



FISCAL YEAR 2016-2017  
**OPERATING BUDGET**  
WEST BASIN MUNICIPAL WATER DISTRICT • CARSON, CA





# Table Of Contents

<b>General Manager’s Message</b> .....	<b>A-1</b>
<b>About West Basin Municipal Water District</b> .....	<b>B-1</b>
<b>Financial Overview and Summary</b>	
• Financial Highlights for FY 2016-17 .....	<b>C-1</b>
• Strategic Business Plan .....	<b>C-4</b>
• Long-Range Financial Plan .....	<b>C-5</b>
• Five-Year Forecast .....	<b>C-6</b>
• Summary of Financial Policies .....	<b>C-11</b>
• Performance Metrics .....	<b>C-16</b>
<b>Budget Process and Timeline</b> .....	<b>D-1</b>
<b>Source of Revenue</b>	
• Revenue Highlights .....	<b>E-1</b>
• Water Rates and Charges .....	<b>E-3</b>
• Other Sources of Revenue .....	<b>E-8</b>
<b>Use of Funds</b>	
• Expenditure Highlights .....	<b>F-1</b>
• Water Purchases and Charges .....	<b>F-2</b>
• Debt Service .....	<b>F-4</b>
• Operating Program Expenses .....	<b>F-8</b>
• Salaries and Benefits .....	<b>F-8</b>
• Capital Improvement Program .....	<b>F-12</b>
<b>Operating Program Expenses</b>	
• Summary of Program Expenses .....	<b>G-1</b>
• Overhead Program Costs .....	<b>G-2</b>
• Water Recycling Operations .....	<b>G-8</b>
• C. Marvin Brewer Desalter Operations .....	<b>G-13</b>
• Water Policy and Resource Development .....	<b>G-15</b>
• Public Information .....	<b>G-19</b>
• Conservation .....	<b>G-23</b>
• Water Quality Monitoring Program .....	<b>G-28</b>
<b>Supplemental Information</b>	
• Capital Improvement Program .....	<b>H-1</b>
• Organization Memberships and Sponsorships .....	<b>I-1</b>
<b>Acronyms</b> .....	<b>J-1</b>
<b>Glossary</b> .....	<b>J-2</b>



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished  
Budget Presentation  
Award*

PRESENTED TO

**West Basin Municipal Water District**

**California**

For the Fiscal Year Beginning

**July 1, 2015**

Executive Director

*California Society of  
Municipal Finance Officers*

*Certificate of Award*

*Operating Budget Excellence Award  
Fiscal Year 2015-2016*

*Presented to the*

**West Basin Municipal Water District**

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

**February 23, 2016**

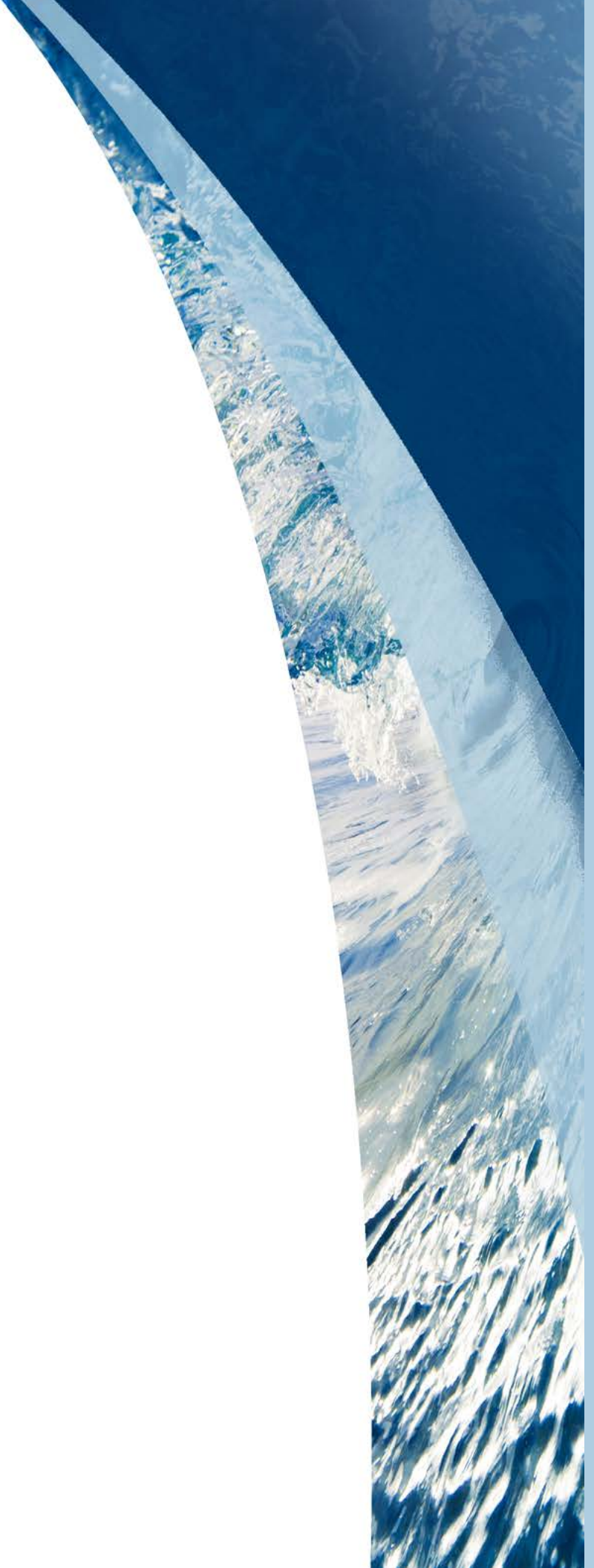


Jesse Takahashi  
CSMFO President

Michael Gomez, Chair  
Professional Standards and  
Recognition Committee

*Dedicated Excellence in Municipal Financial Reporting*

# General Manager's Message





# General Manager's Message

May 31, 2016

## 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, 2016 and ending June 30, 2017 (FY 2016-17). 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 carefully setting water rates and charges to address the many challenges facing the water industry, such as the uncertainty of future water supply availability, lower demand due to heightened awareness of the statewide drought, and the commitment to augment potable water deliveries with various grades of recycled water.

The following factors were considered in the development of FY 2016-17 budget including: 1) pass-through MWD rate and charge increases; 2) discuss drought implications on sales assumptions; 3) reaffirmed debt coverage target in regards to the increased debt coverage rationale implemented in the prior year; future debt considerations; and the increase in staff personnel to ensure that the stated goals and priorities can be achieved.

The total West Basin operating budget is \$191,809,050 and represents a decrease of \$7,425,000 (3.7%) from the prior year. Several significant changes occurred this year that impacted revenues, mainly the significant decrease in anticipated imported water sales. Although the imported water rate increased \$65 per acre-foot (AF), the declared drought and decreased imported water consumption have resulted in lower budgeted water sales of 91,000 AF, an \$8.9 million decrease in budgeted revenues in FY 2016-17. The drop in acre-feet sales and the increase in rates exemplify the dilemma facing many water districts throughout California. Whereas the significant drop in consumption is encouraged and expected, the baseline revenue needed to maintain services and debt coverage remains the same, resulting in higher cost/acre-foot requirements.



Recycled water revenues are expected to increase by \$4.2 million due to an increase of water rates and operational costs. Another significant change is the expected decline in fixed revenue charges, a decrease of \$2.2 million due to expiring agreements. Last year, West Basin increased the overall debt coverage target to 1.75 and this target has been reaffirmed this year. As a result, F designated funds remain approximately the same as last year at \$18.6 million.

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

Highlighted below are accomplishments where West Basin has provided value during the current fiscal year and shaped our objectives for FY 2016-17.

### Water Reliability

- Implemented a Drought Rationing Plan to help meet service area goals for mandatory conservation of imported water. Although the state-wide goals have since been rescinded, the district continues to monitor conservation targets as part of the state's required "self-certification" process;

- Completed the 2015 Urban Water Management Plan for compliance with the California Urban Water Management Planning Act of 1983 which details water supply and demand projections to the year 2040 for our service area;

- Continued emphasis on Conservation programs such as Rain Barrel Distribution and Sprinkler Exchange events, Turf-Removal programs, and greywater workshops;

- Completed the design of the Carson Mall Lateral Phase II project to deliver recycled water into new areas within the City of Carson.

### Water Quality

- Completed the rehabilitation and refurbishment of the Biofor treatment process utilized to produce nitrified tertiary effluent for refinery customer cooling tower applications;

- Completed the design of the Reverse Osmosis (RO) Clean-in-Place Waste Discharge project

- Conducted two different purveyor workshops to help coordinate between water companies on important water quality and compliance issues.



### Customer Service

- Conducted an informational workshop with customer agencies to review proposed FY 2016-17 budget and water rates and the 2015 Urban Water Management Plan;

- Continued success with outreach programs which serve to engage and educate the public, effectively communicating the message on conservation and current water issues through school tours, technical tours, and evening Water 101 classes for the communities we serve;

- In partnership with South Bay Environmental Services Center, represented and promoted West Basin's programs at over 100 community events.

### Sound Financial and Resource Management

- Credit ratings maintain at Aa2 and AA- with Moody's and Standard and Poors

- Received an Excellence in Financial Reporting Award for West Basin's Comprehensive Financial Annual Report (CAFR) for FY 2014-15 from the Government Finance Officers Association (GFOA);

- Received Excellence in Budget Recognition for the FY 2015-16 Operating Budget from GFOA and the California Society of Municipal Finance Officers (CSMFO);

- Applied for and succeeded in being awarded several grant funding opportunities in support of conservation and reliability programs.

### Environmental Stewardship

- Completed the design 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.



## Key Factors Impacting the Budget

The development of the budget incorporates a multitude of decisions, from water sales assumptions, to achieving the goals and objectives of the Plan, to consideration of funding for capital projects, to the future risks or financial commitments of West Basin. Each item is carefully considered to ensure that West Basin is focused on meeting its mission to provide a safe and reliable supply of water.

West Basin understands that strong credit ratings allow an agency to obtain low-cost financing for its capital projects. To achieve strong credit ratings, West Basin has internally established budgeted debt coverage goals, enhanced its financial policies, and updated water rates as appropriate. West Basin is an economically strong service area, and it provides an essential and critical service to a community increasing in population. In addition, West Basin has demonstrated consistently high financial performance and the ability to complete large capital water recycling projects in a timely manner.

West Basin establishes its revenues and expenses to meet targeted budget debt coverage at each security interest level and total debt. The long range financial model and financial policies provide the framework of future assumptions that will allow West Basin to continue to maintain a financially sound organization.

For consideration in the FY 2016-17 budget, West Basin contemplated the fiscal impact of the drought and conservation messaging, managing operating costs, working towards implementing the rates stipulated in the WRD contract, funding for future Water Reliability Program projects such as ocean-water desalination and a new type of recycled water, using the Tertiary Membrane Biological Reactor (T-MBR), and the expiration of a fixed payment charge from a local refinery.

### *Credit Rating*

With an expected financing transaction in summer 2016, staff has been reviewing the criteria set forth by the rating agencies to determine what actionable steps should be taken to ensure that the credit ratings are maintained and what would trigger an increase or decrease in the rating. Some factors are economy - driven and reflect the service area, and others can be driven by an agency as they address management's approach to rate setting and policies, setting and achieving certain ratios, and maintaining cash balances.

In January 2015, Moody's reviewed West Basin's credit rating applying their new methodology and the associated weighting of system characteristics, financial strength, management, and legal provisions. Based on a review of financial and statistical information, Moody's reaffirmed West Basin's credit rating at Aa2. With the rating, their commentary emphasized a need to focus on its debt coverage ratios and cash balances. The Board responded with increasing its budgeted all-in debt coverage level to 1.75 from 1.35. In addition, staff will be evaluating the S&P Global Rating (S&P) new rating methodology. West Basin has reaffirmed its commitment to this Debt Coverage Ratio in FY 2016-17

### *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, monitored the regional water provider (MWD) position, discussed impacts with its customers and also reviewed its current projects to assess where an appropriate assumption is anticipated for retail and Barrier imported sales, recycled water sales and the brackish desalter water sales.



On April 1, 2015, Governor Brown issued Executive Order B-29-15 which called for a 25% reduction in consumer water. This was in response to the historically dry conditions throughout the State of California. This order was recently rescinded and the State Water Board will implement new rules which center on a “self-certification” process in which individual water-districts will ttheir demand and supply for the next three years. Districts will be required to reduce water by the amount equal to their projected shortfall. West Basin recognizes the continued need of conservation measures and has budgeted to take into account the new reality of lowered water consumption. Staff has budgeted for sales to be at 91,000 AF.

In review of the Barrier sales, staff looks individually at the history of sales to the Dominguez Gap Barrier and the West Coast Basin Barrier. The West Coast Basin Barrier sales include both imported and recycled water sales. In consultation with the Water Replenishment District, it is expected that West Coast Barrier deliveries will be approximately 14,500 AF based on expected demands from the County of Los Angeles. West Basin intends to fill the request with the full 14,000 AF of recycled water and the balance will come from potable sales. The Dominguez Gap Barrier has decreased pumping recently and it is moving more towards recycled water delivered by Los Angeles Department of Water and Power (LADWP). Imported water therefore is expected to decrease from 3,600AF to 2,000 AF.

#### *Achieving the Goals and Objectives of the Strategic Business Plan*

The development of the program budget takes into consideration several factors. The Plan provides the roadmap and supports certain initiatives while the daily operations guide the necessary costs to run each West Basin activity along with achieving its debt coverage. Program activity levels remain the same to current year with no new programs added; however, staffing levels have increased with six additional staff; 2 administrative personnel, 2 operations analysts, and 2 engineers. The new personnel head count will provide administrative and operational effectiveness to achieve stated goals .Staff has made a concerted effort to hold or reduce its program costs while obtaining an understanding of the necessity of certain higher costs for operation and maintenance due to the diversified recycled water deliveries.

More information about West Basin expenditures can be found within the Use of Funds section, Operating Program Expenses section and the Supplemental Section (Capital Improvement Program).

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

Planned capital expenditures for FY 2016-2017 are anticipated to be approximately \$58 million. Based on the nature of the projects, staff anticipated using all avenues including the use of PAYGO funds, commercial paper line, and seeking a loan through the State of California’s Revolving Loan Program. 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 \$35 million for larger projects over a two-year period.

At this time, West Basin does not anticipate it will need to draw upon its Designated Funds. In addition, West Basin is active in pursuing grants from local, state and Federal agencies to collaborate on the many important studies and projects that will benefit the water industry.

#### *Future Risks and Other Considerations*

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 activities that provide 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 long-range financial model, West Basin is able to monitor anticipated rate increases, understand the fiscal impact of future projects and provide a clear picture when circumstances change.

West Basin continues to strive to expand our recycled water program and at the same time explore any and all avenues to diversify our water portfolio in order to ensure water reliability to the communities we serve. One such avenue is ocean-water desalination. West Basin remains a responsible and carbon neutral facility. A detailed Environmental Impact Report (EIR) is currently underway and at the appropriate time, West Basin will seek public comments in order to determine whether or not to move forward. See more at: <http://www.westbasindesal.org>

News of the global and local economy can certainly have an effect on the constituents of West Basin’s service area. Those items however are typically ancillary to West Basin, as the significant driver is the impact on delivery of water. West Basin does receive grant funding through the State of California from voter-approved propositions and works diligently to monitor and pursue those grants. Staff will continue to monitor the capital markets for best possible terms when necessary to pursue debt financing.

## Funding and Rate Projections

As a single enterprise fund, West Basin's major source of funding is the commodity charge on its imported and recycled water sales, representing nearly 90% of total revenues. These sales enable West Basin to provide its customers with more reliable, high-quality water. West Basin continues to contribute value to its customers through water recycling, conservation, planning, community outreach, legislative advocacy and effective operations and investments into the future.

The biggest portion of the imported water rate is passed through from Metropolitan Water District's (MET) commodity rate. MET has a two year budget cycle and this year set their rates for January 2017 at \$979/AF, increasing in January 2018 to \$1,015/AF. Although they can change if needed, this allows the sub-agencies like West Basin the ability to plan ahead with more clarity. For planning purposes, MWD has indicated future increases to be 3% each year.

For FY 2016-17, West Basin's Board of Directors adopted an increase of \$29/AF on its water reliability service charge that incorporates the Board's decision to maintain its debt coverage ratio to help maintain its credit rating; \$2/AF decrease on its readiness to serve charge; a \$5/cubic foot per second increase in its water service charge; and passing through the \$37/AF increase in the MWD commodity charge. In addition, the Board of Directors approved the annual Standby Charge collection that generates \$9.6 million to support the water recycling program. A more thorough discussion of these various funding sources is located in the "Source of Revenue" section.

## In Conclusion

California's water industry is politically, environmentally and operationally challenged by budgetary and physical constraints. West Basin is committed to demonstrating 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 has 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,



Rich Nagel  
General Manager

“

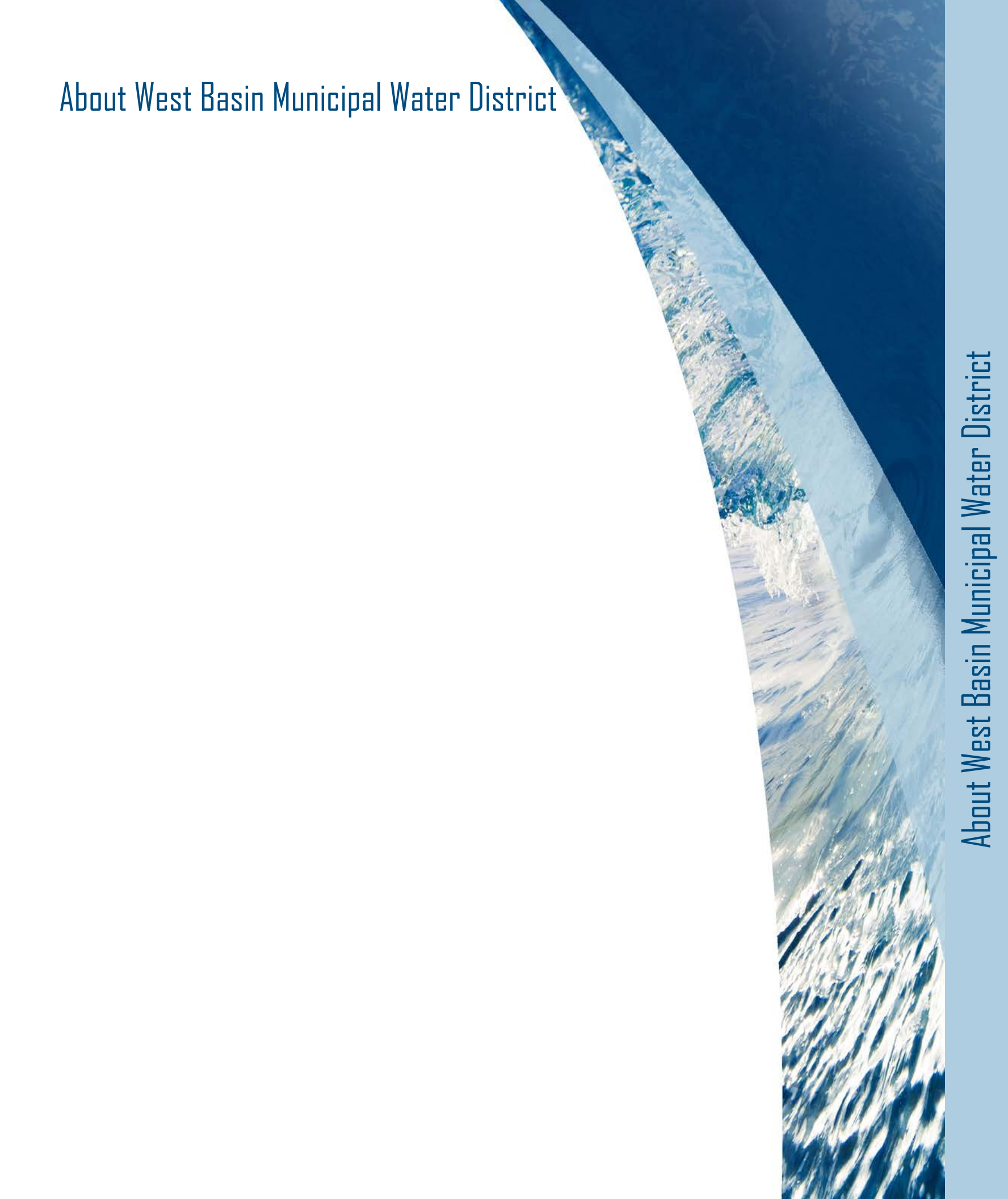
**WEST BASIN BALANCES ITS BUDGET BY CAREFULLY SETTING WATER RATES AND CHARGES TO ADDRESS THE MANY CHALLENGES FACING THE WATER INDUSTRY**

”





# About West Basin Municipal Water District





# About West Basin Municipal Water District

West Basin Municipal Water District (West Basin), an innovative and award-winning public agency, is a special district of the State of California that provides drinking and recycled water, water efficiency, and water education programs to its nearly 1 million residents within a 185-square mile service area. West Basin purchases imported water from the Metropolitan Water District of Southern California (Metropolitan) and sells the imported water to cities, water agencies, and private water companies in coastal Los Angeles County.

To protect our local groundwater aquifer from seawater intrusion, West Basin currently provides highly purified recycled water to the Water Replenishment District of Southern California (WRD) for injection into the West Coast seawater barrier. The seawater barrier protects and augments \$200 million dollars' worth of local groundwater supplies.

West Basin is currently executing a Board-adopted Strategic Business Plan with the goal of building a more diverse, locally controlled and reliable water supply. Through the 2008 Board-adopted Water Reliability Program (WR), West Basin is expanding production of locally-produced water by doubling water recycling and conservation programs and researching adding 10% of future water supplies from ocean-water desalination. In late 2010, West Basin opened its Ocean-Water Desalination Demonstration Facility Water and Education Center to the public to share Southern California's water story, teach the community about local supplies, and responsibly research ocean-water desalination.

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, local business opportunities and other programs focused on providing value to our service area.

## Board Of Directors



**DIVISION I**  
Harold C. Williams  
MSCE, P.E., DTM  
Vice President



**DIVISION II**  
Gloria D. Gray  
Past President



**DIVISION III**  
Carol W. Kwan  
President



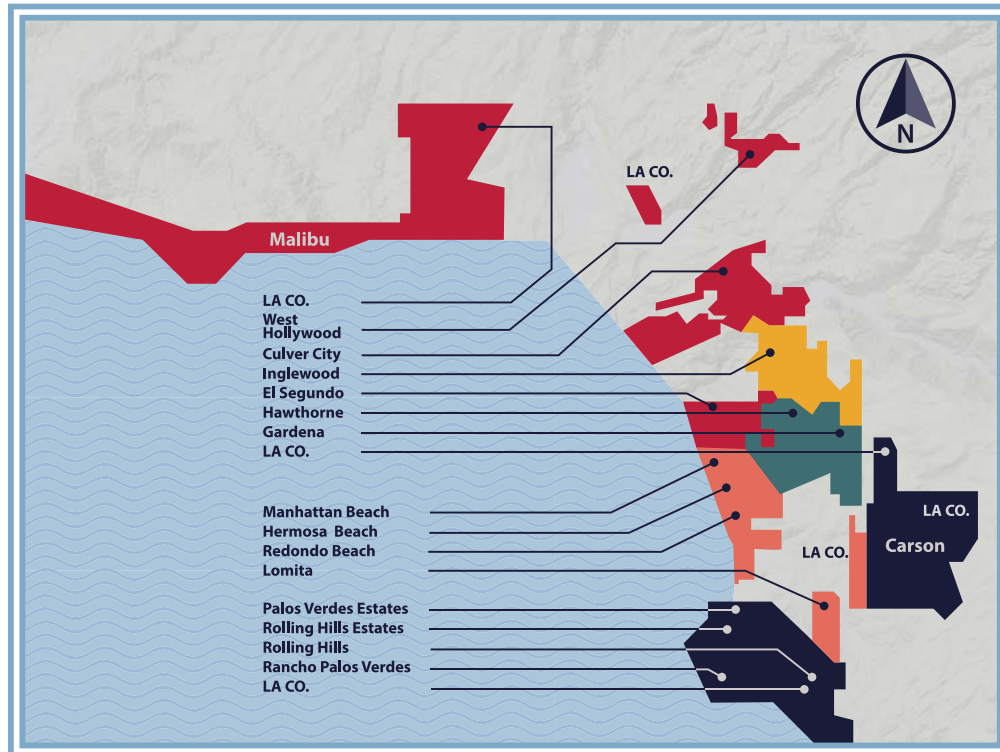
**DIVISION IV**  
Scott A. Houston  
Treasurer



**DIVISION V**  
Donald L. Dear  
Secretary

## Service Area

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



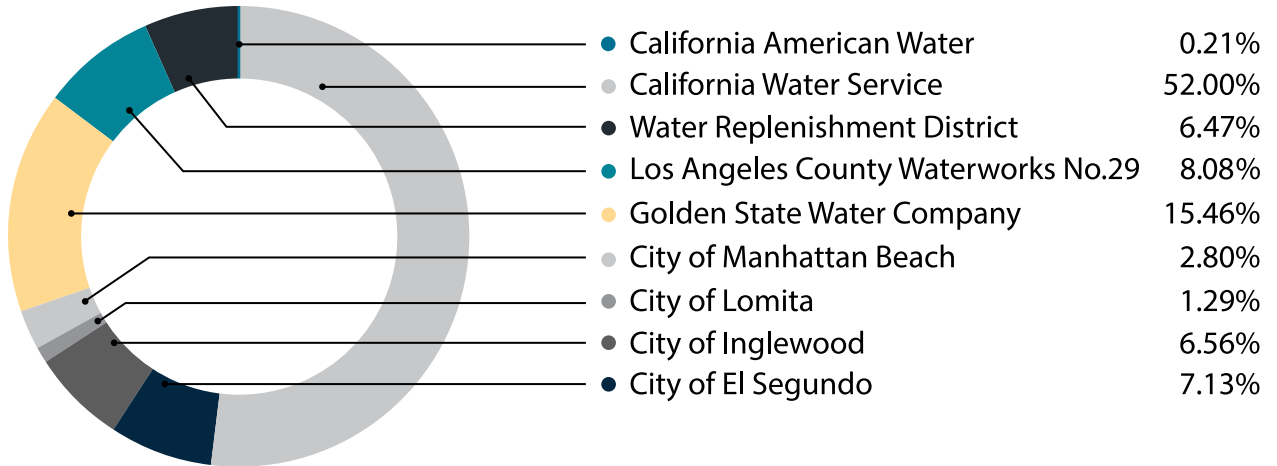
Formed	December 17, 1947
Estimated Population	870,000
Area Served	185 square miles
Water Portfolio	Potable, Recycled & Desalted
Average Residential Parcel Size	9,240 square feet
Lowest Median Income	\$12,410 - Westmont
Highest Median Income	\$245,000 – Manhattan Beach



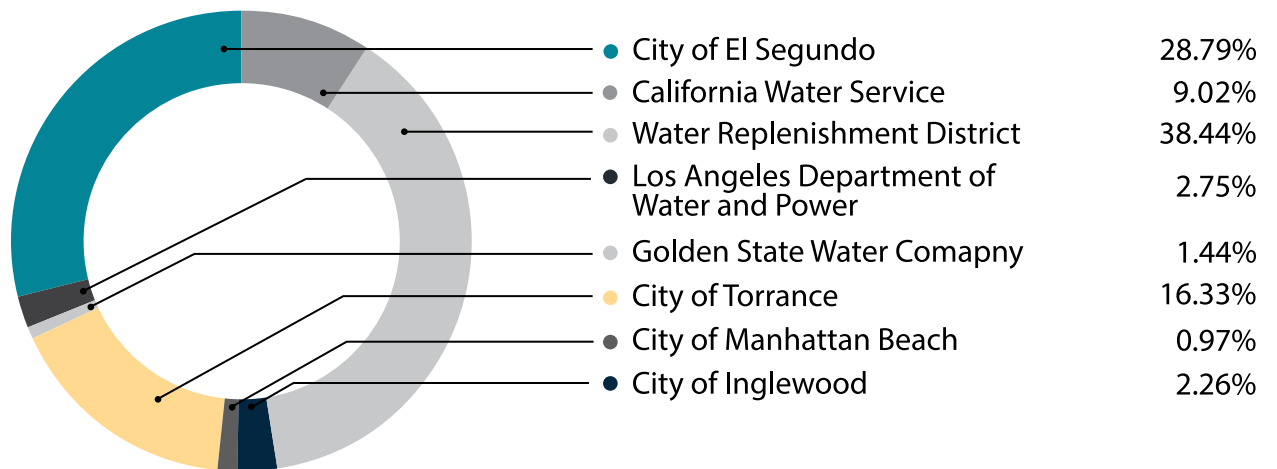
Employer	Number of Employees
Northrop Grumman Corporation	9,230
Raytheon Company	5,422
Boeing Satellite Systems Inc.	5,042
Sony Pictures Entertainment	3,200
Aerospace Corporation	2,560
DirectTV Operations Inc.	2,384
Palos Verdes Peninsula Unified School District	1,970
Mattel, Inc.	1,791
Accenture	1,211
Chevron Products Company/USA Inc.	1,137

CUSTOMERS	Water Purchases		
	Potable	Recycled	Desalted
California American	✓		
California Water Service	✓	✓	✓
City of El Segundo	✓	✓	
City of Inglewood	✓	✓	
City of Lomita	✓		
City of Manhattan Beach	✓	✓	
City of Torrance		✓	
Golden State Water Company	✓	✓	
Los Angeles County Water Works No. 29	✓		
Los Angeles Department of Water & Power		✓	
Water Replenishment District	✓	✓	

## Potable AF Customer Sales Distribution FY 2014-2015



## Recycled Water AF Customer Sales Distribution FY 2014-2015



## 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 -- more water was taken out than was put back in.

At that time, one solution was to supply the region with imported water through Metropolitan Water District of Southern California (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. 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.

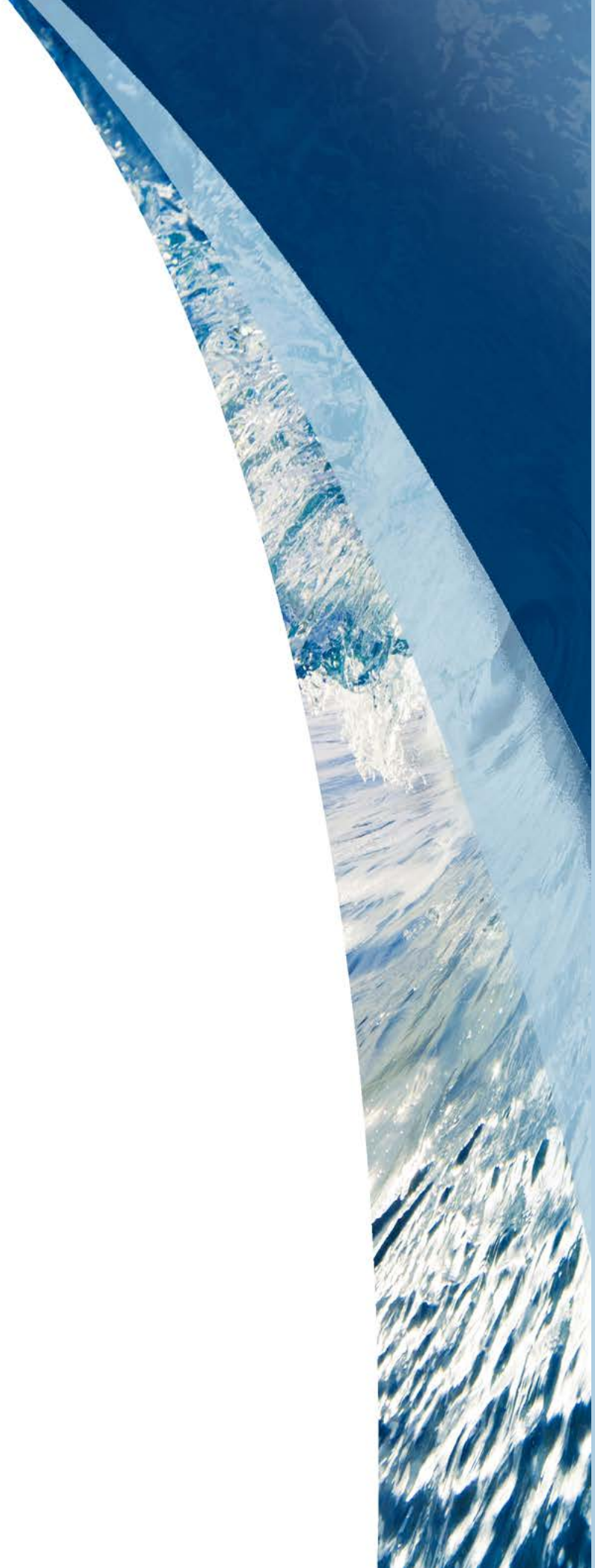
The benefits generated by the water recycling facility include more affordable water rates for customers, a reliable, locally-controlled supply of recycled water, reducing energy use by importing less water from hundreds of miles away, reducing wastewater and biosolids discharged to the ocean, and use 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.





# Financial Overview & Summary





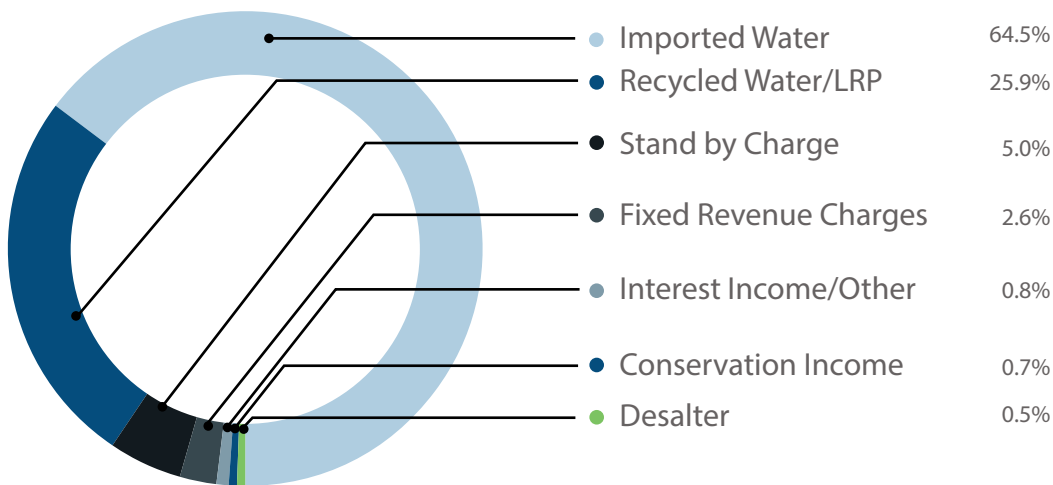
# Financial Overview & Summary

## Financial Highlights for Fiscal Year (FY) 2016-17

West Basin's operating budget of \$191.8 million for FY 2016-17 is \$7.4 million or 3.7% lower than the FY 2015-16 operating budget. Several reasons for the decrease in the operating budget include lower revenues from imported water sales of \$8.9 million, offset by an increase in recycled water sales of \$4.2 million (combined with Metropolitan Water District's Local Resources Program),

and a modest increase in revenues from the Brewer Desalter (\$25,090); the net result being a \$4.7 million decrease in overall water sales. Fixed revenue charges are also decreasing by \$2.2 million and a drop in other revenue of approximately \$1.0 million is budgeted for state and federal grants.

### Source of Funds FY 2016-17



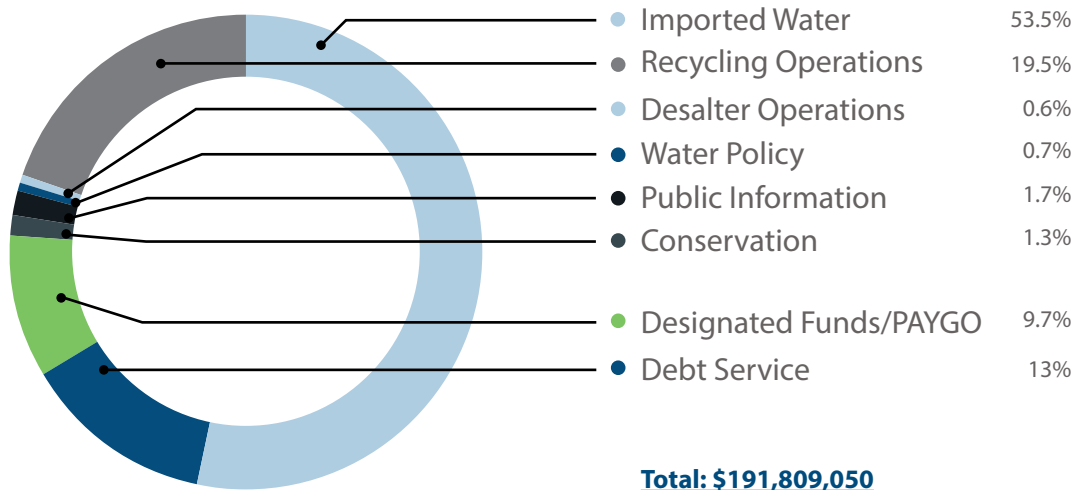
**Total: \$191,809,050**



Similar to the revenues, operating expenses for FY 2016-17 are budgeted at \$191.8 million. Imported Water purchases are expected to decrease approximately \$8.8 million or 7.9% due to anticipated lower demand due to the region's response to be more water efficient and reduce its consumption. The Capacity Charge expense (included with imported water) will decrease in FY 2016-17 as a result of MWD decreasing their rate to West Basin effective January 1, 2017. The Capacity Charge is applied on a calendar year basis whereas West Basin follows a fiscal year. Therefore, the second six months of FY 2016-17 will see a significantly lower rate.

As a result of the timing, FY 2016-17 will experience a full fiscal year with lower capacity charge expenses of \$357,000. Although West Basin anticipates lower recycled water production of approximately 5%, recycled water production costs are expected to increase approximately \$.4 million due to the higher anticipated cost of contractor labor and chemicals. All other West Basin program expenses remain relatively unchanged.

### Use of Funds FY 2016-17



Conservation specialist speaking to Water Harvest attendees



## Staffing and Program Budgets

West Basin focuses on making appropriate personnel increases in departments 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 programs. See the table under “Use of Funds—Personnel Staffing by Program: Full Time Equivalent (FTE)”.

Budget staffing levels for FY 2016-17 consist of forty-four (44) full-time budgeted positions, five full-time limited term, two part-time and six intern positions. In FY 2015-16 West Basin went through a minor restructuring between several departments as a result of a key employee retiring. In addition to the restructuring, five full-time regular positions were deemed necessary including two which were converted from a limited-term status; the three new regular positions are: one full-time Water Resources Engineer II to support the analysis of the planning and development for ocean water desalination, an Operations Engineer II to oversee the treatment and distribution of power consumption, and an Information Technology Technician I to meet the growing information technology needs. Along with the new full-time regular positions, three full-time limited positions were added including one position to the engineering staff as a Water Resources Engineer I to assist with upcoming projects, an Office Assistant I needed to support the Board Services department, and a Public Information Specialist II to fulfill department staffing needs. Also, West Basin converted one of its intern positions, reducing the number from six to seven interns in FY 2016-17.

Budget	FY 2015-16	FY 2016-17
Total Positions	52	57
Full-time regular	39	44
Full-time limited	4	5
Part-time	2	2
Interns	7	6



Tour Attendees get a taste of purified drinking water

# Strategic Business Plan

Originally published in January 2008 and updated in August 2011, West Basin embarked on the development of a Strategic Business Plan (Plan) that provides a multi-year vision for West Basin. The development of this Plan reassessed West Basin's missions, goals, and objectives through a series of interviews with the Board of Directors, management and key stakeholders. The Plan 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.

The Strategic Business Plan is a living document and the Board of Directors anticipate a review of the Plan in 2016 to identify changes, if any, that should be made. This will continue to provide guidance and direction on future policy that increases West Basin's value commitment to its service area customers, residents, businesses, and other stakeholders.

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



**Water Reliability** - West Basin is committed to innovative planning and investments to provide water reliability and drought protection.

Objective 1: Prepare a water supply strategy annually that presents different levels of imported water independence and associated costs/water rate implications.

Objective 2: Increase diversification of West Basin's supply portfolio.

Objective 3: Develop new water infrastructure to ensure regional water supply reliability.

Objective 4: Develop an Ocean-Water Desalination Program.



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

Objective 1: Maximize customer satisfaction.

Objective 2: Meet permit and contractual water quality requirements.



**Customer Service** - West Basin is committed to providing value by understanding and meeting the needs of our customers and the communities we serve.

Objective 1: Actively engage local businesses in the procurement of services.

Objective 2: Maintain customer high regard and respect.

Objective 3: Support the Board in maintaining a strategic business plan.

Objective 4: Promote outreach and education programs.

Objective 5: Enhance and promote the image of West Basin.





— **Sound Financial and Resource Management** - West Basin is committed to efficient business operations, financial planning, and asset management.

- Objective 1: Provide effective overall capital facility asset management.
- Objective 2: Maintain facilities to manage and minimize risk of failure and liability exposure.
- Objective 3: Pursue partnerships for facility development.
- Objective 4: Maintain or improve current bond ratings.
- Objective 5: Maintain a Long-Range Financial Plan.
- Objective 6: Operate cost-efficiently and effectively.
- Objective 7: Recruit and hire qualified candidates to fill all West Basin positions.
- Objective 8: Manage and reward performance.
- Objective 9: Develop a formal plan for workforce retention, training and succession planning.
- Objective 10: Conduct Board evaluation of the General Manager.



— **Environmental Stewardship** – Utilize environmentally sustainable and sound business practices in our projects, policies and actions.

- Objective 1: Establish a process to ensure social and environmental factors are considered in decision-making.
- Objective 2: Continue to gain environmental community support for West Basin programs.

Within the Operating Program Expenses section, West Basin has identified FY 2015-16 accomplishments and FY 2016-17 strategies to support the Plan goals and objectives identified above.

## Long-Range Financial Plan

With the foundation and direction provided by the Strategic Business Plan and through West Basin's program, Water Reliability (WR), West Basin is focused on developing more local resources through increasing its efforts in water recycling, developing a full-scale ocean-water desalination facility and expanding its conservation programs (not funded by debt). To further these goals and commitments, West Basin has identified two updates, including a Recycled Water Master Plan and an updated Conservation Master Plan. Each of these Plans will help guide West Basin in determining the financial resources necessary to achieve the stated goals.

A Capital Improvement Program (CIP) Master Plan will be developed in FY 2016-17 to provide a strategy to implement future Capital facilities. 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.

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 on pages C12-C15.

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.

## 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.

Fiscal Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
<b>REVENUES</b>						
Water Sales	120,871,094	125,348,100	129,583,665	134,153,241	143,319,327	149,385,218
Water Service Charge	625,449	682,308	750,539	818,770	909,744	1,000,718
Capacity Charge	2,231,780	2,010,080	2,083,980	2,098,760	2,098,760	2,098,760
Recycled Water Project Revenues						
Recycled Water Sales	40,491,358	41,761,819	46,656,970	49,480,170	52,385,440	54,738,643
Fixed Revenue Charges	5,051,929	4,869,196	5,985,196	5,816,896	4,826,460	4,826,460
MWD LRP Rebate	9,043,750	9,468,750	10,292,850	7,928,788	1,610,350	1,610,350
Standby Charges	9,650,000	9,650,000	9,650,000	9,650,000	9,650,000	9,650,000
Other Revenues						
Desalted Water Sales	904,990	932,690	964,110	1,000,575	1,036,330	1,072,693
Interest Earnings/Grants/Other	1,560,000	1,165,000	1,800,000	2,550,000	3,400,000	3,800,000
Conservation Incentives	1,378,700	1,378,700	1,378,700	1,378,700	1,378,700	1,378,700
<b>Total Revenues</b>	<b>\$191,809,050</b>	<b>\$197,266,643</b>	<b>\$209,146,010</b>	<b>\$214,875,899</b>	<b>\$220,615,111</b>	<b>\$229,561,542</b>
<b>EXPENSES</b>						
Water Purchases/RTS from MWD	100,482,421	102,708,375	105,530,298	108,148,286	114,181,892	119,494,632
Capacity Charge	2,175,390	1,922,170	2,002,740	2,002,740	2,002,740	2,002,740
Program Expenses						
Recycled Operations	37,353,466	39,692,722	42,101,126	44,037,477	46,060,964	48,133,707
Desalter Operations	1,150,733	1,179,501	1,208,989	1,239,214	1,270,194	1,301,949
Water Policy	1,439,962	1,475,961	1,512,860	1,550,682	1,589,449	1,629,185
Public Information	3,173,979	3,253,328	3,334,662	3,418,028	3,503,479	3,591,066
Conservation	2,532,764	2,596,083	2,660,985	2,727,510	2,795,698	2,865,590
Title 22 Water Quality Monitoring	25,430	26,066	26,717	27,385	28,070	28,772
Designated Funds/Other	18,578,694	19,464,266	22,575,864	23,450,045	21,005,192	22,023,073
2010A CP Line	3,352,846	3,402,789	3,448,368	3,534,592	3,430,508	2,041,677
2011A	4,907,167	5,218,350	5,210,138	5,219,350	5,235,833	5,234,958
2011B	2,993,250	2,993,250	2,993,250	2,993,250	2,993,250	2,993,250
2012A	4,386,850	4,389,900	4,390,017	4,390,688	4,388,458	4,389,396
2013A	287,300	-	-	-	-	-
State Loan	-	-	697,084	697,084	697,084	697,084
Proposed Debt	-	-	2,504,480	2,504,480	2,504,480	2,504,480
Subordinate Debt						
2008B Series	8,968,798	8,943,881	8,948,431	8,935,088	8,927,821	10,629,983
<b>Total Expenses</b>	<b>\$191,809,050</b>	<b>\$197,266,643</b>	<b>\$209,146,010</b>	<b>\$214,875,899</b>	<b>\$220,615,111</b>	<b>\$229,561,542</b>
Coverage - Senior Debt	2.73	2.78	2.64	2.67	2.55	2.83
Coverage - Subordinate Debt	3.07	3.18	3.52	3.62	3.35	3.07
Coverage - All Debt	1.75	1.78	1.8	1.83	1.75	1.77

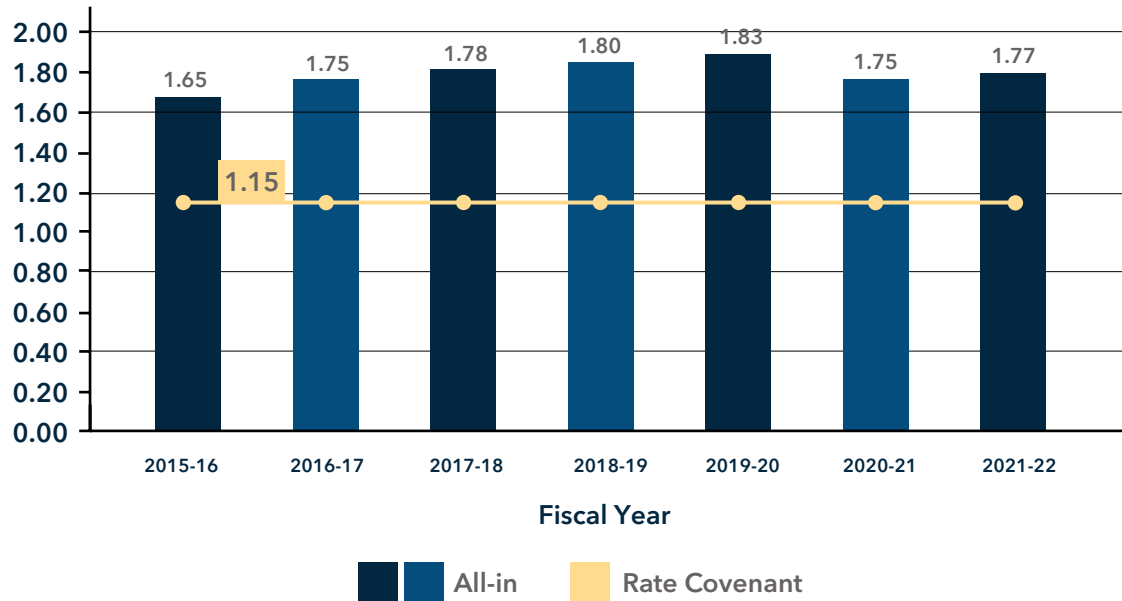
Planned capital improvement projects have been incorporated into the five-year projected operating results table, either through draws from the Commercial Paper Program, PAYGO, or anticipated long-term financing. In addition, in future years, operating expenses, including recycled water operations, in future years will 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 costs and benefits is reflected in the Supplemental Information section.

State-of-the-art  
Edward C. Little  
Water Recycling Facility



Fiscal Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
<b>Cost (Sales Price) of Water (\$/af)</b>						
MWD Imported - Tier 1 (Jul)	942	979	1,015	1,056	1,098	1,142
MWD Treated NonInt - Tier 2 (Jul)	1,076	1,073	1,101	1,186	1,228	1,272
MWD Imported - Tier 1 (Jan)	979	1,015	1,056	1,098	1,142	1,187
MWD Treated NonInt - Tier 2 (Jan)	1,073	1,101	1,186	1,228	1,272	1,317
MWD RTS Commodity Charge (Jul)	118	116	111	114	115	113
MWD RTS Commodity Charge (Jan)	116	111	114	115	113	112
MWD Seawater Barrier - Tier 1 (Jul)	942	979	1,015	1,056	1,098	1,142
MWD Seawater Barrier - Tier 2 (Jul)	1,076	1,073	1,101	1,186	1,228	1,272
MWD Seawater Barrier - Tier 1 (Jan)	979	1,015	1,056	1,098	1,142	1,187
MWD Seawater Barrier - Tier 2 (Jan)	1,073	1,101	1,186	1,228	1,272	1,317
Title 22 Within WB - Recycled Water	1,049	1,098	1,164	1,231	1,299	1,349
Title 22 - LADWP - Recycled Water	1,091	1,140	1,206	1,273	1,341	1,393
Title 22 - Torrance - Recycled Water	1,091	1,140	1,206	1,273	1,341	1,393
Barrier - RW (1st 4,500AF)	919	852	916	982	1,051	1,112
Barrier - Recycled Water	919	852	916	982	1,051	1,112
LPBF - Recycled Water	1,297	1,347	1,413	1,480	1,548	1,608
HPBF - Recycled Water	1,653	1,717	1,784	1,854	1,926	2,001
T-MBR			1,250	1,317	1,385	1,439
Nitrified - Recycled Water	1,049	1,098	1,164	1,231	1,299	1,349
Reliability Service Charge	223	241	263	287	313	318
MWD LRP Rebate	250	250	250	250	250	250
MWD LRP Rebate - New Rate			340	340	340	340
Desalted Water (Jul)	1,060	1,095	1,126	1,170	1,213	1,255
Desalted Water (Jan)	1,095	1,126	1,170	1,213	1,255	1,299
Capacity Charge - MWD	10,900	8,000	8,700	8,700	8,700	8,700
Capacity Charge - MWD (Jan)	8,000	8,700	8,700	8,700	8,700	8,700
Capacity Charge-Cust	8,500	6,600	7,000	7,100	7,100	7,100
Capacity Charge-Cust (Jan)	6,600	7,000	7,100	7,100	7,100	7,100
<b>SALES VOLUME (afy)</b>						
Non Interruptible (Jul)	47,320	47,216	46,753	47,221	48,209	48,729
Non Interruptible (Jan)	43,680	43,584	43,157	43,589	44,501	44,981
Non-Interruptible	91,000	90,800	89,910	90,810	92,710	93,710
Seawater Barrier	2,000	2,000	2,000	-	-	-
Recycled Water	37,275	38,475	40,365	40,465	40,565	40,565
Title 22 Within WB	7,500	7,600	7,700	7,800	7,900	7,900
Title 22 - LADWP	950	1,050	1,050	1,050	1,050	1,050
Title 22 - Torrance	4,575	4,575	4,575	4,575	4,575	4,575
Barrier	14,500	15,500	15,500	15,500	15,500	15,500
LPBF	6,450	6,450	6,450	6,450	6,450	6,450
HPBF	2,400	2,400	2,400	2,400	2,400	2,400
T-MBR	-	-	2,240	2,240	2,240	2,240
Nitrified - Recycled Water	900	900	450	450	450	450
Desalted Water	840	840	840	840	840	840
Capacity Charge-MWD	230.2	230.2	230.2	230.2	230.2	230.2
Capacity Charge-MWD (Jan)	230.2	230.2	230.2	230.2	230.2	230.2
Capacity Charge-Cust	295.6	295.6	295.6	295.6	295.6	295.6
Capacity Charge-Cust (Jan)	295.6	295.6	295.6	295.6	295.6	295.6
<b>FIXED PAYMENTS</b>						
Tesoro	2,136,000	2,136,000	2,136,000	2,136,000	2,136,000	2,136,000
Tesoro - tMBR			1,116,000	1,116,000	1,116,000	1,116,000
Mobil NH3	(57,600)	(57,600)	(57,600)	(57,600)	-	-
Mobil (phase 2)	1,574,460	1,574,460	1,574,460	1,574,460	1,574,460	1,574,460
Chevron Nitrification	1,009,800	1,009,800	1,009,800	841,500	-	-
Chevron Boiler Feed	182,733	-	-	-	-	-
LADWP	206,536	206,536	206,536	206,536	-	-
<b>TOTAL FIXED PAYMENTS</b>	<b>\$ 5,051,929</b>	<b>\$ 4,869,196</b>	<b>\$ 5,985,196</b>	<b>\$ 5,816,896</b>	<b>\$ 4,826,460</b>	<b>\$ 4,826,460</b>

## Debt Coverage Projected, Current Budget and 5-year Projection FY 2015-16 thru FY 2021-22



West Basin will review its long range financial model to address its future targeted debt coverages.

## Historical Debt Coverage Comparison with Other Water Agencies FY 2010-11 thru FY 2014-15

Name of Agency	2010-11	2011-12	2012-13	2013-14	2014-15
Central Basin MWD	1.91	0.64	0.20	1.03	1.57
Calleguas MWD	1.29	1.89	2.96	1.89	1.56
Eastern MWD	2.00	1.80	2.00	2.10	2.30
Las Virgenes MWD	2.35	2.82	2.92	2.71	2.47
Inland Empire Utilities Agency	1.43	1.69	2.20	2.09	2.85
San Diego County Water Authority	1.36	1.47	1.50	1.50	1.50
Three Valleys MWD	1.23	0.99	2.05	102.86*	0*
<b>West Basin MWD</b>	<b>1.22</b>	<b>1.52</b>	<b>1.55</b>	<b>1.73</b>	<b>1.45</b>
Western MWD	1.74	1.79	2.75	4.36	2.70

\* Three Valleys MWD's debt has been fully repaid

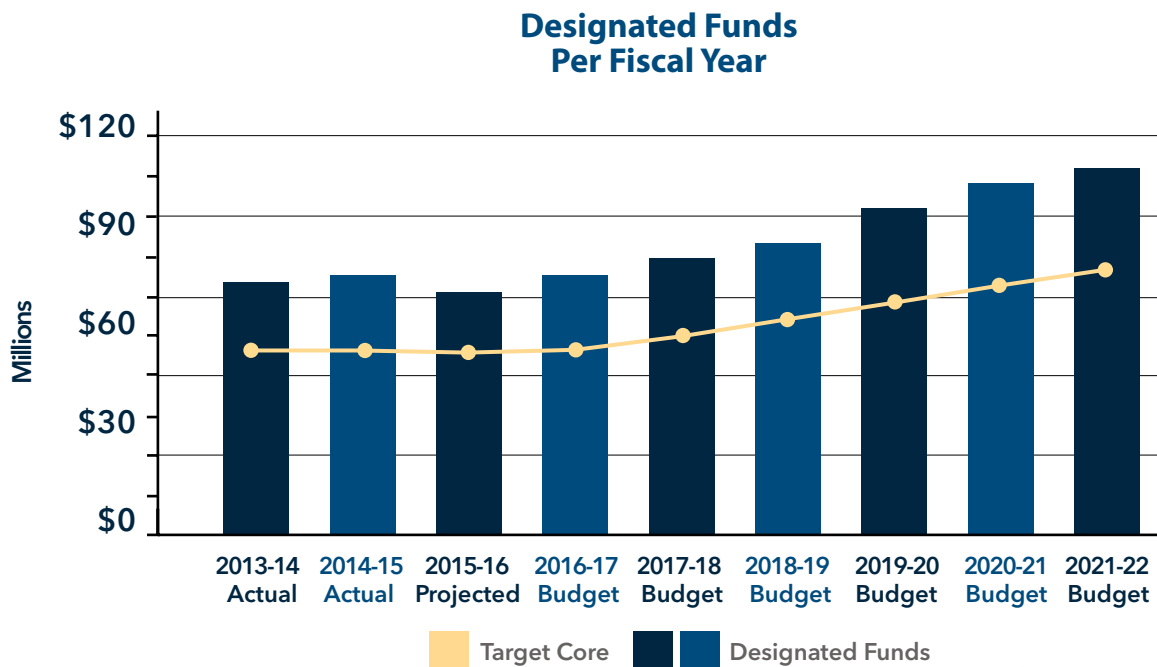
## Fund Balance (Designated Funds)

West Basin maintains two major types of funds, either restricted or unrestricted. Restricted funds consist of custodial accounts and bond reserves that are subject to the conditions of the respective bond financing documents. The unrestricted reserves are designated by the Board of Directors and reviewed annually as described in the board-approved policy.

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 provides 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.

The chart below shows the actual, projected and budgeted designated fund levels from FY 2013-14 through FY 2021-22.





Below are the actual revenues and expenses for FY 2013-14 and FY 2014-15, the projected revenues and expenses for FY 2015-16, as well as the budgeted revenues and expenses for FY's 2016-17 through FY 2021-22.

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

Fiscal Year: Description	2013-14 Actual	2014-15 Actual	2015-16 Projected	2016-17 Budget	2017-18 Budget	2018-19 Budget	2019-20 Budget	2020-21 Budget	2021-22 Budget
Designated Funds (Beg Bal)	\$ 53,722	\$ 67,388	\$ 68,770	\$ 67,756	\$ 68,934	\$ 78,220	\$ 86,676	\$ 92,438	\$ 98,444
Imported Water Revenue	135,310	136,762	131,962	123,728	128,040	132,418	137,071	146,328	152,485
Recycled Water Revenue	67,430	57,789	57,750	64,237	65,750	72,585	72,876	68,472	70,825
Other Revenues	3,185	2,459	2,002	3,844	3,477	4,143	4,929	5,815	6,252
<b>Total Revenues</b>	<b>205,925</b>	<b>197,010</b>	<b>191,714</b>	<b>191,809</b>	<b>197,267</b>	<b>209,146</b>	<b>214,876</b>	<b>220,615</b>	<b>229,562</b>
Water Purchases	118,116	116,723	112,102	102,657	104,630	107,533	110,151	116,185	121,498
Program Expenses	41,800	41,450	40,928	45,676	48,224	50,846	53,000	55,247	57,550
Net Debt Service	16,238	26,689	24,926	24,896	24,978	28,190	28,273	28,177	29,509
PAYGO	16,105	10,766	14,772	17,402	10,149	14,121	17,690	15,000	15,000
<b>Total Expenses</b>	<b>192,259</b>	<b>195,628</b>	<b>192,728</b>	<b>190,631</b>	<b>187,981</b>	<b>200,690</b>	<b>209,114</b>	<b>214,609</b>	<b>223,557</b>
<b>Designated Funds (End Bal)</b>	<b>\$ 67,388</b>	<b>\$ 68,770</b>	<b>\$ 67,756</b>	<b>\$ 68,934</b>	<b>\$ 78,220</b>	<b>\$ 86,676</b>	<b>\$ 92,438</b>	<b>\$ 98,444</b>	<b>\$ 104,449</b>

## Summary of Financial Policies

### Budget-Related Policies Summary

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 to 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. Each of the financial policies supports the assumptions within our Long-Range Financial Plan.

In order to stay in compliance with each of its financial policies, staff performs periodic reviews, quarterly reporting, and is reviewed by the independent external auditors.

### Policy Additions and Modifications

Annually, 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, West Basin's staff, financial advisor, and bond counsel reviewed the Debt Management, Swap and Designated Funds Policy. As a result of that review, language was added to the Debt Management Policy to allow selection of an underwriter(s) through a Request for Proposal process without establishing a pool of underwriters, and a paragraph was eliminated thereby allowing the discretion of the CFO to enter into a swap transaction that isn't consistent with the Policy. In addition, the credit rating requirement of qualified swap counterparties was changed. Along with updating the Debt Management and Swap Policy, West Basin also reviewed its Designated Funds Policy and added language to clarify the description of the Standby Charge Defeasance Fund. This information was brought to the Board of Directors in February 2016 for their review and consideration and was re-adopted.

The West Basin Board also considered and re-approved its Investment Policy with no changes, however, the Board approved adding language to the Small and Community Bank Investment Program (not a policy but related to the Investment Policy) to allow West Basin to request the return of its funds if an annual presentation is not made by the small and community bank within 30 days after the maturity of the Certificate of Deposit.

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

**A. 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.
- Any adjustments to the Budget must be approved by the Board of Directors.

**B. 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 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.

**C. 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 (5%) for future large-scale capital projects.
- Rate Stabilization Fund provides a resource to manage the level of water sales fluctuations from year -to- year.



**CHANGE IS NEVER EASY, AND IT OFTEN CREATES DISCORD, BUT WHEN PEOPLE COME TOGETHER FOR THE GOOD OF HUMANITY AND THE EARTH, WE CAN ACCOMPLISH GREAT THINGS.**

**-ANONYMOUS**



#### **D. 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-\$35,000) or a formal process (>\$35,000) 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.

#### **E. 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.

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

- The General Manager shall implement an accounting system meeting the financial reporting needs of the Board, and which 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.

#### **G. 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 with or greater than 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.

## **H. 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.

## **I. 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.

## **J. 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.

## **K. 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.
- 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.
- Interest rate swaps, caps, floors, swaptions and collars are allowable.
- West Basin can only enter into swap transactions with qualified swap counterparties and will utilize a qualified independent swap advisor to assist with the evaluation and executions of swap transactions.
- Each swap agreement shall contain terms and conditions as set forth in the International Swap and Derivatives Association, Inc.

**L.     Balanced Budget**

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

**M.     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.

## Performance Metrics

Performance metrics is defined as a measure of an organization's activities and performance, and supports a range of stakeholder needs from customers to the Board of Directors and employees. While they are traditionally finance-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.

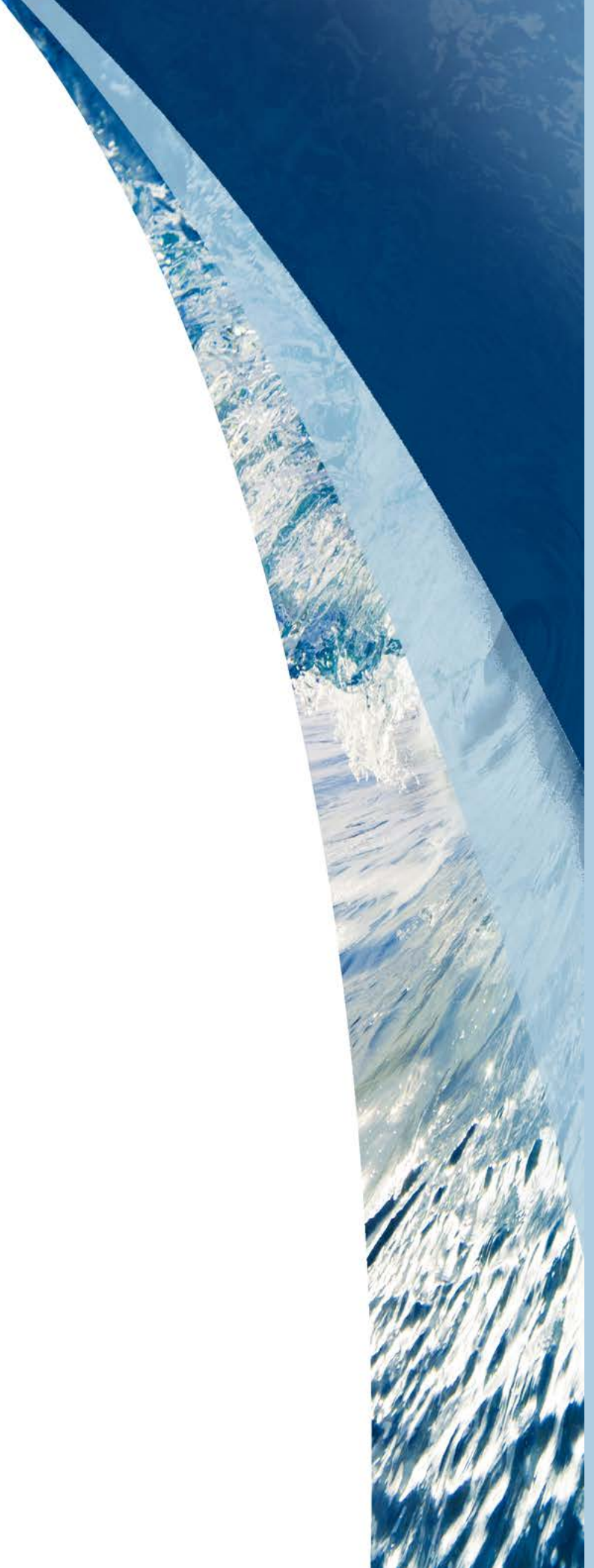
West Basin continues to explore and identify key performance metrics that provide meaningful information that the Board of Directors and staff can use to measure the success of the programs, services and related resources that are funded and within the budget. In addition, staff has provided the accomplishments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

For five years, in consultation with PFM Asset Management, West Basin used the Bank of America / Merrill Lynch (BAML) 1-year Treasury Index to benchmark its portfolio's performance. However in FY 2014-15, with changes in West Basin's portfolio, commensurate with changing economic conditions overall, West Basin has determined that the BAML 0-3 Treasury Index is more appropriate.

During FY 2014-15, West Basin met with Moody's Rating Agency and it was determined that in order to maintain its critical Aa2 rating, West Basin should evaluate its various rate factors and address its financial metrics that are more directly in the agency's control. For West Basin, one of the main factors is to strive to increase its all-in debt coverage ratio of 1.75, up from 1.35 calculated at the end of FY 2013-14. West Basin's covenants require a 1.15 which has been consistently surpassed at the end of each fiscal year. West Basin's Board of Directors deliberated this matter and decided to set a budgetary all-in Debt Coverage target of 1.75 for FY 2015-16 and has continued using this target for FY 2016-17.

Metric	FY 2014-15 Actual	FY 2015-16 Target	FY 2015-16 Projected	FY 2016-17 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-
On time submission of quarterly debt and swap reports	100%	100%	100%	100%
Achieve internal all-in Debt Coverage target of 1.75	1.45	1.50	1.71	1.75
Improve Recycled Water Cost per Unit	\$1,736	\$1,602	\$1,609	\$1,693
Achieve 100% Grant Award to Submission success rate	58%	53%	60%	65%
Have 100% submittal of Performance Evaluations	100%	100%	100%	100%

# Budget Process & Timeline







# Budget Process & Timeline

Public agencies develop budgets as a performance tool to measure accountability to their 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 (Plan), which was developed through a series of interviews with the Board of Directors, management, and key staff in addition to interviews with key stakeholders. 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 is constantly changing and evolving as the needs of West Basin change and evolve.

The budget is also used as a communication tool. Interested parties, such as bond holders, credit rating agencies, and 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 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 current year budget objectives to the managers to ensure that 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	ADDRESSED
1. Pass-through MWD rate increases	✓
2. Discuss drought implication on sales assumptions	✓
3. Review debt coverage target	✓
4. Future Debt Considerations	✓
5. Increase in Personnel	✓

West Basin is not required 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 activity 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 Process and Timeline for Fiscal Year 2016-17



January						
Su	M	T	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

February						
Su	M	T	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29					

March						
Su	M	T	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

April						
Su	M	T	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

May						
Su	M	T	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Dates	Key Activities	Lead Staff
December 18, 2016	Submit staff labor allocations Submit Justification for New Positions/Interns/Limited Term	Dept Mgr Dept Mgr
January 7, 2016	Sales Projections (AF) due	Budget Staff
January 15, 2016	Submit operating program and capital budgets	Dept Mgr
January 26, 2016	Discuss Water Rates	Budget Staff
January 29, 2016	Submit FY 15-16 year end projections for all operating programs	Dept Mgr
February 8, 2016	Discuss operating/capital budgets	GM/Dept Mgr
February 26, 2016	2nd Meeting to discuss operating/capital budgets	GM/Dept Mgr
March 7, 2016	Board of Directors Workshop Prep	Budget Staff
March 16, 2016	Conduct Board Workshop	GM Office
March 23, 2016	Submit program text to Finance	Dept Mgr
March 30, 2016	Conduct customer agency workshop	GM Office
April 13, 2016	Finance Committee – Considers draft water rates/charges and standby charge resolutions	Budget Staff
April 25, 2016	Board meeting – Adopt rates/charges and standby charge	Budget Staff
May 11, 2016	Finance Committee - Present draft budget document	Budget Staff
May 31, 2016	Board Meeting - Adopt FY 2016-2017 operating budget	Budget Staff

**December:** Each department manager reviews their department's personnel needs for the next fiscal year and will allocate each of their employee's time to the various program activities to accomplish the goals and objectives provided in the Plan. If a new position is deemed necessary, a request is made to Human Resources and reviewed with the General Manager. Based on their discussion with the requesting department, the General Manager will consider adding the proposed position, if any, to the budget. Human Resources will submit information regarding the proposed position to the Finance Department such as a pay range, position title and whether the position is full-time, part-time, permanent or limited.

**January:** Water sales projections are discussed by the department managers to aid in the development of water sales assumptions for both imported and recycled water sales. Budget versus actual reports for the current fiscal year are provided to each manager to assist in the preparation of a draft budget. Department managers then submit their proposed programmatic operating and capital improvement program (CIP) budgets for Fiscal Year (FY) 2016-17. The budget versus actual reports also assist each manager in providing their year-end program projections for the current fiscal year. 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 to meet the budget objectives for FY 2016-17 and future fiscal years. Also incorporated into the budget are the anticipated Metropolitan Water District (MWD) water rates to determine the total effect on West Basin's own water rates and charges (the changes in the MWD rate is passed through to West Basin's purveyors). The Finance Department reviews the CIP and the projected net revenues to determine if sufficient net revenues are available to meet the PAYGO requirements. The managers and budget staff meet to discuss the recommended water rates and charges to achieve the budget objectives for FY 2016-17. Water rate and acre-feet options are discussed and are presented to the General Manager's office for consideration.

**February:** 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's budget and/or current year spending levels. The General Manager will make changes to the draft budget as needed.

**March:** General Manager submits a proposed balanced budget to the Board of Directors in a workshop format. At the workshop, staff reviews water sales assumptions, operating budgets that meet the goals and objectives of the Plan and demonstrates appropriate all-in bond coverage levels. During 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. Department managers and budget staff submit budget text to explain and support program costs, water rates and charges, and other budgetary assumptions. Subsequent to the Board workshop, West Basin conducts a customer agency workshop to discuss its goals, the supporting budget and proposed water rates.

**April:** Any changes requested by the Board of Directors and/or the General Manager are incorporated into the proposed budget. The budget staff presents an update of the proposed budget and provides responses to feedback from the Board workshop and customer agency workshop at the Finance Committee. The Board of Directors adopts of the annual standby charge, and the water rates and charges.

**May:** The recommendation for approval is taken to the Board of Directors to adopt the proposed operating budget for the next fiscal year beginning July 1.



## Budget Review

West Basin's budget monitoring process begins shortly after the prior year's 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 presents an executive level budget versus actual report 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.

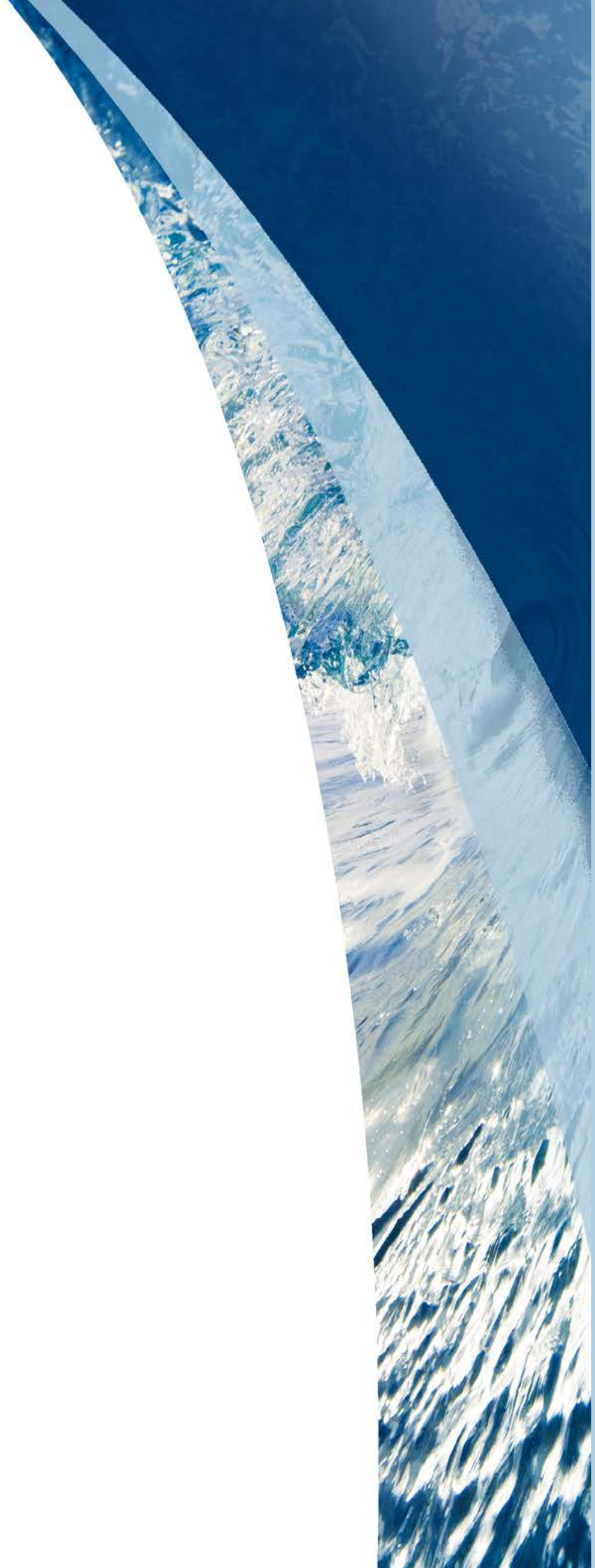
## Amendments to the Budget

The Budget is amended when expenditures are anticipated to significantly exceed estimates. Budget amendments can also occur for expenditures seen as appropriate charges but which 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 which program budgets 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 in order to be incorporated. Upon approval, staff updates the budget and financial system to reflect the approved change.





# Source of Revenue







# Source of Revenue

## Revenue Highlights

West Basin Municipal Water District'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 64.5% and recycling sales represent 26.3% of all revenue sources. Total budgeted revenues for Fiscal Year (FY) 2016-17 are \$191,809,050.

Summarized below are the actual, projected and budgeted revenues for the past three years along with comparative budgets (FY 2015-16 & FY 2016-17) to see the trend of various revenue sources.

REVENUES	FY 2013-14 ACTUALS	FY 2014-15 ACTUALS	FY 2015-16 PROJECTED	FY 2015-16 BUDGET	FY 2016-17 BUDGET
Imported Water Sales	\$133,053,569	\$133,953,435	\$128,819,869	\$129,488,450	\$120,871,094
Water Service Charge	475,548	527,238	578,928	578,928	625,449
Capacity Charge	1,781,028	2,265,450	2,563,100	2,563,100	2,231,780
Recycled Water / LRP	42,151,257	40,386,155	41,113,475	45,313,927	49,535,108
Fixed Revenue Charge	16,446,497	7,662,456	7,121,992	7,251,992	5,051,929
Desalter Water / GRP	789,969	700,631	879,900	879,900	904,990
General Fund Interest	(146,237)	209,589	400,000	516,000	926,300
Standby Charge	9,683,207	9,740,981	9,515,000	9,650,000	9,650,000
Conservation Income	1,036,527	735,542	522,240	937,753	1,378,700
Other Income	207,716	727,880	200,000	2,054,000	633,700
<b>Total Revenues</b>	<b>\$205,479,081</b>	<b>\$196,909,356</b>	<b>\$191,714,504</b>	<b>\$199,234,050</b>	<b>\$191,809,050</b>

West Basin is a wholesaler who purchases imported water from Metropolitan Water District (MWD) for retail use (municipal, commercial, and domestic) and groundwater replenishment uses. Desalted brackish groundwater is also produced and sold. In the early 1990s, West Basin began constructing recycled water distribution pipelines and facilities 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 facilities and pipelines, West Basin obtains funding from a variety of sources including a Standby Charge, fixed revenue charges, and commodity rates.

West Basin receives approximately 7.7% of its revenues from fixed revenue charges and the Standby Charge. The fixed revenue charges are determined by agreements. The Standby Charge generates approximately \$9.65 million and through Resolution 04-16-1031, the charges were approved by the Board on April 25, 2016.

Annually, West Basin establishes rates and charges through a resolution approved by the Board of Directors. Resolution 04-16-1030 was adopted at its April 25, 2016 meeting and includes rates for the following services:

- Two price tiers for non-interruptible service;
- Capacity Charge;
- Water 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 as West Basin has met its requirement to MWD.

The acre-foot (AF) assumption for water deliveries is also reviewed annually and is 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 West Basin capital projects to determine where recycled water sales may replace imported water sales. Retail imported water sales were 105,539 AF in FY 2014-15 and, due to continued drought conditions, conservation messaging and anticipated groundwater usage by customer agencies, sales are projected to drop approximately 4.3% to 101,000 AF by end of FY 2015-16. West Basin was able to achieve these sales due to one customer's need to supplement their water from potable instead of groundwater. West Basin anticipates a continued drop in imported sales in FY 2016-17 with continuous drought messaging and conservation efforts. As a result, in FY 2016-17 West Basin is budgeting for expected sales of 91,000 AF, which is a 7.1% decline from its FY 2015-16 budget of 98,000 AF.

As expected, budgeted sales of imported water to the West Coast 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) are expected to drop from 7,354 AF in FY 2014-15 to a projected 2,900 AF at end of FY 2015-16.

West Basin strives to deliver as much recycled water as possible for injection into the West Coast Barrier (Barrier) and as a result expects a 60% decrease in imported sales to the barriers, budgeting for 2,500 AF in FY 2016-17. Although more recycled water is being delivered to the Barrier, revenues are negatively impacted due to the lower rate (per agreement) at which recycled water is sold to the Barrier.

*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

West Basin imported water revenues are comprised of three rate components: MWD's Commodity Rate, Readiness-to-Serve (RTS) Charge, and West Basin's Reliability Service Charge. West Basin's retail and barrier imported water rate will have a combined overall increase of \$64/AF by January 2017. West Basin's Board of Directors approved its one-year rate increase for FY 2016-17 at the Board meeting on April 25, 2016. Based on AF assumptions and the rates for the fiscal year described below, West Basin is budgeting \$120,871,094 in imported water sales.

MWD's commodity rate increase has historically become effective on January 1 of each year, and last year MWD approved rates for the next two years on April 4, 2016. For Calendar Year (CY) 2017 and 2018, MWD's Board of Directors voted to increase their non-interruptible commodity rate approximately 3.9% and 3.7%, respectively, effective January 1 in those years. West Basin will pass through the MWD Tier 1 commodity rate at \$942/AF from July-December 2016 and \$979/AF from January-June 2017.

MWD's Board of Directors also approved an overall RTS charge collection of \$135 million in CY 2017, a decrease of 11.8% from the \$153 million collected in CY 2016. 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 agency's 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). Consequently, West Basin's allocated portion in FY 2016-17 has decreased by \$932,167. The RTS component of West Basin's imported water rate was determined by dividing West Basin's share of MWD's RTS collection by the budgeted imported water sales, approximately \$116/AF, effective January 1, 2017.

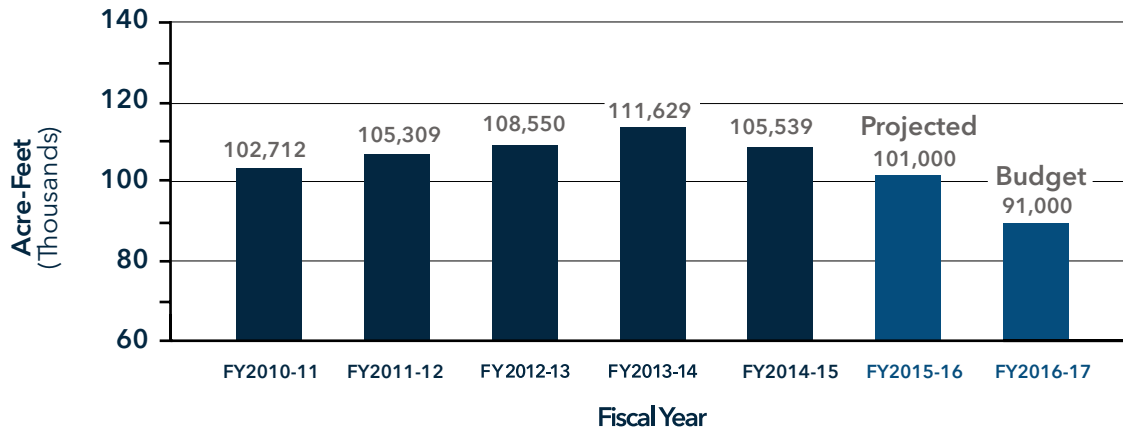
The Reliability Service Charge (RSC) will increase from \$194 to \$223 or \$29/AF to maintain West Basin's all-in debt service coverage target of 1.75. The continued commitment to this target is in response to prior reviews with Moody's rating agency which emphasized that the financial metrics compared to its peers had been lower. This increased RSC also provides West Basin sufficient revenues to support its Water Reliability Program.

### West Basin Municipal Water District Proposed FY 2016-17 Water Rates and Charges

<b>Rates Effective July 1, 2016 to December 31, 2016</b>				
	<b>MWD Commodity</b>	<b>MWD RTS</b>	<b>Reliability Svc Charge</b>	<b>Total</b>
<i>Non-Interruptible Retail &amp; Barrier (Tier 1)</i>	\$942/AF	\$118/AF	\$223/AF	<b>\$1,283/AF</b>
<i>Non-Interruptible Retail &amp; Barrier (Tier 2)</i>	\$1,076/AF	\$118/AF	\$223/AF	<b>\$1,417/AF</b>
<b>Rates Effective January 1, 2017</b>				
	<b>MWD Commodity</b>	<b>MWD RTS</b>	<b>Reliability Svc Charge</b>	<b>Total</b>
<i>Non-Interruptible Retail &amp; Barrier (Tier 1)</i>	\$979/AF	\$116/AF	\$223/AF	<b>\$1,318/AF</b>
<i>Non-Interruptible Retail &amp; Barrier (Tier 2)</i>	\$1,073/AF	\$116/AF	\$223/AF	<b>\$1,412/AF</b>

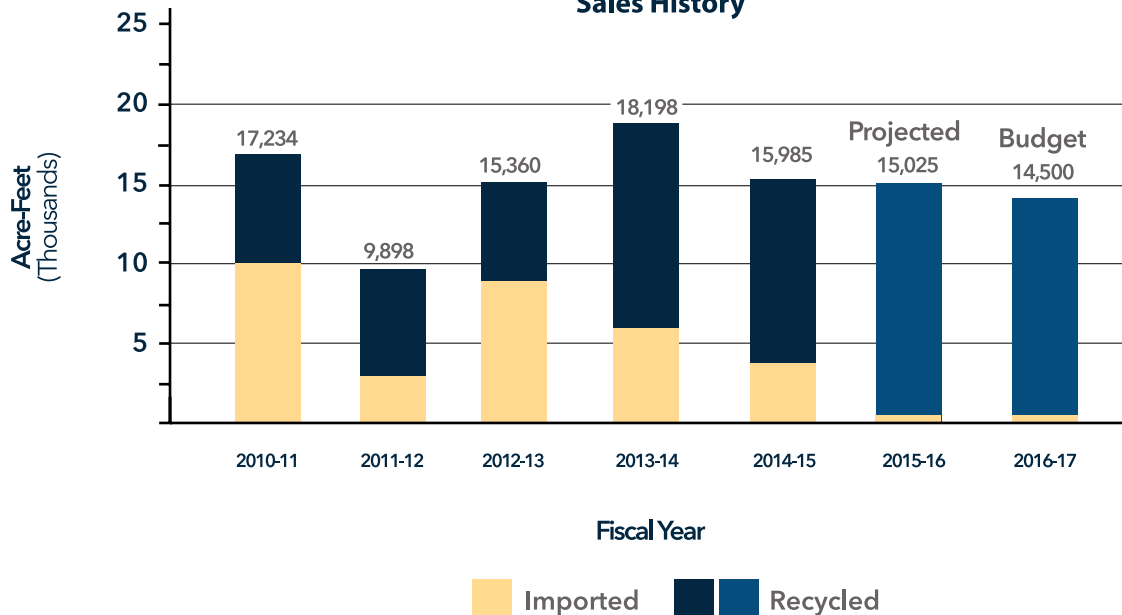
Imported water sales vary based on hydrologic conditions, water demand and on the available water supply. West Basin imported water sales have increased annually since experiencing a low of 102,712 AF in FY 2010-11, reaching 111,629 AF in FY 2013-14. However, even with El Niño conditions that brought snowpack levels close to 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 use compared to FY 2015-16. Projected sales for the end of FY 2015-16 are expected to decline 4.3% to 101,000 AF. Indicators point to a continued decrease in consumption and West Basin has budgeted water sales for FY 2016-17 to be 91,000 AF in anticipation of lowered demand.

## Retail Sales FY 2010-11 thru FY 2016-17



Based on information received from the Water Replenishment District (WRD) and the County of Los Angeles, West Basin determines the overall demand at the West Coast Barrier (Barrier) and Dominguez Gap Barrier. Historically, the Barrier is injected with a mix of recycled and imported water, with total (imported and recycled) water delivered in FY 2014-15 of 15,985 AF. Overall, the gross amount of water deliveries to the Barrier is expected to decline while emphasis is placed on injecting more recycled water and less imported water. 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 3,582 AF in FY 2014-15 to a projected 525 AF in FY 2015-16. While West Basin strives to deliver 100% recycled water to the Barrier, 500 AF of imported water is budgeted for contingency in case of emergency and/or any unanticipated demands by County of Los Angeles. In addition to 500 AF of imported water, West Basin expects sales of 14,000 AF of recycled water to the West Coast Barrier for FY 2016-17, a total of 14,500 AF. Imported water demand to the Dominguez Gap Barrier is also expected to drop and will be budgeted at 2,000 AF for FY 2016-17, a decrease of 1,600 AF from the previous year.

## West Coast Barrier Sales History



## Water Service Charge

West Basin collects the Water Service Charge as a monthly fixed amount based on the cubic feet per second (cfs) of each customer's meter capacity. West Basin adopted a rate of \$56/cfs effective at the beginning of FY 2015-16 and will increase the rate to \$61/cfs for FY 2016-17. There has been no change in the number and size of meters remaining at 44 meters ranging from 4 cfs to 160 cfs. West Basin anticipates \$630,618 from this revenue source. The monthly amount to any one customer shall not exceed \$4,600 per meter.

## 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 cubic feet per second (cfs) peak amount from its customers is 296.6 cfs for CY 2016, calculated on each customer's highest overall peak level during the past three (3) years. West Basin's non-coincidental peaking with MWD is 230.2 in both CY 2016 and CY 2017.

### West Basin Customers

	2013	2014	2015	Peak	Monthly Payment <sup>1</sup>
California American Water Co.	2.5	3.7	2.8	<b>3.7</b>	\$ 2,035
Cal Water - Dominguez	56.4	51.1	46.5	<b>56.4</b>	\$ 31,020
Cal Water - Hawthorne	7.1	7.5	6.5	<b>7.5</b>	\$ 4,125
Cal Water - Hermosa Redondo	21.1	20.7	18.6	<b>21.1</b>	\$ 11,605
Cal Water - Palos Verdes	44.6	44.2	33.9	<b>44.6</b>	\$ 24,530
LA County Waterworks No. 29	18.1	18.2	16.9	<b>18.2</b>	\$ 10,010
City of El Segundo	10.7	20.5	20.6	<b>20.6</b>	\$ 11,330
City of Inglewood	16.3	15.0	11.5	<b>16.3</b>	\$ 8,965
City of Lomita	5.1	3.6	3.9	<b>5.1</b>	\$ 2,805
City of Manhattan Beach	9.8	10.3	7.8	<b>10.3</b>	\$ 5,665
Golden State Water Co.	29.6	34.3	44.3	<b>44.3</b>	\$ 24,365
Water Replenishment District	48.5	22.7	2.8	<b>48.5</b>	\$ 26,675
			<b>TOTAL</b>	<b>296.6</b>	\$ 163,130
					<b>\$ 1,957,560</b>

[1] Amount rounded to the nearest dollar

West Basin models MWD's methodology to calculate its peak charges to the sub agencies, and therefore 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 increase as well. West Basin will decrease its current Capacity Charge Rate from \$8,500/cfs to \$6,600/cfs on January 1, 2017, with anticipated revenues of \$2,231,780 during FY 2016-17.

## Recycled Water Charges and Fixed Revenue Charges

West Basin adopts its recycled water rates to increase according to customer agreements or in line with the West Basin's Non-Interruptible Tier 1 rate increase, depending on the type of recycled water. In addition, West Basin also takes into consideration the increase in the imported water rate when it budgets for increases in the recycled water 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 \$49,535,108 for FY 2016-17.

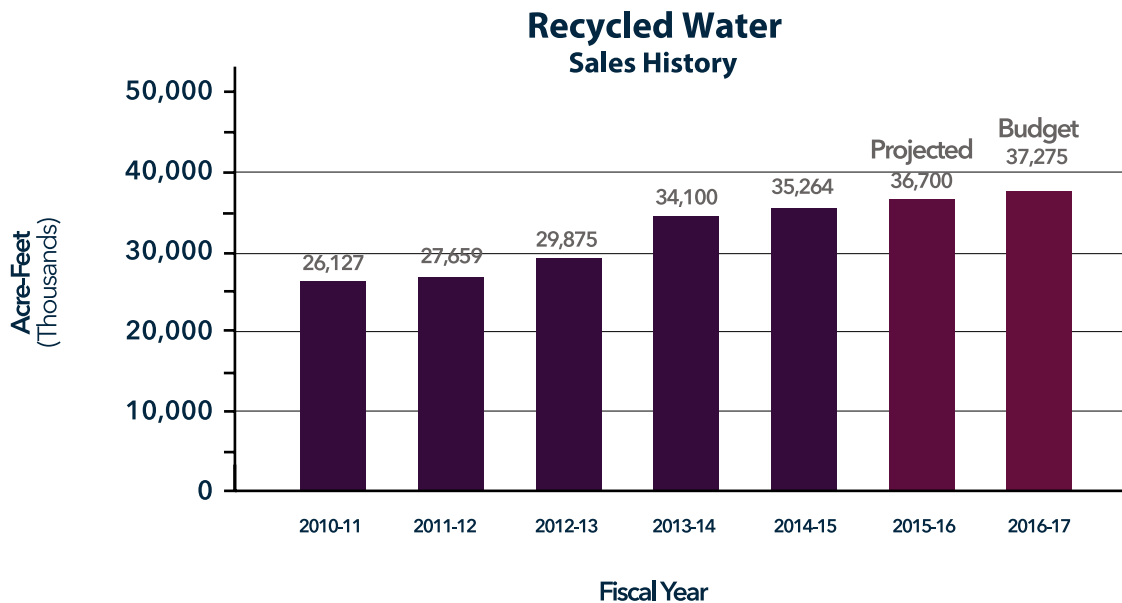
WBMWD Recycled Water Rates Effective July 1, 2016							
Volume (AF/ Month)	WBMWD Service Area	West Coast Barrier (<4,500 AF)	West Coast Barrier (4,500+ AF)	Low Pressure Boiler Feed	Nitrified	High Pressure Boiler Feed	Outside Service Area
0-25	\$1,069/AF	\$1,219/AF	\$618/AF	\$1,297/AF	\$1,049/AF	\$1,653/AF	\$1,111/AF
25-50	\$1,059/AF	\$1,219/AF	\$618/AF	\$1,297/AF	\$1,049/AF	\$1,653/AF	\$1,101/AF
50-100	\$1,049/AF	\$1,219/AF	\$618/AF	\$1,297/AF	\$1,049/AF	\$1,653/AF	\$1,091/AF
100-200	\$1,039/AF	\$1,219/AF	\$618/AF	\$1,297/AF	\$1,049/AF	\$1,653/AF	\$1,081/AF
200+	\$1,029/AF	\$1,219/AF	\$618/AF	\$1,297/AF	\$1,049/AF	\$1,653/AF	\$1,071/AF

In addition, West Basin anticipates receiving approximately \$5.05 million in fixed revenue charges, based on agreements with Tesoro (originally with Arco), Chevron, and ExxonMobil Oil Refineries and LADWP, which are designed to repay the cost of the treatment and distribution facilities that were constructed exclusively for delivery of recycled water to these entities.

Recycled Water Type	2013-14 Actuals	2014-15 Actuals	2015-16 Projected	2015-16 Budget	2016-17 Budget
Title22-Within WB	7,172 AF	7,314 AF	7,070 AF	6,725 AF	7,500 AF
Title22- LADWP	945	881	960	950	950
Torrance	6,529	5,270	4,800	5,975	4,575
Barrier	12,372	12,403	14,500	15,500	14,500
LPBF	6,034	6,061	6,100	6,450	6,450
HPBF	2,362	2,495	2,370	2,350	2,400
Nitrified	1,284	840	900	900	900
<b>Total Recycled</b>	<b>36,698 AF</b>	<b>35,264 AF</b>	<b>36,700 AF</b>	<b>38,850 AF</b>	<b>37,275 AF</b>

LPBF = Low Pressure Boiler Feed  
HPBF = High Pressure Boiler Feed

West Basin currently serves recycled water to more than 400 sites with sales projected at 36,700 AF in FY 2015-16. For FY 2016-17, West Basin anticipates a decline in recycled water sales, as compared to FY 2015-16 Budget, as a result of overall decreased consumer demand. Expected recycled water sales are comprised of approximately 39% sales to the Barrier, 48% to local refineries, and the remaining 13% will be used in parks, golf courses, schools and street medians. Recycled water sales in FY 2014-15 were 35,264 AF, a decrease of 1,434 AF over the previous year, and sales are expected to reach 36,700 AF by the end of FY 2015-16. One major user of recycled water, ExxonMobil Refinery, suffered damage to its operations in 2015 and it is unknown when it will resume full operations. ExxonMobil used 6,183 AF in FY 2013-14, 4,887 AF in FY 2014-15 and is on pace for only 3,350 AF in FY 2015-16. In light of these events, West Basin has budgeted 37,275 AF of recycled water sales in FY 2016-17, a 4% decline from FY 2015-16.



### Desalter Water Charges

West Basin sells desalinated brackish water produced at the C. Marvin Brewer Desalter to California Water Service Company (CWSC), and prior to FY 2013-14 West Basin also received a \$250/AF incentive payment from MWD through their Groundwater Recovery Program (GRP). This agreement with MWD expired May 15, 2013, and as a result West Basin no longer receives this incentive. To address the affordability of this type of water, West Basin amended its CWSC agreement to restructure the rate. The Desalter Rate is based on MWD’s commodity charges plus West Basin’s RTS charge. The current rate for desalted water is \$1,060/AF and will increase to \$1,095/AF on January 1, 2017. Deliveries from the Brewer Desalter are budgeted at 840 AF for FY 2016-17 and anticipated revenues are \$904,990 in FY 2016-17.



## 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 2016 17, 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 number of units included in the Standby Charge Program and their Weighted Benefit calculation. Based on approximately 346,449 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 \$9,650,000. The Board conducted a public hearing on March 29, 2016, 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 04-16-1031) at its April 25, 2016 meeting.

	Parcels =< 1 Acre	Acres >1 Acre	Total Units	Benefit Ratio	Weighted Benefit Unit	Rate	Amount
<b>Residential</b>							
Residential	145,021	15,061	160,082	1.5	240,123	\$24	\$3,841,961
Reduced Parcels	0	0					0
Partial Exemptions	8	196					2,443
Multi Unit Res.incl Hotel and Motel			159,136	1	159,136	\$16	2,546,176
<b>Non-Residential</b>							
Non-residential	12,626	14,605	27,231	7.5	204,229	\$120	3,267,660
Reduced Parcels							
Partial Exemptions	9						540
<b>TOTAL</b>			<b>346,449</b>		<b>603,488</b>		<b>\$9,658,780</b>





## Conservation Income

Through the development of the Conservation Master Plan and West Basin's Water Reliability Program goals, West Basin continues to enhance its Conservation Program offerings across 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 \$3.50 from various partners, thereby enhancing the programs to greater benefit of the residents and businesses throughout the service area. For FY 2016-17, West Basin will continue to receive outside funding from MWD and from many of its customer agencies, and anticipates grant funding from the State of California Department of Water Resources (DWR) and the United States Bureau of Reclamation (USBR). For FY 2016-17, West Basin anticipates its partner contributions as follows:

State Grants – DWR	\$ 655,228
Federal Grants – USBR	457,500
MET	249,000
Customer Agencies	<u>16,972</u>
Total	\$1,378,753

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 2016-17, general fund interest income is expected to be approximately \$926,000. 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.

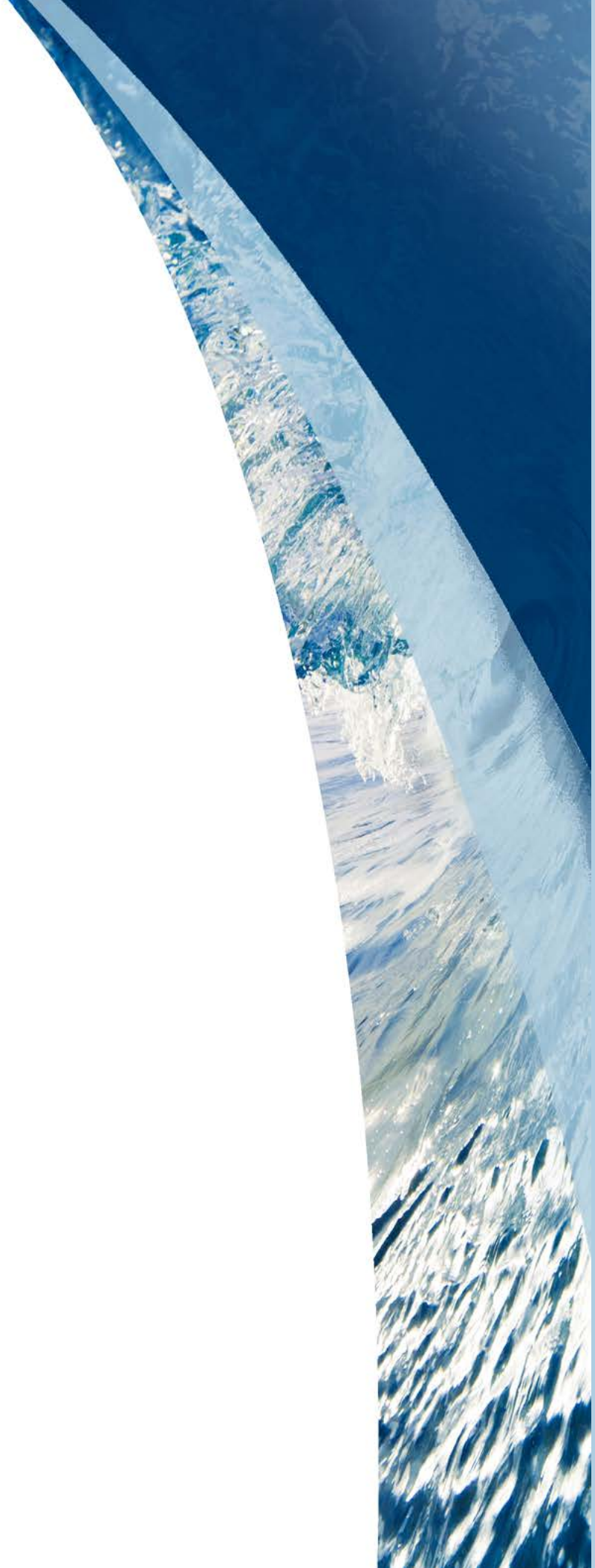
## Other Income

West Basin anticipates miscellaneous income to support its efforts for the annual Water Harvest Festival, the Title 22 Water Quality Monitoring Program, and grants. Overall, West Basin anticipates approximately \$634,000 in FY 2016-17 for other income.





# Use of Funds





# Use of Funds

## Expenditure Highlights

West Basin Municipal Water District (West Basin) maintains a single enterprise fund which is divided among four major types of expenses: water purchases (including the Readiness-to-Serve (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.

Expenditures	FY 2013-14 ACTUALS	FY 2014-15 ACTUALS	FY 2015-16 Projected	FY 2015-16 Budget	FY 2016-17 Budget
Imported Water Purchases / RTS	\$116,451,274	\$114,471,160	\$109,570,205	\$108,946,700	\$100,482,421
Capacity Charge	1,665,340	2,234,790	2,532,200	2,532,200	2,175,390
Debt Service	26,537,695	26,712,191	24,926,968	24,959,080	24,896,211
Bond Fund Interest	(170,230)	(1,107)	(1,856)	-	-
Water Recycling Operations	32,682,913	34,511,305	34,547,976	36,919,234	37,353,466
Desalter Operations	810,526	870,052	997,100	1,057,697	1,150,733
Water Policy	2,302,418	1,815,915	1,492,000	1,301,438	1,439,962
Public Information	3,513,761	2,905,785	2,751,200	2,855,464	3,173,979
Conservation	2,240,660	1,347,500	1,131,038	2,007,106	2,532,764
Water Quality Monitoring	13,907	16,862	8,900	11,612	25,430
Designated Funds	19,430,817	12,024,903	13,758,773	18,643,519	18,578,694
<b>Total Expenditures</b>	<b>\$205,479,081</b>	<b>\$196,909,356</b>	<b>\$191,714,504</b>	<b>\$199,234,050</b>	<b>\$191,809,050</b>

Overall expenditures are budgeted to decrease approximately \$7.4 million in fiscal year (FY) 2016-17 as compared to FY 2015-16 primarily due to a decrease in imported water/RTS purchases. Imported water purchases/RTS are decreasing significantly due to anticipated decreases in retail imported water sales, while West Basin's Capacity Charge is dropping due to MWD reducing their rate to its member agencies for the second consecutive calendar year. West Basin's debt service obligation in FY 2016-17 will drop by approximately \$63,000 and program expenses are budgeted to slightly increase. See "Operating Program Expenses" 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. With increased conservation messaging by the State and local agencies, and increased conservation program funding from MWD, sales declined 6,090 AF in FY 2014-15 and would have decreased again in FY 2015-16 had it not been for one customer agency purchasing higher than normal amount of imported water due to their inability to pump groundwater for an extended period of time. In response to Governor Brown issuing an Executive Order in 2015 calling for statewide mandatory water reductions of 25 percent, MWD approved a Level 3 (approximately 15%) water allocation plan to limit deliveries to its member agencies. On February 2, 2016 the State Water Board adopted an extended and revised emergency regulation to ensure urban water conservation continues. Based on the State-mandated directives and the public being more efficiency-minded, along with numerous conservation programs, West Basin has budgeted imported water retail purchases to 91,000 AF for FY 2016.

Through WRD, West Basin provides imported water to inject into the Dominguez Gap Barrier and the West Coast Basin Barrier (Barrier) when the goal of injecting 100% recycled water into the Barrier cannot be met. Actual imported water sales to both Barriers are expected to decrease from 7,354 AF in FY 2014-15 to a projected 2,900 AF in FY 2015-16. West Basin anticipates sales to both Barriers in FY 2016-2017 to decline and has reduced the budget to 2,500 AF from a budget of 6,300 AF in FY 2015-16.

### MWD Non-Interruptible Commodity Rate

As mentioned earlier, West Basin purchases all of its imported water from MWD. On April 12, 2016, the MWD Board approved its biennial budget and water rates. Although the overall average rate increase adopted by MWD was 4.0% for both Calendar year 2017 and 2018, the imported water commodity rate effectively increased 3.9% or \$37 per AF effective January 1, 2017. 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.

MWD Non-Interruptible Commodity Rate		
	Effective Dates	
	1/1/16	1/1/17
Supply Rate Tier 1	\$156	\$201
Supply Rate Tier 2	\$290	\$295
System Access Rate	\$259	\$289
Water Stewardship Rate	\$41	\$52
Treatment Rate	\$348	\$313
Power Rate	\$138	\$124
<b>Total Tier 1</b>	<b>\$942</b>	<b>\$979</b>
<b>Total Tier 2</b>	<b>\$1,076</b>	<b>\$1,073</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 is currently \$153 million for calendar year (CY) 2016 and will decrease to \$135 million in CY 2017. 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, and West Basin's share for CY 2017 will decrease from 7.47% to 7.31%. With MWD decreasing their aggregate collection from \$153 million to \$135 million and West Basin's proportional share decreasing to 7.31%, the RTS expense for FY 2016-2017 will decrease approximately \$900,000.

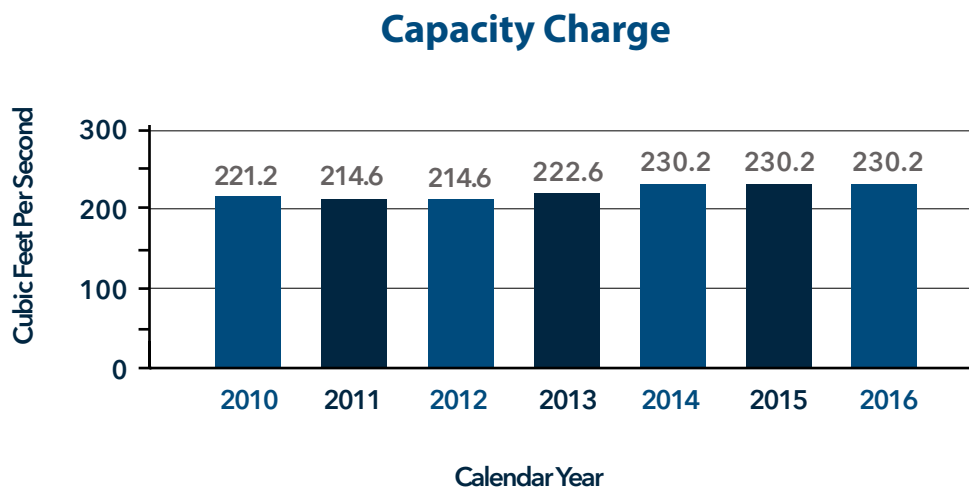
Many of MWD's member agencies elect to have their RTS share collected by MWD; however, West Basin's RTS share is a pass-thru to its customers, the collection of which is explained more thoroughly in the "Sources of Revenue" section.

Overall, West Basin estimates water purchases and RTS expenditures to be \$100,482,421.

## Capacity Charge

MWD charges its member 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 cubic foot per second (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 2016.



Effective January 1, 2017, MWD will decrease its Capacity Charge from \$10,900 per cfs to \$8,000 per cfs. Due to this decrease in the Capacity Charge and West Basin's peak flow remaining constant, the capacity cost will decrease from \$209,098 per month for the first six months of FY 2016-17 to \$153,467 per month for the second six months of FY 2016-17, for a total cost of \$2,175,390.

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 and 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 through appropriate refunding opportunities.

West Basin currently has the following outstanding debt obligations:

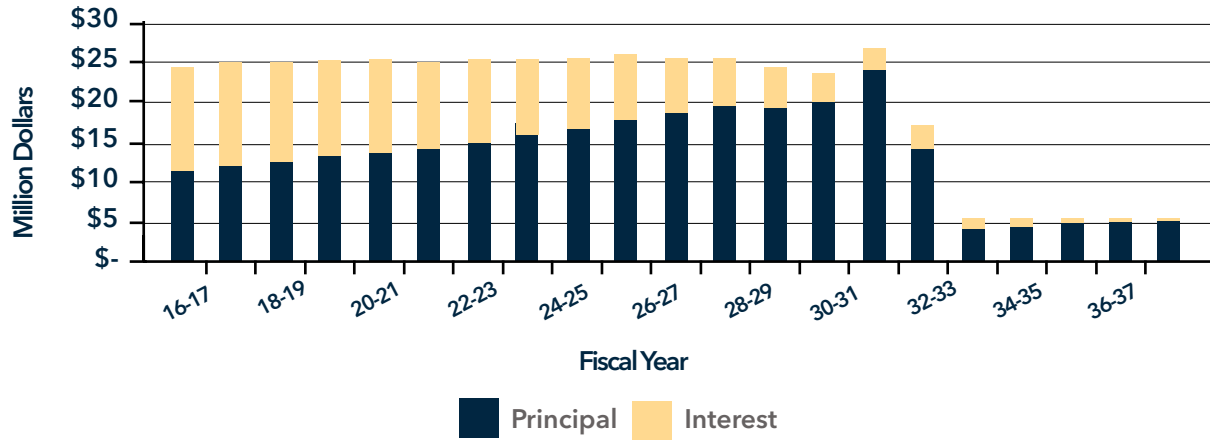
Current Outstanding Long-Term Debt						
Series Name	2008B	2010A	2011A	2011B	2012A	2013A
<b>Original Amount</b>	\$128,665,000	\$40,000,000	\$34,190,000	\$60,275,000	\$50,325,000	\$17,165,000
<b>Type of Debt</b>	Certificates of Participation	Certificates of Participation	Refunding Revenue Bonds	Refunding 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% - 4.0%
<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	2013
<b>Final Maturity</b>	2031	2030	2024	2036	2029	2016
<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>	\$9.0 Million	\$3.4 Million	\$4.9 Million	\$3.0 Million	\$4.4 Million	\$.3 Million
<b>2016 Principal</b>	\$3.8 Million	\$2.3 Million	\$3.5 Million	\$0	\$2.3 Million	\$.3 Million
<b>2016 Interest</b>	\$5.2 Million	\$1.1 Million	\$1.4 Million	\$3.0 Million	\$2.1 Million	\$0
<b>Lien</b>	Subordinate	Senior	Senior	Senior	Senior	Senior

For FY 2016-17, debt service is budgeted at \$24,896,211.



## Debt to Maturity (on a cash basis)

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.



1-Aug	Certificates of Participation		Refunding Revenue Bonds		Total	
	Principal	Interest	Principal	Interest	Principal	Interest
2016	5,975,000	6,369,039	5,515,000	6,720,950	11,490,000	13,089,989
2017	6,125,000	6,184,820	6,105,000	6,500,350	12,230,000	12,685,170
2018	6,360,000	5,994,249	6,345,000	6,256,150	12,705,000	12,250,399
2019	6,625,000	5,851,102	6,580,000	6,012,700	13,205,000	11,863,802
2020	6,880,000	5,577,087	6,810,000	5,794,250	13,690,000	11,371,337
2021	7,050,000	5,294,890	7,125,000	5,493,750	14,175,000	10,788,640
2022	7,730,000	5,023,780	7,480,000	5,137,500	15,210,000	10,161,280
2023	8,335,000	4,647,740	7,780,000	4,776,000	16,115,000	9,423,740
2024	8,690,000	4,240,984	8,150,000	4,387,000	16,840,000	8,627,984
2025	9,165,000	3,813,397	8,720,000	4,010,500	17,885,000	7,823,897
2026	9,560,000	3,365,663	8,915,000	3,574,500	18,475,000	6,940,163
2027	9,970,000	2,898,645	9,435,000	3,148,750	19,405,000	6,047,395
2028	9,105,000	2,465,145	9,910,000	2,677,500	19,015,000	5,142,645
2029	9,555,000	1,506,250	10,410,000	2,182,000	19,965,000	3,688,250
2030	20,035,000	1,028,500	4,080,000	1,661,500	24,115,000	2,690,000
2031	10,535,000	526,750	4,285,000	1,457,500	14,820,000	1,984,250
2032	0	0	4,500,000	1,243,250	4,500,000	1,243,250
2033	0	0	4,725,000	1,018,250	4,725,000	1,018,250
2034	0	0	4,960,000	782,000	4,960,000	782,000
2035	0	0	5,210,000	534,000	5,210,000	534,000
2036	0	0	5,470,000	273,500	5,470,000	273,500
<b>Total</b>	<b>\$141,695,000</b>	<b>\$64,788,041</b>	<b>\$142,510,000</b>	<b>\$73,641,900</b>	<b>\$284,205,000</b>	<b>\$138,429,941</b>

The principal amount due in 2030 includes \$10,000,000 of Adjustable Rate Certificates of Participation that the District has an obligation to repay on its final maturity, August 1, 2030.

As of June 30, 2016, West Basin has \$284 million in long-term debt outstanding. From FY 2009-10 through FY 2012-13, West Basin changed its debt portfolio by refunding a portion of its outstanding Certificates of Participation (COP) bonds and issuing Refunding Revenue Bonds. These transactions resulted in West Basin lowering its interest cost due to the bond market favoring revenue bonds over COP's and because of the low interest rate environment. No new debt or refunding transactions has occurred in the past three (3) fiscal years.

In addition to refunding certain portions of its outstanding COP's, in June 2010 West Basin issued the 2010A Adjustable Rate COP's (referred to as Commercial Paper or CP) to provide funding for allowable projects. The CP Program allows West Basin to move forward on capital projects until it needs to secure long-term debt. This debt is structured as a direct loan with a third party provider, U.S. Bank. The liquidity facility related to the CP Program has a shorter period than the underlying bonds and was extended an additional 2.5 years beginning April 2016.

West Basin has several anticipated capital projects that will require the issuance of new long-term debt during FY 2016-17. West Basin has secured a capital grant 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 \$15 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 \$35 million in construction proceeds which results in annual level debt service payment of approximately \$2.5 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.

The following table shows the ratio for the last 10 years of the total capital assets compared to debt outstanding.

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	
2006	326,340	2,857	329,197	381,143	73,251	454,394	0.72
2007	315,290	2,593	317,883	387,074	89,738	476,812	0.67
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

**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.**

## Swap Transactions

West Basin currently has two swap transactions, both with the same counterparty, outstanding with a total notional amount of \$23,300,000. 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.

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.

## 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.

In FY 2015-16, West Basin's financial advisor made a presentation to the Board regarding changes made by Moody's to its rate setting analysis and suggested West Basin increase its internal target debt coverage. The Board agreed with the recommendation and directed staff to set the targeted all-in debt coverage at 1.75 beginning with the FY 2015-16 operating budget. The FY 2016-17 operating budget was also developed using the 1.75 as the targeted all-in debt coverage as well as each of the next 5 fiscal years in the projected operating results.

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

<b>Bond Debt Coverage Ratios (in 000's – except coverage)</b>						
<b>Bond Coverage Ratios</b>	<b>FY 2016-17</b>	<b>FY 2017-18</b>	<b>FY 2018-19</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>
Revenues	\$191,809	\$197,267	\$209,146	\$214,876	\$220,615	\$229,562
O&M	148,334	152,854	158,378	163,151	171,433	179,048
Net Revenues to pay senior debt	43,475	44,413	50,768	51,725	49,182	50,514
Total Senior Debt	15,927	16,004	19,243	19,339	19,250	17,861
<b>Senior Debt Coverage</b>	<b>2.73</b>	<b>2.78</b>	<b>2.64</b>	<b>2.67</b>	<b>2.55</b>	<b>2.83</b>
Net Revenues to pay subordinate debt	27,548	28,409	31,525	32,386	29,932	32,653
Total Subordinate Debt	8,969	8,944	8,948	8,935	8,928	10,630
<b>Subordinate Debt Coverage</b>	<b>3.07</b>	<b>3.18</b>	<b>3.52</b>	<b>3.62</b>	<b>3.35</b>	<b>3.07</b>
<b>All-In Coverage</b>	<b>1.75</b>	<b>1.78</b>	<b>1.80</b>	<b>1.83</b>	<b>1.75</b>	<b>1.77</b>
Remaining Net Revenue	\$18,579	\$19,464	\$22,576	\$23,450	\$21,005	\$22,023

For the future years, as shown in the above chart, the internal target all-in debt coverage of 1.75 is anticipated to be achieved.

## 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 as well as to the Capital Improvement Program.

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 other 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 51 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.

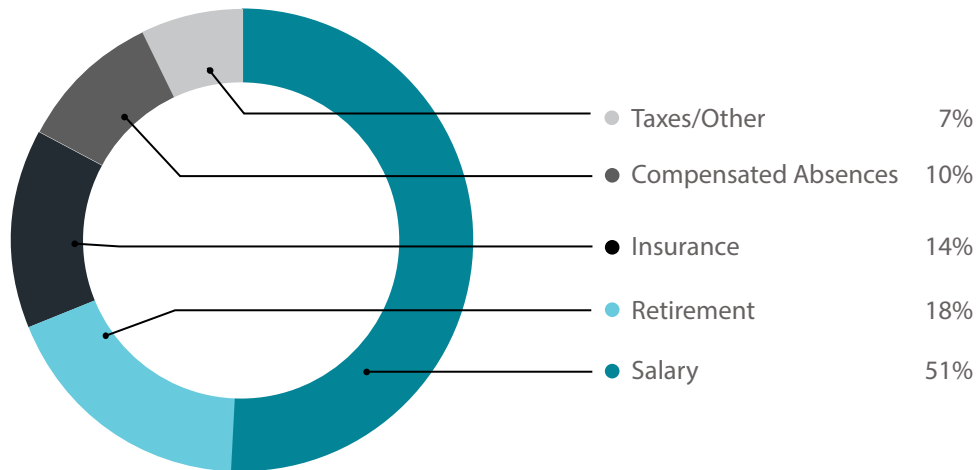
The following is included in West Basin's benefits package:

- 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
- 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.

## Salaries and Benefits



West Basin's benefits package and total payroll comprises 4.4% of its total FY 2016-17 operating budget. The types of benefits included are consistent with the prior year's budgets and reflect an anticipated 8.0% average increase in health insurance and 1.1% increase in dental insurance. West Basin's pension costs for "Classic" CalPERS members saw a slight increase of less than 1.0% in its employer rate from 12.764% to 13.504, beginning July 1, 2016. Pension costs for "Tier 2" CalPERS members also increased slightly from 6.7% to 6.93%. The estimated Other Post-Employment Benefits (OPEB) contribution for FY 2016-17 will be \$426,540, decreasing from \$529,000 in FY 2015-16. 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 4% merit increase in the FY 2016-17 Budget.

The organizational chart shows the full-time and part-time budgeted positions for FY 2016-17.



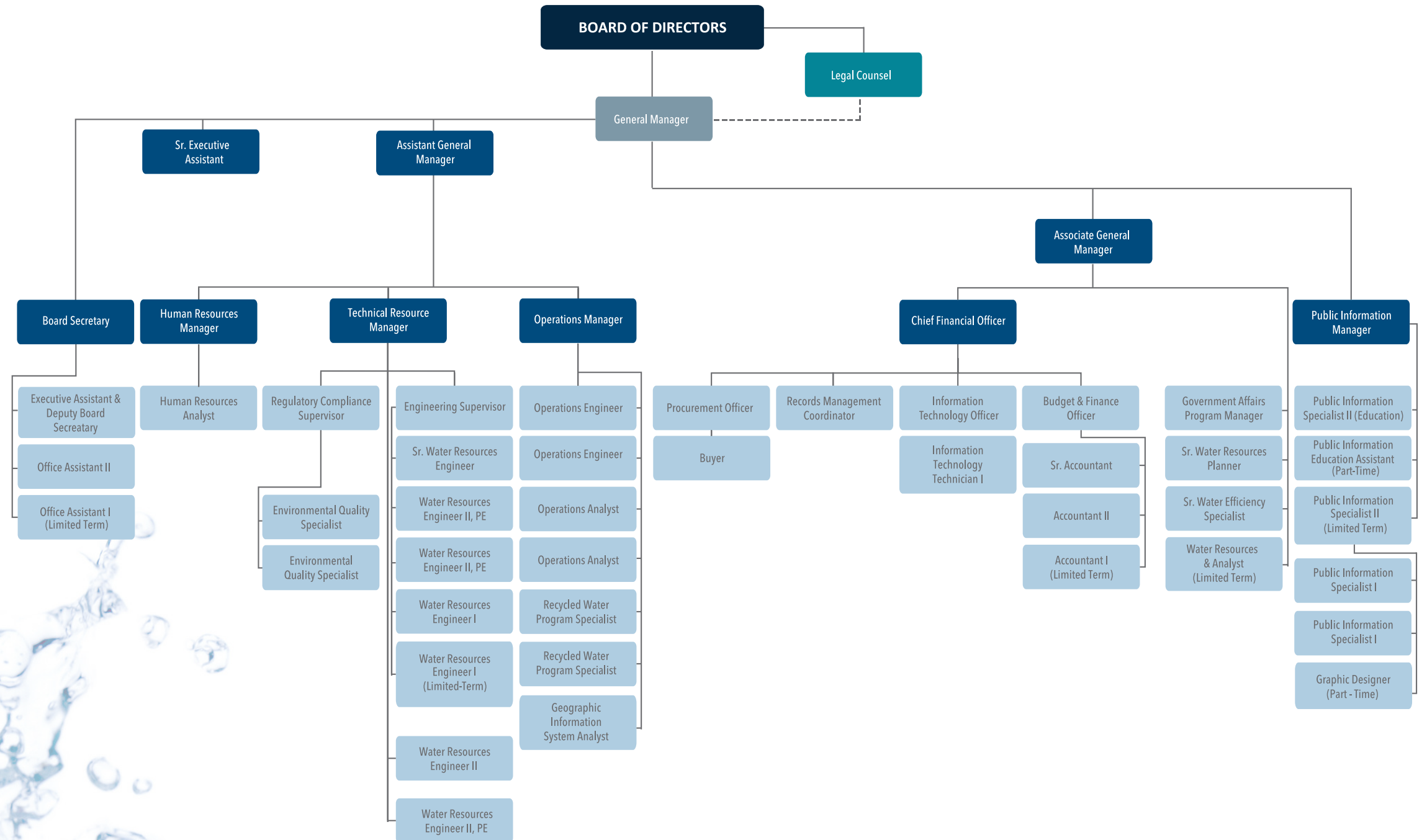


## Organizational Chart

In the FY 2016-17 Budget, staffing levels will increase from forty-five (45) to fifty-one (51) full and part-time positions. The change reflects an increase from thirty-nine to forty-four full-time regular positions and four to five full-time limited-term positions. In FY 2015-16 West Basin went through a minor restructuring between several departments as a result of a key employee retiring. In addition to the restructuring, five full-time regular positions were deemed necessary including two which were converted from a limited-term status; the three new regular positions are: one full-time Water Resources Engineer II to support the analysis of the planning and development for ocean water desalination, an Operations Engineer II to oversee the treatment and distribution of power consumption, and an Information Technology Technician I to meet the growing information technology needs. Along with the new full-time regular positions, three full-time limited positions were added including one position to the engineering staff as a Water Resources Engineer I to assist with upcoming projects, an Office Assistant I needed to support the Board Services department, and a Public Information Specialist II to fulfill department staffing needs.

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 seven interns in FY 2015-16 and reduced the head count by one to 6 positions in FY 2016-17.

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.







## Summary of Personnel Head Count by Department (Not including interns)

Position	Actual		Budgeted		Change from
	FY 2014-15	FY 2015-16	FY 2015-16	FY 2016-17	FY 2015-16
<i>Office of the General Manager</i>					
General Manager	1	1	1	1	0
Assistant General Manager	1	1	1	1	0
Associate General Manager	1	1	1	1	0
<i>Board Services</i>					
Board Secretary	1	1	1	1	0
Executive Assistant & Deputy Board Secretary	1	1	1	1	0
Senior Executive Assistant	1	0	1	1	0
Office Assistant II	1	1	1	1	0
Office Assistant I (Limited Term)	0	1	0	1	1
Records Management Coordinator	1	0	1	1	0
<i>Human Resources</i>					
Human Resources Manager	1	1	1	1	0
Human Resources Analyst	1	1	1	1	0
<i>Public Information &amp; Education</i>					
Public Information Manager	1	1	1	1	0
Public Information Specialist II	1	1	1	1	0
Public Information Specialist II (Limited Term)	0	1	0	1	1
Public Information Specialist I	2	2	2	2	0
Public Information Specialist I (Limited Term)	1	1	1	0	-1
Graphic Designer (Part-time)	0	0	0	1	1
Tour Guide (Part-time)	1	1	1	0	-1
Education Assistant (Part-time)	1	1	1	1	0
<i>Technical Resources and Operations</i>					
Technical Services Manager	1	1	1	1	0
Engineering Supervisor	0	1	1	1	0
Senior Water Resources Engineer	1	1	1	1	0
Water Resources Engineer II	4	3	4	4	0
Water Resources Engineer I	0	1	0	1	1
Water Resources Engineer I (Limited Term)	0	0	0	1	1
Operations Manager	1	1	1	1	0
Operations Engineer	1	1	1	2	1
Operations Analyst	2	2	2	2	0
Recycled Water Program Manager	1	1	1	0	-1
Recycled Water Program Specialist	1	1	1	2	1
Geographic Information System Analyst	0	0	0	1	1
Regulatory Compliance Supervisor	1	1	1	1	0
Environmental Quality Specialist	1	1	1	2	1
Environmental Quality Specialist (Limited Term)	1	1	1	0	-1
<i>Water Policy and Resource Development</i>					
Government Affairs Program Manager	1	1	1	1	0
Senior Water Resources Planner	1	1	1	1	0
Senior Water Efficiency Specialist	1	1	1	1	0
Water Res & Conservation Analyst (Limited Term)	0	1	1	1	0
<i>Finance</i>					
Chief Finance Officer	1	1	1	1	0
Information Technology Officer	1	1	1	1	0
Information Technology Technician I	0	1	0	1	1
Budget and Finance Officer	1	1	1	1	0
Senior Accountant	1	1	1	1	0
Accountant II	1	1	1	1	0
Accountant I (Limited Term)	0	0	1	1	0
Procurement Officer	1	1	1	1	0
Buyer	1	1	1	1	0
<b>Total Budgeted Personnel</b>	<b>42</b>	<b>45</b>	<b>45</b>	<b>51</b>	<b>6</b>

## 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 budgets FY 2013-14 and FY 2014-15 actual to FY 2015-16 projected and FY 2015-16 and FY 2016-17 budget. The variance of projected to budget Full Time Equivalent (FTE) for FY 2015-16 represents unfilled positions for a portion of the year. In FY 2015-16 and FY 2016-17 the difference between the 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. Certain open positions budgeted in FY 2016-17 are not expected to be filled at the very beginning of the fiscal year.

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 with prior years. The table below includes both direct and indirect labor.

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

	FY 2013-14 Actual	FY 2014-15 Actual	FY 2015-16 Projected	FY 2015-16 Budget	FY 2016-17 Budget
Recycling Operations	10.26	15.58	16.23	15.04	17.25
Desalter Operations	0.02	0.03	0.06	0.42	0.35
Water Policy/Resource Development	4.48	3.80	3.32	3.20	3.54
Public Information	9.91	10.59	9.09	10.03	9.27
Conservation	3.85	2.83	2.01	3.54	3.39
WQ Monitoring Program	0.03	0.02	0.03	0.05	0.08
Capital Projects	10.18	8.23	10.31	11.72	14.35
<b>Total FTE</b>	<b>38.73</b>	<b>41.08</b>	<b>41.05</b>	<b>44.00</b>	<b>48.23</b>

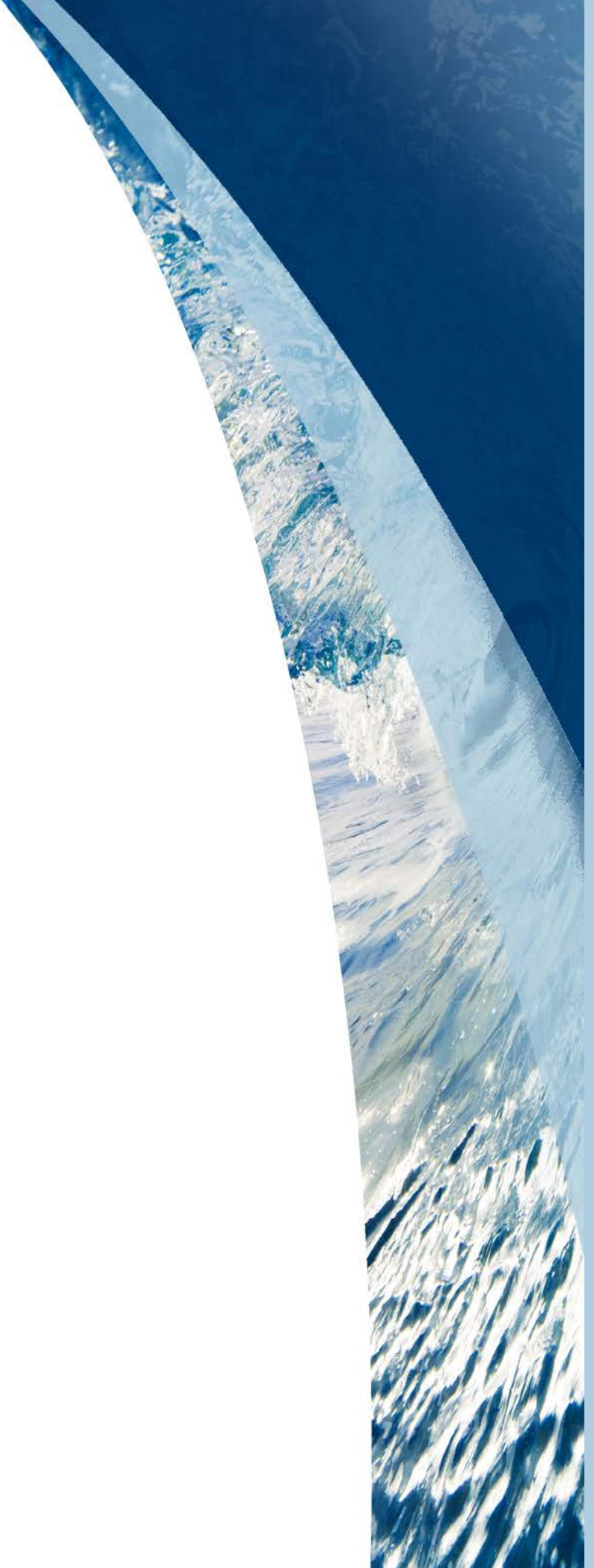
## Capital Improvement Program

West Basin continues to strive for the highest levels of Water Reliability, Water Quality, Customer Service, and 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 to 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 CP Program and through bond proceeds.

Anticipated capital improvement expenditures for FY 2016-17 are \$58,041,805.

# Operating Program Expenses





# Operating Program Expenses

## Summary of Program Expenses

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

The Fiscal Year (FY) 2016-17 Operating Program consists of the following:

<u>Allocated Programs</u>	<u>Page Number</u>
Overhead Program Costs .....	G-2
<u>Operating Programs</u>	
Water Recycling Operations .....	G-8
C. Marvin Brewer Desalter Operations .....	G-13
Water Policy and Resource Development .....	G-15
Public Information .....	G-19
Conservation .....	G-23
Water Quality Monitoring .....	G-28

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

## Strategic Business Plan Goals



Customer Service



Environmental Stewardship



Sound Financial & Resource Management



Water Quality



Water Reliability

For the program budgets that follow, the strategic goals that are met by the program activity have been highlighted in blue.

## Overhead Program Costs

The Overhead Program includes the cost of supporting the function of the Finance, Human Resources and Board Services Departments. 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 and include financial and legal services, insurance, and building expenses. Human Resources include activity costs to support employee training and development, evaluation of salaries and benefits, and the cost to recruit, screen and hire new employees. In addition, the Human Resources Department administers employee development training and wellness programs that recognize employees, and also administers the safety and risk management programs of West Basin. Board Services accounts for expenses directly related to the Board of Directors.

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 each organization, and the membership fee.

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

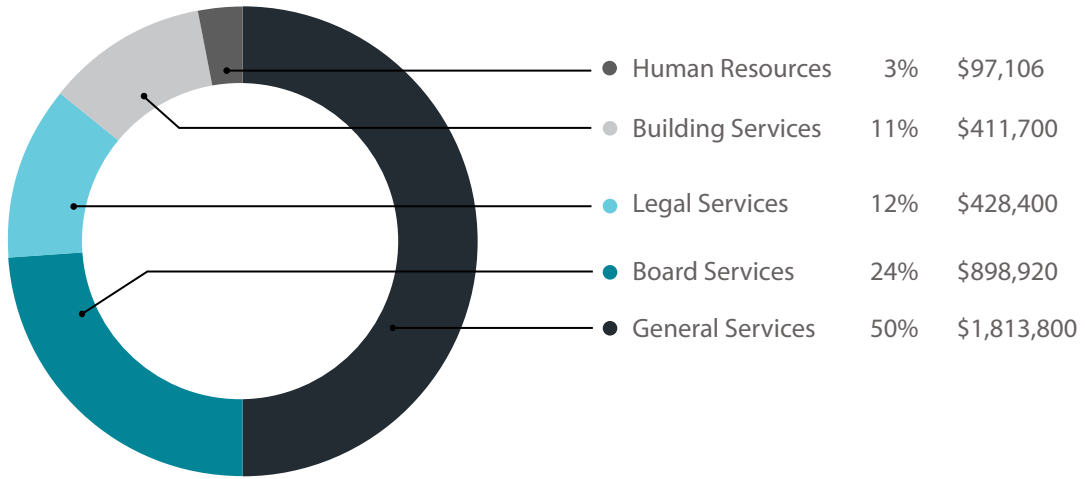
## Operating Budget

	FY 2013-14 Actual	FY 2014-15 Actual	FY 2015-16 Projected	FY 2015-16 Budget	FY 2016-17 Budget
<b>General Services</b>	\$ 1,414,492	\$ 1,474,304	\$ 1,633,575	\$ 1,702,500	\$ 1,813,800
<b>Building Services</b>	393,621	387,941	366,640	390,000	411,700
<b>Legal Services</b>	444,593	569,798	386,500	279,000	428,400
<b>Board Services</b>	625,421	950,228	524,225	656,000	898,920
<b>Human Resources</b>	72,882	78,197	82,100	92,600	97,106
<b>Total Overhead Allocated</b>	\$ 2,951,009	\$ 3,460,468	\$ 2,993,040	\$ 3,120,100	\$ 3,649,926

The Overhead expense between the FY 2015-16 and FY 2016-17 budgets increased about \$450,000 and can be attributed to the following costs:

- Increase reflects the Cost of Issuance estimated for the new money/refunding financing transaction anticipated this summer. Per GASB Statement 65, these one-time costs must be expensed in the year it occurred and can no longer be amortized over the life of the bonds.
- Increase in legal activity for transactional work.
- Increase in costs for the 2016 election for two directors.

# Overhead



# Strategic Goals and Objectives

## Strategic Business Plan Goals



Customer Service



Environmental Stewardship



Sound Financial & Resource Management



Water Quality



Water Reliability

## FY 2015-16 Accomplishments



### Customer Service

- Objective 3: ✓ Overall policy direction and strategic priorities are provided by the Board of Directors through monthly committee and board meetings.



### Sound Financial & Resource Management

- Objective 2: ✓ Worked with consultant to prepare a conceptual design to renovate the Donald L Dear Building and present to the Board for their input and direction.
- Objective 4: ✓ Board reviewed and re-approved the Designated Funds, Swap, Debt Management and Investment Policies
- ✓ Provide 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).
- Objective 5: ✓ Met with District Technical Resources group to identify the associated cash flow for the upcoming capital plan to assess when staff will need to access the public finance market to sell bonds.
- Objective 6: ✓ Continued to enhance forms and procedures related to last year's special audit regarding District Travel and Director Community Awareness Program.
- ✓ Conducted mandatory training to all District employees on the new Employee Travel Policy and Procedures.
- ✓ Worked with District Legal Counsel on an improved process to update the District's Administrative Code that tracks all changes through resolutions and a disposition table for ease of reference.



- ✓ Approved the annual rates in April 2016 and the annual budget in May 2016 that meets the Board's financial metrics of a 1.75 overall debt coverage, meets its Designated Funds Policy limits, and responsibly budgets for its sales assumption in response to the state-wide drought and drought rationing.
- ✓ Completed the required biennial actuarial report for the Other Post Retirement Employment benefit.
- ✓ Conducted a Business Outreach event on September 2, 2015 at the Carson Community Center with over 100 guests and fifteen business partners.
- ✓ Received an Excellence in Financial Reporting Award for West Basin's Comprehensive Annual Financial Annual Report (CAFR) for FY 2014-15 from the Government Finance Officers Association (GFOA).
- ✓ Received Excellence in Budget Recognition for the FY 2015-16 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 78 referrals during the fiscal year during the calendar year 2015.
- ✓ Issued over 170 new contract request, change orders or amendments, and 205 purchase orders during the calendar year 2015.
- ✓ Developed a management dashboard on the Financial Management System that provides high-level repository of financial reports, open contracts reports, and water sales reports.
- ✓ Conducted a competitive solicitation process for Lawson system upgrade and selected a vendor to conduct the software upgrade and module assessments to increase the use and functionality of the individual modules.
- ✓ Conducted competitive solicitation process for general banking services and begin the process to transition to the new bank.
- ✓ Conducted a competitive solicitation process for water rate restructuring study and initiated the process with data information exchange of the current practice, and discussed outcomes of the analysis.

Objective 7:

- ✓ Completed and/or commenced the recruitment process for the following positions: 1) Executive Assistant to the General Manager; 2) Water Resources Analyst (Limited Term); 3) Water Resources Engineer I; 4) Senior Executive Assistant; 5) Engineering Intern; and 6) Public Information Intern.
- ✓ Secured Board approval and resolution to authorize access and receipt of new hire employee and volunteer criminal record information.

Objective 8:

- ✓ Distributed and received 100% completed Annual Employee Performance Evaluations from Senior Management.
- ✓ Conducted compensation studies/surveys for various positions within the District to ensure salary equity.
- ✓ Secured Board approval of the updated (July 2015) District Salary Schedule in compliance with CalPERS regulations.
- ✓ Distributed annual Employee Benefit Statements to ensure employee awareness of their District benefits.

- Objective 9:
- ✓ Secured final Board approval of amendments made to the Human Resources section of the District's Administrative Code.
  - ✓ Conducted Defensive Driver Training for all applicable District employees in compliance with the Association of California Water Agencies/Joint Powers Insurance Authority (ACWA/JPIA) requirements
  - ✓ Conducted mandatory staff Safety Meetings in accordance with the District's Injury/Illness Prevention Program.
  - ✓ Conducted Emergency Evacuation and Earthquake Preparedness Drills in compliance with the District's Injury/Illness Prevention Program and Emergency Evacuation Plan.
  - ✓ Successfully secured a Wellness Grant through ACWA/JPIA to assist in the District's health and wellness initiatives for its employees.
  - ✓ Conducted an employee Wellness Fair in support of the District's employee wellness initiatives.

## FY 2016-17 Strategies



### Customer Service

- Objective 3:
- Board of Directors will review the Strategic Business Plan for possible revisions based on the outcome of the board retreat and input received from the consultant, and where necessary, from the management staff.



### Sound Financial & Resource Management

- Objective 4:
- Meet with financing team to plan and execute the needed debt issuance and possible refunding opportunity including updating legal bond document, meeting with rating agencies, and pricing the transaction.
- Objective 5:
- Update Long-Range Financial Model to project revenue needs, capital funding and appropriate rates and charges.
- Objective 6:
- Complete a water rate restructuring study to evaluate and recommend changes, if any, to the current rate methodology for imported water, and other charges.
  - Complete the bi-annual actuarial report for the Public Agency Retirement System (PARS) plan.
  - Identify possible solutions for agenda management systems to improve the process and record keeping of the board and committee agenda items.
  - Complete the Lawson software upgrade and implement the recommended solutions to improve the District's use of the software.

- Continue to develop elements of a Small Business Enterprise program from reporting to the solicitation process.
- Evaluate the current grant management practices and recommend solutions to evaluate, track and report information to the grantor.

Objective 7: ● Complete recruitments for the following positions: 1) Geographic Information System Analyst; 2) Graphic Designer (Part-Time); 3) Information Technology Technician I; 4) Operations Engineer; 5) Water Resources Engineer I (Limited Term); and 6) Water Resources Engineer II, PE.

Objective 8: ● Complete the update of all remaining sections of the Administrative Code.

- Objective 9:
- Conduct employee development training (software program training, leadership training, etc.) for staff per request and recommendation of Senior Management.
  - Conduct ongoing employee training regarding amendments made to the Human Resources section of the District's 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, and other health and wellness matters.
  - Conduct CPR and Automated External Defibrillator (AED) Training in compliance with District health and safety policies.
  - Update the District's Succession Plan for review and approval of Senior Management and the Board.



## Water Recycling Operations

West Basin's Edward C. Little Water Recycling Facility (ECLWRF) is a state-of-the-art facility that is the largest of its type in the world. West Basin caters to a variety of customers such as American Honda, Exxon Mobil, Tesoro, Chevron, Goodyear Airship Station, California State University Dominguez Hills, Stub Hub Center, Raytheon, Los Angeles Air Force Base, Marriott Hotels, various cities and the Water Replenishment District of Southern California (WRD). ECLWRF has a capacity of over 50 million gallons of recycled water every day for more than 300 customer sites. Uses of recycled water include irrigation, two purities for boiler feed, cooling towers, and injection into seawater barriers to prevent our local groundwater supplies from being contaminated by ocean water. This world-class purification facility and its three satellite treatment plants produce five types of "designer" waters to serve specific customer needs. 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 reverse osmosis (RO) and disinfection (UV/peroxide treatment) for groundwater recharge.
- 4 Low Pressure Boiler Feed Water: Secondary treated wastewater pretreated by ozone and microfiltration, followed by one pass of RO treatment for low-pressure boiler feed water.
- 5 High Pressure Boiler Feed Water: Secondary treated wastewater pretreated by ozone and microfiltration, followed by passes of RO treatment for high pressure boiler feed water.

The Recycled Water Operations budget includes funds to operate and maintain all of the recycled water facilities, research and development costs to evaluate new, potentially more cost-effective processes, regulatory efforts, administer the program, 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 West Coast Basin Barrier (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 Exxon Mobil's cooling towers and a separate Satellite Treatment Plant to produce boiler feed water for Exxon Mobil;
- A satellite treatment plant in Carson 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 California Water Service Company (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 2013-14 Actual FTE	FY 2014-15 Actual FTE	FY 2015-16 Projected FTE	FY 2015-16 Budget FTE	FY 2016-17 Budget FTE
10.26	15.58	16.23	15.04	17.25

### Operating Budget

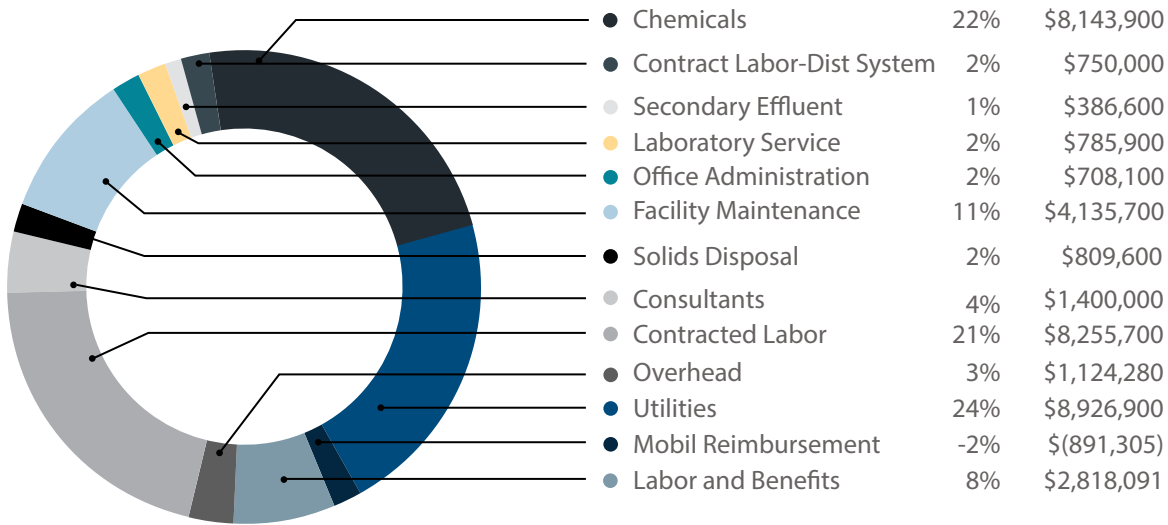
	FY 2013-14 Actual	FY 2014-15 Actual	FY 2015-16 Projected	FY 2015-16 Budget	FY 2016-17 Budget
Labor and Benefits	\$ 3,375,296	\$ 2,809,443	\$ 2,906,182	\$ 2,748,697	\$ 2,818,091
Overhead	768,853	1,361,439	1,135,962	1,034,537	1,124,280
Operations					
Chemicals	6,525,826	5,828,137	5,463,300	7,523,000	8,143,900
Consultants	924,949	1,598,100	1,796,500	1,611,500	1,400,000
Contract Labor-Dist System	470,609	564,537	650,000	650,000	750,000
Facility Maintenance	3,226,411	4,164,396	3,980,050	4,352,000	4,135,700
Laboratory Service	448,684	435,905	704,000	703,300	785,900
Office Administration	826,302	860,244	816,710	671,200	708,100
Secondary Effluent	302,754	311,996	307,200	410,300	386,600
Solids Disposal	660,220	656,975	706,300	978,600	809,600
Utilities	9,523,761	9,631,081	9,860,320	9,398,900	8,926,900
Contracted Labor	6,489,300	7,164,597	7,724,100	7,724,100	8,255,700
Mobil Reimbursement	(860,052)	(875,544)	(882,480)	(886,900)	(891,305)
<b>Total Recycling Operations</b>	<b>\$ 32,682,913</b>	<b>\$ 34,511,306</b>	<b>\$ 35,168,144</b>	<b>\$ 36,919,234</b>	<b>\$ 37,353,466</b>



The FY 2015-16 operating budget was based on producing 38,850 AF, while the FY 2016-17 operating budget was developed assuming production of 36,775 AF. The major variances between FY 2015-16 and FY 2016-17 budgets are due to the following items:

- Chemicals: Reflects an increase in more frequent cleaning of membranes.
- Utilities: Reflects a decrease in the amount of production.
- Contracted Labor: Reflects a contracted labor rate increase, converting temporary employees positions to full time positions, and additional support on the distribution system focused on preventative maintenance activities.

### Water Recycling Operations



Sampling cups of purified recycled water

# Strategic Goals and Objectives

## Strategic Business Plan Goals



Customer Service



Environmental Stewardship



Sound Financial & Resource Management



Water Quality



Water Reliability

## FY 2015-16 Accomplishments



### Sound Financial & Resource Management

- Objective 1:
- ✓ Made operational and infrastructure improvements to achieve 100 percent recycled water to the Barrier.
  - ✓ Completed a cathodic protection survey of all the test stations covering the recycled water distribution system.
  - ✓ Relocated distribution appurtenances resulting from site improvements.
  - ✓ Developed a treatment plant response plan in preparation of El Niño.
  - ✓ Repaired the brine line in city of Carson that delivers brine from the Juanita Millender-McDonald Carson Regional Water Recycling Facility (JMMCRWRF) to the Los Angeles County Joint Water Pollution Control Plant.
  - ✓ Repaired twelve-inch disinfected tertiary lateral irrigation line in the city of Manhattan Beach.
  - ✓ Developed an Operations and Maintenance Manual for the recycled water distribution system.
- Objective 2:
- ✓ Completed 115 customer site inspections.
  - ✓ Completed redlining of JMMCRWRF and ExxonMobil satellite facilities.
  - ✓ Completed reference drawings for JMMCRWRF to be used for Tesoro Expansion Project.

## FY 2016-17 Strategies



### Sound Financial & Resource Management

- Objective 1:
- Update the current Computerized Maintenance Management System (CMMS) software to make it more user-friendly and improve data reliability.
  - Continue to develop and implement the prioritized asset management recommendations to maximize the asset life and optimize maintenance activities.
  - Evaluate existing processes to improve operations.
- Objective 2:
- Continue redlining activities to create updated reference drawings for remaining facilities.
  - Complete customer site inspections for 100% of the “high-public contact” sites (i.e. schools, parks, businesses) with existing potable connections.
- Objective 3:
- Seek out and apply for grant funding to maximize opportunity for expansion of recycled water to new customers.



### Water Quality

- Objective 1:
- Continue to support existing customer water quality inquiries.
  - Enhance and increase the water sampling locations throughout the distribution system.



## 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. The water was then treated using reverse osmosis and blended with other potable water in CWSC reservoir. The Desalter was successful and operations continued. A single well was constructed in 2005 to replace the two 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.

### Personnel - Full Time Equivalents (FTE)

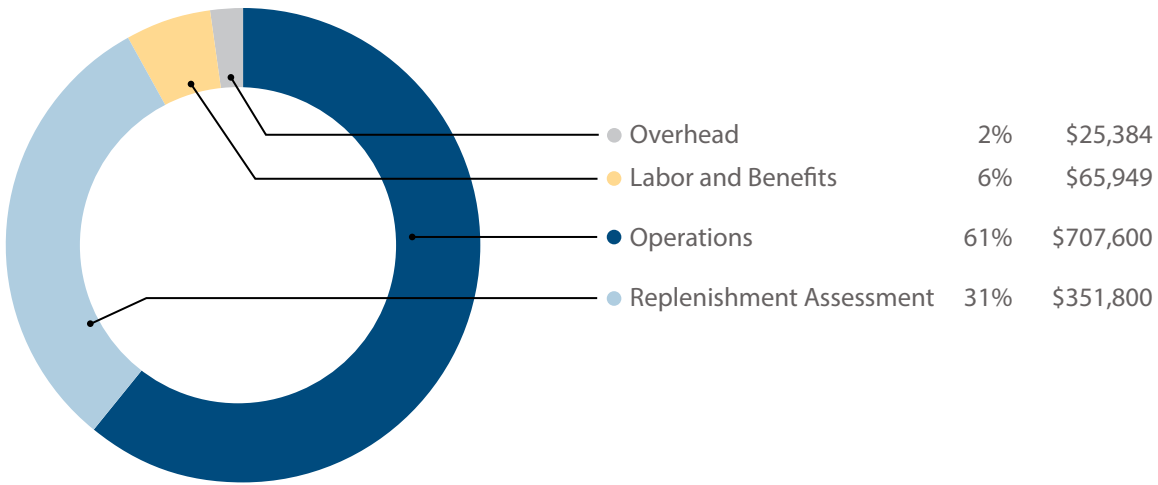
FY 2013-12 Actual FTE	FY 2014-15 Actual FTE	FY 2015-16 Projected FTE	FY 2015-16 Budget FTE	FY 2016-17 Budget FTE
0.02	0.03	0.06	0.42	0.35

### Operating Budget

	FY 2013-14 Actuals	FY 2014-15 Actuals	FY 2015-16 Projected	FY 2015-16 Budget	2016-17 Budget
Labor and Benefits	\$ 4,839	\$ 4,774	\$ 5,790	\$ 68,797	\$ 65,949
Overhead	1,481	2,577	2,682	27,252	25,384
Operations	501,763	604,321	666,000	678,400	707,600
Replenishment Assessment	302,157	258,381	325,000	283,248	351,800
<b>Total Desalter Operations</b>	<b>\$ 810,240</b>	<b>\$ 870,053</b>	<b>\$ 999,472</b>	<b>\$ 1,057,697</b>	<b>\$ 1,150,733</b>

The variance between the FY 2015-16 and FY 2016-17 budgets is due to assuming a five percent increase in the replenishment assessment paid to WRD and an anticipated increase in repair costs. As a result of a 2015 operational audit of the Brewer Desalter, repair costs will increase due to facility upgrades that will be implemented FY 2016-17. These upgrades are necessary to address many of the plant's going issues, and to ensure operational and water quality reliability. Furthermore, the budget assumes the same production of 840 acre-feet per year.

# Desalter Operations



## Strategic Goals and Objectives

### Strategic Business Plan Goals



Customer Service



Environmental Stewardship



Sound Financial & Resource Management



Water Quality



Water Reliability

## FY 2015-16 Accomplishments



### Sound Financial & Resource Management

Objective 2: ✓ Facility upgrades continued throughout the fiscal year to address water quality and aging equipment issues.

## FY 2016-17 Strategies



### Sound Financial & Resource Management

Objective 2: ● Continue facility upgrades to address water quality and aging equipment issues.

## Water Policy and Resource Development (Water Policy)

The Water Policy and Resource Development budget supports various activities including, but not limited to: overseeing the conservation program; pursuing grant funding to support projects and programs; providing technical and other support to customer agencies; tracking and reporting on the water supply portfolio; implementing local, state and federal advocacy efforts; and participating in industry organizations, including CalDesal, WaterReuse, Association of California Water Agencies (ACWA). The budget supports every aspect related to Metropolitan Water District (MWD) activities to ensure local and industry related water policies, programs and projects are favorable to West Basin, its service area and the Southern California region. This budget also includes funds to support efforts in Integrated Regional Water Management planning on behalf of our service territory and as a member of the Greater Los Angeles County planning area. Implementation of the District's various conservation programs is supported by a separate program budget.

### Personnel - Full Time Equivalents (FTE)

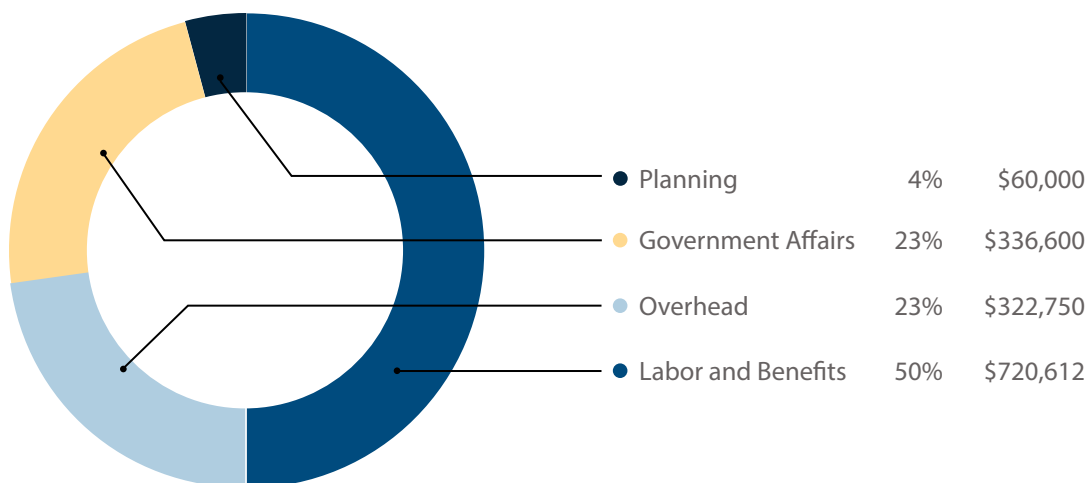
FY 2013-14 Actual FTE	FY 2014-15 Actual FTE	FY 2015-16 Projected FTE	FY 2015-16 Budget FTE	FY 2016-17 Budget FTE
4.48	3.80	3.32	3.20	3.54

### Operating Budget

	FY 2013-14 Actuals	FY 2013-14 Actuals	FY 2014-15 Projected	FY 2015-16 Budget	FY 2016-17 Budget
Labor and Benefits	\$ 1,541,503	\$ 958,221	\$ 836,356	\$ 600,340	\$ 720,612
Overhead	358,673	447,914	317,659	225,798	322,750
Planning	91,315	87,898	87,950	111,500	60,000
Government Affairs	310,927	321,882	360,000	363,800	336,600
<b>Total Resource Planning</b>	<b>\$ 2,302,418</b>	<b>\$ 1,815,915</b>	<b>\$ 1,601,965</b>	<b>\$ 1,301,438</b>	<b>\$ 1,439,962</b>

The increase between the FY 2015-16 and FY 2016-17 budgets is due primarily to an increase in labor, benefits and overhead as a result of West Basin increasing staff.

### Water Policy



# Strategic Goals and Objectives

## Strategic Business Plan Goals



Customer Service



Environmental Stewardship



Sound Financial & Resource Management



Water Quality



Water Reliability

## FY 2015-16 Accomplishments



### Customer Service

- Objective 1: ✓ Conducted an informational workshop with customer agencies to review proposed FY 2016-17 budget and water rates, and the 2015 Urban Water Management Plan.
- Objective 5: ✓ Educated local, state and federal elected officials on matters related to local water supply needs, and the Water Reliability program to develop new, reliable local water supplies.
- ✓ Increased state and federal advocacy efforts related to securing project and program funding for the service area through support of Proposition 1 (2014 Water Bond) and the federal Water Resources Development Act (WRDA).
- ✓ Provided regular and timely updates to West Basin's customers and municipalities on state and federal legislation, MWD activities, and regional and statewide policy matters that potentially impact the West Basin service area.



### Water Reliability

- Objective 1: ✓ Implemented a Drought Rationing Plan to help meet service area goals for mandatory conservation of imported water, and provide a mechanism to appropriately assess any financial penalties from MWD to West Basin's customer agencies.
- ✓ Completed the 2015 Urban Water Management Plan for compliance with the California Urban Water Management Planning Act of 1983 which details water supply and demand projections to the year 2040 for our service area.
- ✓ 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.



## **Sound Financial & Resource Management**

- ✓ Managed the reporting to MWD for the projects funded through the Foundational Actions Funding Program.

Objective 6:

- ✓ Applied for and succeeded in being awarded for several grant funding opportunities in support of conservation and reliability programs.
- ✓ Played a key role in assisting the Greater Los Angeles County Region in receiving funding for a \$27 million implementation grant and a \$2 million planning grant under the Integrated Regional Water Management Program, including a recycled water project to serve four sites including the Palos Verdes Golf Course.

## **FY 2016-17 Strategies**



### **Customer Service**

Objective 5:

- Continue to pursue state, federal and other external funding for conservation and reliability projects with the West Basin service area, and support the efforts of our customer agencies and stakeholders, particularly for projects that provide immediate water savings during the drought.
- Continue our program to honor Legislators of the Year with Water Reliability awards.





## **Sound Financial & Resource Management**

- Objective 6:
- Pursue changes to West Basin’s water rate structure that increases fixed cost recovery in a manner that is acceptable to customer agencies and enhances West Basin’s ability to more aggressively pursue conservation.
  - Continue advocacy efforts related to West Basin’s request for an increased Federal authorization for the Harbor South Bay project, through the Water Resources Development Act of 2014.
  - Continue to defend West Basin service area and MWD as a whole against litigation, legislation and other efforts intended to work against cooperative regional water management policy.
  - Continue leadership role in the Greater Los Angeles County Integrated Regional Water Management Program on behalf of the region, including administration of its financial resources.
  - Continue leadership role in the South Bay sub-region of the Greater Los Angeles County Integrated Regional Water Management Program, in preparing to apply for the remaining Proposition 84 funding.
  - Pursue a Local Resources Program (LRP) incentive with Metropolitan for the District’s recycled water expansion to the Tesoro Refinery in the City of Carson.



## **Water Reliability**

- Objective 2:
- Continue to play a leading role in the development of policy and legislative matters; as well as the advocacy activities for CalDesal and WateReuse.
  - Pursue policies and actions on behalf of West Basin’s service area that mitigate the impacts of the current drought and increase resiliency against future droughts.
- Objective 5:
- Continue to monitor and advocate for long term solutions, including the Bay Delta Conservation Plan, for California’s co-equal goals in the Sacramento San Joaquin Bay Delta, to improve California’s water supply reliability, while restoring the health of the Delta estuary.



## **Environmental Stewardship**

- Objective 2:
- Manage the rehabilitation of the Donald L. Dear headquarters demonstration garden with new plantings and removal of invasive plants.
  - Develop a long-term maintenance plan for the 16 constructed demonstration gardens at city and school facilities as well as the 2 demonstration gardens at District facilities.

## Public Information

The core mission is to convey West Basin's Water Reliability Program with its value, benefits and savings provided to its stakeholders. This year there will be an emphasis on ocean water desalination, a component of the Water Reliability Program. Additionally, this program strives to enhance West Basin's reputation as an award-winning, innovative and industry leading water agency. With the sustained drought, staff continues to convey information about the District's conservation, water recycling and ocean water desalination endeavors.

### Public Outreach and Events

Through support and guidance from the Board of Directors, staff develops and implements a wide array of leader-focused 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, educational and business leaders. A number of outreach programs have been developed that reflect the value provided by West Basin, including special events, tours, classes and presentations. Annual water-themed events, construction outreach, media tours and special delegation tours of ECLWRF and Water Education Center continue to enhance West Basin's reputation as a world-class agency dedicated to sustainable water resource management.

### Education

West Basin's water education programs engage students grades 3 – 12, in learning about the importance of water conservation, ocean water desalination and environmental stewardship. These programs are offered to public and private school students and include classroom presentations, field trip excursions, a student water conservation kit program and an annual water conservation art contest.

### Personnel Full Time Equivalent (FTE)

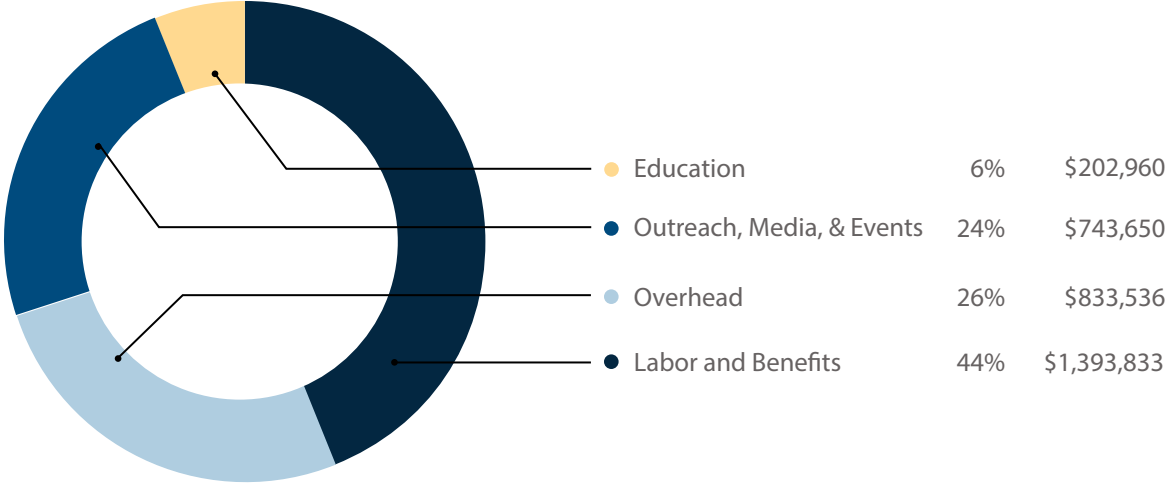
FY 2013-12 Actual FTE	FY 2014-15 Actual FTE	FY 2015-16 Projected FTE	FY 2015-16 Budget FTE	FY 2016-17 Budget FTE
9.91	10.59	9.09	10.03	9.27

### Operating Budget

	FY 2013-14 Actuals	FY 2014-15 Actuals	FY 2015-16 Projected	FY 2015-16 Budget	FY 2016-17 Budget
Labor and Benefits	\$ 2,228,860	\$ 1,454,914	\$ 1,313,676	\$ 1,452,368	\$ 1,393,833
Overhead	736,593	905,848	634,297	726,236	833,536
Education	187,218	175,783	205,400	209,960	202,960
Outreach, Media, & Events	361,089	369,240	447,866	466,900	743,650
<b>Total Public Information</b>	<b>\$ 3,513,760</b>	<b>\$ 2,905,785</b>	<b>\$ 2,601,239</b>	<b>\$ 2,855,464</b>	<b>\$ 3,173,979</b>

West Basin will be focusing its outreach to key stakeholders to build support throughout the service area and regionally for the Ocean Water Desalination Program which is the primary reason for the increase in Public Information budget when comparing FY 2015-16 to FY 2016-17.

# Public Information



Student Water Exploration tours at Edward C. Little Water Recycling Facility



# Strategic Goals and Objectives

## Strategic Business Plan Goals



Customer Service



Environmental Stewardship



Sound Financial & Resource Management



Water Quality



Water Reliability

## FY 2015-16 Accomplishments



### Customer Service

- Objective 4:
- ✓ Produced the 16th annual Harvest Festival, including a Water Reliability Awards breakfast; Festival attendance reached approximately 1,600 community members, and West Basin led tours for nearly 400 attendees.
  - ✓ Successfully partnered in Metropolitan Water District's education programs; sponsored three high school Solar Cup teams and engaged over 400 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.
- Objective 5:
- ✓ Sustained Water Reliability Program outreach to reach more than 10,000 community supporters in total, including new business and city officials, as well as individuals; Increased focus on the exploration of ocean water desalination to diversify water portfolio.
  - ✓ Expanded social media presence by increasing frequency, quantity and quality of posts and community engagement.
  - ✓ Offered free, public water education programs: Water 101 Classes, public tours of the ECLWRF and a speakers bureau, all of which reinforce the District's Water Reliability Program messages; Continued active tour program for the Water Education Center and Ocean Water Desalination Demonstration Facility for elected officials, sponsors, media and industry VIPs before facility decommissioning.
  - ✓ Produced three events reaching varied audiences about the drought and water issues, including a public Town Hall, a Forum for elected officials and staff, and a business development workshop to inform small and local business on how to do business with West Basin.

## FY 2016-17 Strategies



### Customer Service

- Objective 4:
- Host 17th annual Water Harvest festival to reach the community and continue educational and value focus.
  - Provide quality education programs for grades 3 – 12, including the enhancement of educational information on the District website and participation in Solar Cup.
  - Update exhibits and educational facilities at the ECLWRF.
- Objective 5:
- Outreach to key stakeholders to build support from throughout the service area and regionally for the Ocean Water Desalination Program, a component of the Water Reliability Program.
  - Support the Office of the General Manager in stakeholder engagement and execution of a Recycled Working Group to further the discussion of water reliability issues.
  - Develop new and/or improved communication vehicles to showcase West Basin's brand and value; focus on the redesign and development of the organization's website.
  - Restructure the free public water education programs so that classes, public tours of the ECLWRF and the Speakers Bureau fall under one umbrella.
  - Increase amount of positive media coverage and social media presence by providing information and content focused on current issues facing the water industry and West Basin.



## Conservation

In Fiscal Year 2015-16, West Basin completed implementing the fifth year of its 2010-2015 Water Efficiency Master Plan (Plan). In the coming fiscal year, staff will be evaluating the successes and challenges of its current programs and developing new strategies and programs for the next five years. The next Plan will carry West Basin to the year 2020.

West Basin's goal is to reduce imported water use by 20%, as called for in the Governor's 2009 Conservation Water Act and the SBx7-7 legislation by 2020. Together with the water recycling program, West Basin is planning on meeting and exceeding the 20% imported water reduction goal. Additional goals will be developed as part of the next Water Efficiency Strategic Plan.

West Basin continues to obtain outside funding through partnerships with federal, state and local agencies. Grants are a great way to increase the cost-effectiveness of programs and provide the public with greater value. For every dollar invested, more than three dollars' worth of water conservation devices and programs are delivered to the public due to grants and local partnerships, helping to keep rates lower.

### Personnel - Full Time Equivalents (FTE)

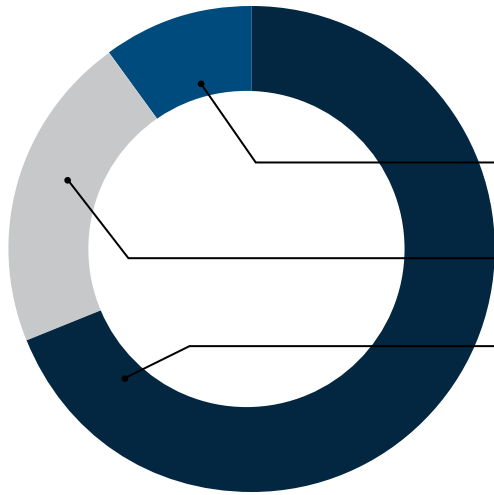
FY 2013-14 Actual FTE	FY 2014-15 Actual FTE	FY 2015-16 Projected FTE	FY 2015-16 Budget FTE	FY 2016-17 Budget FTE
3.85	2.83	2.01	3.54	3.39

### Operating Budget

	FY 2013-14 Actuals	FY 2014-15 Actuals	FY 2015-16 Projected	FY 2015-16 Budget	FY 2016-17 Budget
Labor and Benefits	\$ 970,887	\$ 293,853	\$ 333,228	\$ 494,595	\$ 539,022
Overhead	296,654	149,004	177,090	217,958	242,942
Conservation	973,119	568,582	1,447,558	1,214,553	1,750,800
Total Conservation	\$ 2,240,660	\$ 1,011,439	\$ 1,813,200	\$ 1,927,106	\$ 2,532,764

Program costs may vary each fiscal year as this program is highly dependent on outside funding to support the water use efficiency initiative. Per the Plan, West Basin will continue to seek grant funding opportunities and partnerships for its programs. For FY 2016-17, West Basin anticipates \$1,378,700 of outside funding to offset conservation costs.

# Conservation



● Overhead	10%	\$242,942
● Overhead Labor and Benefits	21%	\$539,022
● Conservation	69%	\$1,750,800



Water Harvest Festival

# Strategic Goals and Objectives

## Strategic Business Plan Goals



Customer Service



Environmental Stewardship



Sound Financial & Resource Management



Water Quality



Water Reliability

## FY 2015-16 Accomplishments



### Water Reliability

- Objective 2:
- ✓ Implemented Year 5 of West Basin's Water Efficiency Master Plan.
  - ✓ Successfully completed five free Rain Barrel Distribution Events and distributed 2,000 rain barrels.
  - ✓ Implemented a free greywater workshop.
  - ✓ Provided residents and large landscape facilities with free landscape surveys.
  - ✓ The South Bay Environmental Services Center, our community partner, conducted over 40 Cash for Kitchen Audits.
  - ✓ Signed up 2 new car washes and re-enlisted 8 car washes for West Basin's Ocean Safe Car Wash Coupon Program.
  - ✓ Conducted two Smart Sprinkler Exchange Events and distributed 60 smart sprinkler controllers.
  - ✓ In partnership with the Surfrider Foundation and the City of Hermosa Beach, constructed a new water-conserving garden as part of the city's new Surf Legends Memorial Statue at the Hermosa Beach Community Theater.
  - ✓ Conducted four California Friendly Landscape Training Classes with approximately 120 participants.
  - ✓ Assisted the City of Malibu and the Los Angeles County Waterworks District #29 with developing a new water efficiency program in Malibu/Topanga. The partners were awarded \$1M from the Department of Water Resources.
  - ✓ Applied to the United States Bureau of Reclamation for two new water efficiency programs; 1) Cash for Kitchens – Direct installation of plumbing devices in restaurants, and 2) a Greywater Voucher Program.



### Customer Service

- Objective 4:
- ✓ In partnership with its cities and water retailers, West Basin implemented various water efficiency and outreach programs.

- ✓ In partnership with the South Bay Environmental Services Center, continue to represent and promote West Basin's programs at over 100 community events.
- ✓ Began a new Extraordinary Water Conservation Award Program to recognize individuals and organizations that go the extra mile to conserve water.
- ✓ Partnered with Home Depot to promote water efficiency at five water conservation plant sales.
- ✓ Assisted the City of Malibu with hiring a new vendor to implement conservation outreach and an Expo in Malibu.
- ✓ Launched a new water conservation microsite, <https://conservation.westbasin.org/> to better assist the public with finding water conservation rebates and waterwise gardening information.



### **Environmental Stewardship**

- Objective 2:
- ✓ Partnered with several environmental organizations in the development and implementation of its water efficiency programs.
  - ✓ Joined the City of Malibu and LA County Waterworks on attending two "Re-Garden Parties" in Malibu, to bring attention to the drought and all the water efficiency programs that are available.

## **FY 2016-17 Strategies**



### **Water Reliability**

- Objective 2:
- Focus on drought messaging and publicize Water Use Efficiency and Conservation programs.
  - Build the remaining four Ocean Friendly Demonstration Gardens throughout the service area for a total of 16 gardens.
  - Launch the new "Comprehensive Water Conservation Program" in the City of Malibu and in Topanga.
  - Update the Water Use Efficiency Master Plan for the next five years, 2015–2020.
  - Continue working with the energy sector on the water-energy nexus and the embedded energy savings in water conservation.



### **Customer Service**

- Objective 4:
- In partnership with the South Bay Environmental Services Center, they will continue to represent and promote West Basin's programs at community events.
  - Continue to partner with our eight water retailers and 17 cities on water efficiency programs.
  - Continue to provide the public with water conservation and educational programs and promote West Basin's new water conservation microsite.



## Environmental Stewardship

- Objective 2:
- Continue to gain environmental and community support in the development and implementation of its water efficiency programs.
  - Continue to partner with environmental agencies in the distribution rain barrels and providing greywater workshops.



## Water Quality Monitoring Program

West Basin administers the Water Quality Monitoring Program for several of its potable water purveyors. Program activities include compliance sample scheduling, contracting wellhead sampling and laboratory services, reviewing water quality data for compliance, maintaining water quality databases, and preparing compliance and non-compliance reports.

### Personnel - Full Time Equivalents (FTE)

FY 2013-14 Actual FTE	FY 2014-15 Actual FTE	FY 2015-16 Projected FTE	FY 2015-16 Budget FTE	FY 2016-17 Budget FTE
0.03	0.02	0.03	0.05	0.08

### Operating Budget

	FY 2013-14 Actuals	FY 2014-15 Actuals	FY 2015-16 Projected	FY 2015-16 Budget	FY 2016-17 Budget
Labor and Benefits	\$ 7,131	\$ 3,890	\$ 4,906	\$ 7,714	\$ 14,666
Overhead	2,023	1,899	1,980	3,298	6,070
Monitoring Program	4,753	11,073	2,000	600	4,694
Title 22 Monitoring	\$ 13,907	\$ 16,862	\$ 8,886	\$ 11,612	\$ 25,430

Monitoring program costs will vary each year depending on the lab analyses that are required by state and federal regulations. Participating agencies reimburse West Basin for all lab sampling and analytical costs.



# Strategic Goals and Objectives

## Strategic Business Plan Goals



Customer Service



Environmental Stewardship



Sound Financial & Resource Management

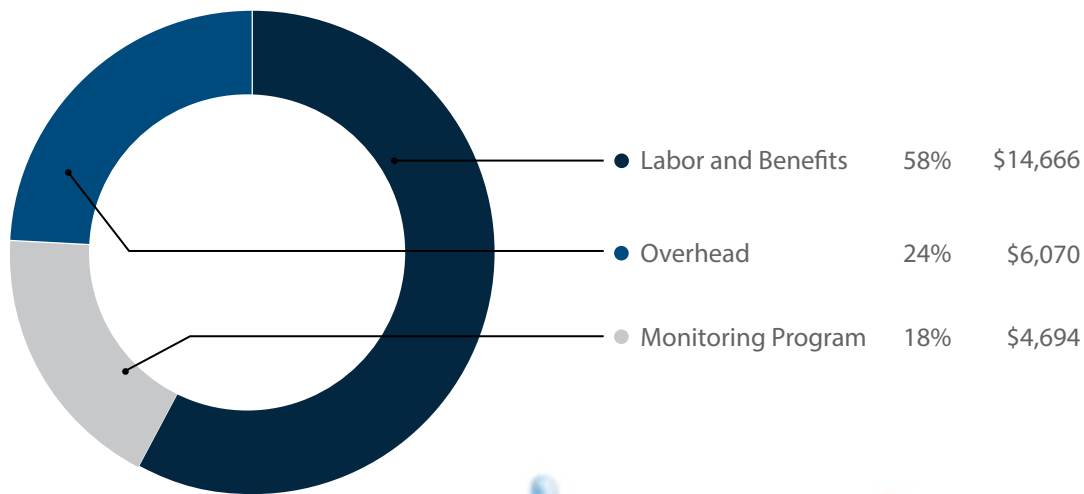


Water Quality



Water Reliability

## Water Quality Monitoring



## FY 2015-2016 Accomplishments



### Water Quality

- Objective 1:
- ✓ Completed annual customer water quality reports for two participating retailers.
  - ✓ Conducted two different purveyor workshops to help coordinate between water companies on important water quality and compliance issues.
- Objective 2:
- ✓ 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 compounds, organic compounds, and radioactivity.

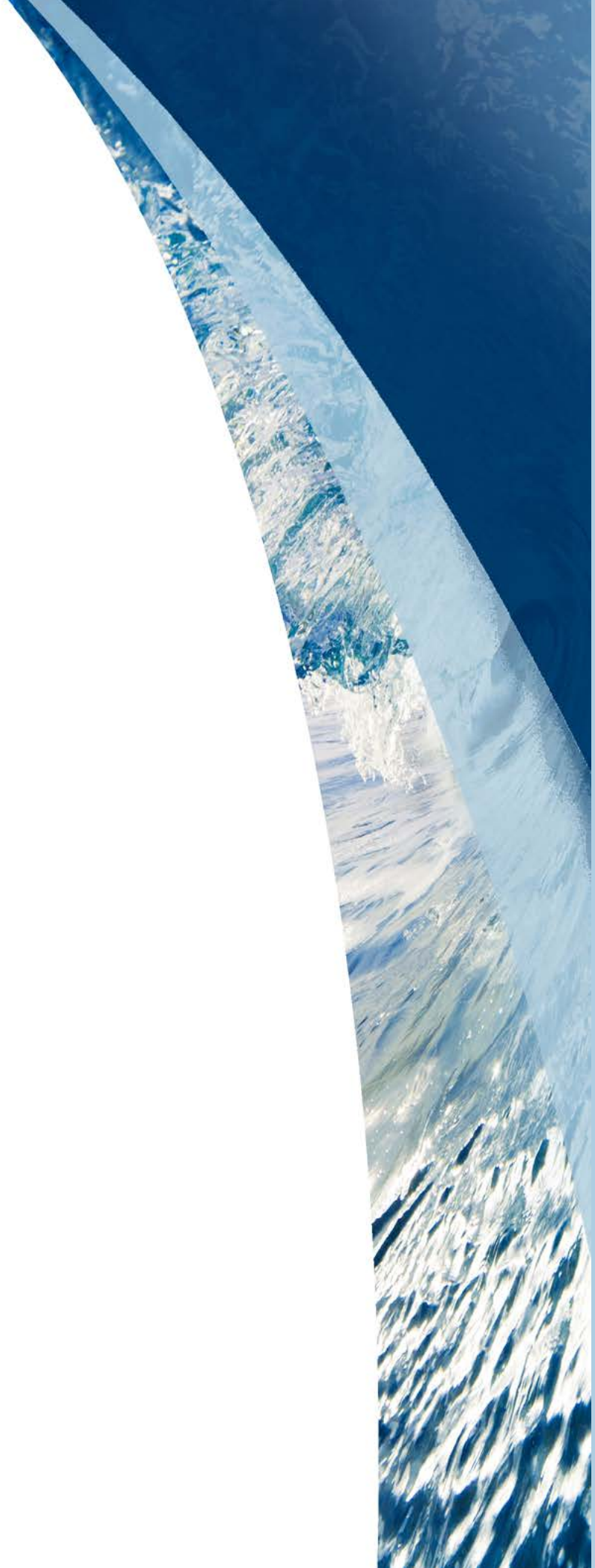
## FY 2016-17 Strategies



### Water Quality

- Objective 1:
- Complete annual customer water quality reports for two participating retailers.
  - Provide estimate for lab costs and annual assessment to each participating purveyor.
  - Solicit RFB for new lab contract to achieve effective cost savings.
  - Provide one purveyor workshop on WQ and/or compliance issues to help educate our customers on activities related to their service areas.
- Objective 2:
- Continue to assist retail purveyors in meeting their water quality reporting requirements, including water quality workshops.

# Supplemental Information





# Supplemental Information

## Capital Improvement Program (CIP)

To effectively respond to current and potentially long-term drought conditions, imported water uncertainty, and regulatory restrictions, West Basin Municipal Water District (West Basin) actively pursues locally supplied water as a viable alternative to ensure a reliable supply of water today and for the future. To meet this objective, West Basin has implemented an aggressive program to find the right solution for the region by doubling conservation efforts, doubling recycled water deliveries, and potentially incorporating ocean water desalination into West Basin's water portfolio in the future.

West Basin continues to take carefully thought-out steps to ensure water reliability while faced with an uncertain future. A comprehensive recycled water Capital Implementation Master Plan (CIMP) was previously developed and West Basin intends to update this effort through a new master plan to be substantially completed this next fiscal year. Through the new master plan, West Basin intends to address future customer needs, system capacity, and the infrastructure required to increase recycled water deliveries and meet the region's demand.

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.

West Basin will also be continuing and initiating projects that will increase the capacity and contribute to the reliability of our recycled water system. These include the expansion of Barrier water microfiltration facilities, the Tesoro Refinery Expansion project, and the Hyperion Secondary Effluent Pump Station Expansion. These large CIP projects will strengthen the reliability of the recycled water system as well as introduce additional revenues through increased sales.

West Basin works ceaselessly to find ways in which to partner with potential customers and begin the design and construction of new laterals which will result in increased recycled water demand thereby further lowering our future reliance on imported water. This year's fiscal budget also includes funds for the construction of recycled water pipelines and customer connections that will be funded through a partnership with the United States Army Corps of Engineers (Carson Mall Lateral Phase II) or California's Proposition 84 funding programs (Dominguez Tech Center customers, as one example).

In regards to ocean water desalination, West Basin has utilized extensive treatment experience, performed multiple technical studies, and has learned from other desalination facilities around the world to develop an approach that would effectively and efficiently manage this potential resource. West Basin has completed an Ocean Water Desalination Program Master Plan, constructed and used a temporary ocean water desalination demonstration facility (Desal Facility) to gain important operational information and constraints, initiated an Intake Biofouling and Corrosion Study through Metropolitan Water District's (MWD) Foundational Action Grant Program, and begun an Environmental Impact Report (EIR) for the proposed full-scale desalination facility. The experience gained from piloting, demonstration testing, and the numerous research studies will be used to support the EIR process.

## 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 is potential outside funding through grants or customers, and the associated timing.

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 costs are incurred, or at the completion of construction when all costs have been reflected. A third financing option is for West Basin to issue long-term debt or to obtain a state loan, which may be used when the term of the financing generally matches or is less than the estimated useful life of the capital project. West Basin continues to work with its customers inside and outside its service area to find mutually beneficial ways to finance and expand the recycled water system.

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 2016-17, and include the cost of decommissioning of the demonstration facility, permitting costs, site option analysis and the environmental impact report development and approval. The full cost of the project, however, 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 (FY) 2016-17 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 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 2016-2017

The total amount of CIP expected to be expended in FY 2016-17 is \$58,041,805. The CIP projects outlined to begin in FY 2016-17 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 2016-17. West Basin anticipates spending \$17,391,968 from its designated funds to pay for the various replacement and refurbishment (R&R) projects and towards the temporary ocean water desalination demonstration facility. The PAYGO designated fund will also be used on the Donald L. Dear administration building that will see some technology and tenant improvements in FY 2016-17. It is also anticipated that the Inglewood Disinfection Station, the Cal Water SCADA System Integration, and the addition of several recycled water laterals in FY 2016-17 will also be funded through PAYGO. The Commercial Paper program will allow West Basin to finance the cost of the Gardena Lateral, which will ultimately be partially paid for through a grant with DWR and partnership with LADWP. West Basin has received confirmation from the State Water Resources Control Board of the award of 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 approximately \$8 million dollars.

	Debt Finance	PAYGO	Commercial Paper	State Loan
Reliability Projects	\$ 26,929,015	\$ 9,693,609	\$ 1,840,840	\$ 9,241,252
Replacements & Refurbishments	-	6,569,383	-	-
Project Admin/Other	1,869,411	1,128,976	127,792	641,527
<b>Total</b>	<b>\$ 28,798,426</b>	<b>\$ 17,391,968</b>	<b>\$ 1,968,632</b>	<b>\$ 9,882,779</b>

## Personnel - Full Time Equivalents (FTE)

FY 2013-14 Actual FTE	FY 2014-15 Actual FTE	FY 2015-16 Projected FTE	FY 2015-16 Budget FTE	FY 2016-17 Budget FTE
10.18	8.23	10.31	11.72	14.35

The following table summarizes the planned expenditures for FY 2016-2017 and the next five years.

Project Description	FISCAL YEAR					
	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
<b>RECYCLED WATER</b>						
<b>Capital Improvement Projects</b>						
Tesorero Refinery Capacity Expansion	9,241,252	18,171,024				
ECLWRF Clean-In-Place Waste Discharge Project	6,110,000					
Hyperion Secondary Effluent Pump Station	12,594,440	202,867				
Inglewood Disinfection Station	1,106,848					
Barrier Production Increase	5,200,175	4,800,175				
Carson Mall Lateral Phase II	247,744					
South Gardena Lateral	1,840,840					
ECL Visitors Center Renovation & Monument Sign	3,059,400	3,300,800				
Donald L. Dear Building Tenant Improvements	264,000	1,170,538	1,467,462			
Donald L. Dear Building Technology	400,000					
Phase 1 Piping Wye Removal Project	137,000					
Capital Improvement Program Master Plan	802,566	197,434				
Cal Water SCADA System Integration	308,663					
<b>R&amp;R Projects</b>						
Welded Steel Tank Rehabilitation Project	610,431	2,814,569				
Chemical Containment Project	348,150					
Phase III Clearwell Rehabilitation	193,515	38,985				
Facility-Wide Surge Tank Improvements	114,400	5,600				
ExxonMobil Waste Discharge Capacity Increase	230,787	1,213				
Facility-Wide Power Monitoring Project	242,975	117,025				
Chlorine Contact Basin Rehabilitation Project	255,000					
Solids Handling System Rehabilitation Project	959,125					
Distribution System Cathodic Protection System Project	75,000	1,262,000				
ExxonMobil Dechlorination System Project	340,000					
R&R Program	3,200,000	2,400,000	7,400,000	5,000,000	10,000,000	10,000,000
<b>Customer Development</b>						
Mills Park Recycled Water Project	61,240	78,760				
Palos Verdes Golf Club Pipeline Project	1,477,196	800,804				
Rainbow Truck Company	105,000					
Digital Realty	90,000					
Caltrans 405 & Main Street Recycled Water Project	265,000					
Boeing Recycled Water Project						
Wiseburn High School Recycled Water Project						
Virco Recycled Water Project	16,514					
Dominguez Tech Center Recycled Water Project	85,000					
Manhattan Village HOA Recycled Water Project	978,200					
Northrop Recycled Water Project	38,787					
Anderson Park Recycled Water Project	15,000					
Customer Connection Projects	79,800	420,200				
<b>OCEAN-WATER DESALINATION</b>						
Decommissioning Project	748,767					
Environmental Impact Report	670,211					
Project Delivery Analysis	236,075					
Site Option Acquisition	500,000					
Permitting	1,000,000					
<b>Overhead</b>						
Labor Compliance/PLA Program Development	25,000					
Project Administration - Capital Only	3,767,706	3,880,737	3,997,159	4,117,074	4,240,586	4,367,804
	<b>\$ 58,041,805</b>	<b>\$ 39,662,731</b>	<b>\$ 12,864,621</b>	<b>\$ 9,117,074</b>	<b>\$ 14,240,586</b>	<b>\$ 14,367,804</b>



## Strategic Business Plan Goals



Customer  
Service



Environmental  
Stewardship



Sound Financial  
& Resource  
Management



Water Quality



Water Reliability

## FY 2015-2016 Accomplishments



### Water Reliability

- Objective 3:
- ✓ Completed design 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 design of the Carson Mall Lateral Phase II project to deliver recycled water into new areas within the City of Carson.
- Objective 4:
- ✓ Completed the Subsurface Intake Study to determine the technical feasibility of using subsurface seawater intakes as part of West Basin's Ocean Water Desalination Program as a part of USBR's Water Purification and Desalination Grant Program.
  - ✓ Completed the Ocean Water Desalination Intake Biofouling and Corrosion Study as a part of MWD's Foundational Action Grant Program.



### Water Quality

- Objective 1:
- ✓ Began construction for the disinfected tertiary recycled water Alkalinity Improvement. This project addressed the need for nitrified water upgrades to improve the water quality and enhance production capacity.
  - ✓ Completed the rehabilitation and refurbishment of the Biofor treatment processes utilized to produce nitrified tertiary effluent for refinery customer cooling tower applications.

- Objective 2: ✓ Completed the design 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.



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

- Objective 1: ✓ Began construction of the South Gardena Lateral. This lateral is funded by West Basin, Los Angeles Department of Water and Power (LADWP), and a state grant from the Department of Water Resources. Construction for this project is anticipated to begin in late FY 2014-2015.
- Objective 2: ✓ Completed an upgrade to the security systems at ECLWRF, Hyperion Pump Station and three satellite facilities. This project included constructing and installing security cameras and intrusion devices, intercom systems, monitoring systems and keyless entry pads in order to protect West Basin's infrastructure and assets from theft, vandalism, or unauthorized entries.
- ✓ Completed several replacement and refurbishment projects including: replacement of a second hypochlorite tank and completion of an upgrade to the lime storage silos, both of which occurred at the Edward C. Little Water Recycling Facility.
- Objective 3: ✓ Received grant funding from California's voter approved Proposition 84 bond measure for an extension of the recycled water distribution system.
- ✓ A Capital Improvement Program (CIP) Master Plan will be developed to address recycled water supply objectives and provide a strategy to implement future Capital facilities.

## **FY 2016-2017 Strategies**



### **Water Reliability**

- Objective 2: ● Increase microfiltration capacity through expansion of existing systems in order to increase reliability to refinery customers and to produce more water for injection into the seawater intrusion barrier.
- Complete the 100% design of the Tesoro Refinery Expansion to provide approximately 2.6 million gallons per day (MGD) of increased capacity. The expansion will allow West Basin to provide more recycled water to the Tesoro Refinery, utilizing the recently pilot-tested T-MBR process to produce West Basin's sixth type of recycled water.

- Objective 3:
- Continue to investigate the technical feasibility and cost/benefit analysis of expanding the recycled water distribution system into the Palos Verdes Peninsula cities, and to Kenneth Hahn Park in Baldwin Hills.
  - Manage construction for 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.
- Objective 4:
- Complete the EIR for planned future Full-Scale Ocean Water Desalination Program implementation. The EIR will assess all environmentally-related impacts associated with implementing Full-Scale Ocean Water Desalination treatment facilities, intake and discharge systems, and full conveyance and pumping systems. The EIR will allow for certification in compliance with the California Environmental Quality Act.



### **Water Quality**

- Complete construction of the disinfected tertiary recycled water Alkalinity Process Upgrades recently studied at the Chevron and Exxon Mobil Refineries. These upgrades will supply the refineries with improved water quality and will reduce the costs for breakpoint chlorination operations on site.
- Objective 1:
- Begin 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. This project will ensure compliance with the brine permit issued by the Regional Water Quality Control Board (RWQCB).



### **Customer Services**

- Objective 5:
- Complete the design effort for the Edward C. Little Water Recycling Facility Visitor Center Renovation to expand the visitor center space, renovate the interior of existing office spaces, relocate the control room, update interpretive messages and renovate exhibits. The expanded visitor center and additional conference space will allow West Basin to host multiple large special events, including industry meetings and conferences, due to the facility's close proximity to Los Angeles International airport. The updated exhibits will reinforce West Basin's mission and water related issues in the region.



## **Sound Financial and Resource Management**

- Objective 1: ● Implement a comprehensive Rehabilitation and Replacement Program (R&R) whereby projects are prioritized and scheduled based on their scope, budgeted resources, estimated cost, risks, and priority of each R&R project.
- Objective 2: ● Continue to implement various treatment and conveyance facility R&R projects to maintain and improve facility operations and ensure a long-term reliable water supply for West Basin's customers.
- Objective 3: ● Finalize the construction of the South Gardena Lateral to serve four new local customers with approximately 120 acre-feet of recycled water. This partnership with LADWP and the Department of Water Resources will involve the construction of 1.25 miles of recycled water pipeline within South Gardena.
- Objective 6: ● Complete pilot testing with a Custom Engineered Microfiltration Pilot Unit that will allow West Basin to determine design conditions for full-scale, non-proprietary microfiltration or ultrafiltration systems. These design conditions are intended to be used for the design of the microfiltration replacement included in the Tesoro Refinery Capacity Expansion.

# Tesoro Refinery Capacity Expansion

Juanita Millender-MacDonald Carson Regional Facility (Carson, CA)



## **Purpose:**

Provide 2.59 MGD of increased supply to the Tesoro Carson Refinery by constructing a tertiary Membrane Biological Reactor (t-MBR), and fully restoring the MF capacity back to contract requirements.

## **Benefits:**

This project will increase the supply of recycled water to Tesoro; improve the nitrified water quality, and reduce breakpoint chlorination of the current nitrified effluent, thereby reducing the chloride content of the recycled water. The project will also optimize the Tesoro blend of reverse osmosis (RO) and nitrified water used in their cooling towers, and remove total suspended solids and colloidal iron concentrations.

## **FY 2016-17 Budget:**

\$9,241,252

## **Total Budget:**

\$27,412,276

## **Completion Date:**

FY 2017-18

### 1. Tesoro Refinery Capacity Expansion

- a. In 2013-14, a 30% design and an Association for the Advancement of Cost Engineering Level 2 cost estimate for the planned expansion was completed. Tesoro has since agreed to pursue the completion of the 100% Design for this expansion, while working on an agreement to construct the new system. The 100% design work began in November of 2015 and will be completed by October 2016. The facility expansion will provide increased recycled water capacity to the Tesoro refinery as well as improving water quality for the site and reducing the cost of chemical treatment.
- b. FY 2016-17 Budget: \$9,241,252
- c. Anticipated Annual Operations & Maintenance Expense: \$876,500, including R&R costs

# ECLWRF Clean-In-Place Waste Discharge Project

## El Segundo, CA



### **Purpose:**

Currently, reverse osmosis (RO) and microfiltration (MF) clean-in-place (CIP) waste is discharged into the existing brine line along with the RO brine. The existing brine line connects to the Hyperion Wastewater Treatment Plant ocean outfall. This project will allow West Basin to discharge the RO CIP waste to the sewer system to ensure that West Basin will be in compliance with the brine permit issued by the Regional Water Quality Control Board (RWQCB).

### **Benefits:**

The proposed waste discharge improvements will ensure that West Basin will be in compliance with the brine permit issued by the RWQCB, in order to maintain continuous production for the Barrier System and the Boiler Feedwater system for Chevron.

### **FY 2016-17 Budget:**

\$6,110,000

### **Total Budget:**

\$6,585,000

### **Completion Date:**

FY 2016-17

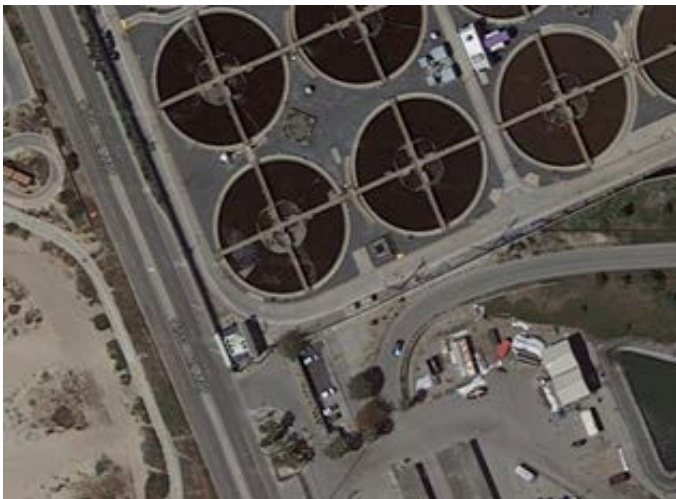
---

#### 1. RO CIP Waste Discharge System

- a. Demolition of the existing Solids Contact Clarifier structure and construction of an above ground storage facility with capacity to store up to 100,000 gallons. The project will also include pumps and pipelines from the RO facilities to the storage tank and from the storage tank to the sewer system, as well as miscellaneous sewer system improvements. Other miscellaneous work includes installation of a new brine flow meter and improvements to an existing underground electrical vault.
- b. FY 2016-17 Budget: \$6,110,000
- c. Anticipated Annual Operations & Maintenance Expense: Minimal

# Hyperion Secondary Effluent Pump Station

El Segundo, CA



## **Purpose:**

The Hyperion Secondary Effluent Pump Station provides wastewater to the Edward C. Little Water Recycling Facility (ECLWRF) where it is further treated to produce recycled water.

## **Benefits:**

Improve system reliability with additional pumping units and an emergency generator.

## **FY 2016-17 Budget:**

\$12,594,440

## **Total Budget:**

\$14,114,026

## **Completion Date:**

FY 2017-18

---

### 1. Pump Station Improvements

- a. Improve the reliability of the facility by installing two (2) new 20 million gallon per day (MGD) pumps. The new pumps will facilitate the repair and refurbishment of the existing equipment and will provide additional capacity to accommodate the future growth of West Basin's recycled water program. The secondary effluent firm pumping capacity will be increased from 50 MGD to 70 MGD.
- b. Improve the reliability of the facility by installing a new three (3) megawatt emergency generator to maintain operation of the pump station during an outage of the primary power supply.
- c. Pump Station Expansion FY 2016-2017 Budget: \$12,594,440
- d. Anticipated Annual Operations & Maintenance Expense: \$350,000

# Inglewood Disinfection Station

Inglewood, CA



**Purpose:**

Water quality facility improvements are made to existing facilities to improve or sustain the water quality provided to recycled water customers.

**Benefits:**

Provides customers with a consistent recycled water quality.

**FY 2016-17 Budget:**

\$1,106,848

**Total Budget:**

\$1,132,305

**Completion Date:**

FY 2016-17

---

1. Inglewood Disinfection Station

- a. The Inglewood disinfection station will be a new facility. This disinfection station will mitigate water quality issues associated with long detention periods in the Inglewood recycled water distribution system by constructing a disinfection station to boost the chlorine residual of the recycled water.
- b. FY 2016-17 Budget: \$1,106,848
- c. Anticipated Annual Operations & Maintenance Expense: \$57,700



## Barrier Production Increase

ECLWRF (El Segundo, CA)



### **Purpose:**

West Basin's goal is to maximize the recycled water available for injection into the West Coast Basin Seawater Intrusion Barrier (Barrier). The microfiltration (MF) systems constructed as part of the Phase IV and V expansions at ECLWRF both include provisions for new membrane units to be installed. This first phase of the project will include the engineering design and construction of additional Phase V MF units in FY 2016-17.

### **Benefits:**

The benefits to West Basin include a reduction of potable water used for injection into the Barrier and an increase in revenue through additional sales of recycled water to the Water Replenishment District of Southern California.

### **FY 2016-17 Budget:**

\$5,200,175

### **Total Budget:**

\$10,350,000

### **Completion Date:**

FY 2017-18

1. Phase V Expansion:
  - a. This project will include the addition of two new Pall Corporation microfiltration racks and blowers into the Phase V MF system. The addition of these racks will increase the MF production by 3.6 MGD, for an increase in Barrier final product water capacity of 2.7 MGD.
  - b. FY 2016-17 Budget: \$5,200,175
  - c. Anticipated Annual O&M Expense: \$552,720
2. Phase IV Retrofit & Expansion:
  - a. This project will include the engineering design of a retrofit for the existing polypropylene membrane technology used in Phase IV MF system using a more contemporary membrane material, polyvinylidene fluoride (PVDF). The project will also include the addition of two new microfiltration cells and ancillary equipment into the Phase IV MF system. The addition of these racks will increase the MF production by 2.6 MGD, for an increase in Barrier final product water capacity of 2.0 MGD.
  - b. FY 2016-17 Budget: \$0
  - c. Anticipated Annual O&M Expense: \$1,138,257

# Carson Mall Lateral Phase II

Carson, CA



### **Purpose:**

This is a new recycled water pipeline project to be constructed in cooperation with the U.S. Army Corps of Engineers under the Harbor South Bay Program.

### **Benefits:**

The project will provide disinfected, tertiary-treated recycled water for approved uses in the City of Carson. In addition, this pipeline will connect to a future recycled water system to be built by the City of Carson which will help expand the delivery of recycled water to medians, City Hall green areas, parks and schools.

### **FY 2016-17 Budget:**

\$247,744

### **Total Budget:**

\$2,364,488

### **Completion Date:**

FY 2016-17

#### 1. Carson Mall Lateral Phase II

- a. To help the local region reduce its dependence on imported water and optimize local resources, West Basin and the U.S. Army Corps of Engineers formed a partnership to develop the Harbor South Bay Water Recycling Program.

The Carson Mall Lateral Phase II is part of the Harbor South Bay Program, and consists of approximately one mile of 12-inch diameter PVC pipeline that will help deliver approximately 100 AF of recycled water to various sites within the City of Carson. The proposed pipeline will connect to the existing 12-inch diameter recycled water main at the intersection of Main Street and Jim Dear Boulevard and will be installed along Main Street to Carson Street.

- b. FY 2016-17 Budget: \$247,774
- c. Anticipated Annual Operations & Maintenance Expense: Minimal

## South Gardena Lateral

Gardena Ca



### **Purpose:**

The Project is anticipated to serve approximately 105 acre-feet per year (AFY) of recycled water in the City of Gardena, in partnership with the City of Los Angeles.

### **Benefits:**

The South Gardena Lateral will connect three new recycled water customers: Gardena High School, South Gardena Park, and Roosevelt Memorial Park Association. Recycled water use at these sites will reduce reliance on imported water.

### **FY 2016-17 Budget:**

\$1,840,840

### **Total Budget:**

\$2,880,000

### **Completion Date:**

FY 2016-17

---

#### 1. South Gardena Lateral

- a. To help the local region reduce its dependence on imported water and optimize local water resources, West Basin entered into an agreement with the City of Gardena and the Los Angeles Department of Water and Power (LADWP) to apply for a state grant to build a recycled water system. The grant was approved on February 19, 2014, with West Basin as the primary agency.

The South Gardena Lateral Project includes the design and construction of approximately 1.25 miles of recycled water pipeline in South Gardena. The proposed pipeline will connect to the existing 42-inch diameter recycled water main at 168th Street in the City of Gardena. Once completed, the Project is anticipated to serve approximately 105 AFY of recycled water.

- b. FY 2016-17 Budget: \$1,840,840
- c. Anticipated Annual Operations & Maintenance Expense: Minimal

# Edward C. Little Water Recycling Facility Administration Building and Visitors Center Renovation

El Segundo, CA



## **Purpose:**

The Edward C. Little Water Recycling Facility Administration Building and Visitor Center Renovation Project will renovate the interior of the existing office space and update the exhibits.

## **Benefits:**

The renovated visitor center and expanded meeting space will allow West Basin to host multiple large special events, including industry meetings and conferences due to the facility's close proximity to the Los Angeles International Airport. The updated exhibits will reinforce West Basin's mission and accomplishments and will highlight water-related issues in the region.

## **FY 2016-17 Budget:**

\$3,059,400

## **Total Budget:**

\$6,665,000

## **Completion Date:**

FY 2017-18

---

### 1. Administration and Education Expansion

- a. Renovation of the existing administration building to include expansion of the large conference room to accommodate additional public events. The project will also include new exhibits in the visitor center, remodeling of the entry plaza and the existing conference with updated audio and visual equipment and a new HVAC system. The project will expand the meeting space to host larger public events. The first stage of this project is the design of the build-out.
- b. FY 2016-17 Budget: \$2,999,400
- c. Anticipated Annual Operations & Maintenance Expense: Minimal

### 2. ECLWRF Monument Sign

- a. Installation of a monument sign at the Edward C. Little Water Recycling Facility in El Segundo, CA to promote West Basin's recycled water and water conservation messaging.
- b. FY 2016-17 Budget: \$60,000
- c. Anticipated Annual Operations & Maintenance Expense: Minimal

# Donald L. Dear Administrative Building Tenant Improvements

Carson, CA



## **Purpose:**

This project will include a variety of building and technology improvements.

## **Benefits:**

The building upgrade will continue to provide West Basin with a more efficient use of the spaces available in the building, as well as upgrading aging technology.

## **FY 2016-17 Budget:**

\$664,000

## **Total Budget:**

\$3,302,000

## **Completion Date:**

FY 2018-19

---

### 1. Technology Improvements

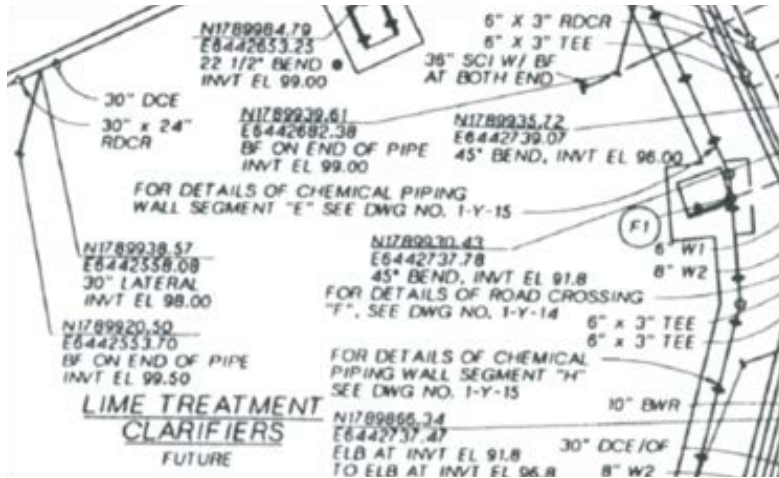
- a. Phone System Replacement
- b. New Servers
- c. Hansen Upgrade and Optimization
- d. Lawson Upgrade and Optimization
- e. Agenda Management / Streaming System

### 2. Tenant Improvements

- a. Elevator Replacement
- b. Security Improvements
- c. Office Space Improvements
- d. HVAC System Improvements

# Phase 1 Piping Wye Removal Project

El Segundo, CA



**Purpose:**

This project will include removal of unused piping remaining from the original construction of the Edward C. Little Water Recycling Facility.

**Benefits:**

Removal of the unused piping will address water quality issues affecting the downstream treatment processes.

**FY 2016-17 Budget:**

\$137,000

**Total Budget:**

\$137,000

**Completion Date:**

FY 2016-17

1. Phase 1 Piping Wye Removal Project

- a. Removal of existing 30-inch and 24-inch steel piping installed as a part of the original Edward C. Little Water Recycling Facility construction. These pipelines were intended to be connected to future treatment processes that were never constructed. The absence of flow through these pipelines has resulted in biological growth that adversely impacts the downstream treatment processes. The pipelines must be removed to address this issue.
- b. FY 2016-2017 Budget: \$137,000
- c. Anticipated Annual Operations and Maintenance Expense: none

# Capital Improvement Program Master Plan

## All Facilities

### Purpose:

To assist in long-term implementation of West Basin's capital facilities, a Capital Improvement Program (CIP) Master Plan will be developed to address recycled water supply objectives and provide a strategy to implement future Capital facilities. The CIP Master Plan will update West Basin's hydraulic system model, evaluate recycled water service opportunities, identify potential Capital facilities required to meet West Basin's objectives, and develop implementation schedules, costs, and priorities.

### Benefits:

The CIP Master Plan will be used to identify and prioritize the construction of new Capital facilities.

### **FY 2016-17 Budget:**

\$802,566

### **Total Budget:**

\$1,000,000

### **Completion Date:**

FY 2016-17

---

#### 1. Capital Improvement Program Master Plan

- a. Development of a comprehensive master plan for the construction of new capital facilities to achieve West Basin's recycled water supply objectives.
- b. FY 2016-2017 Budget: \$802,566
- c. Anticipated Annual Operations and Maintenance Expense: none

## Replacement & Refurbishment Program (R&R)

### ECLWRF & Satellite Facilities



#### **Purpose:**

West Basin's recycled water system consists of the Hyperion Pump Station in Playa del Rey, the Edward C. Little Water Recycling Facility and the Chevron Nitrification Facility in El Segundo, the Exxon Mobil Satellite Facility in Torrance, the Carson Regional Water Recycling Facility in Carson, and over 120 miles of distribution pipelines. In addition, West Basin owns and operates a brackish groundwater desalination facility, the Brewer Desalter, in Torrance.

Much of West Basin's recycled water infrastructure was built in the mid-1990s in response to the droughts of the late 1980s and early 1990s. As the treatment facilities continue to age, a comprehensive R&R Program has been established to identify components of West Basin's recycled water system that are in need of repair or replacement. The R&R Program helps ensure that process equipment is properly maintained and replaced as necessary to maintain the ongoing operation of West Basin's treatment facilities.

#### **FY 2016-17 Budget:**

\$6,494,383

#### **Completion Date:**

Ongoing

Facility	Year Built	Treatment Process	Capacity
Hyperion Pump St.	1995	<ul style="list-style-type: none"> <li>Pumping &amp; Conveyance</li> </ul>	50 MGD
ECLWRF	1995	<ul style="list-style-type: none"> <li>High Rate Clarification, Sand Filtration, Chlorine Disinfection,</li> <li>Ozone, Microfiltration, Reverse Osmosis, Ultraviolet Light, Advanced Oxidation, Disinfection</li> <li>Ozone, Microfiltration, Reverse Osmosis (Chevron High Pressure)</li> </ul>	62 MGD
Exxon Mobil WRF	1998	<ul style="list-style-type: none"> <li>Nitrification</li> <li>Microfiltration, Reverse Osmosis</li> </ul>	8.2 MGD
JMM Carson Regional WRF	2000	<ul style="list-style-type: none"> <li>Nitrification</li> <li>Microfiltration, Reverse Osmosis</li> </ul>	6 MGD
Chevron Nitrification Facility	1996	<ul style="list-style-type: none"> <li>Nitrification</li> </ul>	5 MGD
Distribution System	1995	<ul style="list-style-type: none"> <li>Conveyance</li> </ul>	40 MGD
Brewer Desalter	1993	<ul style="list-style-type: none"> <li>Reverse Osmosis of brackish groundwater</li> </ul>	1.5 MGD



## R&R Program (Con't)

### ECLWRF & Satellite Facilities



#### Description

The list below represents critical R&R prioritized projects that have been identified by West Basin's Technical Resources Department, with input from the Operations Department and the contract operator, as high priorities in the near future. These projects will be initiated in FY 2016-17.

1. Welded Steel Tank Rehabilitation Project
  - a. FY 2016-17 Budget: \$610,431
2. Satellite Facility Chemical Containment Project
  - a. FY 2016-17 Budget: \$348,150
3. Phase III Clearwell Rehabilitation Project
  - a. FY 2016-17 Budget: \$193,515
4. Facility-Wide Surge Tank Improvements Project
  - a. FY 2016-17 Budget: \$114,400
5. Exxon Mobil Waste Discharge Improvements Project
  - a. FY 2016-17 Budget: \$230,787
6. Facility-Wide Power Monitoring Project
  - a. FY 2016-17 Budget: \$242,975
7. Solids Handling System Rehabilitation Project
  - a. FY 2016-17 Budget: \$959,125
8. Cathodic Protection within the Distribution System
  - a. FY 2016-2017 Budget: \$75,000
9. Exxon Mobil Dechlorination System Project
  - a. FY 2016-2017 Budget: \$340,000
10. R&R Program
  - a. FY 2016-2017 Budget: \$3,200,000
  - b. Funding for other equipment replacement and/or refurbishment identified on an ongoing basis by the Operations department.

# Customer Development West Basin Pipeline Lateral

(Title 22 Water Distribution System) Various Cities



## **Purpose:**

Provide increased supply of West Basin’s disinfected tertiary recycled water for irrigation and cooling tower supply to various facilities within the West Basin service area.

## **Benefits:**

The construction of additional laterals increases West Basin’s supply of disinfected tertiary recycled water and reduces the amount of imported water used for potable services. The additional supply also improves the water quality within the distribution system by moving water faster through the system, reducing the potential for biological growth, scale, and corrosion within the pipeline.

## **FY 2016-17 Budget:**

\$2,078,236

## **Total Budget:**

\$10,562,391

## **Completion Date:**

FY 2017-18

### 1. Mills Park Lateral:

- a. This new lateral will extend off of West Basin’s recycled water main in E. Del Amo Blvd. in the City of Carson, run up S. Central Ave, and feed recycled water to the Dr. Thomas G. Mills Memorial Park.
- b. FY 2016-17 Budget: \$61,240
- c. Anticipated Annual O&M Expense: minimal

### 2. Palos Verdes Golf Course Lateral:

- a. This effort will include performing a pipeline alignment and preparing California Environmental Quality Act (CEQA) documents in order to pursue grant funding for the future design and construction of this lateral.
- b. FY 2015-16 Budget: \$1,477,196
- c. Anticipated Annual O&M Expense: minimal

### 3. Rainbow Truck Company Lateral:

- a. This project will include constructing a 4-inch pipeline to serve recycled water to the Rainbow Truck Company in Carson directly adjacent to West Basin’s Juanita Millender-McDonald Carson Regional Water Reclamation Facility.
- b. FY 2016-17 Budget: \$105,000
- c. Anticipated Annual O&M Expense: minimal

4. Digital Realty Lateral Project:

- a. This project will include constructing a 4-inch diameter pipeline to serve recycled water to Digital Realty data center in El Segundo for an industrial cooling tower application.
- b. FY 2016-17 Budget: \$90,000
- c. Anticipated Annual O&M Expense: minimal

5. Caltrans 405 & Main Street Recycled Water Lateral Project:

- a. This project will include constructing a 6-inch diameter pipeline to serve recycled water to Caltrans right-of-way near Main Street and the Interstate 405 Freeway in Carson.
- b. FY 2016-17 Budget: \$265,000
- c. Anticipated Annual O&M Expense: minimal

6. Additional Recycled Water Lateral Construction Projects

- a. Funds have been included in the FY 2016-17 Budget to construct additional recycled water laterals for customers that have yet to be determined.
- b. FY 2016-17 Budget: \$79,800
- c. Anticipated Annual O&M Expense: minimal



## Customer Development (Con't) Proposition 84, Round 3

Torrance, Carson, Manhattan Beach, Inglewood, El Segundo, CA



### **Purpose:**

West Basin is the recipient of funding under DWR's Proposition 84 Round 3 Grant. This grant supports the retrofit of various project sites to accept a disinfected tertiary recycled water supply for irrigation use, and in some cases for approved industrial applications.

### **Benefits:**

The projects will result in approximately 206 acre-feet per year of disinfected tertiary recycled water demand. The projects will reduce dependence on imported water by introducing a new recycled water supply.

### **FY 2016-17 Budget:**

\$1,133,501

### **Total Budget:**

\$1,733,800

### **Completion Date:**

FY 2016-17

In order to serve recycled water to the proposed sites, new service lines and pipeline systems will need to be designed and constructed. The work will be within the public right of way. The sites under consideration are:

- Virco Lateral  
Design and construction of a service line from the main pipeline to the customer's meter. The recycled water will be used for irrigation and other approved industrial purposes. Project site is located in the City of Torrance.
- Dominguez Tech Center  
Design and construction of connections to the existing recycled water system. Project site is located in the City of Carson.
- Manhattan Village HOA  
Installation of approximately one mile of pipeline within the Home Owners Association in the Manhattan Village. Activities include design, construction, construction management, and construction outreach. Project site is located in the City of Manhattan Beach.
- Northrop Grumman  
Design and construction of a service line that will extend from the main pipeline to the customer's meter. Recycled water will be used for irrigation and approved industrial applications. Project site is located in the City of Redondo Beach.
- Anderson Park  
Design and construction of a service connection for Anderson Park. The Project site is located in the City of Carson.

# Ocean Water Desalination Program

## West Basin Service Area



### **Purpose:**

The Ocean Water Desalination Program was implemented to potentially provide a new reliable water supply to meet local demands and reduce dependence on imported water supplies.

### **Benefits:**

An Ocean Water Desalination Facility would reduce West Basin's reliance on imported water and would provide local reliability.

### **FY 2016-17 Budget:**

\$3,155,053

### **Total Budget:**

To be Determined

### **Completion Date:**

To be Determined

---

**The full cost of the project will be incorporated in future CIP budgets once final commitment and approval by the West Basin Board of Directors for ocean water desalination is made.**

#### 1. West Basin's Ocean Water Desalination Demonstration Facility (Desal Facility)

- a. Critical testing and research has been performed at the Desal Facility over three and a half years, and ceased at the end of calendar year 2014. Beginning in July 2016, the entire Desal Demonstration Facility will be decommissioned and West Basin will vacate the site.
- b. FY 2016-17 Budget: \$748,766
- c. Anticipated Annual Operations & Maintenance Expense: None.

#### 2. The Full-Scale Desalination Planning Stage

- a. Take steps to develop a Full-Scale Desalination Facility. Some of the steps to be initiated during this fiscal year could include initiating a site options analysis, preparing the EIR for a full-scale facility, environmental notification, analysis for preliminary program development and regulatory research.
- b. FY 2016-17 Budget: \$2,406,286
- c. Anticipated Annual Operations & Maintenance Expense: N/A

#### 3. The Full-Scale Implementation (Not to begin in FY 16-17)

- a. Begin the initial steps to implementing a full-scale desalination facility only.
- b. FY 2016-17 Budget: \$0
- c. Anticipated Annual Operations & Maintenance Expense: To be determined



## ORGANIZATIONAL MEMBERSHIPS & SPONSORSHIPS

West Basin Municipal Water District (West Basin) seeks to engage with the community on many levels, maintaining 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 in line with West Basin's mission.

MEMBERSHIPS	FY 15-16 Budget	FY 16-17 Budget
Alliance for Water Efficiency	\$ 3,100	\$ 3,100
American Academy of Environmental Engineers and Scientists	-	6,000
American Membrane Technology Association	675	675
American Water Works Association Membership	14,100	21,000
Association of California Water Agencies	24,000	27,500
CalDesal	5,000	5,000
California Association of Sanitation Agencies	800	800
California Special Districts Association	-	5,700
California Urban Water Conservation Council	8,000	8,000
<u>Chambers of Commerce</u>		
- Carson	450	450
- Culver City	200	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	375	375
- Inglewood / Airport Area	300	300
- Lawndale	500	500
- LAX Coastal	330	330
- Lomita	400	425
- Los Angeles Area	850	850
- Malibu	400	400
- Manhattan Beach	650	650
- Palos Verdes Peninsula	600	600
- Redondo Beach	300	300
- Topanga	120	120
- Torrance	450	500
- West Hollywood	450	450

<b>MEMBERSHIPS (cont.)</b>	<b>FY 15-16 Budget</b>	<b>FY 16-17 Budget</b>
Climate Registry	1,200	1,200
Los Angeles Council of Professional Black Engineers	1,000	1,000
National Water Research Institute	50,000	50,000
National Water Resources Association	350	350
So CA Alliance of Public Owned Treatment Works	6,000	6,000
Southern California Water Committee	2,500	2,500
Southwest Membrane Operators Association	600	600
Urban Water Institute, Inc.	1,250	1,250
Utility Branding Network	2,500	-
Water Education Foundation	2,700	2,700
Water Research Foundation	42,850	44,000
WaterReuse Association	8,600	8,600
WaterReuse Research Foundation	25,000	25,000
West Basin Water Association	500	800
<b>Memberships Total</b>	<b>\$ 210,325</b>	<b>\$ 230,450</b>

<b>Water Related Sponsorships</b>	<b>FY 15-16 Budget</b>	<b>FY 16-17 Budget</b>
CalDesal Annual Conference	\$ 1,000	\$ 1,500
CORO – Annual Water Sustainability Conference	-	2,500
Friends of Ballona Wetlands	-	3,000
Groundwater Festival Sponsorship (WRD)	2,500	2,500
Heal the Bay	5,000	5,000
Los Angeles Waterkeeper	5,000	5,000
Public Officials for Water & Environmental Reform	1,500	1,500
Southern California Water Committee Quarterly Luncheon	-	1,500
Southwest Membrane Operators Association – Annual Symposium	1,200	1,200
Urban Water Institute - Annual Conference	3,000	4,000
WaterReuse CA Annual Conference Sponsorship	2,500	2,500
<b>Sponsorships Total</b>	<b>\$ 21,700</b>	<b>\$ 30,200</b>

Summarized descriptions of FY 2016-17 Organizational Memberships are listed on the following pages.



## **ALLIANCE FOR WATER EFFICIENCY**

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. Our efforts are specifically 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 ACADEMY OF ENVIRONMENTAL ENGINEERS & SCIENTISTS (AAEES)**

Orientation: Technical

Description: The American Academy of Environmental Engineering and Scientists® is a not-for-profit 501(c)(6) organization serving the Environmental Engineering and Environmental Science professions by providing Board Certification to those who qualify through experience and testing. The Academy also provides training through workshops and seminars, participates in accrediting universities, publishes a periodical and other reference material, interacts with students and young professionals, sponsors a university lecture series, and rewards outstanding achievements through its international awards program.

West Basin Involvement: AAEES provides development opportunities for staff and Board Certification of Environmental Engineers.

Value: The Academy publishes in-depth reports and books on environmental issues and topics which advance state-of-the-art environmental engineering and environmental science practices. Its members and staff regularly consult with government leaders regarding policies affecting environmental quality and the practice of environmental engineering and environmental science.

Association Fee: \$6,000



## **AMERICAN MEMBRANE TECHNOLOGY ASSOCIATION**

Orientation: Technical

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

West Basin Involvement: Staff 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: \$675

## **AMERICAN WATER WORKS ASSOCIATION (AWWA)**

Organization: Policy Development/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 regularly 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: \$21,000

## **ASSOCIATION OF CALIFORNIA WATER AGENCIES (ACWA)**

Organization: Policy Development/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: \$27,500

## **CALDESAL**

Orientation: Policy Development/Legislation

Description: CalDesal is a non-profit organization comprised of public agencies and associates that see desalinated water as 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, and receives timely and informative publications on legislation and regulatory matters from CalDesal.

Value: West Basin is able to stay on top of crucial issues affecting the development of desalination projects.

Association Fee: \$5,000

## **CALIFORNIA ASSOCIATION OF SANITATION AGENCIES (CASA)**

Orientation: Policy Development/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 stay on top of crucial issues affecting sanitation agencies.

Association Fee: \$800



**THE EARTH IS WHAT WE ALL HAVE IN COMMON. LOVE IT, PROTECT IT.**

**-WENDELL BERRY**



## **CALIFORNIA SPECIAL DISTRICTS ASSOCIATION (CSDA)**

Orientation: 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 stay on top of crucial issues affecting special districts.

Association Fee: \$5,700

## **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. The CUWCC oversees the implementation of the 14 best management practices within those agencies responsible for water management and develops 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: 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, communication with employers, and support and aid.

West Basin Involvement: West Basin Board and staff have participated in annual events, volunteered and assisted with 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

## **NATIONAL WATER RESEARCH INSTITUTE (NWRI)**

Orientation: Research

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.

Value: NWRI provides funding for West Basin research projects.

Association Fee: \$50,000

## **NATIONAL WATER RESOURCES ASSOCIATION (NWRA)**

Orientation: Policy Development/Legislation

Description: NWRA is a non-profit organization comprised of companies, associations and individuals concerned with the appropriate management, conservation and use of national water resources.

West Basin Involvement: Directors occasionally attend the NWRA Federal Water Seminar in Washington D.C., which provides water district board members and general managers with an opportunity to interact with members of Congress, key congressional staff, and federal agency representatives to promote West Basin's needs and objectives.

Value: NWRA allows West Basin access to its broad-based information and action efforts.

Association Fee: \$350

## **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 staff occasionally attends its conferences.

Value: As an organization, SCAP serves as a watchdog for legislation that could negatively impact publicly owned treatment facilities, such as the Hyperion Wastewater Treatment Plant and the Edward C. Little Water Recycling Facility.

Association Fee: \$6,000

## **SOUTHERN CALIFORNIA WATER COMMITTEE**

Orientation: Policy/Educational

Description: The Southern California Water Committee is a non-profit, nonpartisan, public education partnership dedicated to informing Southern Californians about our water needs and 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 information available to the public to support informed decisions on water issues. SCWC also seeks to work toward a state consensus on water supply issues, which is imperative to our future needs.

Association Fee: \$2,500

## **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 operator familiar with membrane operations, exchanging operating experience at other facilities, and keeping 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

## **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: \$2,700

## **WATER RESEARCH FOUNDATION (WRF)**

Orientation: 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.

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: \$44,000

### **WATEREUSE ASSOCIATION (WATEREUSE)**

Orientation: Technical/Policy/Education

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 of 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, 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: \$8,600

### **WATEREUSE RESEARCH FOUNDATION (FOUNDATION)**

Orientation: Research

Description: The Foundation is an educational, nonprofit corporation that serves as a centralized organization for the water and wastewater community to advance the science of water reuse, recycling, reclamation and desalination.

West Basin Involvement: Staff is on the Board of Directors and also attends and presents at research conferences.

Value: The Foundation has funded research for West Basin, furthering the knowledge and use of recycled water.

Association Fee: \$25,000

### **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.

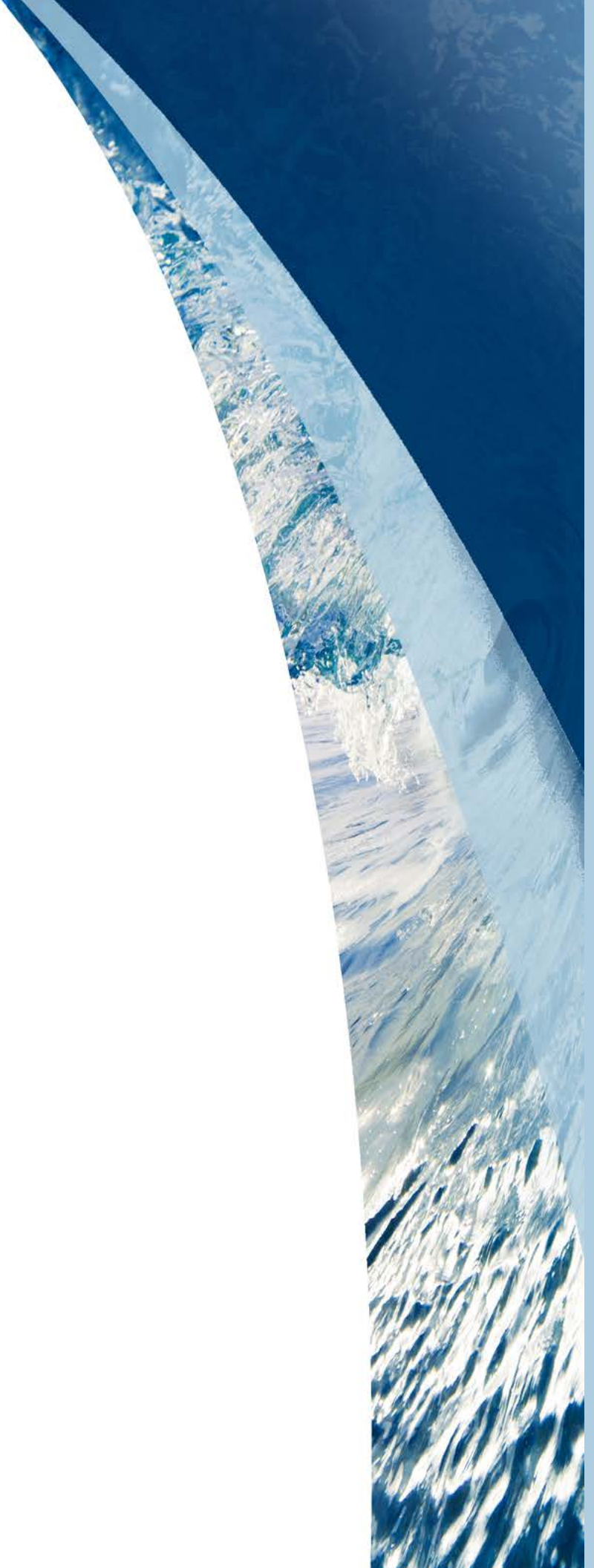
West Basin Involvement: West Basin participates in forums to better understand local water issues and rate structures.

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

Association Fee: \$800



# Glossary





## 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

**CEQA** - California Environmental Quality Act

**CFO** - Chief Financial Officer

**CFS** - Cubic feet per second

**CIP** - Capital Improvement Program

**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

**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

**LPBF** - Low Pressure Boiler Feed

**LRP** - Local Resources Program

**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

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

**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** – The 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.

**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 demineralize 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.

**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.

**LIBOR** – The London Interbank Offered Rate is the average interest that 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

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

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

**Potable** – Drinkable water. 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.

**Purchase Commitment** – An agreement to purchase non-interruptible water.

**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.

**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 which 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.

**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 the 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 which makes the water suitable for beneficial reuse, such as landscape irrigation. Also called water recycling.

**Water Reliability (WR)** – A program to decrease dependence on imported water by the year 2020 through doubling water recycling and conservation programs, and possibly adding up to 20 million gallons a day of desalted ocean water.

**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)