.

## Budget Basis

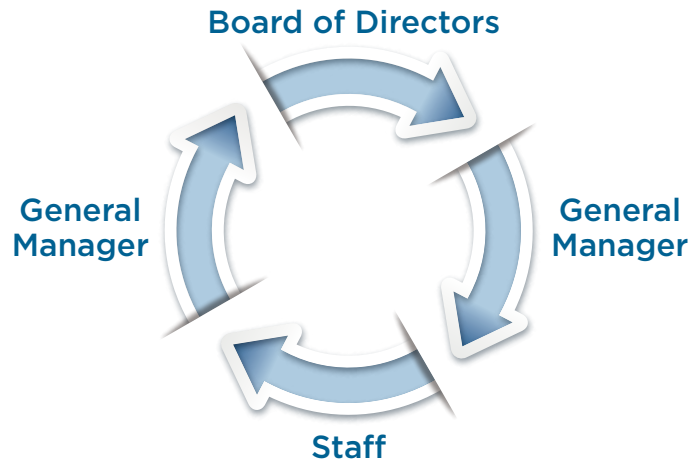
West Basin is a special district of the State of California and operates as a single enterprise fund. The enterprise fund is an accounting entity with a self-balancing set of accounts established to record the financial position and results that pertain to a specific activity. The activities of the enterprise funds closely resemble those of businesses and are substantially financed by revenue derived from user charges.

With accrual basis accounting, an entity records all transactions when they occur, regardless of when cash is received from a customer or paid to a vendor. Revenues are recognized when earned and expenses are recognized when incurred. Cash-basis accounting is an example of another basis of accounting. With cash-basis accounting, an entity records all transactions when cash actually changes hands, in other words, when a cash payment is received from a customer or paid out to a vendor.

The budget for West Basin is kept on an accrual basis. West Basin also maintains its financial records on an accrual basis. Both the budget and actual transactions are recorded based on a program activity focus. Personnel may work across departments to assist in matters that support the programmatic efforts. By focusing on program activities and not department activities, West Basin has been able to maintain a small and efficient staff.



# Budget Timeline



JANUARY							FEBRUARY							MARCH							APRIL							MAY							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
1	2	3	4	5	6					1	2	3					1	2	3		1	2	3	4	5	6	7				1	2	3	4	5
7	8	9	10	11	12	13	4	5	6	7	8	9	10	4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12	
14	15	16	17	18	19	20	11	12	13	14	15	16	17	11	12	13	14	15	16	17	15	16	17	18	19	20	21	13	14	15	16	17	18	19	
21	22	23	24	25	26	27	18	19	20	21	22	23	24	18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26	
28	29	30	31				25	26	27	28	29	30	31	25	26	27	28	29	30	31	29	30	31					27	28	29	30	31			

Date	Key Activities	Lead Staff
December 15, 2017	Submit Staff Labor Allocations	Department Lead
December 15, 2017	Submit Justifications For Interns/ Limited Term/New Positions	Department Lead
January 12, 2018	Submit Operating Program And Capital Budgets	Department Lead
January 18, 2018	Submit Sales Projections	Budget Staff
February 6, 2018	Discuss Financial Metrics/Water Rates	Budget Staff
February 7, 2018	Submit FY 2017-18 Year-End Projections For All Operating Programs	Department Lead
February 15, 2018	Discuss Operation/Capital Budgets	Budget Staff
February 27, 2018	Conduct Follow-Up Meeting To Discuss Operation/ Capital Budgets	Budget Staff
March 6, 2018	Discuss Board Workshop Preparation	Budget Staff
March 21, 2018	Board Workshop	Budget Staff
April 4, 2018	Customer Agency Workshop	Department Lead
April 6, 2018	Submit Program Text To Finance	Department Lead
April 18, 2018	Finance Committee - Draft Rates/Charges & Standby Charge	Budget Staff
April 23, 2018	Board Meeting - Adopt Rates/Charges & Standby Charge	Budget Staff
May 16, 2018	Finance Committee - Present Draft Budget Document	Budget Staff
May 29, 2018	Board Meeting - Adopt Budget	Budget Staff



## December

Department managers review and submit staff labor allocations. If a new position is deemed necessary, a Justification form for Interns/Limited Terms/New Positions will be submitted to Human Resources and reviewed with the General Manager. Upon approval from the General Manager, Human Resources will submit information to Finance.

## January

Water sales projections are discussed by the department managers to aide in the development of water sales assumptions for both imported and recycled water sales. Department managers review their current budget versus actual reports. Managers then submit their proposed programmatic operating and CIP budgets for the coming FY 2018-19.

## February

Budget staff updates its long- range financial model with the proposed operating and CIP budgets, along with water sales projections and current debt service to recommend the necessary water rates and charges which includes the proposed rated from. The managers and budget staff meet to discuss the recommended water rates and charges to achieve the budget objectives for FY 2018-19. Department managers have an initial meeting with budget staff and General Manager to discuss operating program and capital budgets along with explanations for major variances from the prior year budget and/or current year spending levels. A second meeting is conducted to answer any unresolved questions.

## March

General Manager submits a proposed budget to the Board of Directors in a workshop format. At the workshop, all staff members who participated in the development of the proposed budget are in attendance to answer questions regarding their respective budget. The presentation also discusses the budget assumptions, labor needs, debt service, revenue requirements and debt coverage. At this time, Board members may give direction or request changes to the proposed budget.

## April

Subsequent to the Board workshop, West Basin conducts a customer agency workshop to discuss its goals, the draft budget and proposed water rates. Any changes requested by the Board of Directors and/or the General Manager are incorporated into the proposed budget, which is then presented to the Board at the Finance Committee. The Board of Directors adopts the annual standby charge, and the water rates and charges. Department managers and budget staff submit budget text to explain and support program costs, water rates and charges, and other budgetary assumptions

## May

Budget staff presents the draft budget document to the Board of Directors at the Finance Committee with recommendation to adopt the proposed operating budget. The Board of Directors motions to adopt the operating budget for the next fiscal year beginning July 1.

## Budget Process

### Budget Review

West Basin's budget monitoring process begins shortly after the budget is adopted. Each month the managers receive a budget versus actual report to review and assist them in monitoring costs. On a quarterly basis, the Finance Department develops an executive level budget versus actual report and presents to the Board of Directors. In addition, other financial reports are presented monthly to keep the Board of Directors informed of water sales, recycled water operations, general expenditures, and cash position.

### Amendments to the Budget

The Budget is amended when expenditures are anticipated to significantly exceed estimates. Budget amendments can also occur for expenditures seen as appropriate charges but were not anticipated in the budget process. Any amendments adding to the original budget are brought to the Board of Directors through staff reports at the appropriate committee meeting. The staff reports describe why, how much and to which program budget require an amendment to the original budget. These approvals are discussed at both the appropriate committee and Board meetings and require a majority vote of the Board of Directors to be incorporated. Upon approval, staff updates the budget and financial system to reflect the approved change.



Groundbreaking at Rowley Park in Gardena, Calif. to celebrate a new recycled water site.





# Section 5 Source of Revenue





## Source of Revenue

West Basin's revenue is derived from water sales and charges, fixed revenues, conservation income and interest income. The two primary sources are imported and recycled water sold to its customer agencies. Imported sales represent 65.8% and recycling sales represent 24.6% of all revenue sources. Total budgeted revenues for FY 2018-19 are \$217,450,904.

Summarized below are the actual, projected and budgeted revenues for the past three years along with comparative budgets (FY 2017-18 & FY 2018-19) to see the trend of various revenue sources.

Revenues	FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
Description	Actual	Actual	Projected	Budget	Budget
Imported Water Sales	\$133,188,144	\$142,176,176	\$148,057,810	\$132,629,514	\$138,941,320
Water/Fixed Service Charge	578,928	630,618	693,680	693,680	2,284,411
Capacity Charge	2,563,104	2,235,084	1,932,510	1,932,510	1,836,150
Recycled Water / LRP	39,538,553	45,401,684	49,707,000	51,508,721	53,502,522
Fixed Revenue Charge	7,156,429	7,075,064	5,949,200	5,949,196	7,509,196
Desalter Water	815,118	280,659	176,200	464,455	1,121,175
General Fund Interest	397,817	602,085	665,000	665,000	969,500
Standby Charge	9,654,900	9,613,891	9,650,000	9,650,000	9,750,000
Conservation Income	500,218	393,100	220,000	1,422,667	1,506,130
Other Income	278,477	5,777,390	215,000	135,000	30,500
<b>Total Revenues</b>	<b>\$194,671,688</b>	<b>\$214,185,751</b>	<b>\$217,266,400</b>	<b>\$205,050,743</b>	<b>\$217,450,904</b>



## Revenue Highlights

West Basin is a wholesaler who purchases imported water from MWD for retail use (municipal, commercial, and domestic) and groundwater replenishment uses. In the early 1990's West Basin began diversifying its water portfolio through a pilot program on brackish groundwater and investing in a recycled water system of treatment facilities and distribution pipelines. The intended users are for industrial, commercial, and landscape irrigation sites. Today more than 400 sites throughout the southwestern portion of Los Angeles County benefit from this local resource. To fund the construction of the recycled water facilities and pipelines, West Basin obtained funding from a variety of sources including a Standby Charge, federal and state grants, fixed capital revenue charges, and establishing commodity rates.

West Basin receives approximately 8.0% of its revenues from fixed capital revenue charges and the Standby Charge. The fixed capital revenue charges are determined by agreements. The Standby Charge generates approximately \$9.75 million and through Resolution 04-18-1087, the charges were approved by the Board on April 23, 2018 to continue for FY 2018-19.

Annually, West Basin establishes rates and charges through a resolution approved by the Board. Resolution 04-18-1089 was adopted at its April 23, 2018 meeting and includes rates for the following services:

- Two price tiers for non-interruptible service;
- Capacity Charge;
- Fixed Service Charge;
- Recycled Water rates for each class of service; and
- Desalted Water rate.

Although the resolution reflects non-interruptible rates for two tiers, Tier 2 pricing is not anticipated for West Basin customers.

Beginning in FY 2018-19 West Basin will assess a Fixed Service Charge to its imported water customers and eliminate its Water Service Charge. The new charge was a result of a study performed to explore rate structure alternatives that promote revenue and rate stability.



During California's most recent drought, West Basin experienced significant reductions in potable water sales, as customer agencies enacted conservation measures to meet state-mandated targets. Imported water sales have started to rebound, however, it is likely that it will not return to pre-drought levels in the near future.

West Basin has relied on variable water sales for the majority of its imported water revenue, therefore, during periods of reduced sales, West Basin's revenues declined significantly. Incorporating a fixed charge would provide a reliable and stable revenue source that will make West Basin less vulnerable to demand fluctuations and allow for more rate stability for its customers.

The AF assumption for water deliveries is also reviewed annually and is a key driver to the operating budget. Projections are based upon a review of historic water sales, discussions with customers about their intended source of water usage (imported, groundwater, recycled), and a review of capital projects, West Basin determines where recycled water sales may replace imported water sales. West Basin has determined its retail potable sales to be 100,000 AF for FY 2018-19.



Retail imported water sales were 103,333 AF in FY 2016-17 and, due to businesses and residents instituting changes that permanently reduced their potable water demands and anticipated higher groundwater usage by our customer agencies; sales are projected to drop 1.3% to 102,000 AF by the end of FY 2017-18. West Basin anticipates a modest re-bound in imported sales in FY



2018-19 with the lessening of drought messaging and conservation efforts due to the Governor's executive order lifting the drought emergency in April 2017.

As expected, budgeted sales of imported water to the West Coast Barrier (Barrier) have decreased significantly from actual AF deliveries due to a shift away from imported water to recycled water deliveries. Imported water sales to the barriers (West Coast and Dominguez Gap) were expected to drop from 6,563 AF in FY 2016-17 to a budget of 800 AF in FY 2017-18. West Basin strives to deliver as much recycled water as possible for injection into the Barrier and has invested both time and money to achieve this goal. With the information from the Water Replenishment District that the Los Angeles County expects to inject a total of 18,000 AF of water in FY 2018-19 into the Barrier (17,000 AF from recycled water), West Basin has budgeted a total of 1,500 AF of imported water deliveries, 1,000 AF for the West Coast Barrier and 500 AF for Dominguez Gap.

*An AF is equivalent to 325,900 gallons of water that meets the need of two average families, in and around the home, for one year. An AF is equal to the amount needed to fill a football field one foot deep in water.'*

## Water Rates and Charges

### Non-interruptible Water Revenues

Historically, West Basin imported water revenues were comprised of three rate components: MWD's Commodity Rate, Readiness-to-Serve (RTS) Charge, and West Basin's Reliability Service Charge (RSC). West Basin's retail and barrier imported water rate will have a combined overall increase of \$31/AF by January 2019. In FY 2018-19, West Basin has added a fourth component, the Fixed Service Charge. The Fixed Service Charge will be allocated based on each customer's 3-year historical average of imported water deliveries, and paid monthly by each customer.



The Board approved its one-year rate increase of \$31/AF and the new Fixed Service Charge for FY 2018-19 at the Board meeting on April 23, 2018 per resolution 04-18-1089. Based on AF assumptions and the rates for the fiscal year described below, West Basin is budgeting \$138,941,320 in imported water sales and \$2,284,411 in fixed service charges.

MWD's commodity rate increase has historically been passed through by West Basin to its customer agencies and become effective on January 1 of each year. On April 10, 2018 MWD's Board of Directors voted to increase their non-interruptible commodity rate for Calendar Year 2019 and 2020 by approximately 3.4% and 3.2%, respectively. In keeping with past practice, West Basin will pass through the MWD Tier 1 commodity rate at \$1,015/AF from July-December 2018 and \$1,050/AF from January-June 2019.

MWD's Board of Directors also approved an overall RTS charge collection of \$133 million in CY 2019, a decrease of 5.0% from the \$140 million collected in CY 2018. The RTS is collected from its 26 customer agencies on a monthly basis with rate changes effective January 1 of each FY. The amount collected is allocated to each of its customers based on each agencies respective percentage to the total on the 10-year rolling average of firm sales. The 10-year rolling average is based on a CY (January to December). West Basin's allocated portion in FY 2018-19 has decreased by approximately \$93,000 due to MWD collecting \$135 million in CY 2017 which was effective during the first six months of FY 2017-18 and a decrease in West Basin's 10-year rolling average from 7.31% in CY 2018 to 7.28% in CY 2019. The RTS component of West Basin's imported water rate was determined by dividing West Basin's share of MWD's RTS collection (\$9,958,200) by the budgeted imported water sales, 101,500 AF, for a rate of \$98/AF, effective January 1, 2019. This represents a \$4/AF or 4.0% decrease in West Basin's RTS of \$102/AF which is effective until December 31, 2018.

When determining the RSC, West Basin considers both the current year and the five-year forecast in achieving the minimum target of 1.75 on the all-in debt coverage. This process helps in avoiding large spikes in the RSC from year to year but may also provide an all-in debt coverage in any one year to be higher than 1.75. For FY 2018-19, the all-in debt coverage is budgeted at 1.86 and although the RSC will not increase, the combination of eliminating the Water Service Charge and introduction of the Fixed Service Charge translates to a \$15/AF overall increase. The continued commitment to this target is in response to prior reviews with Moody's rating agency which emphasized that the financial metrics compared to its peers had been lower. The increase in the debt coverage also provides West Basin sufficient revenues to support its Water Reliability Program.

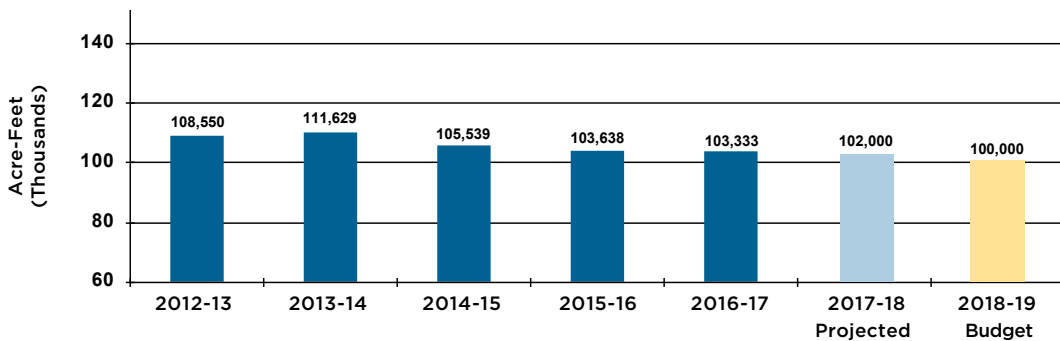
<b>Rates Effective July 1, 2018 to December 31, 2018</b>				
	<b>MWD Commodity</b>	<b>MWD RTS</b>	<b>Reliability Svc</b>	<b>TOTAL</b>
Non-Interruptible Retail & Barrier (Tier 1)	\$1,015/AF	\$102/AF	\$237/AF	<b>\$1,354/AF</b>
Non-Interruptible Retail & Barrier (Tier 2)	\$1,101/AF	\$102/AF	\$237/AF	<b>\$1,440/AF</b>



Rates Effective January 1, 2019				
	MWD Commodity	MWD RTS	Reliability Svc	TOTAL
Non-Interruptible Retail & Barrier (Tier 1)	\$1,050/AF	\$98/AF	\$237/AF	<b>\$1,385/AF</b>
Non-Interruptible Retail & Barrier (Tier 2)	\$1,136/AF	\$98/AF	\$237/AF	<b>\$1,471/AF</b>

Imported water sales vary based on hydrologic conditions, water demand and on the available water supply. West Basin imported water sales increased annually since experiencing a low of 102,712 AF in FY 2010-11, reaching 111,629 AF in FY 2013-14. However, even with conditions that brought snowpack levels well above annual averages, consumption has decreased due to conservation messaging and changes in consumer behavior. West Basin also anticipates one particular customer to return to its previous levels of groundwater use thereby reducing its imported water use. Projected sales for the end of FY 2017-18 are expected to decline 1.3% to 102,000 AF from the previous fiscal year actual sales of 103,333 AF. West Basin anticipates a modest re-bounce in imported sales in FY 2018-19 with the lessening of drought messaging and conservation efforts but has also included a small buffer for greater groundwater usage. As a result, West Basin is conservatively budgeting for expected sales of 100,000 AF, which is a 2.1% increase from its FY 2017-18 budget of 98,000 AF.

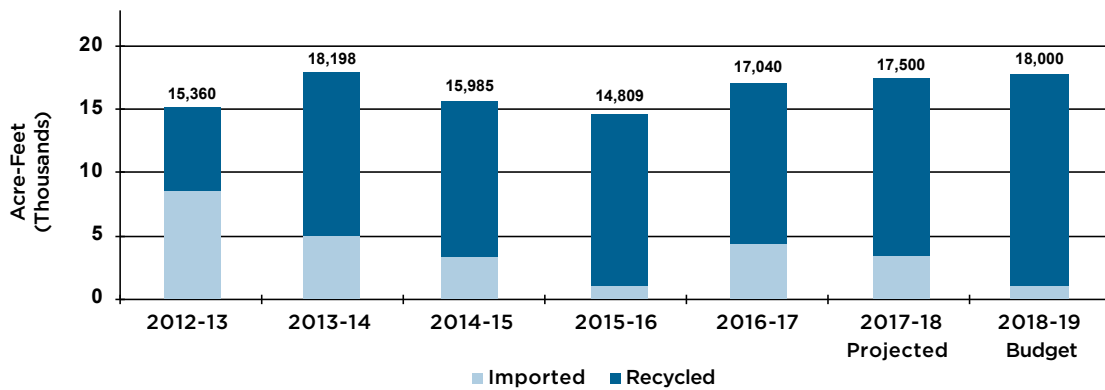
### Retail Sales FY 2012-13 thru FY 2018-19



Based on information received from the WRD and the County of Los Angeles, West Basin budgets the overall demand at the Barrier Dominguez Gap Barrier. West Basin’s goal is to deliver 100% recycled water to the Barrier. Historically, the Barrier is injected with a mix of recycled and imported water, with total (imported and recycled) water delivered in FY 2016-17 of 17,040 AF. The graph below shows the decreasing demand for imported water over the years as more recycled water is used for the Barrier. Imported sales to the Barrier are projected to drop from 4,026 AF in FY 2016-17 to a budget of 1,000 AF in FY 2018-19. WRD has been informed by Los Angeles County that they are anticipating injecting 18,000 AF of water and currently West Basin has capacity to deliver 17,000 AF of recycled water. Therefore 1,000 AF of imported water has been budgeted to meet expected demand for the Barrier in FY 2018-19. Imported water demand to the Dominguez Gap Barrier is also expected to drop and will be budgeted at 500 AF for FY 2018-19, a decrease of 300 AF from the previous year as WRD and the City of Los Angeles focus on completing their local recycled water project.



**West Coast Barrier  
Sales History  
FY 2012-13 thru FY 2018-19**





### Water Service Charge

Historically, West Basin collected a Water Service Charge as a monthly fixed amount based on the cubic feet per second (cfs) of each customer’s meter capacity. This charge was based on the number and size of potable water meters each customer agency has available. On June 30, 2018 the Water Service Charge was eliminated.

### Fixed Service Charge

Effective July 1, 2018, the District will implement a new fee that will charge customers a Fixed Service Charge totaling \$2,284,411. The Fixed Service Charge will be allocated based on each customer’s 3-year historical rolling average of imported water deliveries, and paid monthly by each customer according to the table below.

	3-Year Ave Deliveries (AF)	Annual Charge	Monthly Charge
California American Water Co.	360	\$ 7,481	\$ 623
CWSC - Dominguez	24,424	507,062	42,255
CWSC - Hawthorne	2,492	51,738	4,312
CWSC - Hermosa Redondo	9,516	197,553	16,463
CWSC - Palos Verdes	17,040	353,757	29,480
City of El Segundo	7,618	158,146	13,179
City of Inglewood	6,811	141,391	11,783
City of Lomita	1,462	30,352	2,529
City of Manhattan	3,653	75,834	6,320
Golden State Water	22,285	462,655	38,555
LA County Waterworks No. 29	8,509	176,660	14,722
WRD - Dominguez Gap Barrier	5,866	121,782	10,149
<b>Total</b>	<b>110,036</b>	<b>\$ 2,284,411</b>	<b>\$ 190,368</b>

## Capacity Charge

The MWD Capacity Charge was developed to recover the costs in providing distribution capacity use during peak summer demands. The aim of this charge is to encourage customer agencies to reduce peak day demands during the summer months (May 1 thru September 30) and shift usage to the winter months (October 1 thru April 30), which will result in more efficient utilization of MWD's existing infrastructure and defers capacity expansion costs. West Basin's combined cfs peak amount from its customers is 262.2 for CY 2018 and 244.2 cfs for CY 2019, calculated on each customer's highest overall peak level during the past three (3) years.

Effective 1/1/18 to 12/31/18				
	Calendar Year			
Customer Agencies	2014	2015	2016	3-YEAR PEAK
California American Water Co.	3.7	2.8	1.3	3.7
CWSC - Dominguez	51.1	46.5	45.9	51.1
CWSC - Hawthorne	7.5	6.5	6.0	7.5
CWSC - Hermosa, Redondo	20.7	18.6	17.1	20.7
CWSC - Palos Verdes	44.2	33.9	34.8	44.2
LA County Waterworks No. 29	18.2	16.9	17.7	18.2
City of El Segundo	20.5	20.6	11.4	20.6
City of Inglewood	15.0	11.5	12.0	15.0
City of Lomita	3.6	3.9	3.8	3.9
City of Manhattan Beach	10.3	7.8	8.2	10.3
Golden State Water Co.	34.3	44.3	43.8	44.3
Water Replenishment District	22.7	2.8	14.3	22.7
			<b>TOTAL</b>	<b>262.2</b>



Effective 1/1/19 to 12/31/19				
	Calendar Year			
Customer Agencies	2015	2016	2017	3-YEAR PEAK
California American Water Co.	2.8	1.3	3.3	3.3
CWSC - Dominguez	46.5	45.9	43.5	46.5
CWSC - Hawthorne	6.5	6.0	6.1	6.5
CWSC - Hermosa / Redondo	18.6	17.1	19.1	19.1
CWSC - Palos Verdes	33.9	34.8	38.3	38.3
LA County Waterworks No. 29	16.9	17.7	15.4	17.7
City of El Segundo	20.6	11.4	14.5	20.6
City of Inglewood	11.5	12.0	12.2	12.2
City of Lomita	3.9	3.8	2.7	3.9
City of Manhattan Beach	7.8	8.2	7.3	8.2
Golden State Water Co.	44.3	43.8	32.7	44.3
Water Replenishment District	2.8	14.3	23.7	23.7
			<b>TOTAL</b>	<b>244.2</b>

West Basin models MWD’s methodology to calculate its peak charges to the sub agencies and; this methodology enables West Basin to pass through a lower rate per cfs and establishes a more equitable distribution of MWD’s charge. West Basin multiplies each purveyor’s highest daily average usage (per cfs) for the past three summer periods by the Capacity Charge Rate. The timing of the rate changes is structured to coincide with MWD’s as well. West Basin will decrease its current Capacity Charge Rate from \$7,300/cfs to \$7,200/cfs on January 1, 2019, with anticipated revenues of \$1,836,150 during FY 2018-19.



## Recycled Water Charges and Fixed Revenue Charges

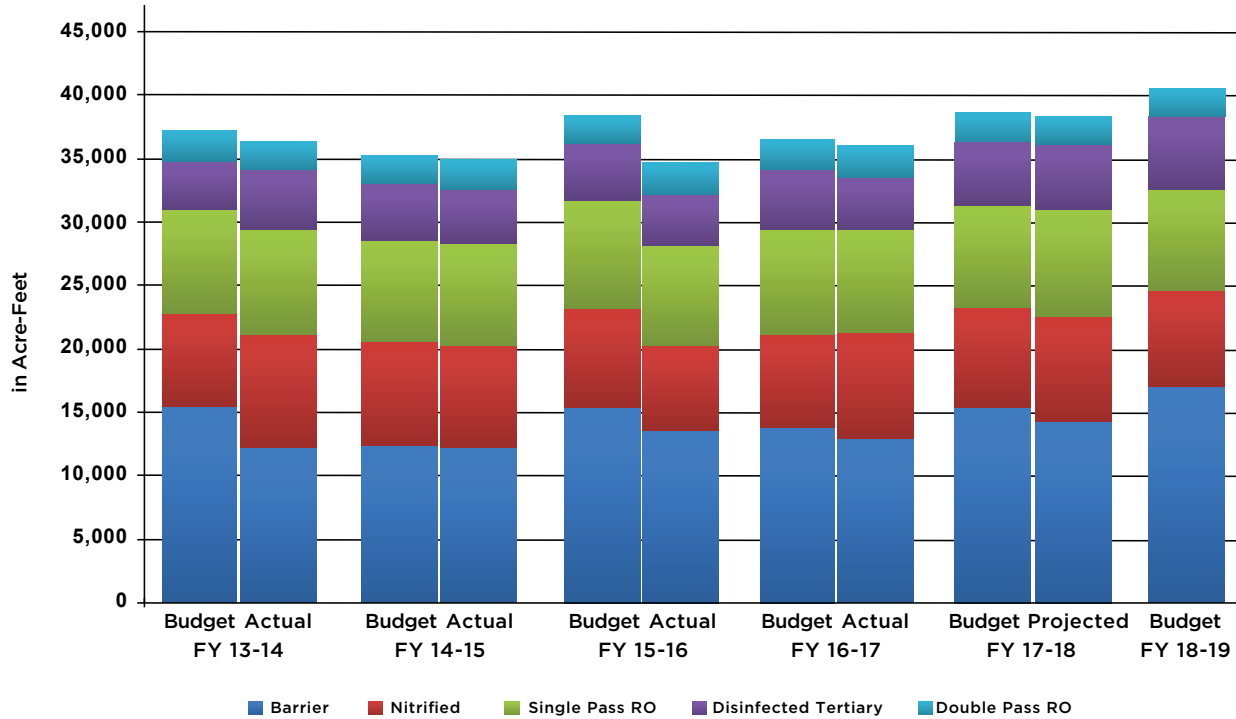
West Basin adopts its recycled water rates to increase according to customer agreements or in line with West Basin's effective Non-Interruptible Tier 1 rate increase, depending on the type of recycled water. For Disinfected Tertiary recycled water, West Basin has historically applied a discount of approximately 20% on its effective non-interruptible tier 1 rate when setting those rates. This consideration is given in order to continue to attract new customers and expand existing customers to a more reliable source of water at relatively lower rate. Revenues from recycled water sales consist of commodity charges and incentive payments from MWD's Local Resources Program (LRP). The LRP provides a \$250/AF rebate for each AF of recycled water produced and sold, helping West Basin and its customers to develop and utilize recycled water as much as possible thereby decreasing the reliance on imported water. These revenues are estimated at \$53,502,522 for FY 2018-19.

Recycled Water Rates (Effective July 1, 2018)				
Volume (AF/Month)	WBMWD Service Area	Outside Service Area	Designer Recycled Water	
0-25	\$1,151/AF	\$1,193/AF	West Coast Barrier Nitrified Low Pressure Boiler Feed High Pressure Boiler Feed	Established by Agreement
25-50	\$1,141/AF	\$1,183/AF		
50-100	\$1,131/AF	\$1,173/AF		
100-200	\$1,121/AF	\$1,163/AF		
200+	\$1,111/AF	\$1,153/AF		

In addition, West Basin anticipates receiving approximately \$7.5 million in fixed capital revenue charges which are collected from certain facilities within the recycled water system, including Tesoro (also referred to as Andeavor), Chevron, and Torrance Refining Co. including Tesoro (also referred to as Andeavor), Chevron, and Torrance Refining Co. and the Los Angeles Department of Water and Power (LADWP), are used by West Basin to repay the cost of the treatment and distribution facilities, as well as a portion of the variable cost for delivering water, that were constructed exclusively for delivery of recycled water.



### Recycled Water Historical Sales FY 2013-14 thru FY 2018-19



West Basin currently serves recycled water to more than 400 sites with sales projected at 38,800 AF in FY 2017-18. Recycled water sales in FY 2016-17 were 36,330 AF, however, for FY 2018-19 West Basin anticipates an increase in recycled water sales to its highest level at 41,215 AF, as a result of improvements made at its facilities to increase production of Barrier and disinfected tertiary water. Expected recycled water sales are comprised of approximately 41% sales to the Barrier, 44% to local refineries, and the remaining 15% will be used in parks, golf courses, schools and street medians.

## Desalter Water Charges

West Basin sells desalinated brackish water produced at the C. Marvin Brewer Desalter to CWSC. Per agreement with the customer, the Desalter Rate is based on MWD's commodity charges plus West Basin's RTS charge. The current rate for desalted water is \$1,117/AF and will increase 2.8% to \$1,148/AF on January 1, 2019. Deliveries from the Brewer Desalter are budgeted at 420 AF for FY 2017-18 and expected to increase to 990 AF (10 months of production is anticipated) for FY 2018-19. This is the result of the completion of the well rehabilitation at the end of FY 2017-18. The next phase of the multi-phase mechanical and chemical rehabilitation of the well will begin in late FY 2018-19.

## Other Sources of Revenue

### Standby Charge

This annual Standby Charge is used towards West Basin's debt service obligations for the water recycling facilities. For FY 2018-19, the Standby Charge will be assessed by the same formula as in prior years and the amount assessed per parcel has remained consistent since FY 1992-93. The amount assessed is \$16, \$24 or \$120 per parcel depending upon the land use provided by the County of Los Angeles on a given parcel. The table below is an excerpt of the Engineer's Report that specifies the exact amount of units included in the Standby Charge Program and their weighted benefit calculation. Based on approximately 358,056 benefiting units and previous annual collections, it is estimated that the receipts from the Standby Charge, net of program expenses, are expected to be approximately \$9,750,000. Staff has budgeted lower than estimated levy as a number of new parcels have been identified. The Board conducted a public hearing on April 23, 2018, to receive comments from property owners, public agencies and other interested parties. After careful consideration the Board voted to adopt the annual Standby Charge (Resolution 04-18-1087) also at its April 23, 2018 meeting.



	Parcels =< 1 Acre	Acres >1 Acre	MRF Units	Total Levy
<b>Residential</b>				
SFR, Duplex	141,233	15,109		\$3,752,208
MFR			173,940	2,783,040
Low-use	2	124		1,509
<b>Non-Residential</b>				
Non-residential	12,667	14,974		3,530,892
Low-use	7	0		420
<b>TOTAL</b>	<b>153,909</b>	<b>30,207</b>	<b>173,940</b>	<b>\$10,068,069</b>

### Conservation Income

Through the development of the master plan for water use efficiency and West Basin’s Water Reliability Program goals, West Basin continues to enhance its Conservation Program offerings across the varying sectors such as residential, large landscape, commercial, industrial and institutional. As a result, West Basin has had greater access to available rebates, state and federal grants, and partnerships with retail water agencies interested in investing in cost-effective programs. For every dollar that West Basin invests in conservation it garners an additional \$2.34 from various partners, thereby enhancing the programs to greater benefit of the residents and businesses throughout the service area. For FY 2018-19, West Basin will continue to receive outside funding from MWD and from its customer agencies and has been awarded grant funding from the State of California Department of Water Resources (DWR) and the United States Bureau of Reclamation (USBR). For FY 2018-19, West Basin anticipates its partner contributions as follows:

State Grants - DWR	\$ 992,443
Federal Grants - USBR	207,563
MWD	206,125
Customer Agencies	100,000
<b>Total</b>	<b>\$1,506,130</b>

West Basin continues to aggressively promote conservation efforts throughout its service area and is always seeking to develop new water use efficiency strategies and programs to help the public conserve water. West Basin remains extremely active in developing and implementing new conservation programs, such as Rain Barrel distributions and Turf Removal, as well as bringing in partners to help defray the cost in order to maximize the public's use of water at the lowest cost possible.

### **Interest Income**

West Basin receives interest income from its general fund. With a low interest rate environment, West Basin has assumed a relatively conservative portfolio return. For FY 2018-19, general fund interest income is expected to be approximately \$969,500. West Basin has adopted an investment policy in accordance with California Government Code 53600 et. seq. and has utilized an investment manager to keep West Basin apprised of current market conditions, review West Basin's investment policy and procedures, and implement changes to ensure West Basin's key objectives of safety, liquidity and yield are met.

### **Other Income**

West Basin anticipates miscellaneous income to support its efforts for the Title 22 Water Quality Monitoring Program. Overall, West Basin anticipates approximately \$30,500 in FY 2018-19 for other income.





# Section 6 Use of Funds







## Use of Funds

West Basin maintains a single enterprise fund which is divided among four major types of expenses: water purchases (including RTS Charge), Capacity Charge, debt service, and program expenses. A balanced budget is maintained between sources of revenues and uses of funds by placing the difference generated into West Basin's Designated Funds. Summarized below are the actual, projected and budgeted expenses for the past three years along with comparative budgets to illustrate the trend of the various expenses. Summarized below are the actual, projected and budgeted revenues for the past three years along with comparative budgets (FY 2017-18 & FY 2018-19) to see the trend of various revenue sources.

Expenditures	FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
Description	Actual	Actual	Projected	Budget	Budget
Imported Water Purchases / RTS	\$111,730,757	\$116,104,463	\$120,692,075	\$108,468,524	\$114,685,900
Capacity Charge	2,532,200	2,175,390	1,866,925	1,866,925	1,813,435
Debt Service	25,001,820	24,863,139	23,523,200	24,127,061	24,085,409
Water Recycling Operations	33,621,539	35,651,178	35,750,000	42,579,512	46,441,406
Desalter Operations	881,093	592,014	608,069	700,495	1,088,701
Water Policy	1,295,547	1,587,487	1,507,400	1,842,884	1,856,158
Public Information	2,477,330	2,754,077	2,781,685	3,453,150	3,652,265
Conservation	1,140,541	1,413,551	1,389,113	2,813,991	3,088,241
Water Quality Monitoring	7,734	9,435	16,240	11,193	34,200
Designated Funds	15,983,127	29,035,017	29,131,693	19,187,008	20,705,189
<b>Total Expenditures</b>	<b>\$194,671,688</b>	<b>\$214,185,751</b>	<b>\$217,266,400</b>	<b>\$205,050,743</b>	<b>\$217,450,904</b>



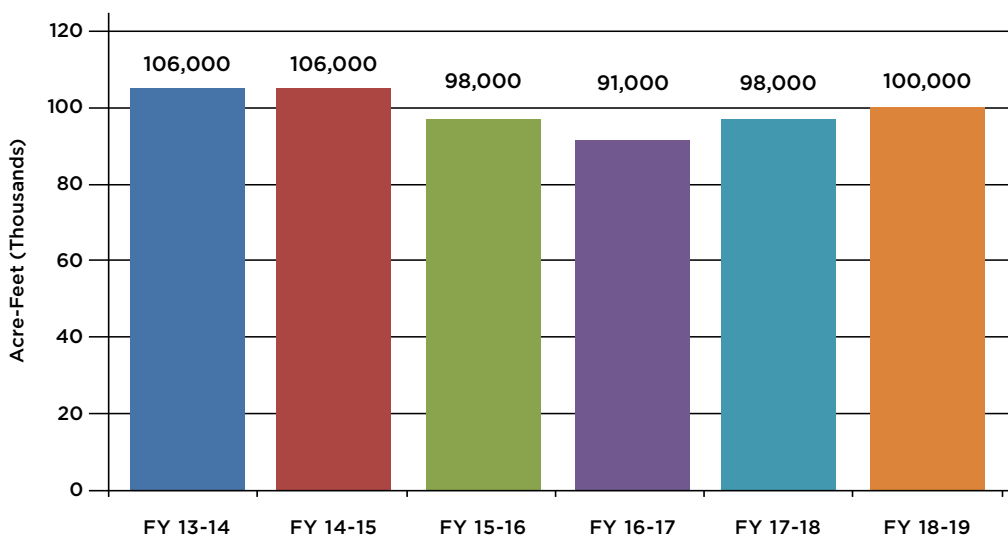
Overall expenditures are budgeted to increase approximately \$12.4 million in FY 2018-19 as compared to FY 2017-18 primarily due to an increase in imported water/RTS purchases and our Water Recycling Operations. Imported water purchases/RTS is increasing significantly (\$6.2M) due to anticipated increases in retail imported water sales, while West Basin’s Capacity Charge has continued to decrease, partially due to MWD reducing their rate to its member agencies last calendar year and partially due to West Basin’s non-coincidental peaking with MWD decreasing to 201.7 cfs in Calendar Year (CY) 2019 from 217.5 cfs in CY 2018. West Basin’s second main use of funds is used to operate the Edward C. Little Water Recycling facility in El Segundo. Due to the increase in demands for recycled water and aging infrastructure, West Basin plans on investing additional fund to support and upgrade their facility. See “Capital Improvement Program” for further explanation.

## Water Purchases and Charges

### Imported Water Purchase

West Basin purchases imported water solely from MWD and those purchases tie directly to its sale of imported water. West Basin’s retail imported water sales have fluctuated over the last several years. Although Governor Brown lifted the state of emergency in April of 2017, the state is taking measures to promote conservation as a way of life. West Basin has conservatively budgeted its retail imported sales at 100,000 AF for FY 2018-19, an increase of 2,000 AF from FY 2017-18 in imported water retail sales.

**Budgeted Imported Water Purchases  
FY 2013-14 thru FY 2018-19**



Through the Water Replenishment District, West Basin provides imported water to inject into the Dominguez Gap Barrier when the goal of injecting 100% recycled water into the Barrier cannot be met. Budgeted imported water sales to both Barriers are expected to increase to 1,500 AF in FY 2018-19 from 800 AF from FY 2017-18.

	Dominguez Gap		West Coast Barrier	
	FY 17-18	FY 18-19	FY 17-18	FY 18-19
Imported	800	500	0	1,000

### MWD Non-Interruptible Commodity Rate

As mentioned earlier, West Basin purchases all of its imported water from MWD. On April 10, 2018, the MWD Board approved its biennial budget and water rates. Although the overall average rate increase adopted by MWD was 3.4% for Calendar year 2019 and 3.2% for Calendar year 2020, the imported water commodity rate effectively increased 3% or \$35 per AF effective January 1, 2019. The commodity rate is a direct pass-through to West Basin’s customers. The components of MWD’s non-interruptible commodity rate and their cost per AF are shown below.

	Effective Dates	
	1/1/18	1/1/19
Supply Rate Tier 1	\$209	\$209
Supply Rate Tier 2	\$295	\$295
System Access Rate	\$299	\$326
Water Stewardship Rate	\$55	\$69
Treatment Rate	\$320	\$319
Power Rate	\$132	\$127
<b>Total Tier 1</b>	<b>\$1,015</b>	<b>\$1,050</b>
<b>Total Tier 2</b>	<b>\$1,101</b>	<b>\$1,136</b>



## Readiness-to-Serve (RTS) Charge

The RTS is a fixed charge that MWD charges its member agencies to recover the cost of the portion of their system conveyance that is on standby to provide emergency service and operational flexibility. The cost of providing standby service also covers the distribution and system storage capacity and is allocated to the RTS. MWD's aggregate RTS collection was \$135 million for CY 2017 then increased to \$140 million in CY 2018, and for CY 2019 the RTS collection will slightly decrease 5% to \$133 million. The RTS is allocated to the MWD's 26 member agencies based on each agency's proportional share of a 10-year rolling average of all firm deliveries; have resulted to



West Basin staff conducts a free public tour of its water recycling program at the Edward C. Little facility.

West Basin's share for CY 2019 was budgeted to decrease from CY 2018 level of 7.31% to 7.28%. Although MWD increased their RTS collection \$5 million from CY 2018 to CY 2019, West Basin expects a decrease of approximately \$93,000 in its share of the RTS for FY 2018-19 due to MWD collecting \$135 million in CY 2017 which was effective during the first six months of FY 2017-18.

Many of MWD's member agencies elect to have their RTS share collected by MWD; however, West Basin's RTS share is a pass-thru to its customers as an addition to its commodity rate, the collection of which is explained more thoroughly in the "Sources of Revenue" section.

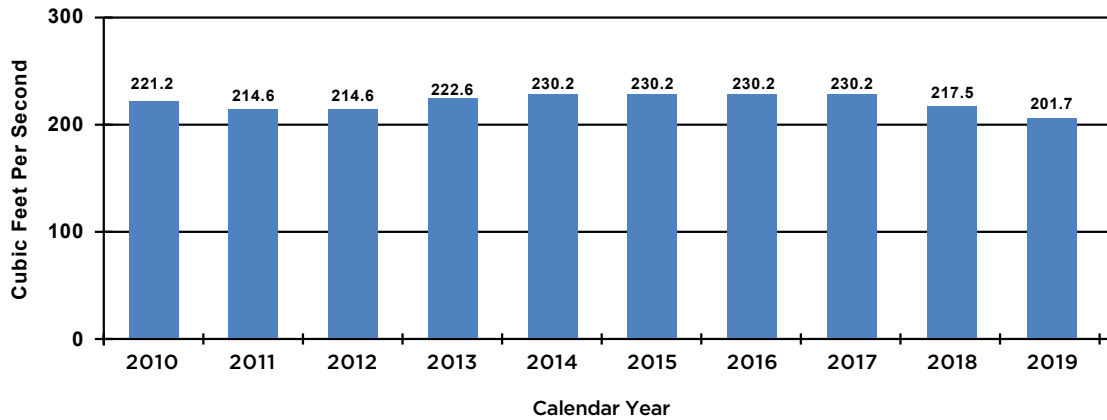
Overall, West Basin estimates water purchases and RTS expenditures to be \$114,685,900.

## Capacity Charge

MWD charges its members agencies a Capacity Charge to recover the cost of providing peak water service capacity within its distribution system and the charge increases as more capital costs are allocated to peak system use. The Capacity Charge is based on individual customer's cfs peak flow levels during the past three (3) years between May 1 and September 30.

The table below shows West Basin's cfs peak flow for CY 2010 through CY 2019.

### Capacity Charge CY 2010 thru CY 2019



Effective January 1, 2019, MWD will decrease its Capacity Charge from \$8,700 per cfs to \$8,600 per cfs. With MWD decreasing its Capacity Charge and West Basin's peak flow decrease from 217.5 cfs in CY 2018 to 201.7 cfs in CY 2019, West Basin and its customers will pay less in Capacity Charge. The capacity cost will remain at \$157,687.50 per month for the first six months of FY 2018-19 and decrease to \$144,551.67 per month for the second six months of FY 2018-19, for a total cost of \$1,813,435.

West Basin passes through this charge to its customer agencies using the same methodology MWD uses to calculate their member agencies' share. See the "Sources of Revenue" section for further explanation.



## Debt Service

In the early 1990's, West Basin's Board of Directors had the vision to drought-proof its service area by constructing treatment facilities and distribution pipelines to bring recycled water to industrial, commercial and irrigation sites that were using potable water. By selling recycled water to these customers, West Basin reduced its reliance on imported potable water. The importance of local control on water availability is even more important today as we continue to face higher costs and lower availability for delivery of this scarce resource. In order to fund the construction of the treatment facilities and distribution pipelines for the recycled water system, West Basin obtained federal and state grants, invested its own cash, and also issued debt.

West Basin does not have a legal debt limit due to its ability to raise its water rates and charges, but does have debt coverage requirements stated within the Installment Purchase Agreements or Indentures of Trust associated with each debt issuance.

West Basin works in collaboration with its financial team of financial advisors, bond counsel, trustees, and other related parties to identify, evaluate potential new construction proceeds or refunding opportunities. In addition, West Basin reviews its debt structure to ensure an overall level debt structure is maintained and aligns with the expected service life of the capital assets.

Since the early 1990's, West Basin has received more than \$420 million in construction proceeds through fixed and variable debt issuances using a variety of debt instruments including Certificates of Participation, Revenue Bonds, state loans, and commercial paper. In accordance with its Debt Management Policy, West Basin monitors its debt portfolio and takes advantage of favorable market conditions to reduce water rates whenever possible through appropriate refunding opportunities.



West Basin currently has the following debt obligations:

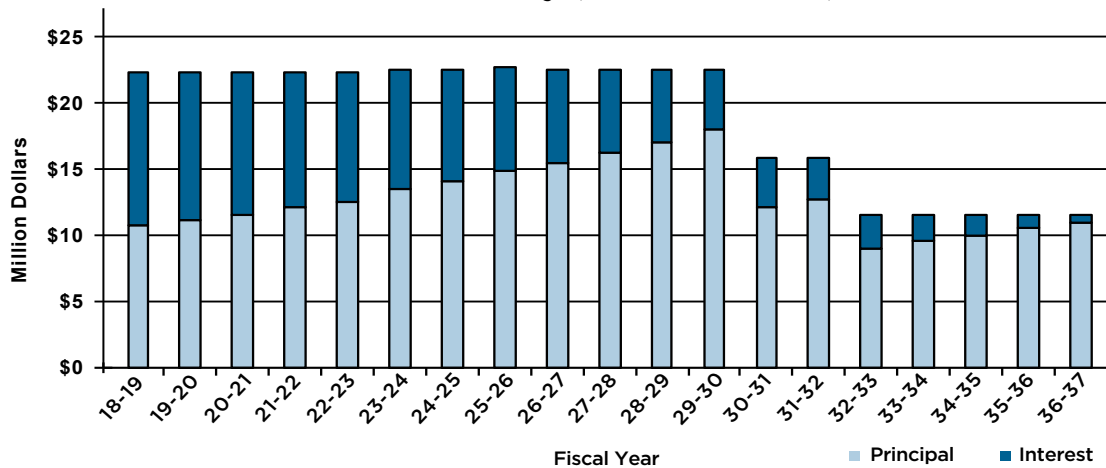
### Current Outstanding Long-Term Debt

Series Name	2008B	2010A	2011A	2011B	2012A	2016A
<b>Original Amount</b>	\$128,665,000	\$40,000,000	\$34,190,000	\$60,275,000	\$50,325,000	\$112,875,000
<b>Type of Debt</b>	Certificates of Participation	Certificates of Participation	Refunding Revenue Bonds	Refunding Revenue Bonds	Refunding Revenue Bonds	Refunding Revenue Bonds
<b>Purpose</b>	Refunding	Refunding / New Proceeds	Refunding	Refunding / New Proceeds	Refunding / New Proceeds	Refunding
<b>Interest Range</b>	3.0% - 5.0%	Variable	2.5% - 5.0%	4.0% - 5.0%	3.0% - 5.0%	2.0% - 5.0%
<b>Swap to Fix</b>	N/A	Yes	N/A	N/A	N/A	N/A
<b>Issue Date</b>	2008	2010	2011	2011	2012	2016
<b>Final Maturity</b>	2018	2030	2024	2036	2029	2036
<b>Current Rating</b>	A+ and Aa3	N/A	AA- and Aa2	AA- and Aa2	AA- and Aa2	AA- and Aa2
<b>Annual DS Pmt</b>	\$0.3 Million	\$1.2 Million	\$5.2 Million	\$3.0 Million	\$4.4 Million	\$9.9 Million
<b>2018 Principal</b>	\$0.3 Million	None	\$4.1 Million	None	\$2.5 Million	\$4.5 Million
<b>2018 Interest</b>	\$0.01 Million	\$1.2 Million	\$1.1 Million	\$3.0 Million	\$1.9 Million	\$5.4 Million
<b>Lien</b>	Subordinate	Senior	Senior	Senior	Senior	Senior

For FY2018-2019, debt service is budgeted at \$24,085,409.

The following graph and table show the scheduled principal and interest cash payments for West Basin’s current debt portfolio. Debt service payments are made semi-annually on February 1st and August 1st each year.

### Debt to Maturity (on a cash basis)





	Certificates of Participation		Refunding Revenue Bonds		Total	
1-Aug	Principal	Interest	Principal	Interest	Principal	Interest
2018	3,960,000	158,400	7,040,000	11,701,300	11,000,000	11,859,700
2019	-	-	11,425,000	11,437,000	11,425,000	11,437,000
2020	-	-	11,835,000	11,024,750	11,835,000	11,024,750
2021	-	-	12,325,000	10,523,250	12,325,000	10,523,250
2022	-	-	12,825,000	9,959,000	12,825,000	9,959,000
2023	-	-	13,670,000	9,330,250	13,670,000	9,330,250
2024	-	-	14,330,000	8,646,750	14,330,000	8,646,750
2025	-	-	15,210,000	7,961,250	15,210,000	7,961,250
2026	-	-	15,730,000	7,200,750	15,730,000	7,200,750
2027	-	-	16,585,000	6,434,250	16,585,000	6,434,250
2028	-	-	17,420,000	5,605,500	17,420,000	5,605,500
2029	-	-	18,290,000	4,734,500	18,290,000	4,734,500
2030	-	-	12,355,000	3,820,000	12,355,000	3,820,000
2031	-	-	12,970,000	3,202,250	12,970,000	3,202,250
2032	-	-	9,230,000	2,553,750	9,230,000	2,553,750
2033	-	-	9,700,000	2,092,250	9,700,000	2,092,250
2034	-	-	10,190,000	1,607,250	10,190,000	1,607,250
2035	-	-	10,705,000	1,097,750	10,705,000	1,097,750
2036	-	-	11,250,000	562,500	11,250,000	562,500
<b>Total</b>	<b>\$3,960,000</b>	<b>\$158,400</b>	<b>\$243,085,000</b>	<b>\$119,494,300</b>	<b>\$247,045,000</b>	<b>\$119,652,700</b>

As of June 30, 2018, West Basin has \$247 million in long-term debt outstanding.



West Basin has many anticipated capital projects in the next 3 fiscal years that will require the issuance of a State Loan, utilization of a State grant, drawing a large portion of its commercial paper line, in addition to expending PAYGO funds.

A capital grant has been awarded to West Basin for approximately \$8 million and a loan from the State Revolving Fund (SRF) to finance certain capital projects that qualify under SRF's Water Recycling Funding Program. The anticipated annual SRF loan payment is based on approximately \$16 million in construction proceeds, a 1% interest rate and a 25-year term. In addition, West Basin is working with its financial advisors to determine the amount and timing for West Basin to issue additional long term bonds. Using conservative assumptions, West Basin plans to obtain \$80 million in construction proceeds which results in annual level debt service payment of approximately \$3.5 million. Both long-term debt annual payments have been included in the Projected Operating results beginning in FY 2018-19. The impact of these capital expenditures and resulting annual debt payments will be absorbed through thoughtful and reasonable rate increases and will not create an unexpected spike in rates while maintaining its target all-in debt coverage of 1.75.



2017 Annual Water Harvest Festival



The following table shows the ratio for the last 10-years of the total capital assets compared to debt outstanding. In due course, West Basin has been able to leverage less due to its investment to its capital assets.

(in thousands)

Fiscal Year Ended June 30	OUTSTANDING DEBT			CAPITAL ASSETS			Debt/ Capital Assets
	Certificates of Participation & Revenue Bonds	State Loan	Total LT Debt	Capitalized Assets	Construction-in-Progress	Total Capital Assets	
2008	302,600	2,319	304,919	477,099	18,932	496,031	0.61
2009	293,400	2,036	295,436	483,019	29,362	512,381	0.58
2010	294,395	1,743	296,138	496,722	39,395	536,117	0.55
2011	300,050	1,440	301,490	507,066	59,081	566,147	0.53
2012	327,023	-	327,023	520,501	103,279	623,780	0.52
2013	338,686	-	338,686	527,816	135,530	663,346	0.51
2014	329,755	-	329,755	590,272	63,152	653,424	0.50
2015	312,682	-	312,682	590,732	75,144	665,876	0.47
2016	295,831	-	295,831	599,282	79,015	678,297	0.44
2017	292,377	-	292,377	611,438	88,061	699,499	0.42

Source: Fiscal Year June 30, 2017 CAFR

### Swap Transactions

West Basin currently has two swaps transactions, both with the same counter-party, outstanding with a total notional amount of \$20,975,000. Under GASB 53, these swaps have been determined to be an effective hedge, and have a strong correlation to the 2010A Adjustable Rate COP's. The first swap was entered into in June 2004 with a synthetic fixed rate of 3.662% and receives 65% of the British Bankers Association - London Interbank offered rate (BBA-LIBOR) with a final termination date of August 2027.

In April 2005, West Basin entered into a forward interest rate swap that became effective August 2007. This second swap required West Basin to pay a fixed rate of 3.515% and receives 65% of the British Bankers Association - London Interbank offered rate (BBA-LIBOR) with a final termination date of August 2021.

## Covenants

Although West Basin does not have a legal debt limit due to its ability to raise its water rates and charges, it does have debt coverage requirements stated within the Installment Purchase Agreements or Indentures of Trust associated with each debt issuance. Per these financing documents the legal debt coverage requirement is 1.15 for both our senior and subordinate liens. This covenant is monitored not only by West Basin, but also by both investors and credit rating agencies. To meet this covenant, West Basin has set internal targeted debt coverage goals for its budget at a rate higher than legally required for both liens.

Detailed below is the anticipated debt coverage for the current and future FY budgets.

### Bond Debt Coverage Ratios (in 000's – except coverage)

Bond Coverage Ratios	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Revenues	\$217,451	\$221,170	\$224,761	\$231,728	\$238,343	\$244,652
O&M	172,660	174,686	178,160	183,032	188,045	193,283
Net Revenues to pay senior debt	44,791	46,484	46,601	48,696	50,298	51,369
Total Senior Debt	23,742	26,615	26,637	29,667	29,512	29,566
Net Revenues to pay subordinate debt	21,049	19,869	19,964	19,029	20,786	21,803
Total Subordinate Debt	343	-	-	-	-	-
<b>All-In Coverage</b>	<b>1.86</b>	<b>1.75</b>	<b>1.75</b>	<b>1.64</b>	<b>1.70</b>	<b>1.74</b>
Remaining Net Revenue	\$20,705	\$19,870	\$19,965	\$19,030	\$20,785	\$21,803

For the future years, as shown in the above chart, the internal target all-in debt coverage of 1.75 is anticipated to drop in FY 2021-22. West Basin staff recognizes with the expected increases for our operations and maintenance, they will work with its financial advisors to seek strategies to improve the ratios to maintain the 1.75 all-in debt ratio.

## Operating Program Expenses

West Basin organizes and tracks its operating expenses through the following functional budget categories: Overhead Program Costs, Water Recycling Operations, C. Marvin Brewer Desalter Operations, Water Policy and Resource Development, Public Information, Conservation, and Water Quality Monitoring Program. The Overhead Program costs are allocated to the other program budgets and capital.



Cost accounting is defined as the process of tracking, recording and analyzing costs associated with the products or activities of an organization. As a single enterprise fund, each program budget has direct charges that represent the specific efforts for consultants, suppliers, utilities or their appropriate charges in addition to payroll and allocated costs. Each operating program is described in further detail under the “Operating Program Expenses” section.

## Salaries and Benefits

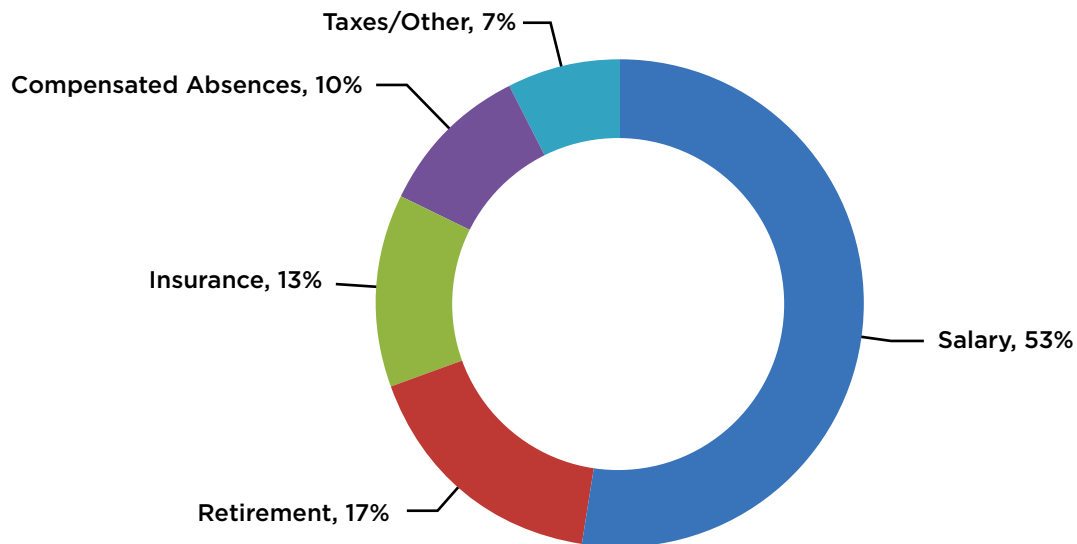
West Basin has a unique business model with a small workforce of 59 budgeted positions, not including interns, working to accomplish its many critical goals and objectives. Staff is comprised of various high-level project managers who oversee the work of consultants in the field. West Basin has no field staff, which allows for flexibility to implement new programs as they arise or modify existing programs when staff needs change.

The following is included in West Basin’s benefits package:

- Retirement — Classic — CalPERS 3% at 60 and Social Security (1).
- Retirement — Tier 2 — CalPERS 2% at 62 and Social Security (2).
- Health Insurance — Paid family coverage with expense reimbursement.
- Disability Insurance — Paid short term and long term insurance plans.
- Life Insurance — Up to \$150,000 based upon salary.
- Vacation — 10-20 days accrued annually, with credit for prior public service.
- Holidays — 14 paid holidays annually.
- Sick Leave — 12 days accrued annually.
- Tuition Reimbursement — 90% tuition and fees paid for job-related coursework.
- Deferred Compensation — CalPERS 457 Deferred Compensation Plan (employee contributes; no agency match).
- Supplemental Income Plan Loan — Made from employee’s own CalPERS 457 Deferred Compensation Plan
- State Disability Insurance (employee paid).
- Fully paid Employee Assistance Program.

(1) An employee who was employed by West Basin prior to January 1, 2013 is a “Classic” member of CalPERS or was hired by West Basin after January 1, 2013 but was employed with an agency with CalPERS reciprocity, or who have less than a six month break in service between employment in a CalPERS (or reciprocal) agency and employment with West Basin, will be enrolled in the 3% @ 60 benefit formula with Social Security.

- (2) An employee is considered a “Tier 2” member if he/she becomes a new member of CalPERS for the first time on or after January 1, 2013 (and who was not a member of another California public retirement system prior to that date) will be enrolled in the CalPERS 2% @ 62 benefit formula (with Social Security) in accordance with the Public Employees’ Pension Reform Act of 2013 (PEPRA). New members will be required to pay at least 50% of the normal retirement cost.



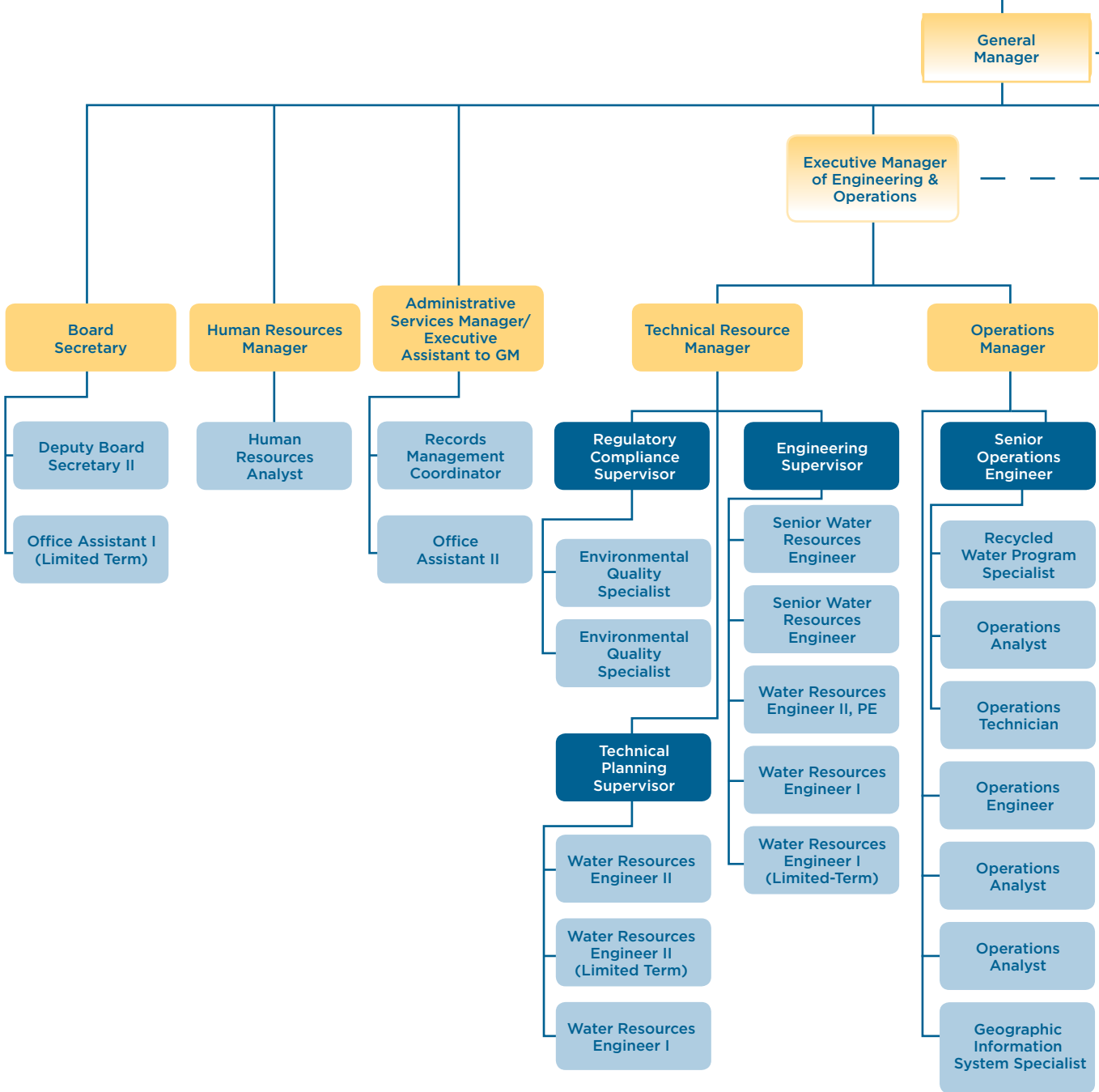
West Basin’s benefits package and total payroll comprises 4.56% of its total FY 2018-19 operating budget. The types of benefits included are consistent with the prior years’ budget and reflect an anticipated 7.0% average increase in health insurance and 1.07% increase in dental insurance. West Basin’s pension costs for “Classic” CalPERS members is 13.545%. Pension costs for “Tier 2” CalPERS members is 6.908%. The estimated Other Post-Employment Benefits (OPEB) contribution for FY 2018-19 will be approximately \$615,957. West Basin participates in the California Employers Benefit Retirement Trust that allows West Basin to calculate its liability based on assumed interest rate of 7.28%.

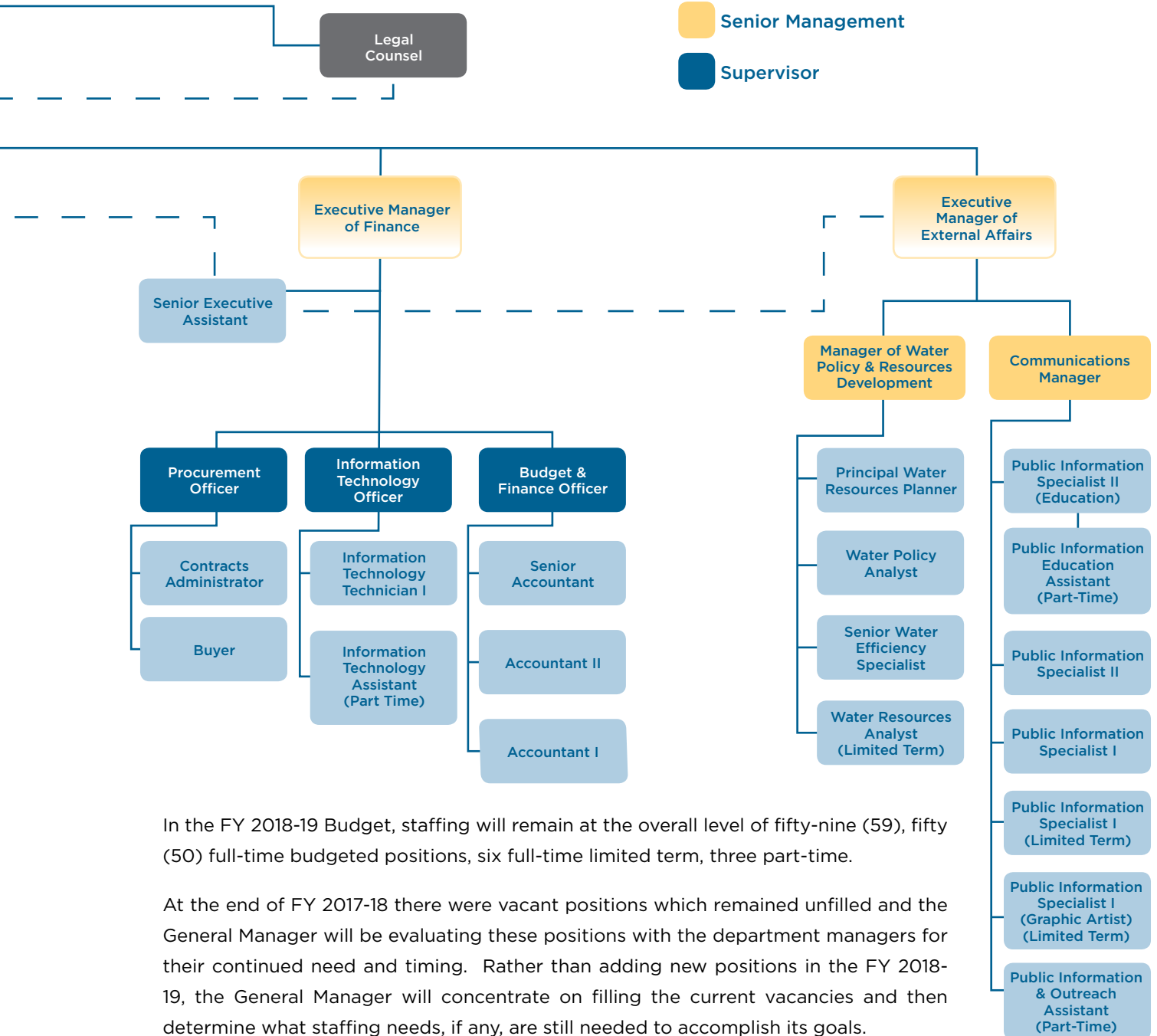
Current employment expense forecasts do not include a Cost-of-Living Adjustment increase. West Basin utilizes a performance-based merit pay system, wherein the amount of merit pay is determined by the employee’s performance appraisal rating and position in the salary range. To sustain competitiveness on an annual basis, West Basin takes into account the regional Consumer Price Index (CPI), and the average salary range increases of survey agencies. Based on these factors, West Basin has included a 3% merit increase in the FY 2018-19 Budget.



The organizational chart shows the full-time and part-time budgeted positions for FY 2018-19.

# BOARD OF DIRECTORS





In the FY 2018-19 Budget, staffing will remain at the overall level of fifty-nine (59), fifty (50) full-time budgeted positions, six full-time limited term, three part-time.

At the end of FY 2017-18 there were vacant positions which remained unfilled and the General Manager will be evaluating these positions with the department managers for their continued need and timing. Rather than adding new positions in the FY 2018-19, the General Manager will concentrate on filling the current vacancies and then determine what staffing needs, if any, are still needed to accomplish its goals.

West Basin is also continuing its intern program to provide opportunities for growth and exposure to current students attending local colleges. West Basin had budgeted eight interns in FY 2018-19 which is the same as FY 2017-18 to support the various departments.



Following is a table showing the head count by department that includes the full-time, limited-term and part-time positions. The intern positions are not reflected in the table.

Position	Actual		Budgeted		Change from FY 2017-18
	FY 2016-17	FY 2017-18	FY 2017-18	FY2018-19	
<b>Executive</b>					
General Manager	1	1	1	1	0
Executive Manager of Engineering and Operations	1	1	1	1	0
Executive Manager of External Affairs	1	1	1	1	0
Executive Manager of Finance	1	1	1	1	0
<b>Administrative Services</b>					
Administrative Service Manager/ Executive Assistant	0	0	0	1	1
Records Management Coordinator	1	1	1	1	0
Office Assistant II	1	1	1	1	0
<b>Board Services</b>					
Board Secretary	1	1	1	1	0
Deputy Board Secretary II	1	1	1	1	0
Deputy Board Secretary I	0	0	1	0	-1
Public Information Specialist I	1	0	1	0	-1
Office Assistant I (Limited Term)	1	1	1	1	0
<b>Human Resources</b>					
Human Resources Manager	1	1	1	1	0
Human Resources Analyst	1	1	1	1	0
<b>Public Information &amp; Education</b>					
Communications Manager	1	1	1	1	0
Public Information Specialist II	1	2	1	2	1
Public Information Specialist I	1	1	1	1	0
Public Information Specialist I (Limited Term)	2	2	1	2	1
Graphic Designer (Part-time)	0	0	1	0	-1
Tour Guide (Part-time)	0	0	1	1	0
Education Assistant (Part-time)	1	1	1	1	0
<b>Technical Resources</b>					
Technical Services Manager	1	1	1	1	0
Technical Planning Supervisor	0	1	1	1	0
Engineering Supervisor	1	1	1	1	0
Senior Water Resources Engineer	1	2	1	1	0
Water Resources Engineer II	3	1	4	3	-1
Water Resources Engineer II (Limited Term)	0	0	1	1	0
Water Resources Engineer I	1	2	1	2	1
Water Resources Engineer I (Limited Term)	1	1	1	1	0
Regulatory Compliance Supervisor	1	1	1	1	0
Environmental Quality Specialist	2	2	2	2	0
<b>Operations</b>					
Operations Manager	1	1	1	1	0
Senior Operations Engineer	1	1	1	1	0
Operations Engineer	1	1	2	1	-1
Operations Analyst	2	1	2	3	1
Operations Technician	0	1	1	1	0
Recycled Water Program Specialist	1	1	1	1	0
Geographic Information System Analyst	1	1	1	1	0
<b>Water Policy and Resource Development</b>					
Water Policy & Resources Manager	0	1	1	1	0
Government Affairs Program Manager	1	0	1	0	-1
Principal Water Resources Planner	1	1	1	1	0
Senior Water Efficiency Specialist	1	1	1	1	0
Water Policy Analyst	0	0	0	1	1
Water Res & Conservation Analyst (Limited Term)	1	1	1	1	0
<b>Finance</b>					
Information Technology Officer	1	1	1	1	0
Information Technology Technician I	1	1	1	1	0
Information Technology Assistant (Part-time)	0	0	1	1	0
Budget and Finance Officer	1	1	1	1	0
Senior Accountant	1	1	1	1	0
Accountant II	1	0	0	1	1
Accountant I	0	2	2	1	-1
Accountant I (Limited Term)	1	0	0	0	0
Procurement Officer	1	1	1	1	0
Contract Administrator	0	1	0	1	1
Buyer	1	1	2	1	-1
Senior Executive Assistant	1	1	1	1	0
<b>Total Budgeted Personnel</b>	<b>49</b>	<b>51</b>	<b>59</b>	<b>59</b>	<b>0</b>





Edward C. Little Water Recycling Facility



### Personnel Staffing by Program

West Basin’s budget tracks and reports all its costs by program; it also allocates its personnel labor to its various programs. The table below compares FY 2015-16 and FY 2016-17 actual to FY 2017-18 projected and FY 2017-18 and FY 2018-19 budget. The variance of projected to budget FTE for FY 2016-17 represents unfilled positions for a portion of the year and several positions that were not expected to be filled at the very beginning of the fiscal year. In FY 2017-18 and FY 2018-19 the difference between the budget Full Time Equivalent table and the Summary of Personnel Head Count by Department is due to the part-time positions budgeted at one-half of a FTE each versus one head count for each position.

Each program budget demonstrates the projected level of effort for the current year for staff’s labor. As a result, the individual program labor cost may fluctuate from year-to-year. In addition, it will vary from the Summary of Personnel Head Count by Department as this summary indicates the number of staff assigned to each department. Indirect labor represents the support services and is allocated based on the percentage of direct payroll dollars allocated to each program. The method of allocation of indirect labor to the various operating and capital programs is consistent to prior years. The table below includes both the direct and indirect labor.

#### Full Time Equivalent (FTE) by Program (Not including interns)

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
	Actual	Actual	Projected	Budget	Budget
<b>Recycling Operations</b>	15.72	15.5	18.41	16.87	18.64
<b>Desalter Operations</b>	0.05	0.05	0.10	0.33	0.41
<b>Water Policy/Resource Development</b>	4.43	3.74	4.04	5.47	5.14
<b>Public Information</b>	8.82	9.88	9.48	11.60	11.62
<b>Conservation</b>	1.91	3.44	3.38	3.02	2.99
<b>WQ Monitoring Program</b>	0.02	0.02	0.04	0.03	0.03
<b>Capital Projects</b>	11.35	14.58	14.02	20.27	18.67
<b>Total FTE</b>	<b>42.30</b>	<b>47.21</b>	<b>49.47</b>	<b>57.59</b>	<b>57.50</b>

## Capital Improvement Program

West Basin continues to strive for the highest levels of Water Reliability, Water Quality, Customer Service, Sound Financial and Resource Management while always keeping Environmental Stewardship at the forefront of our efforts. Our Capital Improvement Program leads the way in these efforts to increase productivity, accessibility and provide continued high-quality recycled water to our customers. While West Basin continues its carefully researched and methodical testing of ocean-water desalination possibilities, new recycled water customers are developed and increased efficiencies are created. These efforts are described in greater detail within the “Supplemental Section” on the Capital Improvement Program.

Before any capital project is initiated, staff presents the project to the Board of Directors for approval and direction. Capital projects begin with feasibility studies and design estimates followed by construction contracts. Between the feasibility studies and completion of construction, progress reports are presented to the Board of Directors on a periodic basis. West Basin funds its projects through its PayGo Designated Fund, grants/partnerships, its Commercial Paper Program and through bond proceeds.

Anticipated capital improvement expenditures for FY 2018-19 are approximately \$60.8 million.



Edward C. Little Water Recycling Facility Construction





# Section 7 Operating Program Expenses





## Operating Program Expenses

Development of the operating program budget is a result of developing strategies to meet the goals and objectives established from the Plan. The strategies noted under each program support the overall Plan and commitment statements of West Basin.

The FY 2018-19 Operating Program consists of the following:

<b>Allocated Programs</b>	<b>Page Number</b>
Overhead Program Costs.....	7-2
<b>Operating Programs</b>	
Water Recycling Operations.....	7-10
C. Marvin Brewer Desalter Operations .....	7-16
Water Policy and Resource Development.....	7-18
Public Information & Education.....	7-22
Conservation.....	7-26
Water Quality Monitoring Program.....	7-31

Each program budget is developed to achieve the goals and objectives of the Plan and commitment statements that have been described previously in the “Financial Overview and Summary” Section and are summarized below. Each objective is short-term oriented and anticipated to be completed in FY 2018-19 and each program budget reflects only the Plan goals and commitment statements that are relevant and qualitative.

### Strategic Business Plan Goals

**Water Supply Reliability**

**Sound Financial & Resource Management**

**Water Quality**

**Customer Service**

**Environmental Stewardship Environmental Stewardship**



## Overhead Program Costs

The Overhead Program includes the cost to support the Finance, Human Resources and Board Services Departments and the general operations and maintenance of the Donald L. Dear Building. These expenses support the function of each department and are proportionally allocated to all of the other West Basin operating and capital programs and identified as “Overhead”. Direct labor hours are used as the primary basis for allocating these expenses to each program and provide management with a better understanding of the overall resources required to support each program.

The activity costs of the Finance Department represent the expenses to support the general operations of West Basin, financial and legal services, insurance, and memberships/sponsorships. Human Resources include activity costs to recruit, screen and hire new employees, evaluate salaries and benefits, as well as the costs to support employee training. In addition, the Human Resources Department administers the Employee Development Program that recognizes employees, provides for monthly and quarterly employee meetings, and also administers the safety, risk management and wellness programs. Board Services accounts for expenses directly related to the Board of Directors. The Operations department manages the operations and maintenance of the District headquarters.

In addition, West Basin maintains memberships to a variety of organizations and the costs are reflected in this budget. The supplemental section further describes these important partnerships, the involvement West Basin’s Board and/or staff has in the organization, and the membership fee.

No labor is allocated to the Overhead Program as the personnel costs are classified as indirect labor; therefore, allocated to the various program budgets as a percentage of dollars based on the program direct labor to the total direct labor.





### Operating Budget

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
	Actual	Actual	Projected	Budget	Budget
General Services	\$ 1,542,110	\$ 2,031,371	\$ 1,598,465	\$ 1,898,845	\$ 2,678,611
Building Services	388,398	405,385	571,932	471,000	562,200
Legal Services	416,850	549,891	796,000	753,000	503,000
Board Services	580,342	759,313	544,130	649,200	1,138,700
Human Resources	86,450	114,122	154,540	232,912	197,900
<b>Total Overhead Allocated</b>	<b>\$ 3,014,150</b>	<b>\$ 3,860,081</b>	<b>\$ 3,665,067</b>	<b>\$ 4,004,957</b>	<b>\$ 5,080,411</b>

The Overhead expense between the FY 2017-2018 and FY 2018-19 budgets increased about \$1 Million and can be attributed to the following costs:

- Increase in general services for technology support and software licenses
- Increase in building services due to an increase in costs for contract labor.
- Board Services costs for election year costs for three divisions.
- Anticipated costs for the issuance or refunding debt.



## FY 2017-18 Accomplishments

### Sound Financial & Resource Management

#### **Strategy 2.1: Provide effective overall capital facility asset management through the application of industry-best practices**

- ✓ Provided weekly maintenance updates to staff for the Donald L. Dear Headquarters building.

#### **Strategy 2.4: Maintain or improve current bond ratings**

- ✓ Reviewed the Standby Charge, Swap, Debt Management and Investment Policies and sought Board approval of appropriate changes to ensure compliance to California code and address best practices.
- ✓ Provided periodic updates to rating agencies about financial activities through submission of annual financial report, response to inquiries and submission of the required annual bond disclosure document to Electronic Municipal Market Access (EMMA).
- ✓ Monitored the District's budget versus actual reports and provide quarterly updates to the Board on the District's ability to achieve targeted debt coverage of 1.75.

#### **Strategy 2.6: Operate cost-efficiently and effectively, with robust internal controls**

- ✓ Added Part 5, Chapter 6 (Facility Use) to address the use and requirements for outside parties.
- ✓ Updated Part 5, Chapter 2 (Small and Local Business Enterprise) to increase the business outreach program to reflect both small and local businesses, establish a target, reporting requirements and contractor/consultant requirements.
- ✓ Approved the annual rates in April 2018 and the annual budget in May 2017 that meets the Board's financial metrics of a minimum of 1.75 overall debt coverage, meets its Designated Funds Policy limits, and long-term financial planning.
- ✓ Completed the required biennial actuarial report for the Other Post-Retirement Employee Benefits (OPEB) plan.
- ✓ Received an Excellence in Financial Reporting Award for West Basin's Comprehensive Annual Financial Annual Report (CAFR) for FY 2016-17 from the Government Finance Officers Association (GFOA).

- ✓ Received Excellence in Budget Recognition for the FY 2017-18 Operating Budget from GFOA and the California Society of Municipal Finance Officers (CSMFO).
- ✓ Utilized the E-procurement system (The Network) to facilitate the bidding process on 46 solicitations and increased the vendor audience with over 72 referrals during the fiscal year during the calendar year 2017.
- ✓ Provided a legal and financial analysis to implement a new fixed revenue service charge based on the water restructuring study to have revenue stability.
- ✓ Implemented an electronic agenda management system to improve the process and record keeping of the board and committee agenda items.
- ✓ Completed the Information Technology Help Desk standard operation procedures for the Donald L. Dear Building.
- ✓ Completed the inventory of archived records held offsite and at the treatment facilities.

### **Strategy 2.8: Recruit and hire qualified candidates to fill all West Basin positions**

- ✓ Completed and/or commenced the recruitment process for the following positions: 1) Buyer; 2) Deputy Board Secretary II 3) Engineering Supervisor; 4) Environmental Quality Intern; 5) Finance Intern; 6) Office Assistant II; 7) Operations Analyst; 8) Operations Intern; 9) Operations Technician; 10) Public Information Intern; 11) Public Information Specialist II; 12) Technical Planning Supervisor; 13) Tour Guide (Part Time); 14) Water Policy Analyst; 15) Water Policy & Resources Development Intern; and 16) Water Resources Engineer I.

### **Strategy 2.9: Manage and reward performance**

- ✓ Distributed and received 100% completed Annual Employee Performance Evaluations from Senior Management.
- ✓ Conducted compensation studies/survey's for various classifications within West Basin's class structure to ensure salary equity.
- ✓ Secured Board approval of the updated (July 2017) Salary Schedule in compliance with CalPERS regulations.
- ✓ Distributed annual Employee Benefit Statements to ensure employee awareness of their covered benefits.



## **Strategy 2.10: Develop a formal plan for workforce retention, training, and succession planning**

- ✓ Conducted mandatory training for all staff on Preventing Workplace Harassment, Discrimination and Retaliation.
- ✓ Conducted 9/80 work schedule Feasibility Study through a qualified consultant.
- ✓ Secured a range of employee development training courses for staff to attend.
- ✓ Presented Board Information Item on West Basin's comprehensive Internship Program, which included surveying other public agencies on their policies/practices in this area.
- ✓ Ensured 100% compliance of receipt of Statement of Economic Interests Form 700 filing for all applicable staff as noted in West Basin's Conflict of Interest Code in compliance with the Political Reform Act of 1974 (Government Code Section 87300).
- ✓ Secured Board approval of West Basin's Amended Conflict of Interest Code in compliance with Government Code Section 87306.
- ✓ Conducted mandatory staff Safety Meetings in accordance with West Basin's Injury/Illness Prevention Program to include, but not limited to, Active Shooter Training.
- ✓ Conducted Risk Transfer Training for staff in compliance with meeting department risk management obligations.
- ✓ Conducted over 20 staff ergonomic assessments utilizing West Basin's workers' compensation provider in accordance with reasonable accommodation policies.
- ✓ Conducted 10-hour Occupational Safety and Health Administration (OSHA) Training for applicable staff.
- ✓ Conducted Earthquake Preparedness Drill (Great California Shakeout) in compliance with West Basin's Injury/Illness Prevention Program and Emergency Evacuation Plan.
- ✓ Successfully secured a Wellness Grant through ACWA/JPIA to assist in West Basin's health and wellness initiatives for its employees.
- ✓ Conducted 2nd Annual Health and Wellness Fair for staff securing well over 10 health and wellness vendor participants.
- ✓ Conducted early prevention health screening through qualified vendor for staff who wished to participate.

## Customer Service

### **Strategy 4.3: Support the Board in maintaining the strategic business plan**

- ✔ Updated Board-approved Strategic Business Plan in August 2017 which provides the overall policy direction for the District
- ✔ Maintained strategic priorities through Board of Directors monthly committee and board meetings.
- ✔ Conducted a Board planning session with new general manager to review support, business plan and other District business.

## FY 2018-19 Strategies

### Sound Financial & Resource Management

#### **Strategy 2.1: Provide effective overall capital facility asset management through the application of industry-best practices**

- ▶ Continue weekly maintenance at the Donald L. Dear Headquarters building.

#### **Strategy 2.2: Maintain facilities to manage and minimize risk of failure and liability exposure**

- ▶ Complete the security standard operation procedures for the Donald L. Dear Building.

#### **Strategy 2.4: Maintain or improve current bond ratings**

- ▶ Schedule an update with the rating agencies to update on current business operations, the new fixed revenue charge and future plans.

#### **Strategy 2.5: Develop a formal Long Range Financial Plan**

- ▶ Update Long-Range Financial Model for sales assumptions, capital projects and appropriate rates and charges to ensure the District remains financially solvent.
- ▶ Develop a capital funding policy that outlines the methods and approach to fund the necessary capital expenditures for replacement and rehabilitation and reliability projects.



### **Strategy 2.6: Operate cost-efficiently and effectively, with robust internal controls**

- ▶ Increase resources to support technology infrastructure improvements including the replacement of multi-function printers.
- ▶ Prioritize and implement short-term safety and necessary improvements to the Donald L. Dear Headquarters Building. Develop a strategic technology plan to address the immediate and long term infrastructure technology needs from new technology or software to enhanced integration.
- ▶ Implement the new fixed revenue service charge for the FY 18-19.
- ▶ Complete the bi-annual actuarial report for the PARS plan.
- ▶ Update the retention schedule for District's records and evaluate electronic data management systems to improve the District records management program.
- ▶ Review Administrative Code for next planned updates including the sections on Risk Management and Claims, and Human Resources section.
- ▶ Implement improved grant management practices and develop a comprehensive grant management policy.

### **Strategy 2.9: Manage and reward performance**

- ▶ Conduct a comprehensive classification and compensation study.

### **Strategy 2.10: Develop a formal plan for workforce retention, training, and succession planning**

- ▶ Commence review and update of specified sections of the Human Resources section of the Administrative Code in compliance with applicable changes in California law.
- ▶ Conduct employee development training (software program training, leadership training, etc.) for staff per request and recommendation of the General Manager and Senior Management.
- ▶ Conduct ongoing employee training regarding amendments made to the Human Resources section of the Administrative Code and ongoing training on employee benefits.

- ▶ Implement employee wellness programs and informative brown-bag lunches to include weight-loss management, time/stress management, handling difficult conversations, financial wellness and other health and wellness matters.
- ▶ Plan and conduct the 3rd Annual Health and Wellness Fair in support of West Basin's wellness initiatives for all staff.
- ▶ Update West Basin's Succession Plan for review and approval of the General Manager and Senior Management.
- ▶ Submit the 2017/18 Workforce Diversity Report to the Board that reflects the demographic breakdown by race and occupational category of West Basin's full-time employees.

## Customer Service

### **Strategy 4.1: Build community trust**

- ▶ Review the Code of Conduct and bring policy recommendations for the Board's consideration.

### **Strategy 4.3: Support the Board in maintaining the strategic business plan**

- ▶ Develop proposed annual budget based on the Strategic Business Plan
- ▶ Staff to implement the current year budgeted strategies to accomplish the board-directed goals.

### **Strategy 4.5: Engage small and/or local businesses in the procurement of services**

- ▶ Develop elements of a Small and Local Business Enterprise program from solicitation process to reporting to increase the effectiveness of the business outreach program.



## Water Recycling Operations

West Basin purchases secondary effluent from the City of Los Angeles' Hyperion Treatment Plant and treats the secondary effluent at the ECLWRF to meet disinfected tertiary recycled water Title 22 requirements prior to distributing the recycled water to its customers and satellite treatment facilities. The satellite treatment plants provide supplemental treatment for customers that require better water quality for their business processes. In total, West Basin produces five separate types of recycled water at four water recycling facilities. All five types of designer waters meet the treatment and water quality requirements specified in the California Department of Public Health's Water Recycling Criteria and are permitted by the Los Angeles Regional Water Quality Control Board.

### West Basin's "Designer" Customer Tailored Waters:

1. Disinfected Tertiary Recycled Water: Secondary treated wastewater that has been filtered and disinfected for industrial and irrigation uses.
2. Nitrified Water: Disinfected Tertiary Recycled Water that has been nitrified to remove ammonia for industrial cooling towers.
3. Barrier Water: Secondary treated wastewater pretreated by ozone and microfiltration, followed by RO and disinfection (UV/peroxide treatment) for groundwater recharge.
4. Single Pass RO Water: Secondary treated wastewater pretreated by ozone and microfiltration, followed by one pass of RO treatment for low-pressure boiler feed water.
5. Double Pass RO Water: Secondary treated wastewater pretreated by ozone and microfiltration, followed by two passes of RO treatment for high pressure boiler feed water.

The Recycled Water Operations budget includes funds to administer, operate and maintain all of the recycled water facilities, research and development costs to evaluate new and potentially more cost-effective processes, regulatory efforts, and promote and develop additional customers to use recycled water. West Basin started delivering recycled water in 1995 and continues to expand its facilities to increase this local resource. West Basin's recycled water system consists of:

- A pump station in the southwest corner of the Hyperion Treatment Plant to pump secondary effluent to the ECLWRF;



- The ECLWRF treats water for use in Chevron refinery’s high-pressure and low-pressure boilers, the Barrier, and disinfected tertiary water for irrigation and other industrial uses;
- A satellite treatment plant in El Segundo to further treat disinfected tertiary water from the ECLWRF to produce nitrified water for Chevron refinery’s cooling towers;
- A satellite treatment plant in Torrance to further treat disinfected tertiary water to produce nitrified water for The Torrance Refinery’s cooling towers and a separate Satellite Treatment Plant to produce boiler feed water for The Torrance Refinery;
- A satellite treatment plant in Carson referred to as the Juanita Millender-McDonald Carson Regional Water Reclamation Plant (JMMCRWRP) to further treat disinfected tertiary water from the ECLWRF to produce nitrified water for Tesoro’s cooling towers and produce boiler feed water for Tesoro;
- Three re-disinfection stations to boost the level of chlorine disinfectant within the recycled water distribution system;
- Two booster pump stations to boost service pressures to customers in the cities of Torrance and Carson; and
- Approximately 100 miles of pipelines to deliver recycled water to our customers.

West Basin contracts with Suez, Inc. to operate and maintain the treatment facilities along with CWSC to operate and maintain the distribution system. West Basin staff manages the program, administers the operations and maintenance agreements, and oversees compliance with the various permits West Basin holds to enable it to sell recycled water.

### Personnel - Full Time Equivalents (FTE)

FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
Actual FTE	Actual FTE	Projected FTE	Budget FTE	Budget FTE
15.72	15.50	18.41	16.87	18.64



### Operating Budget

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
	Actual	Actual	Projected	Budget	Budget
Labor and Benefits	\$ 2,831,281	\$ 2,709,512	\$ 2,670,000	\$ 2,908,487	\$ 3,422,646
Overhead	1,130,836	1,264,988	1,200,000	1,184,892	1,620,453
Chemicals	6,024,713	6,520,239	5,600,000	8,685,650	8,738,216
Consultants	1,174,840	3,846,708	2,000,000	3,497,400	5,505,038
Contract Labor-Dist System	946,392	1,038,133	1,000,000	595,000	750,000
Facility Maintenance	3,938,315	3,596,121	5,129,700	5,432,600	5,307,100
Laboratory Service	668,818	560,658	360,000	655,024	721,895
Office Administration	778,908	693,607	758,072	748,765	851,220
Secondary Effluent	289,462	329,009	340,000	410,294	431,338
Solids Disposal	672,141	802,642	760,000	827,200	1,179,200
Utilities	8,492,608	7,475,104	8,500,000	9,190,000	9,231,000
Contracted Labor	7,195,705	7,712,501	8,350,000	9,369,200	9,628,300
Mobil Reimbursement	(882,480)	(898,044)	(917,772)	(925,000)	(945,000)
<b>Total Recycling Operations</b>	<b>\$ 33,261,539</b>	<b>\$ 35,651,178</b>	<b>\$ 35,750,000</b>	<b>\$ 42,579,512</b>	<b>\$ 46,441,406</b>

The major variances between FY 2017-18 and FY 2018-19 budgets are due to the following items:

- Increase in production results in increase variable costs.
- Reflects a contracted labor rate increase and additional support on the distribution system focused on preventative maintenance activities.
- Funding for a Membrane Bio-Reactor (MBR) pilot at Hyperion Treatment Plant.

## FY 2017-18 Accomplishments

### Sound Financial & Resource Management

#### **Strategy 2.1: Provide effective overall capacity facility asset management through the application of industry best-practices**

- ✓ Executed an on-call contractor agreement for pump, motor, blower, compressor repairs to maximize “up time” of mechanical equipment.
- ✓ Completed pilot program for field data collection.
- ✓ Conducted an inspection of the 60-inch force main.
- ✓ Initiated the Custom Engineered Microfiltration Pilot on ozonated secondary effluent water.
- ✓ Received \$50,000 Water Research Foundation Grant for the Custom Engineered Microfiltration Pilot on ozonated secondary effluent water.
- ✓ Completed calendar year 2016 Greenhouse Gas Emissions Inventory and Verification.
- ✓ Completed relining the Chevron Nitrification Treatment Plant and the Torrance Refinery Water Recycling Plant.
- ✓ Completed Hyperion Pump Station shutdown with minimal impacts to customers
- ✓ Pre-qualified several reverse osmosis membranes to produce Barrier product water.
- ✓ Initiated a pipeline condition assessment program to evaluate the health of the pipelines within the treatment facilities.

#### **Strategy 2.2: Maintain facilities to manage and minimize risk of failure and liability exposure**

- ✓ Provided support to obtain Department of Public Health (DPH) approval, and site inspections for 13 recycled water site modifications.
- ✓ Connected four new customers to the recycled water distribution system, adding approximately 100 acre-feet of demand annually.
- ✓ Developed a cost benefit analysis for new recycled water projects.
- ✓ Developed a recycled water feasibility study for the City of Redondo Beach.



### **Strategy 2.6: Operate cost-efficiently and effectively, with robust internal controls**

- ✓ Upgraded ArcGIS on-line system

## Customer Service

### **Strategy 4.2: Ensure recycled water client and customer agency satisfaction**

- ✓ Implemented a welcome program for new recycled water customers.
- ✓ Provided engineering support to customers that required temporary potable backup during the Hyperion Pump Station shutdown.

## FY 2018-19 Strategies

### Sound Financial & Resource Management

#### **Strategy 2.1: Provide effective overall capital facility asset management through the application of industry-best practices**

- ▶ Continue customization of the upgraded CMMS software to make it more user-friendly and improve data reliability, to include mobile capability.
- ▶ Continue to develop and implement the prioritized asset management recommendations to maximize the asset life and optimize maintenance activities.
- ▶ Pilot test Custom Engineered Microfiltration System on ozonated secondary effluent water.
- ▶ Conduct an operational and financial audit of the recycled water treatment processes and management with the goal of developing performance metrics in a future Request for Proposal for the Operations and Maintenance of the recycled water facilities. Pilot operation monitoring software to optimize microfiltration operations and to minimize operation expenses.
- ▶ Develop a preventative maintenance program for the electrical equipment.
- ▶ Start up the Dominguez Booster Pump Station.

### **Strategy 2.2: Maintain facilities to manage and minimize risk of failure and liability exposure**

- ▶ Conduct pipeline condition assessment to evaluate the health of the pipelines within the treatment facilities. Continue the Custom Engineered Microfiltration Pilot on ozonated secondary effluent water.
- ▶ Continue redlining activities to create updated reference drawings for remaining facilities.
- ▶ Implement instrumentation upgrades as a result of the dashboard reports
- ▶ Develop a condition assessment program for the yard piping within the treatment plants.

## Water Quality

### **Strategy 3.1: Achieve and maintain recycled water client satisfaction**

- ▶ Continue to support existing customer water quality inquiries.

### **Strategy 3.2: Increase control over source water quality**

- ▶ Participate in a Membrane Bio-Reactor (MBR) pilot at Hyperion Treatment Plant.

### **Strategy 3.3: Meet permit and contractual water quality requirements**

- ▶ Continue to meet water quality compliance and contractual requirements.

## Customer Service

### **Strategy 4.2: Ensure recycled water client and customer agency satisfaction**

- ▶ Promptly respond to recycled water customers concerns.
- ▶ Continue working with new customers to connect to the recycled water distribution system.
- ▶ Continue supporting existing recycled water customer modifications with the DPH approval process.



## C. Marvin Brewer Desalter Operations

The C. Marvin Brewer Desalter (Desalter) began operating in July 1993. The Desalter was initially conceived as a five-year pilot program to see if brackish water could be economically treated to drinking water standards. It originally consisted of two wells that pump brackish water from a saline plume trapped in the West Coast Groundwater Basin and then treated using reverse osmosis and blended with other potable water in a CWSC reservoir. The Desalter pilot program was successful and operations continued. A single well was constructed in 2005 to replace the two original wells.

The Desalter is built on a site owned by CWSC in the City of Torrance. The site includes a potable water reservoir and pump station that CWSC uses to meet demands in its service area. Under the terms of an agreement with CWSC, West Basin reimburses CWSC to operate and maintain the Desalter. The budget for the Desalter includes staff time to manage the Desalter, operation and maintenance costs incurred by CWSC lab fees for water quality analyses, sewer fees for brine disposal, and the replenishment assessment paid to the WRD.

The well had an original well capacity of 1,250 - 1,500 gallons per minute (gpm). Currently the well is experiencing reduced yield with the current production about 500 gpm. Because of the reduced production, a well assessment was conducted and results determined that a multi-phase mechanical and chemical rehabilitation of the well be implemented. The well rehabilitation effort began Fall of 2017.

### Personnel - Full Time Equivalent (FTE)

FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
Actual FTE	Actual FTE	Projected FTE	Budget FTE	Budget FTE
0.05	0.05	0.10	0.33	0.41

## Operating Budget

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
	Actual	Actual	Projected	Budget	Budget
Labor and Benefits	\$ 6,025	\$ 5,713	\$ 54,806	\$ 54,806	\$ 78,858
Overhead	3,788	4,231	21,489	21,489	32,745
Operations	569,305	474,538	443,122	473,000	641,500
Replenishment Assessment	301,975	107,532	88,652	151,200	335,598
<b>Total Desalter Operations</b>	<b>\$ 881,093</b>	<b>\$ 592,014</b>	<b>\$ 608,069</b>	<b>\$ 700,495</b>	<b>\$ 1,088,701</b>

The increase in the FY 2018-19 budget is due to the facilities operating for 10 months as compared to 3 months during FY 2017-18 as upgrades were being made to the facilities. These upgrades were necessary to address many of the plant's on-going issues and to ensure operational and water quality reliability. With the anticipated down time, the budget assumes a production of 990 acre-feet per year.

## FY 2017-18 Accomplishments

### Sound Financial & Resource Management

#### Strategy 2.6: Operate cost-efficiently and effectively, with robust internal controls

- Applied for \$4.8 million Department of Water Resources Proposition 1 Grant funding for the Improvements Project



## Water Policy and Resource Development

The Water Policy and Resource Development budget supports various activities including, but not limited to: performing analyses and preparing reports related to long term water reliability and regional water demand; pursuing state and federal grants and loans to ensure West Basin's programs and projects are cost-effective; providing technical and other support to retail customer agencies; tracking and reporting on West Basin's water supply portfolio; implementing local, state and federal legislative and regulatory advocacy efforts; and participating in industry organizations, including CalDesal, WaterReuse, Association of California Water Agencies (ACWA), as well as every aspect related to MWD activities to ensure local and industry related water policies, programs and projects are favorable to West Basin, its customer agencies and service territory as well as the Southern California region. This budget also includes funds to support efforts in Integrated Regional Water Management planning on behalf of the West Basin service territory, and a member of the Greater Los Angeles County planning area. Began Fall of 2017.

### Personnel - Full Time Equivalent (FTE)

FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
Actual FTE	Actual FTE	Projected FTE	Budget FTE	Budget FTE
4.43	3.74	4.04	5.47	5.41

### Operating Budget

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
	Actual	Actual	Projected	Budget	Budget
Labor and Benefits	\$ 622,298	\$ 819,937	\$ 796,600	\$ 970,553	\$ 946,258
Overhead	308,860	398,976	358,800	315,026	462,100
Planning	78,959	58,948	40,500	207,505	94,000
Government Affairs	285,430	309,626	311,500	349,800	353,800
<b>Total Resource Planning</b>	<b>\$ 1,295,547</b>	<b>\$ 1,587,487</b>	<b>\$ 1,507,400</b>	<b>\$ 1,842,884</b>	<b>\$ 1,856,158</b>



## FY 2017-18 Accomplishments

### Customer Service

#### Strategy 4.1: Build community trust

- ✓ Conducted an informational workshop with customer agencies to review proposed FY 2018-19 budget and water rates and provide updates on various District programs and projects.
- ✓ Conducted monthly updates to West Basin's customer agencies and municipalities at West Basin's Metropolitan Water District Caucus meeting and West Basin Water Association meetings. Increased state and federal advocacy efforts related to securing project and program funding for the West Basin service area; as well as assisting the development of statewide water use efficiency regulations that acknowledge the regional investments in recycled water.
- ✓ Provided regular and timely updates to West Basin's state and federal legislators regarding the recurring drought conditions, regional water use efficiency efforts, and new local water supply projects, including proposed recycled water laterals, expansion and new waste water treatment at the Edward C. Little Water Recycling Facility, and the proposed ocean water desalination project.
- ✓ Honored four Legislators with Legislator(s) of the Year awards. This program resulted in award recipients visiting West Basin headquarters and the Edward C. Little Water Recycling Facility for both the award and a water supply update.

### Water Supply Reliability

#### Strategy 1.1: Prepare and periodically update water supply plans

- ✓ Completed the annual Water Use Report for our customer agencies. This document provides the annual total water use information for the previous fiscal year as well as the recycled water use and connections for each customer.
- ✓ Provided monthly updates to the customer agencies regarding the State Water Resources Control Board's mandatory water conservation reporting.



## Sound Financial & Resource Management

### **Strategy 2.6: Operate cost-efficiently and effectively, with robust internal controls**

- ✔ Increased state and federal advocacy efforts related to securing project and program funding for the West Basin service area, including support and advocacy for the “WIIN” legislation, Water Infrastructure Improvements for the Nation, which passed in December, 2016; as well as drafting and sponsoring ACA 8, which sought to lower the vote threshold for local agencies to finance water related projects through GO bond indebtedness.

## FY 2018-19 Strategies

### Water Supply Reliability

#### **Strategy 1.1: Prepare and periodically update water supply plans**

- ▶ Continue to maintain and update the development of West Basin’s Urban Water Management Plan every five years.

#### **Strategy 1.3: Increase supply diversification by promoting groundwater development**

- ▶ Continue to work with the West Basin Water Association and retail customer agencies to track water use data, in order to identify opportunities to maximize local water supplies.
- ▶ Continue to work with the Water Replenishment District to share data and analysis on regional water demand, in order to identify opportunities to increase groundwater pumping and brackish desalting, while maintaining healthy groundwater basins through groundwater replenishment.
- ▶ Continue to play a leading role in the development of policy and legislative matters; as well as the advocacy activities for CalDesal and WateReuse.

### **Strategy 1.4: Increase supply diversification by promoting water recycling**

- ▶ Continue to work with West Basin's Recycled Water Customer Development and Operations teams to identify opportunities to connect new customers and partner with state and federal agencies to offset local cost implication for recycled water projects;
- ▶ Continue to engage in legislative and regulatory advocacy to positively impact and promote the use of recycled water, including potable reuse.

## Sound Financial and Resources Management

### **Strategy 2.3: Develop partnerships with public and private entities to facilitate capital asset development and implementation**

- ▶ Assist in the development of new recycled water rate structures designed to meet the needs of West Basin recycled water customers while recovering recycled water production costs.
- ▶ Continue leadership role in the Greater Los Angeles County Integrated Regional Water Management Program, including administration on behalf of the Region, of its financial resources.
- ▶ Continue to work with existing and new recycled water customer to jointly fund West Basin's repair and rehabilitation program.

### **Strategy 2.6: Operate cost-efficiently and effectively, with robust internal controls**

- ▶ Continue to pursue and advocate for state and federal project funding for West Basin's programs and projects, including low interest State Revolving Fund loans, increased state and bond funding for local water supply development, and specific project appropriations for conservation and construction projects. These efforts including partnerships with the State Water Resources Control Board (State Revolving Fund), Department of Water Resources, U.S. Army Corps of Engineers (WRDA), and Bureau of Reclamation (Title XVI).

## Customer Service

### **Strategy 4.1: Build community trust**

- ▶ Continue to work with regional, state and federal agencies to discuss local water supply development, and West Basin programs and project.
- ▶ Actively work with state and federal elected officials to advocate on behalf of the region, West Basin, its retail customers, and the communities we serve.
- ▶ Continue our program to honor Legislator(s) of the Year with Water Reliability awards.



## Public Information & Education

A core task of the department is to convey the value of water. Under the umbrella of West Basin's Water Reliability Program, staff continues to share information about the District's conservation, water recycling and ocean water desalination activities. Additionally, the department strives to increase awareness of West Basin as an award-winning, innovative and industry-leading water agency dedicated to sustainable water resource management.

### Public Information

With guidance from the Board of Directors, staff develops and implements a wide array of outreach programs to ensure that West Basin is positioned as a valuable utility among key stakeholders. Audiences include state, county and federal elected officials, chambers of commerce, cities, partners, customer agencies, community, environmental, education and business leaders. By offering free public facility tours, presentations, annual water-themed events, special events, construction outreach and media relations, the District provides value to the service area.

### Education

District education programs engage students, grades 3 - 12, in learning about water conservation, ocean water desalination and environmental stewardship. These programs are offered to public and private school students in the service area. They include classroom presentations, field trips, a student water conservation kit program, and an annual conservation art contest.

### Personnel - Full Time Equivalent (FTE)

FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
<b>Actual FTE</b>	<b>Actual FTE</b>	<b>Projected FTE</b>	<b>Budget FTE</b>	<b>Budget FTE</b>
8.82	9.88	9.48	11.60	11.62

## Operating Budget

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
	Actual	Actual	Projected	Budget	Budget
Labor and Benefits	\$ 1,066,762	\$ 1,280,437	\$ 1,403,900	\$ 1,557,200	\$ 1,629,089
Overhead	678,595	778,970	675,300	829,590	1,010,176
Education	185,337	166,620	221,135	223,960	273,750
Outreach, Media, & Events	546,636	528,050	481,350	842,400	739,250
<b>Total Public Information</b>	<b>\$ 2,477,330</b>	<b>\$ 2,754,077</b>	<b>\$ 2,781,685</b>	<b>\$ 3,453,150</b>	<b>\$ 3,652,265</b>

## FY 2017-18 Accomplishments

### Customer Service

#### Strategy 4.1: Build community trust

- ✓ Improved communication channels to showcase West Basin's value, including increased social media presence, direct mailing to promote conservation events and workshops, ongoing website development, and a new communications plan for the new fiscal year 2018-2019.

#### Strategy 4.4: Promote outreach and education programs

- ✓ Produced the 18th annual Harvest Festival in 2017, including a Water Reliability Awards breakfast. Festival attendance reached approximately 1,700 community members, in which West Basin led tours for nearly 700 attendees.
- ✓ Successfully partnered in Metropolitan Water District's education programs; sponsored three high school Solar Cup teams and engaged over 500 students in the Water is Life art contest.
- ✓ Served more than 8,000 students in grades 3 - 12 with free water education programs.
- ✓ Continued to help facilitate the process to update the exhibits, conference rooms and educational facilities at the ECLWRF.



- ✓ Continued Water Reliability Program outreach to reach community members, including civic organizations, city officials and business organizations, as well as individuals in the service area. Increased focus on the draft environmental impact report (EIR) process regarding the potential ocean water desalination project to diversify the District water supply portfolio.
- ✓ Offered free, public water education programs including: public and school tours of the ECLWRF; a speakers bureau; a new Lunch and Learn series that launched in February 2018; and continued operation of the Water Education Center (WEC) in Redondo Beach, Calif.

## Environmental Stewardship

### **Strategy 5.2: Continue to gain environmental community support for West Basin programs**

- ✓ Partnered with the South Bay Chapter of the Surfrider Foundation to provide greater support for its local Teach & Test Program
- ✓ Sponsored the SEA Lab traveling tidepool vehicle upgrades for improved exhibits.

### **Strategy 5.5: Engage and inform neighbors in areas where the District maintains facilities**

- ✓ Conducted an informational outreach campaign, including hosting two public meetings, to increase public engagement regarding the draft environmental impact report on the potential desalination project.

## FY 2018-19 Strategies

### Customer Service

#### **Strategy 4.1: Build community trust**

- ▶ Implement new communications plan; including strategies and tactics to highlight District recycled water facility enhancements, accomplishments and milestones for maximizing water reuse.
- ▶ Increase balanced, positive media coverage and social media presence regarding current issues facing the water industry and West Basin.

### **Strategy 4.2: Ensure recycled water client and customer agency satisfaction**

- ▶ Outreach to key stakeholders in the service area to keep them informed about District programs that help achieve the organization's mission and provide resources to the service area community.

### **Strategy 4.4: Promote outreach and education programs**

- ▶ Provide quality education programs for grades 3 - 12, including the enhancement of educational information on the District website and participation in Solar Cup.
- ▶ Complete the renovation of the interpretive exhibits and educational facilities at the ECLWRF; and decommission the WEC.
- ▶ Host the annual Water Harvest festival in 2018, in a modified way given ECLWRF enhancements, to continue to provide the community with informative, water and environmental stewardship related information and resources.

## **Environmental Stewardship**

### **Strategy 5.2: Continue to gain environmental community support for West Basin programs**

- ▶ Consider potential partnerships or collaborations with local, environmental non-profit groups to enhance in-class, water and sustainability education programs.



Water Recycling Tour



## Conservation

The Conservation Program is an essential strategy of West Basin to manage demand and diversify its water portfolio. The program budget represents the staffing and direct costs to deliver devices and demonstrate water efficiency to the service area residents and businesses. West Basin's success in delivering this message is through the collaboration with our cities and customer agencies.

In Fiscal Year 2017-18, and with the support of a grant from the United States Bureau of Reclamation (Reclamation), West Basin began the process of updating its 2010-2015 WUE. Staff held several workshops with its customer agencies and other stakeholders to evaluate the successes and challenges of its current programs, to meet current water conservation mandates and regulations, and to develop new strategies and programs to achieve urban water supplier water use efficiency targets. The next Plan will provide a 3-5 year roadmap for long-term water use efficiency and customer agency support.

West Basin continues to seek outside funding through partnerships with federal, state and local agencies. Grants are used to leverage West Basin program funding to initiate and expand water use efficiency programs and provide greater value to residents and businesses in the West Basin service area. In total, an estimated 70% of West Basin's conservation budget is funded by outside grants that help West Basin to keep rates low.

### Personnel - Full Time Equivalent (FTE)

FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
Actual FTE	Actual FTE	Projected FTE	Budget FTE	Budget FTE
1.91	3.44	3.38	3.02	2.99



## Operating Budget

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
	Actual	Actual	Projected	Budget	Budget
Labor and Benefits	\$ 221,881	\$ 548,524	\$ 506,330	\$ 556,437	\$ 607,829
Overhead	127,055	268,881	268,300	294,028	329,249
Conservation	791,605	596,146	614,483	1,963,526	2,145,163
<b>Total Conservation</b>	<b>\$ 1,140,541</b>	<b>\$ 1,413,551</b>	<b>\$ 1,389,113</b>	<b>\$ 2,813,991</b>	<b>\$ 3,082,241</b>

During Fiscal Year 2017-2018, as California's extended drought came to a temporary end, the California State Legislature began working towards meeting Governor Brown's call to "Make Conservation a California Way of Life." Throughout this effort, and into the 2018 Legislative Session, West Basin staff will continue to track these efforts and incorporate ways to assist its customer agencies.

Due to the popularity of West Basin's rain barrel distribution program and greywater classes, West Basin has increased its funding to help with the marketing of these popular programs. Staff is currently developing three new programs, 1) Malibu and Topanga Smart, 2) Disadvantaged Communities Water-Energy Savings Initiative Program, and 3) Cash for Kitchens, all three will launch in the summer of 2018.

## FY 2017-18 Accomplishments

### Water Supply Reliability

#### Strategy 1.2: Increase supply diversification by promoting conservation

- Successfully completed five (5) free Rain Barrel Distribution Events and distributed 2,000 rain barrels.
- Implemented five (5) Rainwater/Greywater classes and five (5) Greywater Design Workshops, free through public workshops.
- Provided nearly 50 residents and large landscape facilities with free landscape surveys.
- Conducted over 100 Cash for Kitchens audits with assistance from the South Bay Environmental Services Center and Hastings & Co.



- ✓ Developed a new Ocean Friendly Garden maintenance program to help maintain and protect West Basin's investment of 16 demonstration gardens.
- ✓ Conducted six (6) California Friendly Landscape Training, Turf Removal, and "Hands-on-Workshops" and classes.
- ✓ Continue development of the new Malibu Smart & Topanga Smart water efficiency program.

## Sound Financial and Resource Management

### **Strategy 2.6: Operate cost-efficiently and effectively, with robust internal controls**

- ✓ Awarded over \$800,000 from the Department of Water Resources (DWR) for two new water efficiency programs; 1) Cash for Kitchens - Direct installation of high-efficiency equipment in restaurants, and 2) a High-Efficiency Clothes Washer direct installation program for Disadvantaged Communities.

## Customer Service

### **Strategy 4.4: Promote outreach and education programs**

- ✓ Implemented various water efficiency and outreach programs in partnership with its local cities and water retailers.
- ✓ Represented and promoted West Basin's programs at over 100 community events in partnership with the South Bay Environmental Services Center.
- ✓ Continued to enhance West Basin' Water Conservation microsite by adding additional programs and resources to better assist the public in learning about and participating in West Basin's water conservation programs.

## Environmental Stewardship

### **Strategy 5.2: Continue to gain environmental community support for West Basin programs**

- ✓ Partnered with several environmental organizations in the development and implementation of its water efficiency programs.
- ✓ Attended the monthly Malibu Area Conservation Coalition (MACC) meeting.

- ✓ Attended the monthly South Bay Environmental Services Center Partners' Meeting.
- ✓ Rehabilitated the Donald L. Dear headquarters demonstration garden with new plantings and removal of invasive plants and updated the demonstration garden at the Edward C. Little Water Recycling Facility with new plantings.
- ✓ Completed three demonstration gardens in the cities of West Hollywood, Gardena and Inglewood.

## FY 2018-19 Strategies

### Water Supply Reliability

#### **Strategy 1.2: Increase supply diversification by promoting conservation**

- ▶ Finalize West Basin's long-term Water Use Efficiency Master Plan.
- ▶ Launch the new Malibu Smart and Topanga Smart Program.
- ▶ Launch two new DWR Water-Energy grant funded programs; 1) Cash for Kitchens - Direct Installation Program and 2) Disadvantaged Area Community (DAC) Water and Energy Savings Initiative Program.
- ▶ Continue to seek federal and state grant funding for new water efficiency programs.
- ▶ Continue working with the energy sector on the water-energy nexus and the embedded energy savings in water conservation.

### Customer Service

#### **Strategy 4.4: Promote outreach and education programs**

- ▶ Continue to represent and promote West Basin's programs at community events in partnership with the South Bay Environmental Services Center.
- ▶ Support West Basin's retail customer agencies in complying with state mandates and new standards for water use efficiency.
- ▶ Continue to provide the public with water conservation and educational programs and promote West Basin's new water conservation microsite.



## Environmental Stewardship

### Strategy 5.2: Continue to gain environmental community support for West Basin programs

- ▶ Continue to gain environmental and community support in the development and implementation of our water efficiency programs.
- ▶ Continue to partner with environmental agencies in the distribution of rain barrels and with providing free rainwater/greywater public workshops.



Students tour the ECLWRF.

## Water Quality Monitoring Program

West Basin administers the Water Quality Monitoring Program for two of its potable water purveyors – City of Manhattan Beach and City of Inglewood. Program activities include compliance sample scheduling, contracting wellhead sampling, UCMR coordination, laboratory services, reviewing water quality data for compliance, maintaining water quality databases, and preparing compliance or non-compliance reports for regulators. The program is designed for West Basin staff to help ensure purveyor wellhead sampling compliance.

### Personnel - Full Time Equivalents (FTE)

FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
Actual FTE	Actual FTE	Projected FTE	Budget FTE	Budget FTE
0.02	0.02	0.04	0.03	0.03

### Operating Budget

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
	Actual	Actual	Projected	Budget	Budget
Labor and Benefits	\$ 2,926	\$ 3,080	\$ 6,460	\$ 5,644	\$ 5,683
Overhead	1,551	1,446	3,180	2,149	2,617
Monitoring Program	3,257	4,669	6,600	3,400	25,900
<b>Title 22 Monitoring</b>	<b>\$ 7,734</b>	<b>\$ 9,195</b>	<b>\$ 16,240</b>	<b>\$ 11,193</b>	<b>\$ 34,200</b>



Monitoring program costs will vary each year depending on the lab analyses that are required by state and federal regulations. For the fiscal year 2018-19, the federal regulators have a new temporary water testing program that has increased the cost of the program. Participating retailers reimburse West Basin for all lab sampling and analytical costs.

## FY 2017-18 Accomplishments

### Water Quality

#### **Strategy 3.1: Achieve and maintain recycled water client satisfaction**

- ✓ Completed annual customer water quality reports for participating retailers both purveyors served by the program were in compliance with the Department of Drinking Water requirements for a public water system.

#### **Strategy 3.3: Meet permit and contractual water quality requirements**

- ✓ Completed laboratory services required to comply with Federal Safe Drinking Water Act and California Title 22 Drinking Water regulations such as analyses of all inorganic, organic compounds, and radioactivity.

### Customer Service

#### **Strategy 4.2: Ensure recycled water client and customer agency satisfaction**

- ✓ Provided purveyor workshops to help coordinate between water companies on important water quality and compliance issues.
- ✓ Helped purveyors establish sampling plans and approvals from the EPA for the Unregulated Contaminant Monitoring Requirement (UCMR) Program.

## FY 2018-19 Strategies

### Water Quality

#### Strategy 3.1: Achieve and maintain recycled water client satisfaction

- ▶ Complete annual customer water quality reports for participating retailers.
- ▶ Coordinate with the contract lab to ensure UCMR sampling in the next fiscal year is completed successfully.

#### Strategy 3.3: Meet permit and contractual water quality requirements

- ▶ Complete laboratory services required to comply with Federal Safe Drinking Water Act and California Title 22 Drinking Water regulations such as analyses of all inorganic, organic compounds, and radioactivity.

### Customer Services

#### Strategy 4.2: Ensure recycled water client and customer agency satisfaction

- ▶ Provide purveyor workshops to help coordinate between water companies on important water quality and compliance issues.
- ▶ Maintain the quality service to the purveyors with more frequent communication, scheduled check-ins by staff at West Basin, updating contact lists for quicker response.



Students learn about water recycling at the ECLWRF.







# Section 8 Supplemental Information





## Capital Improvement Program

To effectively respond to the needs of its various water supply systems, West Basin administers a Capital Improvement Program (CIP) that focus on the installation of new infrastructure and equipment, or the repair and restoration of existing assets. The majority of West Basin's infrastructure constitutes its Recycled Water system, but West Basin also owns a groundwater desalter (Marvin Brewer Desalter), and its headquarters building (Donald L Dear Building). A comprehensive recycled water Capital Implementation Master Plan (CIMP) is used as a guide to best meet long-term planning and reliability objectives for the recycled water system. In general, the West Basin's CIP projects seek to support the following objectives:

- The addition of future recycled water customers,
- Safeguarding recycled water system capacity and reliability,
- Preserving water quality obligations,
- Responding to changing regulatory requirements

## New Infrastructure

New infrastructure and equipment are added to the recycled water system for reasons including the following:

- Increasing customer connections through distribution system expansions and customer lateral construction.
- Increasing system capacity through expansion of existing treatment systems or inclusion of new treatment systems.
- Addressing water quality or regulatory requirements with new treatment technologies, unit processes, or equipment.





## Refurbishment & Replacement Program (R&R)

With an aging infrastructure, the refurbishment and replacement of existing equipment and systems is critical to long term achievement of quality and capacity goals. For this reason, West Basin's capital improvement program includes an R&R component intended to extend the useful life of existing facilities and equipment.

In this fiscal year, West Basin has continued to take an active approach to replace and refurbish critical parts of the aging infrastructure that provides recycled water to our customers. By undertaking this large replacement and refurbishment effort, West Basin hopes to continue to enhance the recycled water process, provide reliability to the customers and implement cost savings through a more efficient operation. To assist in this effort, West Basin is working with a consultant to identify, prioritize and plan for these improvements.

## Project Implementation

Every project delivered by West Basin is the result of rigorous planning and detailed design before construction. This not only ensures that projects stay on schedule and within budget, but it also guarantees high quality deliverables.

### Planning

Feasibility studies are undertaken in order to assess the viability of the proposed project. In general, these studies will assess five areas of feasibility; technical feasibility, economic feasibility, legal feasibility, operational feasibility, and schedule feasibility.

### Design

Once a project has been identified as feasible, West Basin may move it into the design phase. The designers will define the project through detailed specification documents and construction drawings. The final deliverable from the design phase is the Ready-To-Advertise bid package. This package is a complete design (design analysis, specifications, and drawings), including annotated design submittal review comments that answer and/or incorporate review comments resulting from the review of the final design submittal.



## Construction

The majority of West Basin's construction projects are considered Public Works Construction Projects. Public works in general means:

- Construction, alteration, demolition, installation, or repair work done under contract and paid in whole or in part out of public funds.
- It can include preconstruction and post-construction activities related to a public works project.
- For a full definition of public works refer to Labor Code section 1720.

Anyone working on a public works project must be paid prevailing wages as determined by the Department of Industrial Relations (DIR). Projects of \$30,000 or more must meet DIR's apprenticeship requirements. Failure to comply with public works requirements can result in civil penalties, criminal prosecution, or both.

## Types of Projects

### Recycled Water Pipelines & Laterals

New pipeline alignments and customer laterals are necessary to expand the system. West Basin works ceaselessly to find ways in which to partner with potential customers and begin the planning, design and construction of new laterals which will result in increased recycled water demand, thereby further lowering our future reliance on imported water. West Basin's fiscal budget has benefited from financial support for the construction of recycled water pipelines and customer connections that will be funded through state (California's Proposition 84) and federal programs (United States Bureau of



of Reclamation, Army Corp of Engineers), and even local partnerships (cities, water retailers, and customers). Examples of these types of projects included in this fiscal year's budget are shown below. These projects are in various stages of the implementation process.



- Dominguez Technology Center RW Retrofit: The project will deliver recycled water to more than thirty customer parcels within the Dominguez Technology Center located in the city of Carson.
- Manhattan Village Homeowners Association RW Pipeline: The project will deliver water to the Manhattan Village Homeowners Association located in the city of Manhattan Beach.
- Kenneth Hahn Park RW Pipeline Project: The project will expand the recycled water distribution system to deliver water to the Kenneth Hahn State Park and surrounding region, including areas of Baldwin Hills and Culver City.
- Palos Verdes RW Pipeline Project: The project will expand the recycled water distribution system to serve the Palos Verdes Golf Club and several customers within the city of Torrance.

**Customer Development Pipelines & Laterals**

	<b>FY 2018-19</b>
Dominguez Technology Center RW Retrofit	\$ 105,600
Manhattan Village HOA RW Pipeline	1,488,700
El Segundo Recycled Water Project	596,548
Kenneth Hahn Park Recycled Water Pipeline Project	891,040
Palos Verdes Recycled Water Pipeline Project	2,812,986
<b>Total</b>	<b>\$ 5,894,874</b>



Edward C. Little Water Recycling Facility Construction

## Treatment Plant Reliability and Facility Improvements

Within each of West Basin's treatment facilities, there are more than 30 unit-treatment systems dedicated to producing West Basin's five designer waters. Treatment plant expansions range from the addition of new unit process for redundancy or reliability, or a wholesale facility expansion intended to increase the treatment capacity of the system. Examples of these types of projects included in this fiscal year's budget are shown below. These projects are in various stages of the implementation process.

- **ECLWRF Pall Microfiltration (MF) Expansion Project:** This project will expand the existing Pall microfiltration system by 33%, adding a total of approximately 4 Millions of Gallons per Day (MGD) for redundancy and reliability to the Barrier and Chevron treatment systems.
- **JMMCRWRP Phase II Expansion - MF:** The project will replace the microfiltration system located at the JMMCRWRP, which has reached the end of its useful life. The new system will produce 5.9 MGD of microfiltered effluent as pretreatment to the reverse osmosis system feeding the Tesoro Boiler Feed system.
- **HSEPS Improvements Project:** The project will expand the capacity of the pump station to 70 MGD, as well as add redundancy and reliability to the pumps and electrical supply.
- **ECLWRF Visitor Center Renovation Project:** The renovation effort includes expanding the existing large conference room, updating exhibits, upgrading audio and video equipment, upgrading the Heating Ventilation and Air Conditioning (HVAC) system, modernizing restrooms, modernizing the lobby and entry way, modernizing the front offices, relocating the small conference room, painting the exterior of the building, modernizing the existing parking lot, and constructing a new parking lot.

### **New Treatment Assets & Infrastructure**

ECLWRF Pall MF Expansion Project	\$ 5,338,922
SCADA System Integration System	346,815
JMMCRWRP Phase II Expansion - MF	8,839,612
HSEPS Improvements Project	4,066,000
Inglewood Disinfection / NFL Stadium	1,125,818
ECLWRF Visitor Center Renovation Project	11,183,000
Capital Improvement Program Master Plan	937,503
Standard Specification Update and Development	180,000

**Total**

### **FY 2018-19**

**\$ 32,017,670**



## Refurbishments and Replacements of Existing Facilities

Because West Basin has a substantial range of assets of varying ages, refurbishment and replacement projects are a critical part of ensuring the health and longevity of West Basin's infrastructure. These types of projects can include, but are not limited to, simple replacement or refurbishment for equipment such as pipes, pumps, tanks, instrumentation, or treatment process elements.



The District's existing infrastructure requires repair and maintenance on a regular basis. Replacement or refurbishment cost to the existing capital assets under certain circumstances may be capitalized. The determination of whether the expenditure is an expense or capital asset requires knowledge of the repair's effect on the capital asset. To be considered as a capital asset, the following conditions must be met:

- Total repair or refurbishment cost of one job has to be \$10,000 or more, and;
- After refurbishment, the remaining useful life of the existing asset must be extended by at least three years.

When the above conditions are not met, the cost of repair or refurbishment will be considered as operations and maintenance expenses.

Examples of these types of projects included in this fiscal year's budget are shown below. These projects are in various stages of the implementation process.

- Phase III MF Clearwell Rehabilitation Project: The project will perform surface preparation and correction to the concrete basin that stores microfiltration effluent, as well as application of a substrate coating to protect the concrete from the corrosive properties of the water within.
- RW Distribution System Cathodic Protection Project: The project includes condition assessment of cathodic protection needs throughout the entire distribution system. As needed, new cathodic protection systems will be designed and installed to ensure the distribution system buried pipelines are protected against corrosion that can occur due to soil conditions.



- ECLWRF Solids Handling Improvement Project: The project will evaluate the solids handling treatment process at the ECLWRF and provide improvements to ensure reliability, redundancy, and longevity to the treatment system.
- Brewer Desalter Well Rehabilitation Project: The project includes R&R of the groundwater well, pump, and variable frequency drive feeding the brackish groundwater desalter to ensure design capacity of the facility is achieved.

**R&R Projects**

Phase III MF Clearwell Rehabilitation Project	\$ 1,305,497
RW Distribution System Cathodic Protection Project	3,437,850
All Sites Chemical Storage Improvements	2,727,489
MF Membrane Replacement	1,012,500
RO Membrane Replacement	1,206,000
Misc. Facility R&R	1,000,000
Brewer Desalter Well Rehabilitation Project	1,245,500
ECLWRF Solids Handling Improvement Project	1,106,000
Fire Alarm System Improvements Project	1,287,959

**Total** **\$ 14,328,795**

## Ocean Water Desalination

West Basin utilized its extensive treatment experience and learned from other desalination facilities around the world to develop an approach that will effectively and efficiently manage a 20 to 60 MGD ocean water desalination project.

West Basin is currently conducting an environmental review to evaluate the possible impacts and mitigation measures of a potential ocean water desalination facility to produce drinking water, in accordance with the California Environmental Quality Act (CEQA).

West Basin has included the cost of addressing public comments and finalizing the Environmental Impact Report (EIR), potential additional studies that may result from public comments, and site control investigation support.



**Ocean Water Desalination**

- EIR Preparation and Certification
- Program Planning and Support Services
- Site Reservation and Support Services
- Legal Services

**Total**

**FY 2018-19**

- \$ 656,198
- 877,995
- 225,000
- 339,429

**\$ 2,098,622**

## Other Projects

West Basin also has a number of small capital projects that support the organization and are shown in the table below. The West Basin Project Administration cost represents the direct labor and associated allocated costs to support the CIP program.

**Other Projects**

- West Basin Project Administration
- Job Order Contract Development
- Labor Compliance Program
- Contract Operator CIP Labor
- Technology Projects
- Project Management System

**Total**

**FY 2018-19**

- \$ 5,264,870
- 129,500
- 120,000
- 500,000
- 250,000
- 200,000

**\$ 6,464,370**

## Project Financing

During the budget development process, West Basin staff reviews its upcoming capital improvement projects and determines how each project will be funded. West Basin recognizes that funding for the capital improvement projects can be significant and funding may need to come from multiple sources. When determining the source of funding, West Basin considers several factors such as the useful life of the future asset, the anticipated cost of the project, if there are potential outside funding through grants or customers, and the associated timing. West Basin continues to work with its customers inside and outside its service area to find mutually beneficial ways to finance the recycled water system expansion.

Understanding that some capital assets have a short useful life, West Basin has determined that these projects will be funded through West Basin's PAYGO designated fund. Another financing option is for West Basin to pay for construction upfront and immediately invoice the customer either monthly as cost are incurred or at the completion of construction when all costs have been reflected. A third financing option is for West Basin to issue debt either through long-term debt or to obtain a state loan. The term of the financing generally matches or is less than the estimated useful life of the capital project. More recently West Basin has utilized its Commercial Paper program to finance capital projects as the interest rate is low, and will refund the line with long-term debt when the market is favorable.

Expansion projects will often be debt financed as they typically have a long useful life and are expensive to construct. Repayment for these financings may come through commodity rates, a local resource program or through a fixed payment from a customer.

Costs for ocean-water desalination have been included through FY 2018-19 and include the cost for completion of the Final EIR and Response-to-Comments for certification by the Board of Directors, program planning, and site option analysis. The full cost of the project will be incorporated into future CIP once final commitment and approval by the West Basin Board of Directors for ocean-water desalination is made.

The recycled water acre-feet that will be produced from the reliability projects and the revenue from the sale of the recycled water have been included in the Projected Operating Results in the Fiscal Year 2018-19 budget and the next five years as shown in the "Financial Highlights and Forecast" section. Similarly, the additional annual operating costs and debt service have also been increased for the projected recycled water sales related to these projects. Typically the additional cost may be either minimal for certain projects or West Basin determines the additional variable costs associated with new acre-feet and includes those costs in the annual operating costs.



## Financing Sources for Fiscal Year 2018-2019

The total amount of CIP expected to be expended in FY 2018-19 is \$60,804,330. The CIP projects outlined to begin in FY 2018-19 will be submitted individually to the Board of Directors for authorization and funding during the fiscal year.

The following table depicts the sources of funds that will be used to pay for the anticipated CIP projects during FY 2018-19. West Basin anticipates spending approximately \$17.8 million from its designated funds to pay for the various R&R projects and towards the ocean water desalination costs. The Commercial Paper program will allow West Basin to finance the cost of the numerous customer development projects and all of the treatment plant expansion and reliability projects. In FY 2016-17 West Basin received confirmation from the State Water Resources Control Board awarding a low-interest loan to assist in funding an expansion at the Tesoro Refinery. In addition to the state loan, West Basin has been notified it will receive a grant for up to \$8 million.

### Funding Source

### Project Cost

PAYGO	\$ 17,806,918
Commercial Paper Line	34,157,801
Sate Loan	8,839,612
<b>Total</b>	<b>\$ 60,804,331</b>



The following table summarizes the planned expenditures for FY 2018-2019 and the next four years.

<b>Project Description</b>	<b>FY 2018-19</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2021-22</b>
Customer Development Pipelines & Laterals	\$5,894,874	\$8,240,510	\$200,000	\$200,000	\$200,000
New Treatment Assets & Infrastructure	32,017,670	6,898,152	13,855,385	11,361,154	4,644,231
Refurbishments and Replacements	14,328,795	24,391,188	34,203,465	28,053,437	37,713,151
Ocean Water Desalination	2,098,622	656,063	—	—	—
Other Projects	6,464,370	6,192,816	6,355,501	6,523,066	6,695,658
<b>Total</b>	<b>\$60,804,331</b>	<b>\$46,378,729</b>	<b>\$54,614,351</b>	<b>\$46,137,657</b>	<b>49,253,040</b>

The financial impact from West Basin's five-year capital projects have been incorporated into the five-year "Projected Operating Results" table shown in Section 3. West Basin also recognizes that its anticipated capital spending will impact future draws from the Commercial Paper Program, the necessity of generating sufficient PAYGO funds, and its long-term financing requirements. The increasing number of projects is critical for reliability and expanding on our recycled water deliveries but also to create future operating efficiencies

### Personnel - Full Time Equivalentents (FTE)

<b>FY 2015-16 Actual FTE</b>	<b>FY 2016-17 Actual FTE</b>	<b>FY 2017-2018 Projected FTE</b>	<b>FY 2017-2018 Budget FTE</b>	<b>FY 2018-19 Budget FTE</b>
11.35	14.58	14.02	20.27	18.67



## FY 2017-2018 Accomplishments

Following the West Basin Board of Directors' Strategic Business Plan, West Basin staff accomplished the following projects in alignment with the District's goals and objectives.

### Water Supply Reliability

#### Strategy 1.4: Increase supply diversification by promoting water recycling

- ✓ Completed CEQA and 30% design for the Palos Verdes Recycled Water Pipeline Project.
- ✓ Completed the ECLWRF Phase IV Microfiltration Optimization Project, to increase annual Barrier water production and ensure reliability to both the Barrier and Chevron Boiler feed systems.
- ✓ Began design of the ECLWRF Phase V Microfiltration Expansion Project, to increase annual Barrier water production and ensure reliability to both the Barrier and Chevron Boiler feed systems.
- ✓ Began design of the Phase III Clearwell R&R Project to ensure continued and reliable production of the Chevron Boiler Feed System.
- ✓ Completed the design of the Juanita Millender-MacDonald Carson Regional Water Recycling Plant expansion, which is intended to deliver approximately 2,000 AFY more recycled water to the Tesoro Refinery for cooling tower applications, as well as improve reliability of the microfiltration system used in the boiler feed treatment system.
- ✓ Began construction of the Hyperion Effluent Pump Station Expansion and Secondary Electrical Feed Project. The project will provide additional capacity to serve future recycled water demands and add a second power source to the existing Hyperion Effluent Pump Station to improve reliability and redundancy to West Basin's overall recycled water supply system.
- ✓ Completed the construction of the Northrop Grumman Recycled Water Service Pipeline to deliver approximately 78 AFY of recycled water for irrigation and cooling tower use at the campus located on the southwest quadrant of the intersection between Aviation Boulevard and Marine Avenue.



### **Strategy 1.5: Investigate ocean water desalination as a supply opportunity**

- ✓ Completed a Draft Environmental Impact Report (EIR) as well as supporting documents as part of California's Environmental Quality Act (CEQA) to quantify all impacts associated with the construction and operation of an ocean water desalination facility and the auxiliary facilities. The Draft EIR was released on March 27, 2018 for public viewing and comments for 60 days.
- ✓ Completed the Preliminary Analysis of the Planning and Development (pAPD) for the ocean water desalination program, evaluating alternative project delivery methods that could be used in the planning, design, and construction of an ocean water desalination facility.

## Sound Financial and Resource Management

### **Strategy 2.1: Provide effective overall capital facility asset management through the application of industry best-practices**

- ✓ Began R&R Program Development to ensure timely and efficient implementation of Recycled Water R&R projects based on asset condition and need.

### **Strategy 2.2: Maintain facilities to manage and minimize risk of failure and liability exposure**

- ✓ Completed several R&R project designs including: Chlorine Contact Basin Rehabilitation Project, Phase III Clearwell Rehabilitation, and Chemical Containment R&R Project.
- ✓ Began construction of the Hyperion Effluent Pump Station Expansion and Secondary Electrical Feed Project. The pump station project will provide additional capacity to serve future recycled water demands and add a second power source to the existing Hyperion Effluent Pump Station to improve reliability and redundancy to West Basin's overall recycled water supply system.
- ✓ Completed decommissioning of the Ocean Water Desalination Demonstration Project.
- ✓ Implemented Microfiltration Taskforce improvements to support several treatment processes, including decommissioning Phase II microfiltration system, replacing Phase IV submersible microfiltration membranes and implementing improvements, and installing two Pall mobile trailers as a "bridge" to supplement lost production.
- ✓ Installed a flowmeter to capture all "westside" LADWP demand.

- ✓ Completed the migration of old CMMS software, Hansen 7.7 to the new Infor IPS 8.5.
- ✓ Completed installation of two mobile trailers to supplement microfiltration production.
- ✓ Completed the C. Marvin Brewer Desalter Well Rehabilitation with an anticipated start up in May 2018.

### **Strategy 2.3: Develop partnerships with public and private entities to facilitate capital asset development and implementation**

- ✓ Completed feasibility studies for expansions of West Basin's recycled water distribution system to the Kenneth Hahn State Park, Palos Verdes Peninsula, and the City of Torrance, as well as identified project partners for the future design and construction.
- ✓ Completed the construction of the Carson Mall Lateral Phase II project. Through partial funding by the US Army Corp of Engineers, the project will deliver recycled water into new areas within the City of Carson.
- ✓ Completed construction of the South Gardena Lateral. This lateral was partially funded by West Basin, Los Angeles Department of Water and Power (LADWP) as well as a state grant from the Department of Water Resources.
- ✓ Completed three of seven customer pipeline and connection construction projects with grant funding from California's Proposition 84 grant funding.

### **Strategy 2.6: Operate cost-efficiently and effectively, with robust internal controls**

- ✓ Completed the design and started the construction of the ECLWRF Phase IV Microfiltration Optimization project to increase annual Barrier water production and ensure reliability to both the Barrier and Chevron Boiler feed systems. This project will also reduce the operating costs of the Phase IV microfiltration system.



## Water Quality

### Strategy 3.1: Increase control over source water quality

- ✓ Completed the ECLWRF Phase IV Microfiltration Optimization project, to increase annual Barrier water production and ensure reliability to both the Barrier and Chevron Boiler feed systems.
- ✓ Completed the design and started the construction of the ECLWRF Phase V Microfiltration Expansion Project, to increase annual Barrier water production and ensure reliability to both the Barrier and Chevron Boiler feed systems.
- ✓ Began design of the Phase III Clearwell R&R Project to ensure continued and reliable production of the Chevron Boiler Feed System.

### Strategy 3.3: Meet permit and contractual water quality requirements

- ✓ Completed the design of the Chlorine Contact Basin Rehabilitation Project to ensure adequate chlorine contact time for disinfected tertiary recycled water, per West Basin Title 22 permit issued by the Los Angeles Regional Water Quality Control Board.
- ✓ Continued construction of the Reverse Osmosis (RO) Clean-in-Place Waste Discharge project to allow RO cleaning chemicals to be discharged to the sewer rather than being combined with RO brine and discharged to Hyperion Treatment Plant's ocean outfall.

## Environmental Stewardship

### Strategy 5.2: Continue to gain environmental community support for West Basin programs

- ✓ Completed design of the Chemical Containment R&R Project to ensure chemicals used in West Basin's recycled water program are prevented thoroughly contained and prevented from release into the environment.
- ✓ Continued construction of the RO Clean-in-Place Waste Discharge project to allow RO cleaning chemicals to be discharged to the sewer rather than being combined with RO brine and discharged to Hyperion Treatment Plant's ocean outfall.



## FY 2018-2019 Strategies Water Supply Reliability

### Strategy 1.4: Increase supply diversification by promoting water recycling

- ▶ Complete CEQA and preliminary design for expansions of West Basin's recycled water distribution system to the Kenneth Hahn State Park.
- ▶ Begin construction to improve reliability at the JMMCRWRF of the microfiltration system used in the boiler feed treatment system. Complete design and begin construction of the ECLWRF Phase V Microfiltration expansion project, to increase annual Barrier water production and ensure reliability to both the Barrier and Chevron Boiler feed systems.
- ▶ Complete construction of the Hyperion Effluent Pump Station Expansion and Secondary Electrical Feed Project. The pump station project will provide additional capacity to serve future recycled water demands and add a second power source to the existing Hyperion Effluent Pump Station to improve reliability and redundancy to West Basin's overall recycled water supply system.

### Strategy 1.5: Investigate ocean water desalination as a supply opportunity

- ▶ Complete the Final Environmental Impact Report and Response-to-Comments for West Basin Board Certification as part of California's Environmental Quality Act (CEQA) to quantify all impacts associated with the development and construction of an ocean water desalination project.
- ▶ Evaluate the potential impacts on water rates based on the findings presented in the Preliminary Analysis of the Planning and Development (pAPD) for the ocean water desalination program.



## Sound Financial and Resource Management

### **Strategy 2.1: Provide effective overall capital facility asset management through the application of industry best-practices**

- ▶ Implement R&R Program to ensure timely and efficient implementation of Recycled Water R&R projects based on asset condition and need.
- ▶ Complete the design of the Solids Handling System Rehabilitation Project to ensure reliability of West Basin's ability to process biosolids removed from the Hyperion Secondary Effluent.
- ▶ Complete construction of the Phase III Clearwell R&R Project to ensure continued and reliable production of the Chevron Boiler Feed System.
- ▶ Begin several R&R projects including: Torrance Refinery Water Recycling Plant Waste Discharge Capacity Increase Project, HSEPS R&R Project, Facility-Wide Surge Tank Project, and Welded Steel Storage Tank Rehabilitation Project.
- ▶ Complete construction of the Hyperion Effluent Pump Station Expansion and Secondary Electrical Feed Project. The pump station project will provide additional capacity to serve future recycled water demands and add a second power source to the existing Hyperion Effluent Pump Station to improve reliability and redundancy to West Basin's overall recycled water supply system.





### **Strategy 2.2: Maintain facilities to manage and minimize risk of failure and liability exposure**

- ▶ Continue the C. Marvin Brewer Desalter Improvement Project.

### **Strategy 2.3: Develop partnerships with public and private entities to facilitate capital asset development and implementation**

- ▶ Finalize MOU between project partners and begin construction of the Palos Verdes Recycled Water Pipeline Project.
- ▶ Negotiate agreement with project partners for the future design and construction for the Kenneth Hahn State Park.
- ▶ Complete remaining customer pipeline and connection construction projects with grant funding from California's Proposition 84 grant funding

## **Water Quality**

### **Strategy 3.3: Meet permit and contractual water quality requirements**

- ▶ Complete construction of the Chlorine Contact Basin Rehabilitation Project to ensure adequate chlorine contact time for disinfected tertiary recycled water, per West Basin Title 22 permit issued by the Los Angeles Regional Water Quality Control Board.
- ▶ Complete construction of the Reverse Osmosis (RO) Clean-in-Place Waste Discharge project to allow RO cleaning chemicals to be discharged to the sewer rather than being combined with RO brine and discharged to Hyperion Treatment Plant's ocean outfall.

## **Customer Services**

### **Strategy 4.1: Build community trust**

- ▶ Complete the construction of the Dominguez Tech Center Recycled Water Project to meet customer demand.



Edward C. Little Water Recycling Facility



## Organizational Memberships & Sponsorships

West Basin Municipal Water District (West Basin) engages with the community on many levels and maintains membership and sponsoring events with various organizations that provide platforms for discourse on topics such as environment, conservation, and education. Involvement with certain organizations also gives West Basin the ability to stay abreast of cutting-edge technology, current trends, and latest innovations. It also provides opportunities to speak to industry experts about issues consistent with West Basin’s mission.

### West Basin Municipal Water District Membership Budget

<b>Memberships</b>	<b>FY 2018 Budget</b>	<b>FY 2019 Budget</b>
Alliance for Water Efficiency	\$3,100	\$3,100
American Academy of Environmental Engineers and Scientists	6,000	-
American Membrane Technology Association	825	825
American Water Works Association	21,500	22,000
Association of California Water Agencies	28,000	28,000
Association of Metropolitan Water Agencies	-	10,085
CalDesal	5,000	5,000
California Association of Sanitation Agencies	855	855
California Special Districts Association	5,000	3,000
California Water Efficiency Partnership	8,000	8,000
<b>Chambers of Commerce</b>		
- Carson	450	450
- Culver City	350	350
- El Segundo	500	500
- Gardena Valley	600	600
- Greater Los Angeles African-American	500	500
- Harbor City / Harbor Gateway	175	175
- Hawthorne	300	300
- Hermosa Beach	300	300

- Lawndale	500	-
- LAX Coastal	340	340
- Lomita	425	-
- Los Angeles Area	875	900
- Malibu	400	375
- Manhattan Beach	650	650
- Palos Verdes Peninsula	600	630
- Redondo Beach	300	275
- Regional Hispanic	-	300
- Topanga	100	100
- Torrance	500	500
- West Hollywood	450	450
Climate Registry	1,200	1,200
Los Angeles Council of Professional Black Engineers	1,000	1,000
Los Angeles County Business Federation (BizFed)	5,000	5,000
National Water Research Institute	50,000	50,000
National Water Resources Association	350	-
So CA Alliance of Public Owned Treatment Works	6,000	6,000
Southern California Water Coalition	10,000	10,000
Southwest Membrane Operators Association	600	600
The Urban Water Institute, Inc.	1,250	1,250
The Water Research Foundation	25,000	50,000
Water Education Foundation	2,700	3,200
Water Research Foundation	28,000	-
WaterReuse Association	8,600	10,000
West Basin Water Association	500	800
<b>Memberships Total</b>	<b>\$227,095</b>	<b>\$227,910</b>



### Water Related Event Sponsorships

<u>Sponsorships</u>	<u>FY 2018 Budget</u>	<u>FY 2019 Budget</u>
Association of California Water Agencies Conference	-	\$6,500
CalDesal Annual Conference	1,500	1,500
CORO Annual Water Sustainability Conference	2,500	-
Friends of Ballona Wetlands Moonlight at the Marsh Event	3,000	3,000
Water Replenishment District Groundwater Festival	2,500	2,500
Heal the Bay Annual Event	5,000	5,000
Los Angeles Waterkeeper Annual Spring Luncheon	5,000	5,000
California Water Policy Annual Conference	1,500	1,500
South Bay Council of Governments Annual General Assembly	-	2,500
Southwest Membrane Operators Association Annual Symposium	1,500	1,500
Urban Water Institute Annual Water Conference	5,000	4,000
WaterReuse CA Annual Conference	3,500	3,500
Water Education for Latino Leaders Annual Conference	10,000	10,000
<b>Sponsorships Total</b>	<b>\$41,000</b>	<b>\$46,500</b>

Summarized descriptions of FY 2018-19 Organizational Memberships are listed on the following pages.



## Alliance For Water Efficiency (AWE)

**Orientation:** Policy/Technical

**Description:** The Alliance for Water Efficiency (AWE) is a national stakeholder-based non-profit organization dedicated to the efficient and sustainable use of water. Stakeholders include water agencies, non-profits, environmental organizations, and private companies.

**West Basin Involvement:** Staff attends local conferences presented by AWE.

**Value:** AWE provides access to information and resources drawn from agencies nationwide, specifically our efforts are enhanced by access to AWE's conservation modeling tool for developing local conservation master plans. AWE also provides direct technical support to members interested in water efficiency matters.

**Association Fee: \$3,100**

## American Membrane Technology Association

**Orientation:** Technical

**Description:** The American Membrane Technology Association is dedicated to developing and promoting the use of desalination and technology, encouraging cooperation and communication with governmental, institutional and private agencies in matters relating to desalination.

**West Basin Involvement:** Staff serves on the Board and has presented papers on West Basin projects at past conferences.

**Value:** Involvement in American Membrane Technology Association provides staff an opportunity to interact with other agencies involved in desalination and learn about the latest technologies.

**Association Fee: \$825**



## American Water Works Association (AWWA)

**Orientation:** Policy/Technical

**Description:** Established in 1881, the American Water Works Association is the largest nonprofit, scientific and educational association dedicated to managing and treating water, the world's most important resource. With approximately 50,000 members, AWWA provides solutions to improve public health, protect the environment, strengthen the economy and enhance our quality of life.

**West Basin Involvement:** West Basin Directors and staff regular attend meetings and conferences hosted by this organization. Issues including potable water, recycled water, and conservation are discussed. Staff also volunteers time by participating on Water Reuse and Membrane Processes Committees.

**Value:** AWWA provides valuable information to staff and Board Members on a variety of critical issues.

**Association Fee: \$22,000**

## Association of California Water Agencies (ACWA)

**Orientation:** Policy/Legislation

**Description:** ACWA is the largest and oldest association of public water agencies in California, functioning as an effective forum for developing consensus on statewide policy issues.

**West Basin Involvement:** Board and staff are involved in various advisory committees and attend two semi-annual conferences. A board member is appointed by the West Basin Board as a Region 8 representative.

**Value:** Directors and staff participate in ACWA forums that provide information on key statewide and industry issues that could impact West Basin.

**Association Fee: \$28,000**

## Association of Metropolitan Water Agencies

**Orientation:** Policy

**Description:** The Association of Metropolitan Water Agencies (AMWA) is an organization of the largest publicly owned drinking water systems in the United States. AMWA's membership serves more than 140 million Americans - from Alaska to Puerto Rico - with safe drinking water.

AMWA is the nation's only policy-making organization solely for metropolitan drinking water suppliers. The association represents the interests of these water systems by working with Congress and federal agencies to ensure federal laws and regulations protect public health and are cost-effective.

**West Basin Involvement:** West Basin Directors and General Manager would participate in conferences and forums.

**Value:** In the realm of utility management, AMWA provides programs, publications and services to help water suppliers be more effective, efficient and successful.

**Association Fee: \$10,085**

## CalDesal

**Orientation:** Policy/Legislation

**Description:** CalDesal is a non-profit organization comprised of public agencies and associates that see desalinated water key to meeting the State of California's water-supply needs. CalDesal is the first organization that is focused solely on advocating in Sacramento and throughout the State for legislation and regulatory action to streamline and facilitate the use of ocean and brackish groundwater desalination as a viable water supply.

**West Basin Involvement:** West Basin is a charter member and has a seat on the Board of Directors. Staff participates in conferences and attends legislative briefings, receives timely and informative publications on legislation and regulatory matters from CalDesal.

**Value:** West Basin is able to be aware and involved in crucial issues affecting the development of desalination projects.

**Association Fee: \$5,000**



## California Association of Sanitation Agencies (CASA)

**Orientation:** Policy/Technical

**Description:** CASA provides its members with current technical information as well as state and federal legislative advocacy and representation before the State Water Resources Control Board and other State entities on issues affecting sanitation agencies.

**West Basin Involvement:** West Basin receives timely and informative publications on legislation and regulatory matters from CASA related to water quality.

**Value:** West Basin is able to be aware and involved in crucial issues affecting sanitation agencies.

**Association Fee: \$855**

## California Special Districts Association (CSDA)

**Orientation:** Policy/Outreach

**Description:** The California Special Districts Association (CSDA) is a 501c(6), not-for-profit association that was formed in 1969 to promote good governance and improved core local services through professional development, advocacy, and other services for all types of independent special districts.

**West Basin Involvement:** West Basin receives timely and informative publications on advocacy and legislation matters from CSDA relevant to special districts throughout California.

**Value:** West Basin is able to be aware and involved in crucial issues affecting special districts.

**Association Fee: \$3,000**



## California Urban Water Conservation Council (CUWCC)

**Orientation:** Policy/Technical

**Description:** CUWCC consists of urban water agencies, environmental organizations with an interest in water and other interested parties such as non-profit and private companies that oversee the implementation of the 14 Best Management Practices within those agencies responsible for water management and develop firm conservation savings from these practices.

**West Basin Involvement:** Staff attends Residential and Commercial, Industrial & Institutional committee meetings, as well as the quarterly plenary meetings.

**Value:** Participation in CUWCC provides West Basin with direct input into conservation strategies impacting statewide water policy.

**Association Fee: \$8,000**

## The Climate Registry

**Orientation:** Technical

**Description:** The Climate Action Registry (Registry) is the premier voluntary greenhouse gas registry in North America. The Registry is a non-profit partnership developing an accurate, complete, consistent and transparent greenhouse gas emissions measurement protocol that is capable of supporting voluntary and mandatory greenhouse gas emission reporting policies for its members and reporters. It provides a verified set of greenhouse gas emissions data from its reporters supported by robust accounting and verification infrastructure.

**West Basin Involvement:** West Basin is a founding Reporter of the Registry and voluntarily reports West Basin's annual greenhouse gas emissions.

**Value:** West Basin benefits from participation in the Registry through its recognition as an environmental leader by identifying and managing our indirect and direct greenhouse gas emissions.

**Association Fee: \$1,200**



## Los Angeles Council of Black Professional Engineers

**Orientation:** Policy/Advocacy

**Description:** The Los Angeles Council of Black Professional Engineers helps advance the education, employment, and business opportunities of minority individuals. These aims are achieved through personal contact with students of all levels, curriculum advice, higher level education communication, employers' communication, and support and aid.

**West Basin Involvement:** West Basin Board and staff have participated in annual events and volunteered and student development programs throughout the year.

**Value:** Participation in this organization promotes water and the environment to the youth in West Basin's service area. It allows for increased awareness of water and conservation issues.

**Association Fee: \$1,000**

## Los Angeles County Business Federation (BIZFED)

**Orientation:** Advocacy

**Description:** BizFed unites more than 160 chambers, trade associations, minority business groups, economic development organizations and business improvement districts to speak out for a strong economy.

**West Basin Involvement:** West Basin Board and staff will have opportunities to understand the needs of the business community in the greater Los Angeles area. Serving on Boards and committees will help promote West Basin's mission in developing local eater supplies.

**Value:** Participation in this organization will allow West Basin to reach a large number of businesses and agencies that do work in the around West Basin's service area. Membership will facilitate outreach, collaboration, and education opportunities.

**Association Fee: \$5,000**

## National Water Research Institute (NWRI)

**Orientation:** Research/Technical

**Description:** The NWRI is a public-private partnership that promotes the protection, maintenance and restoration of water supplies through the development of cooperative research.

**West Basin Involvement:** West Basin Board appoints a board member and alternate to the NWRI Board. Staff presents research projects to the NWRI, receives funding and attends applicable meetings. NWRI provides Independent Advisory Panel services.

**Value:** NWRI provides funding for West Basin research projects.

**Association Fee: \$50,000**

## Southern California Alliance of Publicly Owned Treatment Works (SCAP)

**Orientation:** Policy

**Description:** SCAP was created in July 1992. It is an association of cities, special districts, and other public agencies formed to concentrate their resources to ensure the passage of reasonable local, state and federal regulations and legislation impacting publicly owned treatment facilities.

**West Basin Involvement:** West Basin receives SCAP publications and occasionally staff attends its conferences.

**Value:** As an organization, SCAP serves as a advocacy group for legislation that could negatively impact publicly owned treatment facilities, such as the Hyperion Wastewater Treatment Plant.

**Association Fee: \$6,000**



## Southern California Water Coalition (SCWC)

**Orientation:** Policy/Educational

**Description:** The Southern California Water COALITION is a non-profit, nonpartisan, public education partnership dedicated to informing Southern Californians about our water needs and our water resources. The goal of SCWC is to ensure an adequate, reliable, high-quality water supply statewide by maximizing California's water resources for the benefit of current and future generations through seminars and quarterly briefings.

**West Basin Involvement:** West Basin supports the organization's goals and objectives.

**Value:** SCWC seeks to educate business and government leaders and make available information to the public to support informed decisions on water issues, working towards a state consensus on water supply issues, imperative to our future needs.

**Association Fee:** \$10,000

## Southwest Membrane Operators Association (SWMOA)

**Orientation:** Technical

**Description:** The SWMOA is a non-profit organization comprised of operators and engineers from water agencies, private water companies, consultants, private industrial membrane users, and equipment manufacturers. Its goal is to provide training and education to membrane operators.

**West Basin Involvement:** West Basin staff attends meetings.

**Value:** West Basin benefits by encouraging more membrane system training for operators thereby enlarging the pool of operators familiar with membrane operations, by exchange of operating experience at other facilities, and by being kept abreast of state of the art in membrane technology.

**Association Fee:** \$600



## The Urban Water Institute (UWI)

**Orientation:** Outreach

**Description:** The mission of the UWI is to provide a non-partisan exchange of information regarding emerging technology and policy issues to the water resource industry in the Western United States.

**West Basin Involvement:** West Basin was a founding agency of UWI and appoints a Board member to the UWI Board. Staff attends conferences as presenters and attendees.

**Value:** West Basin benefits from information on emerging technology and public policy for water resources through a monthly newsletter and conferences that address local and Southern California water issues.

**Association Fee: \$1,250**

## The Water Research Foundation (WRF)

**Orientation:** Research/Technical

**Description:** The Water Research Foundation (WRF) is still affiliated with the oldest water association in the Americas, the American Water Works Association. WRF manages more than \$30 million per year of drinking water research in the areas of water quality, treatment, management, resources and health effects. The organization has combined with the WateReuse Research Foundation and Water Environment Research Foundation.

**West Basin Involvement:** Staff serves on Project Advisory Committees (PAC) as well as participating in studies with other utilities, universities, and research consultants to advance our knowledge in water quality and improve efficiencies in water resources.

**Value:** West Basin and its customers receive continuing research benefits in water quality issues.

**Association Fee: \$50,000**



## Water Education Foundation (WEF)

**Orientation:** Outreach

**Description:** The mission of WEF is to develop and implement education programs leading to a broader understanding of water issues and the resolution of water problems.

**West Basin Involvement:** Board members and staff attend the briefings and tours conducted by WEF.

**Value:** WEF assists West Basin in making information on water issues available to students, residents, Board members and staff.

**Association Fee: \$3,200**

## WaterReuse Association (WATEREUSE)

**Orientation:** Policy/Legislation/Technical

**Description:** WaterReuse promotes recycled water as a supplemental water supply for the state and works for the adoption of legislation and regulations that increase the safe use for recycled water through conferences, workshops and publications that exchange information and ideas between members and others involved in water recycling.

**West Basin Involvement:** Staff actively participates in WaterReuse committees and conferences and has a seat on the Board of Directors and often has its projects highlighted.

**Value:** WaterReuse is actively involved in local, state and federal level regulatory issues and legislation critical to West Basin's efforts to encourage and expand the use of recycled water locally.

**Association Fee: \$10,000**

## West Basin Water Association (WBWA)

**Orientation:** Outreach

**Description:** WBWA is composed of pumpers with water rights in the West Coast Basin and provides a forum to members to discuss current water rights issues and policies.

**West Basin Involvement:** West Basin participates in forums to better understand local water issues and rate structures.

**Value:** WBWA provides West Basin with valuable insight on current water rates established by West Basin and throughout our service area, and discuss proposed legislation and water industry news that affect the way in which West Basin makes policy decisions.

**Association Fee:** \$800







Section 9  
Glossary /  
Acronym





## ACRONYMS

**ACWAC/JPIA** - Association of California Water Agencies/Joint Powers Insurance Authority

**AED** - Automated External Defibrillator

**AF** - Acre-Foot

**AFY** - Acre-Foot per Year

**BAML** - Bank of America/Merrill Lynch

**BMP** - Best Management Practice

**CAFR** - Comprehensive Annual Financial Report

**CDIAC** - California Debt and Investment Advisory Commission

**CEQA** - California Environmental Quality Act

**CFO** - Chief Financial Officer

**CFS** - Cubic feet per second

**CIP** - Capital Improvement Program

**CIMP** - Capital Implementation Mast Plan

**CMMS** - Computerized Maintenance Management System

**COP** - Certificate of Participation

**CPI** - Consumer Price Index

**CRA** - Colorado River Aqueduct

**CSMFO** - California Society of Municipal Finance Officers

**CWSC** - California Water Service Company

**CY** - Calendar Year

**DIR** - Department of Industrial Relations

**DS** - Debt Service

**DWR** - Department of Water Resources

**ECLWRF** - Edward C. Little Water Recycling Facility

**EIR** - Environmental Impact Report

**EMMA** - Electronic Municipal Market Access

**FTE** - Full Time Equivalent

**FY** - Fiscal Year

**GAAP** - Generally Accepted Accounting Principles

**GASB** - Government Accounting Standards Board

**GPM** - Gallons per minute

**HPBF** - High Pressure Boiler Feed

**IRWMP** - Integrated Regional Water Management Plan

**JMMCRWRF** - Juanita Millender-McDonald Carson Regional Water Recycling Facility

**LADWP** - Los Angeles Department of Water and Power



**LIBOR** - London Interbank Offered Rate

**LPBF** - Low Pressure Boiler Feed

**LRP** - Local Resources Program

**MBR** - Membrane Bio-Reactor

**MF** - Microfiltration

**MGD** - Million Gallons per Day

**MWD** - Metropolitan Water District of Southern California

**OPEB** - Other Post-Employment Benefits

**PARS** - Public Agency Retirement System

**PAYGO** - Pay As You Go

**R&R** - Rehabilitation & Replacement

**RO** - Reverse Osmosis

**RTS** - Readiness-To-Serve

**SRF** - State Revolving Fund

**SWP** - State Water Project

**T-MBR** - Tertiary Membrane Biological Reactor

**UCMR** - Unregulated Contaminant Monitoring Requirement

**USBR** - United States Bureau of Reclamation

**UWMP** - Urban Water Management Plan

**WR** - Water Reliability Program

**WRD** - Water Replenishment of Southern California

**WRDA** - Water Resources Development Act



## GLOSSARY

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

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

**Adjustable Rate Revenue Certificates of Participation** - Tax-exempt government variable rate securities used to finance capital costs.

**AFY** - Acre-Foot per Year

**Annual Tier 1 Maximum** - An annual set amount of non-interruptible water an agency may purchase at a preferred rate.

**Arbitrage** - The simultaneous purchase and sale of the same commodity or investment in two different markets at two different prices, which results in a riskless profit.

**Balanced Budget** - A balanced budget occurs when the total sum of money a government collects in a year is equal to the amount it spends on goods, services, and debt interest.

**Barrier Water** - Imported or recycled water that is injected into wells to prevent seawater intrusion into the groundwater.

**Best Management Practice (BMP)** - An engineered structure or management activity, or combination of these that eliminates or reduces adverse environmental effects.

**Bond Fund** - Restricted funds used to pay for capital expenditures.

**Brackish Water** - A mixture of seawater and freshwater.

**Budget** - A balanced financial plan for a specified period of time.

**C. Marvin Brewer Desalter** - a satellite facility for brackish water in the City of Torrance, California that began operations in May 1993.

**California Water Service Company (CWSC)** - The largest investor-owned American water utility west of the Mississippi River and the third largest in the country. Formed in 1926, the San Jose-based company serves 460,000 customers through 26 Customer and Operations Centers throughout the state.



**California Environmental Quality Act (CEQA)** – California state statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible.

**Capacity Charge** – A charge to recover the cost of providing peak capacity within the distribution system.

**Capital Expenditure** – Costs incurred that will derive a future benefit and include the acquisition or upgrade of land, equipment or facilities.

**Capital Improvement Program (CIP)** – A multi-year plan identifying capital projects to be funded during the planning period.

**Cubic feet per second (cfs)** – Unit of measure used to determine volume of water flowing through meters.

**Colorado River Aqueduct (CRA)** – The 242 mile-long water conveyance system built by Metropolitan Water District to carry water from the Colorado River to its Southern California services area.

**Comprehensive Annual Financial Report (CAFR)** – An annual report intended to provide interested parties a broad financial outlook of West Basin.

**Consumer-Price-Index (CPI)** – A measurement of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services.

**Debt Limit** – The legal maximum debt permitted a municipal, state, or national government.

**Defeasance** – A provision that voids a bond or loan when the borrower sets aside cash or bonds sufficient enough to service the borrower’s debt.

**Desalting (or Desalination)** – Removal of salts from salt water by evaporation or distillation. Specific treatment processes, such as reverse osmosis or multi-stage flash distillation, to de-mineralize seawater or brackish (saline) waters for reuse.

**Debt Coverage** – The ratio of annual net income to annual debt service.

**Debt Service** – Principal and interest payments on bonds or other debt instruments used to finance capital facilities.

**Department of Water Resources (DWR)** – DWR operates and maintains the State Water Project, including the California Aqueduct. The department also provides dam safety and flood control services, assists local water districts in water management and conservation activities, promotes recreational opportunities, and plans for future statewide water needs.

**Designated Funds** – Unrestricted funds that can be used for any lawful purpose at the discretion of the Board of Directors.

**Disinfected Tertiary Recycled Water** - Secondary treated wastewater that has been filtered and disinfected for industrial and irrigation uses.

**Double Pass Reverse Osmosis Water** - Secondary treated wastewater pretreated by ozone and microfiltration, followed by two passes of RO treatment for high pressure boiler feed water

**Edward C. Little Water Recycling Facility (ECLWRF)** – The main water recycling plant in El Segundo, California that began operations in 1995.

**Effluent** – Wastewater or other liquid, partially or completely treated or in its natural state, flowing from a treatment plant.

**Enterprise Fund** – An entity with a self-balancing set of accounts established to record the financial position and results that pertain to a specific governmental activity.

**Finance and Administrative Overhead** – Indirect expenses to support the general operations of West Basin.

**Financial Policies** – Document approved by the Board of Directors that identifies parameters through which West Basin operates and provides a standard in which fiscal performance can be reviewed.

**Fiscal Year** – The time frame in which the budget applies, this is the period of July 1 through June 30.

**Full-Time Equivalent (FTE)** – An employee that normally works 40 hours per week and receives full benefits.

**Fund Balance** – See Net Assets

**General Fund** – Unrestricted funds used to pay for general or operating expenditures.



**Government Accounting Standards Board (GASB)** - The source of generally accepted accounting principles used by State and Local governments in the United States of America.

**Groundwater** - Water that has percolated into natural, underground aquifers; water in the ground, not water collected on the surface.

**Imported Water** - Water imported by Metropolitan through the Colorado River Aqueduct system and from Northern California.

**Integrated Regional Water Management Plan (IRWMP)** - A plan prepared by a Regional Water Management Group pursuant to the Department of Water Resources' IRWMP Program. The plan describes how integrated planning is the effective management of resources through collaboration of efforts and cooperation of various entities. The integration of multiple water management strategies via multipurpose projects creates opportunities to meet regional water resource needs, efficiently use fiscal resources, and provide the public with tangible community benefits.

**Interest Rate Swap** - Contracts that require an exchange of cash flows based on a notional principal amount. Generally a fixed interest rate payment is exchanged against a floating rate payment.

**Irrigation** - Applying water to crops, lawns, or other plants using pumps, pipes, hoses, sprinklers, etc.

**Juanita Millender-McDonald Carson Regional Water Recycling Facility (JMMCRWRP)** - A satellite recycling plant in Carson, California.

**LIBOR** - The London Interbank Offered Rate is the average interest rate estimated by leading banks in London that they would be charged if borrowing from other banks.

**Local Resources Program (LRP)** - A program offered by MWD that provides financial assistance to member agencies and local water purveyors who make beneficial use of treated wastewater.

**Metropolitan Water District of Southern California (MWD)** - MWD is one of the world's largest water agencies. It imports almost 60% of the water used by more than 15 million people in Southern California, including San Diego County. This water is wholesaled to Metropolitan's 26 member agencies. MWD is governed by a 37-member Board of Directors representing its member agencies.

**MWD's Tier 1 Supply Rate** - Recovers the cost of maintaining a reliable amount of supply.

**MWD's Tier 2 Supply Rate** - Set at MWD's cost of developing additional supply to encourage efficient use of local resources.

**MWD's Treatment Surcharge** - Recovers the costs of treating imported water.

**MWD's System Access Rate** - Recovers a portion of the costs associated with the delivery of supplies.

**MWD's System Power Rate** - Recovers MWD's power costs for pumping supplies to Southern California.

**MWD's Water Stewardship Rate** - Recovers the costs of MWD's financial commitment to conservation, water recycling, groundwater clean-up and other local resource management programs.

**Moody's** - One of the nationally recognized statistical-rating organizations.

**Net Assets** - Represents the difference between assets and liabilities.

**Nitrified Water** - Disinfected Tertiary Recycled Water that has been nitrified to remove ammonia for industrial cooling towers.

**Non-Interruptible Water** - The treated firm water supply that is available year-round.

**Official Statement** - A legal statement which serves as the prospectus for a municipal bond. It is a disclosure of the finances surrounding the issue of the municipal bond, and is prepared by the local or state government and its legal counsel. It also indicates how investors in the bonds will be repaid.

**Pay-As-You-Go (PAYGO)** - The practice of funding construction expenditures from current operating revenues in-lieu of using debt proceeds.

**Potable** - Drinkable water. Conversely, non-potable means non-drinkable.

**Public Agency Retirement System (PARS)** - A retirement plan established to provide benefits to Board of Directors that meets certain minimum requirements.



**Readiness-To-Serve (RTS) Charge** - A charge designed to provide firm revenue for Capital Investment Plan debt service to meet the reliability and quality needs of existing users.

**Recycled Water** - Tertiary treated water that cannot be used for domestic purposes and must meet appropriate federal, state, and local laws and regulations.

**Refunding Revenue Bonds** - A bond that retires another bond before the first bond matures. Refunding bonds may be issued for a number of reasons, but mainly to reduce the cost of funding as a result of lower interest rates.

**Reliability Service Charge** - West Basin's charge to cover the cost of its programs and services.

**Restricted Funds** - Funds restricted by a third party, by law, regulation or contractual obligation.

**Revenue Certificates of Participation** - Tax-exempt government securities used to finance capital costs related to construction or acquisition and may not be used to finance ongoing operating costs.

**Reverse Osmosis (RO)** - A filtration process that forces water through membranes that contain microscopic holes, removing microorganisms, organic chemicals and inorganic chemicals, producing very pure water.

**Seawater Intrusion** - The movement of salt water into a body of fresh water. It can occur through surface water or groundwater basins.

**Single Pass Reverse Osmosis Water** - Secondary treated wastewater pretreated by ozone and microfiltration, followed by one pass of RO treatment for low-pressure boiler feed water.

**Standby Charges** - An annual charge paid by property owners to fund West Basin's debt service obligation on the West Basin Water Recycling Facilities.

**Standards & Poor's** - One of the nationally recognized statistical-rating organizations.

**State Water Project (SWP)** - An aqueduct system that delivers water from Northern California to Central and Southern California.

**Title 22** - A section of California Code of Regulations pertaining to various aspects of drinking water and recycled water standards.

**Tertiary Membrane Biological Reactor (T-MBR)** – A process by which solids are removed from tertiary treated wastewater using a combination of biological treatment and membrane filtration, all of which takes place in a complete-stirred mixed reactor.

**Unrestricted Funds** – Funds not restricted by a third party, by law, regulation or by contractual obligation.

**Urban Water Management Plan (UWMP)** – A report prepared by a water purveyor to ensure the appropriate level of reliability of water service sufficient to meet the needs of its various categories of customers during normal, single dry or multiple dry years. The California Water Management Planning Act of 1983, as amended, requires urban water suppliers to develop an UWMP every five years in the years ending in zero and five.

**Water Reclamation** – Wastewater treatment making the water suitable for beneficial reuse, such as landscape irrigation. Also called water recycling.

**Water Reliability Program (WR)** – A program to decrease dependence on imported water through water recycling, conservation programs and by examining the feasibility of an ocean water desalination facility that can deliver 20 million gallons per day of drinking water to the service area.

**Water Replenishment District of Southern California (WRD)** - WRD manages groundwater for nearly four million residents in 43 cities of Southern Los Angeles County. The 420 square mile service area uses about 250,000 acre-feet of groundwater per year, which equates to nearly 40% of the total demand for water. The WRD ensures that a reliable supply of high-quality groundwater is available through its clean water projects, water supply programs, and effective management principles.









17140 S. AVALON BLVD., SUITE 210  
CARSON, CA 90746

[WWW.WESTBASIN.ORG](http://WWW.WESTBASIN.ORG)