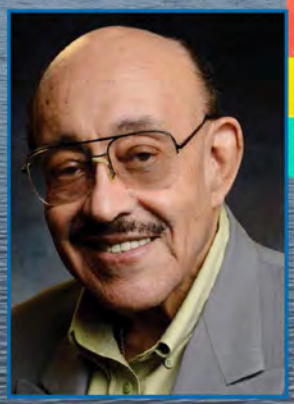
WRD
WATER REPLENISHMENT DISTRICT
OF SOUTHERN CALIFORNIA

ACHIEVEMENTS IN WATER INDEPENDENCE

Annual Budget 2017/2018

THE WATER REPLENISHMENT DISTRICT BOARD OF DIRECTORS



Willard H. Murray, Jr.
Division One

Rob Katherman
Division Two

John D.S. Allen
Division Three

Sergio Calderon
Division Four

Albert Robles
Division Five

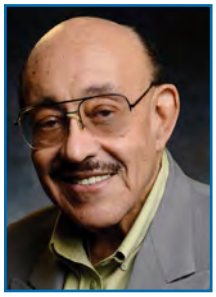
Table of Contents

Mission Statement

"To provide, protect and preserve high quality groundwater through innovative, cost-effective and environmentally sensitive basin management practices for the benefit of residents and businesses of the Central and West Coast Basins."

Board of Directors

Division 1



Willard H. Murray, Jr.
Director

Division 2

Rob Katherman
President

Division 3

John D.S. Allen
Vice President

Division 4

Sergio Calderon
Secretary

Division 5

Albert Robles
Treasurer

Budget Team

Robb Whitaker, P.E.
General Manager

Scott M. Ota, CPA, CFF, CIRA, CGMA
Chief Financial Officer

Elizabeth Betham
Senior Accountant

Jenna Shaunessy
Manager of Financial Services

Binhyen Bui
Senior Accountant

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With special thanks:
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General Manager's Report

Robb Whitaker
General Manager

DROUGHT ENDS; IMPORTED WATER SUPPLY CHALLENGES REMAIN

California's historic five-year drought ended with a deluge that left snowpack in the Sierras at near-record levels, reservoirs filled to the brim and groundwater conditions throughout the state still below optimum levels but much improved. The Governor cancelled his Emergency Drought Order and the mandatory conservation measures that accompanied it.

The many challenges the state faced by virtue of the drought have been replaced by the many challenges that come with too much rain falling too quickly and too much snow melting too early. The vulnerabilities of the state's aging water supply infrastructure have been exposed in dramatic and in some cases destructive fashion. The collapse of the Oroville Dam spillway is symbolic of what many observers see as a wider and more ominous degradation of the State Water Project infrastructure.

Built between 1963 and 1973, the State Water Project consists of lots of moving parts—700 miles of canals, pipelines and tunnels and 21 dams and reservoirs. As we have seen, the capacity of this elaborate system is strained, in some cases to the breaking point, by volumes of water exceeding the system's capacity to handle.

Additionally, the State Water Project was built on the assumption that winter snowpack in the Sierras would melt gradually in the spring to feed into the distribution system to serve customers in the Central Valley and Southern California through the summer. Based on what we have seen this year in the way of precipitous runoff, it is possible that the backbone of the State Water Project's water supply infrastructure was built for more predictable weather patterns that no longer exist. And we have climate change to thank for that.

So in addition to earthquakes and regulatory curtailment and an aging infrastructure, we can add climate change impacts to the list of vulnerabilities that make uncertain the reliability of imported water from Northern California to our region. Imported water from the Colorado River is already off-limits for many water agencies, including WRD, by virtue of the presence in Lake Mead and the aqueduct of the quagga mussel, an invasive species that can wreak ecological harm.

WIN IS IN SIGHT

All of this is to say that the commitment the WRD Board made 15 years ago to eliminate the need for imported water to meet our groundwater replenishment needs demonstrated a remarkable degree of foresight. Even without the vulnerabilities of imported supply, reliance on a sustainable local supply is a prudent water management objective.

The Water Independence Now (WIN) initiative is a suite of projects and programs that have dramatically reduced the need for imported water for replenishment to the point where in less than two years, we won't need imported water at all.

WIN Projects to Date

In the past 15 years, WRD has greatly increased the storm water portion of our supply portfolio by helping the County Department of Public Works finance the installation of rubber dams on the San Gabriel River, increase the capacity of the Conservation Pool behind Whittier Narrows Dam, construct inter-connection pipelines between the spreading grounds, and build additional recycled water turnout structures.

In 2003, we built the Leo J. Vander Lans Advanced Water Treatment Facility to supply recycled water to the Alamitos Seawater Barrier and two years ago doubled its capacity to supply all of the needs of that barrier. We have worked with the West Basin Municipal Water District to make all water supplied from its Edward C. Little plant to the West Coast Basin Seawater Barrier advanced treated recycled water. The same is true with the City of Los Angeles and the supply of advanced treated water from its Terminal Island plant to the Dominguez Gap Seawater Barrier.

In 2002, WRD built the Robert W. Goldsworthy Desalter in Torrance to treat portions of the saline plume and supply the treated water directly to the city's potable water system. This year, we will complete an expansion to more than double the capacity of that desalter.

Groundwater Reliability Improvement Program Advanced Water Treatment Facility

And next year, we will complete the largest and most significant component of WIN, which will be the completion of the Groundwater Reliability Program's Advanced Water Treatment Facility (GRIP AWTF) in Pico Rivera. The purpose of the project is to fully eliminate the need for 21,000 acre-feet of imported water at the spreading grounds by using 21,000 acre-feet of locally-produced recycled water instead.

The GRIP AWTF will purify to virtual drinking water standards 10,000 acre-feet of water produced at the San Jose Creek Water Reclamation Plant. Together with another 11,000 acre-feet of tertiary treated recycled water produced by the County Sanitation Districts, WRD will deliver 21,000 acre-feet to the spreading grounds, eliminating the annual need for 21,000 acre-feet of imported water at the spreading grounds.

WIN for All

It is not as if WIN ends when the GRIP AWTF begins operating in September 2018. While WRD will be self-reliant and independent of imported water to meet its own replenishment needs, many municipal and private pumpers still rely on some portion of imported water supply to meet their total water demands.

The principles that have guided WRD's implementation of WIN over the past 15 years can plausibly be applied to greatly reduce the need for imported water in the region. The difference, as more fully explained in the President's report, is that projects will be more regional in scope and will principally take the form of storage for extraction above adjudicated limits. Implementation of projects identified in WRD's Groundwater Basin Master Plan can virtually eliminate the use of imported water in the Central Basin and dramatically reduce the use of imported water in the West Coast Basin.

Internally within WRD, we call this next frontier of groundwater resource management WIN for All.

Robb Whitaker
General Manager

President's Report

Rob Katherman
President

MAKING HISTORY

We made history this year by taking the final steps in the Water Independence Now (WIN) journey to eliminate the use of imported water for groundwater replenishment. The Board awarded a design-build-transitional operations contract and formally broke ground on the Groundwater Reliability Improvement Program (GRIP) Advanced Water Treatment Facility (AWTF). Construction is well underway. In just over a year from now the plant will be producing purified water to enable WRD to be totally self-reliant in meeting our replenishment needs. For an agency that used more than 200,000 acre-feet of imported water for groundwater replenishment in 1962, that is a historic achievement.

Community Asset

In addition to its main purpose, two other things about this project stand out. One is that it is located adjacent to a residential area in the city of Pico Rivera. After a diligent educational process, the neighbors embraced it and contributed to its design, so we did not face a Not in My Backyard backlash. A significant feature of the project is a community center that will serve as a venue to educate students about groundwater and recycled water, but also as a community resource for community meetings and events. The WRD Board wanted the facility to be a compatible and an integral part of the neighborhood and it will be.

Exceptional Financing

Another thing that stands out about this project is the way it was financed. The State Water Resources Control Board approved an $80 million loan to be paid back over 30 years at a remarkable interest rate of one percent. The State Board also approved a $15 million grant for the project to go along with $5.8 million in grants received from other sources. The remaining $31.2 million in capital costs is paid by tax-exempt bonds that sold for the effective AAA interest rate of just 3.49%.

Finally, with respect to the ongoing operating costs of the facility, I should note that through its Local Resources Program (LRP), the

CORE VALUES

The Water Replenishment District executes its role in groundwater management through:

Financial Responsibility:

Long-term prudent financial decisions are made about staffing, operational expenses, rates, bonds and reserves.

Transparent Decision Making:

The board makes decisions in open meetings with the public heard in a respectful manner. Additionally, the public is encouraged to provide input through participation in a variety of focused forums and public hearings.

Metropolitan Water District of Southern California (MWD) provides an operating subsidy for projects that create new local water supplies that replace existing demand for potable water. Through the City of Torrance, WRD's MWD member agency sponsor, WRD sought and obtained a $36 per acre-foot subsidy on the 10,000 acre-feet of recycled water to be produced at the AWTF. That amounts to a total LRP payment to WRD of $9,000,000 over a 25-year period.

So this project features the most sophisticated treatment technology, is a welcome addition to the neighborhood and is being paid for with grants and interest rates that are simply unheard of in either the commercial or tax-exempt marketplace.

And it makes history.

GROUNDWATER BASINS MASTER PLAN

Concluding a stakeholder engagement process that began seven years earlier, the WRD Board this year certified the Final Program Environmental Impact Report and adopted the Groundwater Basins Master Plan (GBMP) for the Central and West Coast basins. This is an extraordinarily important document that provides a blueprint toward regional independence from imported water.

The GBMP complements our Water Independence Now (WIN) program by identifying projects and programs to enhance basin replenishment, increase the reliability of groundwater resources, increase the ability to store and extract local water supplies above current adjudicated limits, and improve and protect groundwater quality. The key objective for creating additional replenishment water supply is to significantly reduce imported water use by providing for increased groundwater pumping from these basins.

The GBMP identifies in concept a suite of projects that could generate 133,250 acre-feet of water supply above existing water rights in the two basins. Concepts include the use of up to 30,000 acre-feet of advanced treated recycled water from existing wastewater treatment plants for injection into the West Coast Basin, additional recharge of up to 57,700 acre-feet of recycled water and storm water near the Montebello Forebay, and up to 45,480 acre-feet of recycled water in the Los Angeles Forebay.

The two basins WRD manages are extraordinary regional assets. Maximizing their use to minimize reliance on imported supply is the next frontier for WRD and the region.

BRIEFLY NOTED

- Reflecting the implementation of WIN, WRD used a record 61,000 acre-feet of recycled water for spreading this year. 68% of all water injected into the seawater barriers was advanced treated recycled water, also a new record. Within a year or so, that number should be 100%.

- In addition to the $15 million grant WRD received for GRIP, the District received a $7.2 million grant from the State Water Resources Control Board for perchlorate remediation in the Los Angeles Forebay and a $1 million grant from the Rivers and Mountains Conservancy for GRIP storm water features and maintenance of the Monarch butterfly habitat. That $23.2 million is equivalent to roughly $93 for one year on the Replenishment Assessment --- a very substantial savings for the pumper community.

- WRD has received 18 budget awards in the last six years and financial reporting awards in each of the last 12 years. This year, we also received the American Academy of Engineers and Scientists Grand Prize in the Excellence in Design category for the GRIP AWTF and the WateReuse Association's Customer of the Year Award.

THANKS!

On so many fronts, this was an exciting and historic year for WRD. Among many other things, we adopted a solid Strategic Plan to guide our vision going forward and a concrete Capital Improvements Plan to implement it. For that, I want to thank my colleagues on the Board for their diligence and hard work and express the appreciation of the Board to our superb General Manager and staff for the professionalism, passion and commitment they bring to work every day.

Rob Katherman
President

Budget-in-Brief

The Lillian Kawasaki Educational Urban Landscape Demonstration Site is located at the WRD Headquarters in Lakewood, CA

2017/2018 Budget-in-Brief

FINANCIAL OVERVIEW – REPLENISHMENT ASSESSMENT: INCREASE OF 7.1% TO $318/ACRE-FOOT

The District manages the Central and West Coast Groundwater Basins which provide groundwater for approximately 4 million residents in 43 cities of southern Los Angeles County. Its mission statement is "to provide, protect and preserve high quality groundwater through innovative, cost-effective and environmentally sensitive water basin management practices for the benefit of residents and businesses of the Central and West Coast Basins."

The District accomplishes this through its various projects and programs; each of which are explained in detail in other parts of this budget document. The District's budget is divided into three major categories:

1. Operating Expenses – Primarily used to track expenses related to projects, programs and administrative costs
2. Other Special Programs and Supportive Costs
3. Capital and Other Non-Operating Revenues and Expenses

Project, program and administrative costs are tracked in the category of operating expenses. These projects and programs include activities that enhance the replenishment operations, increase the reliability of groundwater resources, improve and protect groundwater quality and ensure that the groundwater supplies are suitable for beneficial use. Direct administrative supportive costs include the Board of Directors, Internal Services, Finance and External Affairs.

Other special programs and supportive costs include expenses related to litigation, Proposition 218 and Senate Bill 620; SB 620 costs relate to the District's efforts to comply with the law establishing the Budget Advisory Committee (BAC) and the biennial election of a seven-member committee. Election expenses are also included in this category of expenses and represent mandatory pass-through costs from the County Registrar-Recorder to manage the election of the District's elected officials.

The District has debt service payments on its 2015 Water Revenue Bonds which are included in the third category of expenses: Capital and Other Non-Operating Revenues and Expenses.

RELATIONSHIP OF FUNDS, PROJECTS AND PROGRAMS

The District operates two major funds: the Replenishment Fund and the Clean Water Fund. Expenses are allocated to each fund through the various projects and programs. For budget purposes, projects and programs are separated into either Replenishment, Clean Water Projects or Dual Purpose Projects and Programs. Dual purpose projects and programs are those that address both replenishment operations and clean water efforts.

Replenishment Fund

The annual amount pumped from the Central and West Coast Groundwater Basins is greater than the natural replenishment of groundwater aquifers, creating an annual deficit or annual overdraft. WRD is enabled under the California State Water Code to purchase and recharge additional water to make up the overdraft. The Replenishment Fund is the budgetary control for all expenses related to the District's replenishment efforts. This includes the three primary expenses of the District, Water Supply Purchases, Water Supply Production and the Groundwater Reliability Improvement Project (GRIP), which make up 64.3% of all annual costs. Total budgeted operating expenses related to the Replenishment Fund is about $53.8 million or 91.7% of the total budget.

Clean Water Fund

Consistent with WRD's mission to provide, protect and preserve high quality groundwater, the District annually collects nearly 600 groundwater samples from its monitoring well network and analyzes them for over 100 water quality constituents to produce nearly 60,000 individual data points to help track the water quality in the basins. By analyzing and reviewing the results on a regular basis, any new or growing water quality concerns can be identified and managed effectively. The Clean Water Fund is the budgetary control for all expenses related to the District's efforts to provide clean and safe water to the nearly four million users of groundwater in the District's service area. Total budgeted operating expense related to the Clean Water Fund is about $5.2 million or 8.3% of the total budget.

REVENUES – Sources of Revenues Remain the Same

The District's primary source of revenue is generated by the Replenishment Assessment; making up 94.8% of the District's revenue or $69,196,000. The Replenishment Assessment is collected based on the amount of water pumped from the Central and West Coast Basins.

The District also expects to collect $1,537,000 or 2.1% of total revenue from water sales to the Orange County Water District (OCWD) and Metropolitan Water District (MWD) subsidies from the Leo J. Vander Lans Advanced Water Treatment Facility. This facility provides advanced treated water to the Alamitos Seawater Intrusion Barrier Project which would otherwise need more expensive non-interruptible imported water.

The Goldsworthy Desalter is located in the West Coast Basin and treats brackish groundwater for sale to the City of Torrance. The anticipated revenue is $1,950,000 increasing to 2.7% of the District revenue.

Other income and expenses account for $282,000 or 0.4% and is the net of interest income, property tax revenue and other expenses not charged to the replenishment assessment.

COMPARISON TO 2016/17 YEAR'S BUDGETED REVENUES

Budgeted revenues from the prior year were similar to that of the current year. Replenishment Assessment revenues made up 95.6% of total revenues or $68,606,000. Revenues from both the Leo J. Vander Lans Advanced Water Treatment Facility and the Goldsworthy Desalter were $1,910,000 (2.7%) and $720,000 (1.0%), respectively. Prior year's Replenishment Assessment was $297 per acre-foot. The increase in revenue from the Goldsworthy Desalter increased from $720,000 to $1,950,000 due to the anticipated completion of the Goldsworthy Desalter Expansion Project which accounts for the increase in revenues due to the increased capacity of the plant and subsequently the sales to the City of Torrance.

EXPENSES – Conservative Fiscal Policy Keeps Expenses Relatively Flat

The most significant budgetary item for the District is water and water-related costs. Of the District's total budgeted expenses of $72,965,000, about $45,095,000 (65.2%) is related to either water supply purchases, production of water or water conservation efforts. Details and explanations of the various Projects and Programs are located in their specific sections of this budget document; the total budgeted costs for these replenishment and clean water projects are $7,621,000 (11.0%) of the 2017/18 adopted budget. Administration costs including GASB 45 related costs are budgeted to be $5,422,000 (7.8%), Other Special Programs &

Supportive Costs $870,000 (1.2%), Capital Improvement Program Expenses $12,957,000 (18.7%) and partial recovery of prior year's anticipated budget loss of $1,000,000 (1.4%).

COMPARISON TO 2016/17 YEAR'S BUDGETED EXPENSES

Total budgeted expenses for 2016/17 were $71,751,000 with 67.3% of those costs relating to water and water-related costs. In 2017/18 total expenses remained stable with a slight increase to $72,965,000. Water and water-related costs decreased 2.1% to 65.2% of total expenses.

FUND BALANCE

The District's fund balance is governed by §60290 of the California State Water Code which states that the "District may establish an annual reserve fund in an amount not to exceed ten million dollars ($10,000,000) commencing with the 2000/01 Fiscal Year. The maximum allowable reserve fund may be adjusted annually commencing with the 2001/02 fiscal year to reflect percentage increases or decreases in the blended cost of water from district supply sources."

Based on the percentage increase in the blended cost of water for Fiscal Year 2017/18 from District supply sources, the maximum allowable reserve in accordance with §60290 of the California State Water Code is now $25.9 million.

Additionally, §60291 states that the limitation on the reserve established in §60290 does not apply to funds appropriated for capital projects.

If for some reason, the District has more than $10,000,000 (adjusted for the blended cost of water) or $25.9 million, §60328.1 states that the District shall apply the estimated fiscal year end balance in excess of the amount allowed in §60290 to a replenishment assessment rate reduction or to the purchase of water in the succeeding fiscal year.

PLANNING FOR THE FUTURE

Plenty of water had always been available from the Colorado River and even more would flow through the State Water Project beginning in 1972. Even so, the Board of Directors of the Water Replenishment District was skeptical about the long-term prospects for imported water. When WRD was founded in 1959, who would have guessed that claims by other states to their share of the Colorado River would shrink by half the available supply of water to Southern California within a mere 40 years? And who would have predicted that constraints on the State Water Project would also reduce in half the amount of water originally allocated to our region?

IMPACTS OF LONG-RANGE PLANS ON FUTURE BUDGETS

In the past, a large percentage of replenishment water came from sources in Northern California and the Colorado River. The District is moving toward an independence from expensive imported water through the Water Independence Now (WIN) initiative, a series of projects that will fully utilize storm water and recycled water sources to restore and protect the groundwater resources of the Central and West Coast Groundwater Basins.

The WIN-related projects will allow the District to become completely independent from imported water. In order to fund WIN, the District has obtained financing through its 2015 Series Water Revenue Bonds. With the leadership provided by the Water Replenishment District's Board of Directors, the transparency and financial stability of the District and the AA+ rating from both Standard and Poor's and Fitch Ratings, the District was able to obtain AAA pricing in December 2015. This will save the users of groundwater in the WRD service area for 30 years.

The District has also applied for and was awarded a combination of a $15 million grant and an $80 million one-percent (1.0%) loan through the California Clean Water State Revolving Fund (CWSRF) which is a federal-state partnership to help ensure safe drinking water by providing below interest-free grants and below-market interest rate loans to qualified projects. Pursuing such financing opportunities will lessen any increases to the current and future Replenishment Assessment rates.

The projected budget impact of principal and interest payments associated with the 2015 Series Water Revenue Bonds[1] and funding through the Clean Water State Revolving Fund is as follows:

	2017/18	2018/19	2019/20	2020/21	2021/22
2015 Water Revenue Bonds	$9.247M	$9.247M	$9.249M	$9.248M	$9.250M
CW State Revolving Fund	3.720M	3.720M	3.720M	3.720M	3.720M
Total	**$12.967M**	**$12.967M**	**$12.969M**	**$12.968M**	**$12.970M**
Projected Production (in acre-feet)	217,300	224,000	228,000	232,000	236,000
Impact to Assessment (per acre-foot)*	$59.67	$57.89	$56.88	$55.90	$54.96

* Calculation of impact to assessment is total costs divided by projected production

The offset to these capital costs will be replacing imported replenishment water with additional use of recycled water, greater storm water capture and the production of highly treated recycled water. Each year, more water is pumped from the Central and West Coast Groundwater Basins ("the Basins") than nature can replenish. The District makes up the difference by purchasing imported and recycled water. In the past, the District purchased 21,000 acre-feet of imported spreading water to help replenish the Basins. Once the Groundwater Reliability Improvement Program (GRIP) is complete, we will have replaced all 21,000 acre-feet of imported water. The 2017/18 cost of imported spreading water is $758/acre-foot saving about $15.9 million per year. Cost savings will be immediate and the value of the investment in capital assets only increases over time as the cost for imported water continues to climb steadily each year.

1 Not including any additional bond reserve fund related expenses

RATING AGENCIES AFFIRM AA+ RATING; DISTRICT RECEIVES AAA PRICING

On December 10, 2015, the District issued its 2015 Series Replenishment Assessment Revenue Bonds. The bonds were issued to:

1. Finance the acquisition, construction, and installation of certain capital improvement projects of WRD
2. Prepay the 2004 Certificates of Participation
3. Prepay in advance the 2008 Certificates of Participation
4. Prepay in advance the 2011 Certificates of Participation

Both Standard & Poor's and Fitch ratings affirmed the WRD's credit rating of AA+ with a stable outlook. This helped in the District obtaining AAA pricing, in line with the Metropolitan Water District pricing the day before WRD priced its bonds. The District will have level debt service payments of $9.25 million annually for 30 years. The result of the refunding resulted in a net present value (NPV) of $9.72 million and an all-in lowering of total interest cost of 3.49%, compared to the 2004 COP – 4.52%, 2008 COP – 6.15%, 2011 COP – 4.70%. Due to the District's strong credit rating and aggressive pricing by the District's Underwriting team, the demand for the bonds was four-times the offering amount.

With the District serving over four million people and 10% of the State of California's population, it is even more important to become more self-reliant. A big portion of the costs will be debt financed and, therefore, future generations will share not only in the benefits of the WIN Program, but also in the costs. This program will provide a locally, sustainable and reliable water supply for the residents served by WRD.

STAFFING

District staffing increased two positions and has increased from 34 to 36 budgeted professional and administrative staff paid for through the collection of the Replenishment Assessment (RA); three staff positions are allocated to the District's Water Master function and are paid for independently outside of the RA. The District's staffing on its various projects remain relatively stable. WRD's organizational structure adjusts from time to time in an effort to adjust to changes in the District responsibilities and to provide increased efficiencies.

Scott M. Ota, CPA, CFF, CIRA, CGMA
Chief Financial Officer

GOVERNMENT

The District is divided into five elected divisions. The governing board is made up of one elected director from each division. The General Manager is appointed by the Board of Directors. The District's budget process consists of activities that encompass the development, implementation and evaluation of a fiscal plan for the utilization of the District's assets and resources.

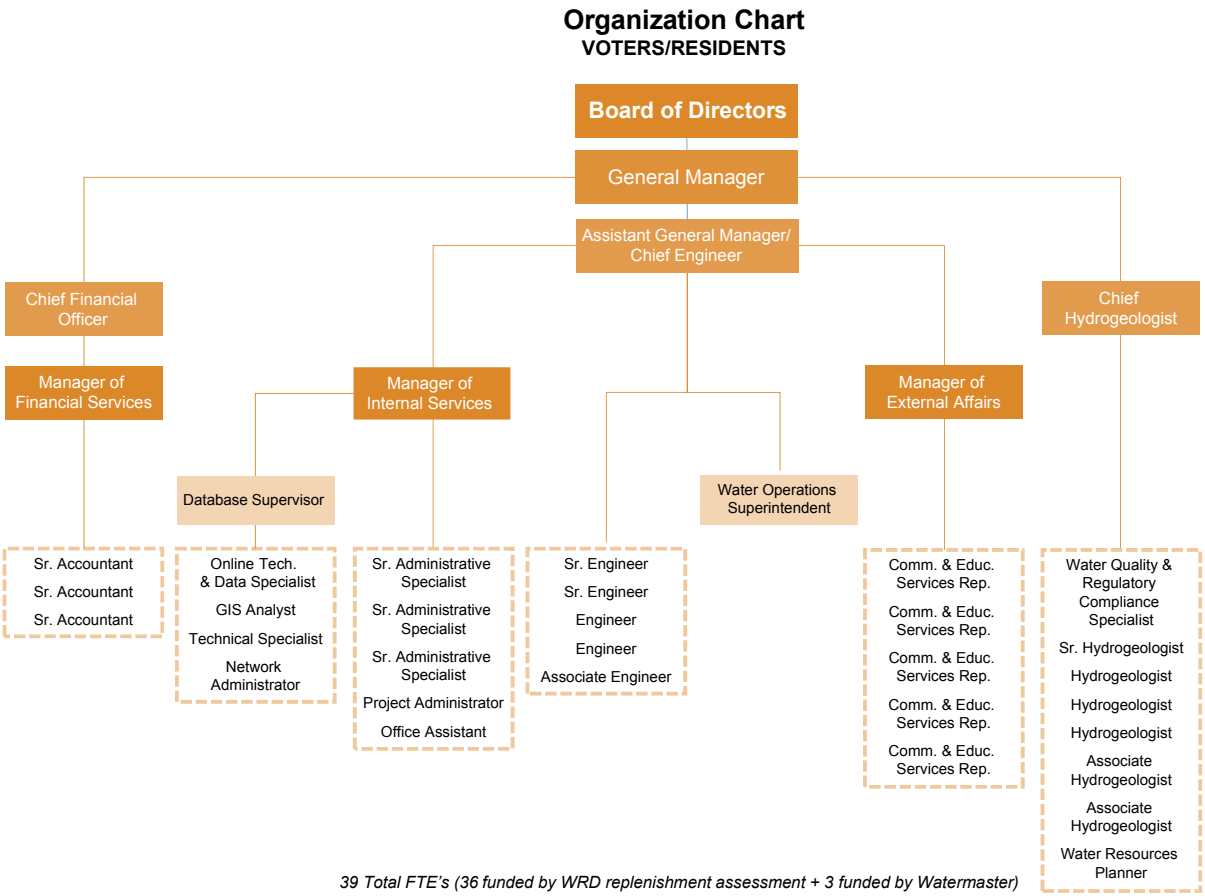


Figure 1 – Organizational Chart

Table 1
Summary of Personnel by Department
2017/18 Budget

	2015/16 Actual	2016/17 Budget	2017/18 Budget	Change from 2016/17 Budget
General Management				
General Manager	1	1	1	-
Hydrogeology Department				
Chief Hydrogeologist	1	1	1	-
Senior Engineer	1	1	-	-1
Senior Hydrogeologist	1	1	1	-
Hydrogeologist	2	3	3	-
Associate Hydrogeologist	2	2	2	-
Water Resources Planner	-	-	1	1
Water Quality & Regulatory Compilance Specialist	-	-	1	1
Engineering Department				
Assistant General Manager/Chief Engineer	1	1	1	-
Manager of Water Resources	1	1	-	-1
Senior Engineer	2	2	2	-
Engineering	1	2	2	-
Water Resource Planner	1	1	-	-1
Geographic Information Systems Analyst	1	1	1	-
Associate Engineer	1	1	1	-
Online Technology and Data Specialist	1	1	1	-
Senior Analyst	1	-	-	-
Technical Specialist	1	1	1	-
Network Administrator	-	-	1	1
Database Supervisor	-	-	1	1
Water Operations Superintendent	-	-	1	1
Financial Services Department				
Chief Financial Officer	1	1	1	-
Manager of Financial Services	1	1	1	-
Senior Accountant	3	3	3	-
Communication & Education Services Department				
Manager of External Affairs	1	1	1	-
Senior Comm & Ed Services Rep	1	1	-	-1
Comm & Ed Services Rep	3	4	5	1
Administrative Specialist	1	-	-	-
Internal Services and Human Resources Department				
Manager of Internal Services	-	1	1	-
Deputy Secretary	1	-	-	-
Senior Administrative Specialist	1	1	3	2
Administrative Specialist	1	1	-	-1
Network Administrator	1	1	-	-1
Technical Services Coordinator	-	1	-	-1
Project Administrator	-	1	1	1
Office Assistant	-	-	1	1
Total	**34**	**37**	**39**	**2**

Background & History

Final architectural design of the GRIP AWTF Facility site in the City of Pico Rivera, Californiar

The GRIP AWTF is being built in the City of Pico Rivera, adjacent to the San Gabriel River, allowing for direct delivery of purified recycled water to an existing pipeline leading into the spreading grounds.

Background & History

The Water Replenishment District of Southern California (District) was formed by a vote of the people in 1959 for the purpose of protecting the groundwater resources of the Central and West Coast Groundwater Basins (Basins) in Southern Los Angeles County.

The District provides groundwater for over 4.0 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 40% of the total demand for water. Prior to the formation of the District, over-pumping of both basins caused many wells to go dry and seawater to intrude into the groundwater aquifers – underground geological formations that store water. In 1957, the accumulated overdraft in the Central Basin alone was almost one million acre-feet, which translates to a tremendous withdrawal of water from aquifers in excess of the amount that naturally, or artificially, replaces it. In both basins, groundwater levels had dropped to below sea level. During the 1950's the Los Angeles County Flood Control District (LACFCD) purchased 500,000 acre-feet of imported water to artificially replenish the basins.

In 1959, the Central Basin Water Association (CBWA) and West Basin Water Association (WBWA), comprised of the major groundwater producers from each basin, jointly proposed and obtained voter approval for formation of the Water Replenishment District of Southern California to manage the Central and West Coast Groundwater Basins.

The District's role expanded as it developed programs to capture stormwater, recharge recycled wastewater, monitor water quality and take advantage of evolving MWD of Southern California water rates. In 1990, legislation was passed to strengthen the District's role in groundwater quality protection and to provide a special assessment ability to the District to fund clean water programs.

Figure 2 – WRD Groundwater Demand

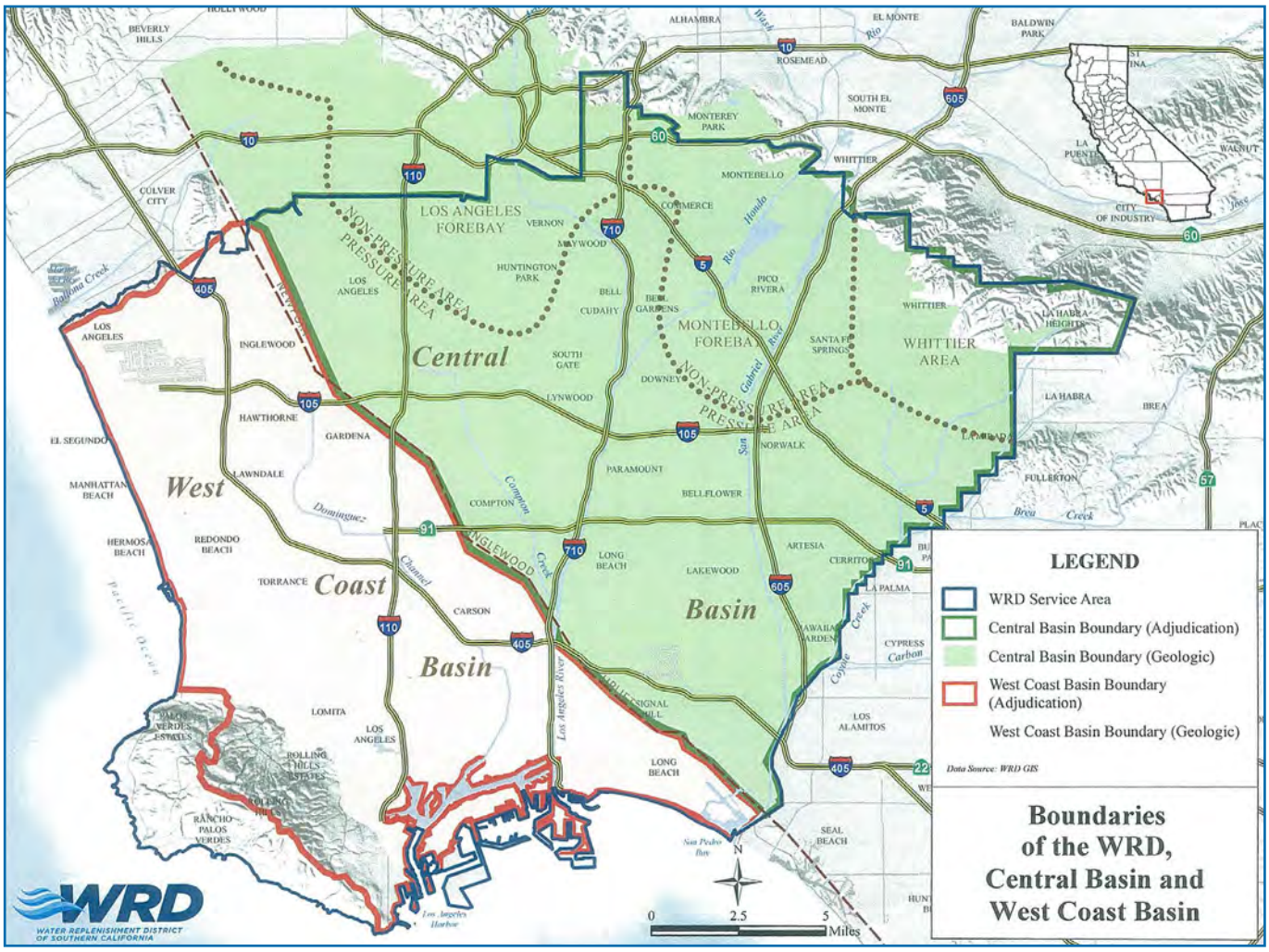


Figure 3 – Service Area Map

Local Economy

The District office is located in Los Angeles County, with over 10 million residents in 88 cities spread across 4,100 square miles; Los Angeles County's population exceeds that of 43 states. If it were a country, it would be the twentieth largest economy in the world. In addition to its signature industries—entertainment, tourism and fashion—its enormous and diversified economy is home to the largest port complex in the Western Hemisphere and the largest number of manufacturing jobs of any county in the country. Other major industries include health care, education and knowledge creation and business services.

The county added 94,700 jobs in 2015, equivalent to a 2.2% annual increase. A majority of the county's major industries added jobs last year, as broad-based growth pushed wage and salaried jobs to a record high. Los Angeles County should continue to add jobs this year. Along with job growth, the unemployment rate fell to 6.9%, the lowest rate of the post-recession period. The unemployment rate should further improve.

Population growth is expected to slow slightly this year and next, with the rate of growth at approximately 0.6% this year and 0.4% in 2017. Even at such low growth rates, the county will increase by over 100,000 residents during that time period. Most of the recent population growth in Los Angeles County has been due to natural increase (births outnumbering deaths), while net migration was slightly negative again last year. The county's high cost of living and lack of affordable housing units for low and middle-income households are contributing to the slowdown in population growth.

Like the nation and state, Los Angeles County experienced broad-based job gains in 2015, adding approximately 95,000 jobs last year. Job gains were seen in most of the county's major industries, with records reached in seven (out of 17) and two more poised to surpass their pre-recession peaks in 2016. The largest job gains occurred in health care and social assistance (21,800 jobs), followed by leisure and hospitality (19,600 jobs) and government (10,000 jobs). The fastest growing sectors in percentage terms were construction (5.9%), leisure and hospitality (4.2%), wholesale trade (3.5%), and health care and social assistance (also 3.5%). Private sector job losses occurred in manufacturing, information, finance and insurance, and the natural resources sector.

As America's gateway to Asia, international trade plays an important role in the Los Angeles economy. The twin ports rebounded after the labor negotiations early in the year to post their third-best year in 2015, with throughput of 15.4 million containers. Despite this, low inflationary pressure combined with a strong dollar brought the value of two-way trade through the Los Angeles Customs District down to $393.4 billion from the record-setting volume of $416.6 billion in 2014.

In terms of employment, the professional services super-sector is the second largest in Los Angeles County, with over 620,000 workers in 2015 (surpassed only by health care and education). There are three major industries in this group: professional, scientific and technical services; management of enterprises; and administrative, support and waste services. All saw solid gains in 2015. Professional, scientific and technical services was the largest of the three with 288,700 jobs in 2015. The industry, which includes legal, accounting, architecture, computer systems design, consulting, research and advertising, added 5,800 jobs, equivalent to a 2.0% growth rate. Finally, the administrative, support and waste services sector added 4,900 jobs (1.8%) for a total of 271,900. All three components of professional services and technology are expected to see additional job gains in 2016 and 2017.

Los Angeles County has seen steady improvement over the past four years, both in terms of job gains and unemployment rate declines. This improvement is expected to continue in 2016 and 2017, although at a slower pace. With the economy back at full employment levels, wage gains are expected over the next year across many occupations. Households could experience significant gains in purchasing power this year as wage gains spread out more broadly than in recent years.

California water supplies are much better off than they were a year ago. The 2015/16 *El Niño* did produce additional rain and snow, however it was much farther north than expected. The additional rain in northern California has led to a healthy replenishment of the state's northern reservoirs including Shasta, Oroville and Folsom. Toward Los Angeles and San Diego, the winter's moisture has been much more disappointing. However, with the runoff from the storms in northern California boosting the reservoir levels, the Department of Water Resources (DWR) increased its water delivery estimate for most recipients to 60 percent of requests for the calendar year. DWR's initial State Water Project allocation, announced in December, was 10 percent of requests.

On the water conservation side of the equation, the State Water Resources Control Board recently announced that Californians have reduced residential water use by 28 percent in May 2016, compared to the same month in 2013. Cumulatively, local water suppliers have saved 1.6 million acre-feet in the 12 months since mandatory conservation goals began. Starting in June 2016, the State Water Resources Control Board recently updated emergency water conservation regulations to provide urban water agencies the ability to set their own conservation standards based on a "stress test" of supply reliability. Water suppliers must demonstrate that they have sufficient supplies to withstand three years of continuous drought or take additional measures that include mandatory conservation targets. The regulation is in effect through January 2017.

The Water Replenishment District of Southern California has embraced water conservation and the use of recycled water for many years. Through coordination and planning with other local and regional water suppliers, the District continues to engage in developing long-term solutions to the various water supply challenges. These efforts are evidenced in the District's participation in regional conjunctive use programs as well as local groundwater storage and recovery projects. It is through participation in these and other programs, such as the District's Water Independence Now (WIN) program, that will enable the District to continue to meet its long-term water supply needs.

The WIN program is specifically designed to make use of local water supplies to become completely independent of imported water from the Colorado River and the California State Water Project. Prior to 1961/62, the West and Central Groundwater Basins received about 36% of the replenishment water from storm water and 64% from imported water. Today, the demand for imported water has dropped dramatically due to the many projects and cooperative interagency programs WRD has helped develop. The increase in replenishment due to natural recharge is a direct result of storm water capture projects which increases the ability to benefit from local storm events. The WIN program will completely eliminate the need for imported water by replacing the current imported water needs with recycled water. This will be accomplished through completion of the Groundwater Reliability Improvement Program (GRIP) and the use of 100% recycled water at the West Coast and Dominguez Gap Seawater Intrusion Barrier Projects.

Source of economic data: Los Angeles County Profile; Los Angeles County Economic Development Corporation.

Table 2

Demographics and Economics Statistics - County of Los Angeles
Last Ten Fiscal Years

Year	Los Angeles County Unemployment Rate (1)	California Unemployment Rate (1)	U.S. Unemployment Rate (1)	Population (1)	Personal Income (thousands of dollars) (2)	Personal Income per Capita (2)
2008	7.50%	5.35%	4.60%	9,796,812	$417,454,378	$42,881
2009	11.60%	7.21%	5.80%	9,805,233	$394,980,563	$40,356
2010	12.60%	11.33%	9.30%	9,825,077	$428,019,654	$43,564
2011	12.30%	12.36%	9.60%	9,860,904	$438,356,626	$44,454
2012	11.10%	10.60%	8.20%	9,945,031	$448,142,986	$45,062
2013	9.60%	8.60%	7.60%	10,019,365	$468,615,720	$46,771
2014	8.20%	7.60%	6.10%	10,099,350	$484,859,694	$48,009
2015	7.00%	6.40%	5.50%	10,181,140	$500,117,959	$49,122
2016	4.90%	5.20%	4.70%	10,274,040	$515,037,625	$50,130
2017	4.40%	4.70%	4.30%	10,365,720	$529,335,857	$51,066

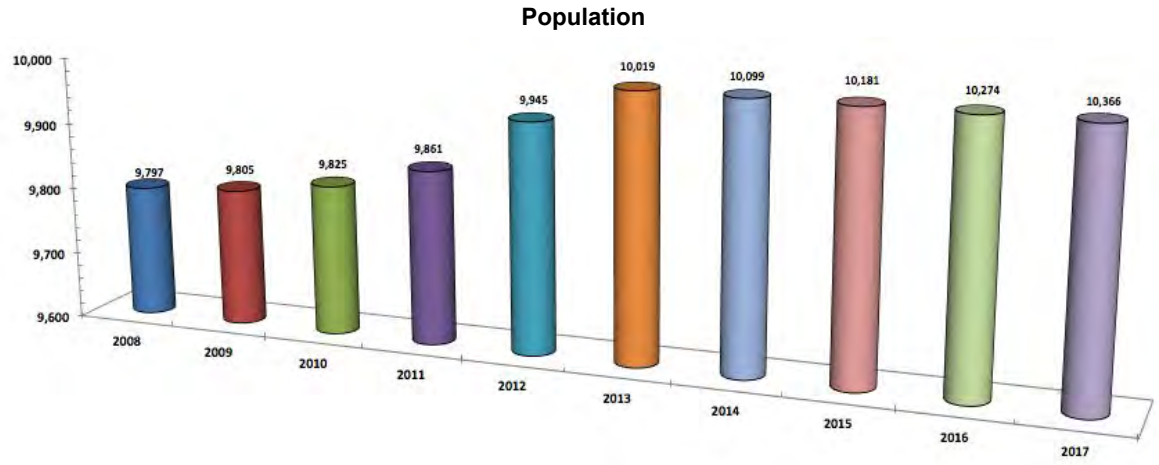


Figure 4 – Population

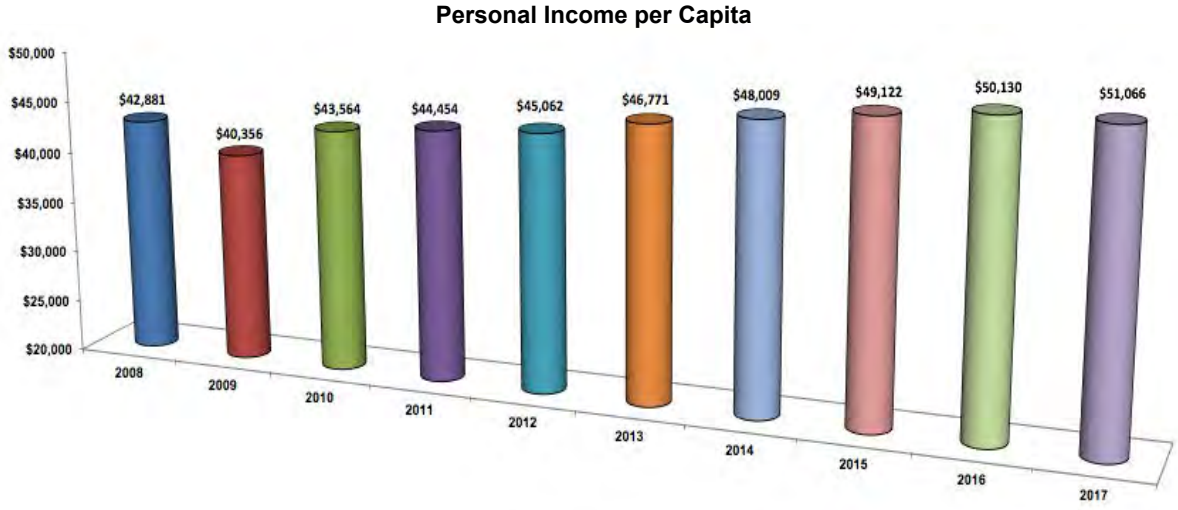


Figure 5 – Per Capita

Notes:

1. Updated annually. Table: Population Estimates and Components of Change by County.
   Sources: California Department of Finance, California Labor Market Info, Los Angeles Business Journal, U.S. Bureau of Labor Statistics

2. Personal Income per Capita was computed using Census Bureau midyear population estimates.
   Sources: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce, CalGov.com Los Angeles County Employment Forecast

Financial Policies

WRD's Annual Groundwater Festival

WRD's Groundwater Festival "Treasure Beneath Our Feet", an annual educational event that draws over 4,000 participants to commemorate National Groundwater Awareness Week. Over 35 vendors provide an array of hands-on conservation activities in the areas of water, air, waste and wildlife.

Relevant Financial Policies

BUDGET CONTROLS AND REVISIONS

The District reports its activities as an enterprise fund, which is used to account for operations that are financed and operated in a manner similar to a private business enterprise. The intent of the District is that the costs of managing the groundwater basins on a continuing basis be financed or recovered primarily through user charged replenishment assessments, capital grants and similar funding. Revenues and expenses are recognized on the full accrual basis of accounting.

Operating Revenues result from exchange transactions associated with the District's principal activity. Exchange transactions are those in which each party receives and gives up essentially equal values. Non-operating revenues, such as grant funding and investment income, result from non-exchange transactions in which the District gives (receives) value without directly receiving (giving) value in exchange. Operating expenses, such as water purchases, are the result of the District's exchange transactions along with associated expenses for running the District's day-to-day operations. Non-operating expenses, such as interest paid on debt service or election costs are the result of expenses that do not relate to the District's day-to-day operations.

FINANCIAL REPORTING

The District's basic financial statements are presented in conformance with the provisions of Government Accounting Standards Board (GASB) Statement No. 34, "Basis Financial Statement and Management's Discussion and Analysis for State and Local Governments" (GASB No. 34). This statement established revised financial reporting requirements for state and local governments throughout the United States for the purpose of enhancing the understandability and usefulness of financial reports.

BUDGETARY POLICIES

The District adopts an annual budget for planning, control, and evaluation purposes. Budgetary control and evaluation are affected by comparisons of actual revenues and expenses with planned revenues and expenses for the period. More detail of budget control and revisions can be found in the Budget Process section of this document. Each year, the Board of Directors follows the legislation as set forth in the California State Water Code when preparing and adopting the annual budget and establishing the ensuing year's Replenishment Assessment.

REPLENISHMENT ASSESSMENT (RA) POLICY

On or before the second Tuesday of May each year, the Board of Directors (BOD), in accordance with California Water Code Section 60315 sets the Replenishment Assessment rate for the ensuing fiscal year. In order to prepare for this action, the District holds public hearings in the spring of each year to determine to what extent the estimated costs for the ensuing year shall be paid for by a Replenishment Assessment (RA). In preparing for these hearings, the District develops an annual operating budget and updates its five-year capital plan. These documents outline the funds needed to:

1. Purchase replenishment water
2. Protect and preserve the groundwater supply
3. Pay for the related administrative expenses

The new rate structure becomes effective each year on July 1.

INVESTMENT POLICY

The Board of Directors has adopted an investment policy that conforms to California State law, District ordinance and resolutions, prudent money management, and the "prudent person" standards. The objectives of the investment policy are safety, liquidity, and yield. In 2009, at the direction of the Board of Directors, the District implemented its Community Banking Program and invested in several local community banks that are fully insured by the Federal Deposit Insurance Corporation (FDIC) or secured as required by state law. The Board of Directors reviews the adopted investment policy on an annual basis and approves any changes.

CAPITAL ASSETS

Capital assets acquired and/or constructed are capitalized at historical cost. District policy has set the capitalization threshold for reporting capital assets at $5,000. Donated assets are recorded at estimated fair value at the date of donation. Upon retirement or other disposition of capital assets, the cost and related accumulated depreciation are removed from the respective balances and any gains or losses are recognized. Provision for depreciation is computed using the straight-line method over the following estimated useful lives of the assets:

- Utility plant and equipment – 30 years
- Monitoring and injection equipment – 3 to 20 years
- Service connection – 50 years
- Office furniture and equipment – 5 to 10 years

This policy is approved by the Board of Directors.

PROCUREMENT POLICY

Purchases will be made in accordance with the District's Procurement Policies & Procedures as outlined in chapter 10 of the District's Administration Code. The District gives preference to local businesses when the District enters into contracts for supplies, materials and equipment, construction and professional services totaling under $25,000. Summarized below are the significant provisions of the District's procurement policies and procedures:

1. All contracts for construction work, materials, equipment, supplies and professional services shall be in writing and, at a minimum, include the relevant scope of work, duration and terms of payment.

2. All contracts valued less than $10,000 may be approved and signed by the General Manager or other District's representative authorized by the Board of Directors. The General Manager may not execute multiple contracts on behalf of the District with the same person or entity within a one-year period that cumulatively total $10,000 or more without the Board of Directors' prior approval.

3. All contracts valued $10,000 or more shall be authorized by the Board of Directors and signed by the President and the Secretary except that the Board of Directors may, by resolution for a specific expense, authorize the General Manager or the other District's representative to sign contracts in the name of the District, not to exceed $25,000.

4. Where the contract amount is less than $25,000, an informal solicitation may be made by the General Manager by informal quotes through telephone, mail or electronic inquiry, comparison of prices on file or other. Every attempt shall be made to receive at least three price quotations.

5. Before making any contract for construction work or purchase of materials, supplies, and equipment that total $25,000 or more within any 12 month period, the District shall advertise for bids by issuing a Contract Solicitation.

6. Advertising should be in a newspaper of general circulation in Los Angeles County at least once a week for four consecutive weeks. Advertisement for bids shall set forth all of the following information:

   a. That plans and specifications for the work to be done can be seen and obtained at the District's office;
   b. That the Board of Directors will receive sealed bids for the contract;
   c. That the contract will be awarded to the lowest responsive and responsible bidder;
   d. That bids will be publicly opened at a given time and place.

7. Bids shall be opened in public at the time and place stated in the notice inviting bids. Two District employees and/or representatives shall be present at the bid openings. As each bid is opened, the bidder's name and bid amount shall be announced. At the conclusion of the bid opening, the name of the apparent low bidder and its bid amount shall be announced. A tabulation of all bids received shall be open for public inspection during regular business hours for a period of not less than 30 calendar days after the bid opening.

8. Before making any contract for professional services, the District may solicit a Request for Proposal (RFP) for such services. However, a RFP is not required for professional services contracts. The District from time to time may issue a request for qualifications for the purpose of developing a list of qualified consultants to provide professional services for future work. Prior to issuing a request for qualifications or a request for proposal, District staff shall obtain the approval from the Board of Directors.

9. Request for qualifications may be advertised in a publication of the respective professional society or by any other means reasonably calculated to reach its intended audience. Upon review and receipt of the qualifications from the interested consultants, the District shall develop the list of qualified consultants based upon criteria established by the District.

DEBT MANAGEMENT

Each year during the budgeting process the Board of Directors of the Water Replenishment District of Southern California reviews the District's capital improvement plan to determine the ensuing year's capital needs. Based on this review, the Board of Directors determines whether there is a need for any additional long-term debt financing or whether projects can be funded on a pay-go basis. If the Board of Directors determines that additional debt financing is necessary, the Board holds public workshops in order to obtain stakeholder input relating to any increases to the RA due to annual debt service payments. Additionally, as part of this process, the District prepares a five-year financial projection in order to ascertain the long-term impact to the RA. The Board of Directors approves the debt management structure when adopting the five-year Capital Improvement Plan.

AUDITING

As required by the California State Water Code Section 60292, once a year the District hires an independent accounting firm to perform the annual financial and compliance audits of the District's basic financial statements and supplemental schedules in accordance with Generally Accepted Auditing Standards (GAAS).

INTERNAL CONTROL STRUCTURE

The Board of Directors manages the District's internal control structure through the Board-adopted Administrative Code, which provides internal control guidelines. They also monitor internal controls through communications with the independent financial auditor. District Management is responsible for the establishment and maintenance of the internal control structure that ensures the assets of the District are protected from loss, theft, or misuse. The internal control structure also ensures that adequate accounting data are compiled to allow for the preparation of financial statements in conformity with generally accepted accounting principles. The District's internal control structure is designed to provide reasonable assurance that these objectives are met. The concept of reasonable assurance recognizes that (1) the cost of control should not exceed the benefits likely to be derived, and (2) the valuation of costs and benefits requires estimates and judgments by management.

RISK MANAGEMENT

The District is exposed to various risks of loss related to torts, theft of, damage to and destruction of assets; errors and omissions, injuries to employees, and natural disasters. The District is a member of the Association of California Water Agencies/Joint Power Insurance Authority (ACWA/JPIA), an intergovernmental risk sharing joint powers authority created to provide self-insurance programs for California water agencies. The purpose of the ACWA/JPIA is to arrange and administer programs of self-insured losses and to purchase excess insurance coverage. Risk management policy is not adopted by the Board of Directors, but is a requirement of membership in the ACWA/JPIA.

RESERVE POLICIES

Based on §60290 of the California State Water Code, the District may establish an annual reserve fund in an amount not to exceed ten million dollars ($10,000,000). This ten million dollars may be adjusted for the percentage increase or decrease in the blended cost of water from District water supply sources on an annual basis. Based on a percentage increase in the blended cost of water for fiscal year 2017/18 from District supply sources, the maximum allowable reserve in accordance with §60290 of the California State Water Code is $25.9 million.

Additionally, §60291 states that the limitation on the reserve established in §60290 does not apply to funds appropriated for capital projects.

If for some reason, the District has more than $10,000,000 (adjusted for the blended cost of water), §60328.1 states that the District shall apply the estimated fiscal year end balance in excess of the amount allowed in §60290 to a Replenishment Assessment (RA) rate reduction or to the purchase of water in the succeeding fiscal year.

Description of Reserve Categories:

- Water Purchase Reserve – This category of funds represents amounts carried over from previous years when imported spreading water was unavailable for purchase. The District only uses these funds to purchase water in future years when water becomes available.
- Restricted for Capital Projects – This category of funds represents amounts reserved due to commitments made by the Board of Directors for capital projects which includes the Groundwater Reliability Improvement Program, capital replacement plan for the Leo J. Vander Lans AWTF and the Goldsworthy Desalter as well as the proceeds from the 2015 Replenishment Assessment Revenue Bond held in trust by US Bank. By law, these funds can only be spent for capital projects.
- Debt Service – The debt service reserve consists of funds encumbered by the Board of Directors to help maintain the District's AA+ rating from both Standard and Poor's and Fitch Ratings.
- CalTrans Trust – These funds are held in trust by WRD with the California Department of Transportation for dewatering of the 105 freeway. The trust funds decrease to pay for the Replenishment Assessment (RA) for water pumped from below the freeway.
- GASB 45 Requirement – This category of funds accounts for the WRD's Annual Required Contribution (ARC) related to Other Post Employment Benefits (OPEB) in compliance with the Government Accounting Standards Board (GASB) Statement Number 45 enacted by the GASB due to the growing concerns over the potential magnitude of government employer obligations for post-employment benefits. This is a financial reporting provision required by all government employers.
- Unreserved – This category of funds is restricted to $10,000,000, adjusted for the annual increase or decrease in the blended cost of water from District water supply sources, as documented in §60290 of the California State Water Code. For fiscal year 2017/18, the adjusted amount is $25.9 million.

Budget Process

Leo J. Vander Lans Advanced Water Treatment Facility in Long Beach, California

The Leo J. Vander Lans Advanced Water Treatment Facility treats water from the Long Beach Water Reclamation Plant using microfiltration, reverse osmosis, and ultraviolet light. Once treated, the water will be blended with imported potable water and pumped into the Alamitos Seawater Barrier.

Budget Process

The budget process is not simply an exercise in balancing one year at a time, it is strategic in nature, encompassing a multi-year financial and operating plan that allocates resources on the basis of identified goals and objectives. These goals and objectives were established by the Board of Directors and District staff through the District's Strategic Plan and the five-year Capital Improvement Program. We moved beyond the traditional concept of line item expense control and provided incentives and flexibility to project/program managers that has led to improved program efficiency and effectiveness. The District's staff continually assesses program and financial performance to encourage progress toward achieving the goals and objectives of the District.

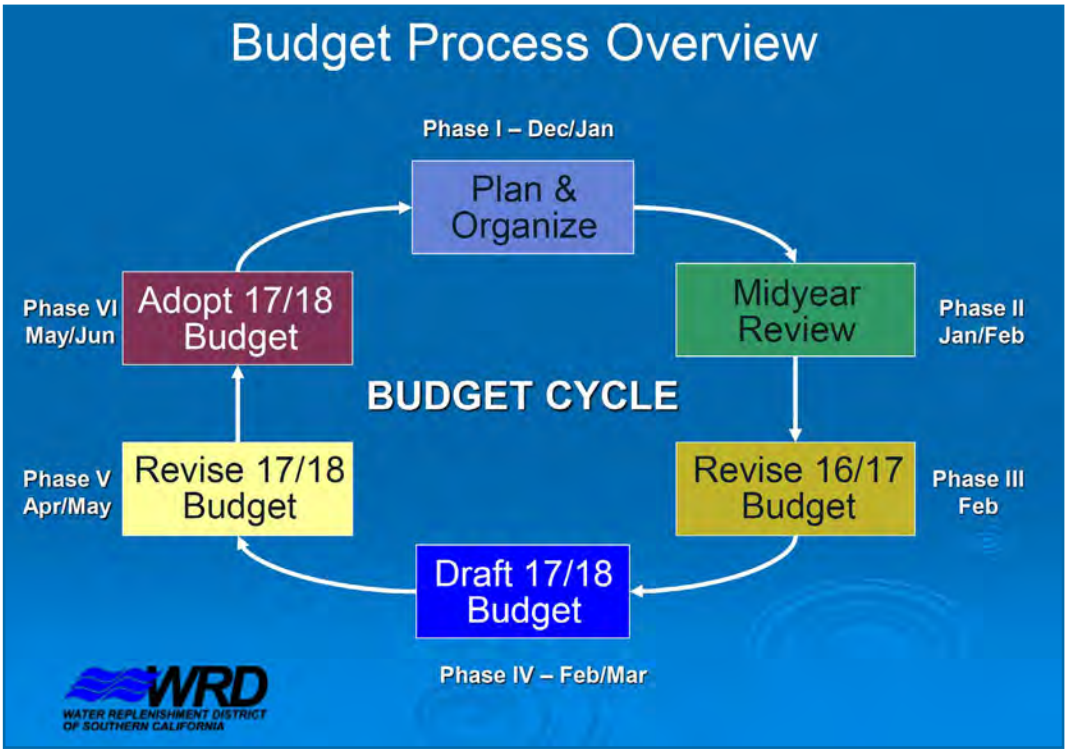


Figure 6 – Budget Process

PLAN & ORGANIZE

The budget sets forth a strategic resource allocation plan that is distinctly aligned with the District's mission and the Board of Director's goals and objectives for staff. The budget process is a year-long effort of monitoring revenue and adjusting expenses based on the changing needs of operations. The Finance Department organizes the ensuing year's budget as early as November and December the year before. This phase includes preparing election ballots for the Budget Advisory Committee (in election years), preparing a midyear budget review as well as budget request forms that are provided to the Project/Program Managers.

MIDYEAR BUDGET REVIEW

The Midyear Budget Review is a time when the District measures how we are tracking according to the planned budget and how we expect to end the fiscal year. It provides a financial assessment of the District's budget condition and is based on 4 months of actual data and 8 months of projected data. The midyear analysis is also a platform and guide to the ensuing year's budget.

The Midyear Review analysis is presented to the Board of Directors and the public. It is a time when the Board is given details of how well District projects and programs are aligned with the Board's goals and objectives.

REVISE CURRENT YEAR'S BUDGET

Based on feedback provided by the Board of Directors and the public, the Board may direct staff to adjust resources to various projects or programs and modify the budget through Board approval. This process helps to ensure that the Board is aware of the financial and human resources allocated to each of the District's goals and objectives.

DRAFT ENSUING YEAR'S BUDGET

With the Midyear Review and adjustments completed, staff prepares the first draft of the ensuing year's budget. Project and program managers prepare their budget requests and submits them to the Finance Department who then organize and compile all budget information into a consolidated package. To confirm that all project and program expense requests are in line with the directions of the Board, the General Manager and Assistant General Manager, along with the Finance Staff, review each individual line item expense prior to submitting it to the Finance Committee for review. The Finance Committee of the Board of Directors is responsible to study, advise and make recommendations regarding the budget to the Board of Directors. Once reviewed and verified through the Finance Committee, the budget is presented to the Board of Directors.

REVISE ENSUING BUDGET

Staff makes the necessary adjustments to the budget based on the feedback obtained through meetings with the General Manager and public budget workshops with the Finance Committee and the Board of Directors. These refinements are related to reallocation of resources to best accomplish the Board's goals and objectives.

ADOPT BUDGET

Based on section 60315 of the California State Water Code, the Board of Directors must adopt the ensuing year's Replenishment Assessment no later than the second Tuesday in May. The basis of the Replenishment Assessment is the annual budget, which is adopted at the same time as the Board sets the Replenishment Assessment. In recent years, staff has provided more than 10 public budget workshops in an effort to maintain the highest level of transparency and accountability. These workshops give the public a chance to offer comments on the budget and the budget process. They also provide an opportunity to present the inflow and outflow of resources and how they are applied to providing water users in the Central and West Coast Basins with clean and reliable groundwater.

The District's water sales have historically remained relatively constant and FY 17/18 reflects a 7.1% increase to the Replenishment Assessment. As we show in Figure 7 below, the Replenishment Assessment rate charged to District customers increased in fiscal year 2017/18 to $318 per acre-foot.

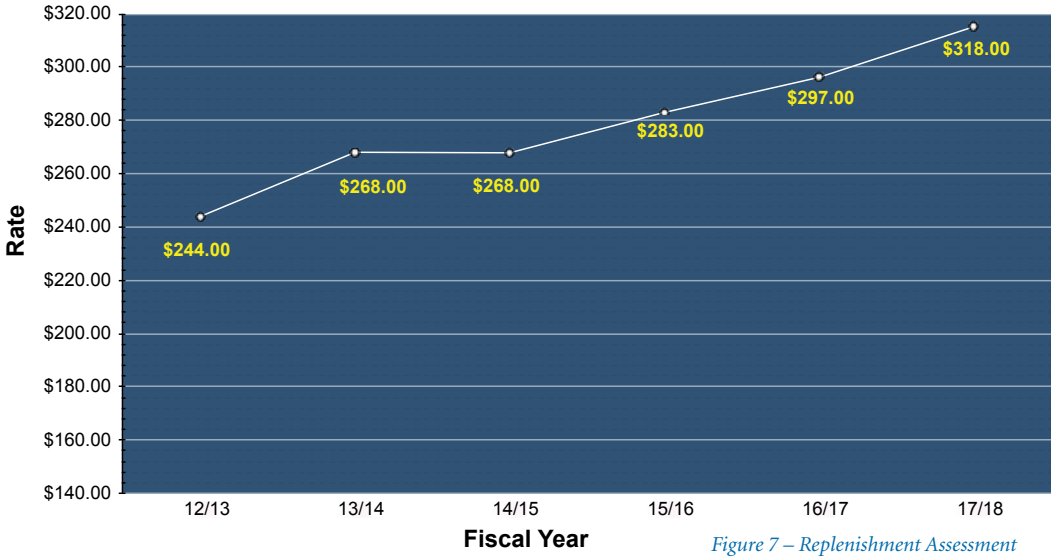


Figure 7 – Replenishment Assessment

BUDGET CONTROLS AND REVISIONS

The District's budget is prepared on an annual basis and since the budget is an estimate, at times it is necessary to make adjustments to meet the priorities and needs of the District.

The first milestone in this process is the midyear budget review. During this process, the District compiles the first three months of actual financial data and projects the final nine months of data to obtain a new 12 month projected budget. The Finance Department compares the adjusted 12 month projection to the original budget adopted by the Board of Directors and presents the results to the Finance Committee and the Board.

The budget is revised when expenses are anticipated to exceed estimates. A report outlining the reasons for increasing any budget appropriation is prepared and submitted to the Board of Directors for consideration.

Increases in budget appropriations must be approved by the Board of Directors. Budget transfers affecting personnel and capital outlay must be approved by the General Manager. Reallocations or transfers within a department or project/program require the approval of the General Manager or Department Manager.

In the District's continuing commitment to transparency and accountability, the Board established the Audit and Budget Advisory Committee (ABAC) in 2011. This Committee was established so the Board could receive input directly from its pumpers relating to the two most important financial functions of the District: the independent Comprehensive Annual Financial Audit (CAFA) and the annual budget process.

Subsequent to the Audit and Budget Advisory Committee, Senate Bill 620 (SB 620) added provisions to Section 60233 of the California State Water Code establishing a Budget Advisory Committee (BAC) for the purposes of reviewing the District's replenishment assessment, the annual budget and reserve funds maintained by the District. This Committee replaces the Audit and Budget Advisory Committee (ABAC) previously established by the WRD Board of Directors.

The Budget Advisory Committee consists of seven members who serve a two-year term, are elected from among representatives of producers and who are owners or operators of groundwater producing facilities that are subject to the replenishment assessment. No later than the second Tuesday in April of each year, the Budget Advisory Committee will make its recommendation to the WRD Board of Directors on the annual replenishment assessment, reserve funds, and the draft budget.

PROPOSITION 218 - NOTICE OF PUBLIC HEARING ON DISTRICT'S 2017/18 REPLENISHMENT ASSESSMENT

Proposition 218 (Prop 218), also known as the Right to Vote on Taxes Act, was adopted by California voters in November 1996. Prop 218 amended the California Constitution (Articles XIIIC and XIIID) which, as it relates to assessments, requires the local government agencies to have a vote of effected property owners for any proposed new or increased assessment before it could be levied. Prop 218 imposes a number of substantive requirements on property-related fees. These substantive requirements are found in Article XIII D, Section 6(b) of the California Constitution. The Cost of Service Report has been prepared by the District to explain how the Replenishment Assessment (RA) complies with these requirements. The Cost of Service Report describes the services the District anticipates performing during the fiscal year and analyzes the costs of providing these services. The costs associated with these services are described using the best available information, along with an evaluation of the fair and equitable RA necessary to cover these costs. The Cost of Service Report is available via the District's web site at www.wrd.org.

The April 24, 2017 Hearing has been conducted pursuant to Article XIII D, Section 6 of the California Constitution. On March 10, 2017 the District mailed notice of the April 27, 2017 Hearing to stakeholders throughout its service area. One hundred seventy-four (174) notices were sent to water rights holders within its jurisdiction that services approximately 4 million residents in 43 cities covering over 420 square miles.

The District approved its RA of $318 for fiscal year 2017/18 at the public hearing on April 27, 2017. The RA was approved after an extensive and transparent process to inform all parcel owners and groundwater pumping rights holders in the District's service area. The funds generated from the RA cover the cost of water purchased to replenish the two largest and most utilized groundwater basins in Southern California. Moreover, the new RA is critical to helping achieve the District's goal in becoming 100% independent from costly and unreliable imported water.

BUDGET CALENDAR

October Internal budget meetings with District Staff to communicate the expectations, responsibilities and projected timeline to all staff involved in the budget process.

November Budget interviews with Project and Program Managers in order to complete the Midyear Budget Review of the District's operations. This review process starts with four months of actual financial data from July 1 through October 31, nine months of financial projections and a twelve month analysis of all of the data. The Midyear Budget Review serves as the basis for planning for the ensuing year's budget.

December Staff prepares their budget requests for the ensuing year's budget. The Finance Department compiles all of staff's budget requests into a draft report which accounts for all of the District's financial needs. The draft budget is reviewed by the General Manager and the budget team. The resulting draft budget is presented to the public through several budget workshops, ending with the final budget workshop and the Board of Directors setting the Replenishment Assessment no later than the second Tuesday in May.

February

Budget Workshop #1
February 20, 2017 – Special Finance/Audit Committee Meeting.
The budget process began with the presentation of the 2016/17 Midyear Budget Review to the Finance/Audit Committee. The Midyear Review assists the District in developing the ensuing year's budget.

Budget Workshop #2
February 28, 2017 – Budget Advisory Committee (BAC) Meeting.
In accordance with SB620, the (BAC) formed by the District and voted by the Groundwater Producers within the WRD service area reviewed the replenishment assessment, the annual budget and reserve funds maintained by the District.

March

Budget Workshop #3
March 02, 2017 – Meeting of the Board of Directors
2016/17 Midyear Budget Review Presentation of the first draft of the 2017/18 Budget to the Board of Directors.

Budget Workshop #4
March 14, 2017 – Budget Advisory Committee (BAC) meeting.
The (BAC) adopted their budget scenario recommendation to the Board of Directors in accordance with SB620 which calls for a 7.1% increase to the replenishment assessment from $297.00 per acre-foot to $318.00 per acre-foot.

Budget Workshop #5
March 23, 2017 – Special Finance/Audit Committee Meeting.
Provided recommendation to the Board of Directors.

April

Budget Workshop #6
April 6, 2017 – Meeting of the Board of Directors
- Presentation of the 2017/18 Draft Budget
- Received and filed the Budget Advisory Committee recommendation

Budget Workshop #7
April 17, 2017 – Finance/Audit Committee Meeting.
Provided 2017/18 Draft Budget presentation and recommendation to the Board of Directors.

Budget Workshop #8
April 27, 2017 – Meeting of the Board of Directors
- Receive and file the Finance/Audit Committee and the Budget Advisory Committee recommendation
- Replenishment Assessment per Water Code §60306
- Open and Close Public Hearings on the Replenishment Assessment and Proposition 218
- Additional Budget Discussion
- Adopt Resolution No. 17-1053 to establish the Fiscal Year 2017/18 Replenishment Assessment
- Set 2017/18 Replenishment Assessment to $318.00 per acre-foot
- Adopt the FY2017/18 Budget

Financial Highlights

"Information is like water,
the purer, the better."

Financial Highlights

BASIS OF ACCOUNTING

The basis of accounting refers to the timing of revenue and expense recognition for financial reporting. In preparing the budget, the District applies the same methodology. The District operates as a utility enterprise, and all enterprise funds are accounted for using the full accrual basis where revenues are recognized when earned, and expenses are recognized when they are incurred. During the year end June 30, 2012, the District implemented certain provisions of Government Accounting Standards Board (GASB) No 62, Codification of Accounting and Financial Reporting Guidance contained in Pre-November 30, 1989 FASB and AICPA Pronouncements, specifically the accounting for rate-regulated activities which allows deferral of the recognition of revenues until the related costs or charges associated with the rates assessed are incurred. The District's accounting and financial reporting systems are maintained in compliance with Generally Accepted Accounting Principles and standards of the Government Accounting Standards Board (GASB).

Total Operating Revenues = $72,683,000
17/18 Operating Revenue (In Thousands)

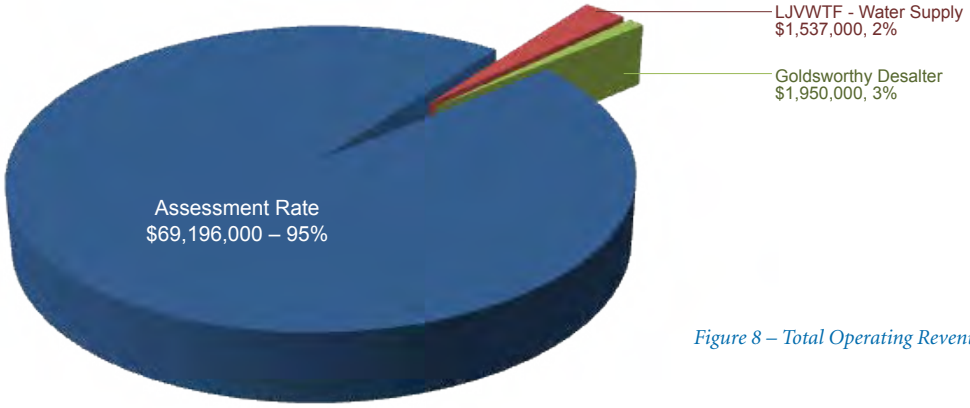


Figure 8 – Total Operating Revenues

Total Operating Expenses = $59,008,000
17/18 Operating Expenses (in thousands and percent of total)

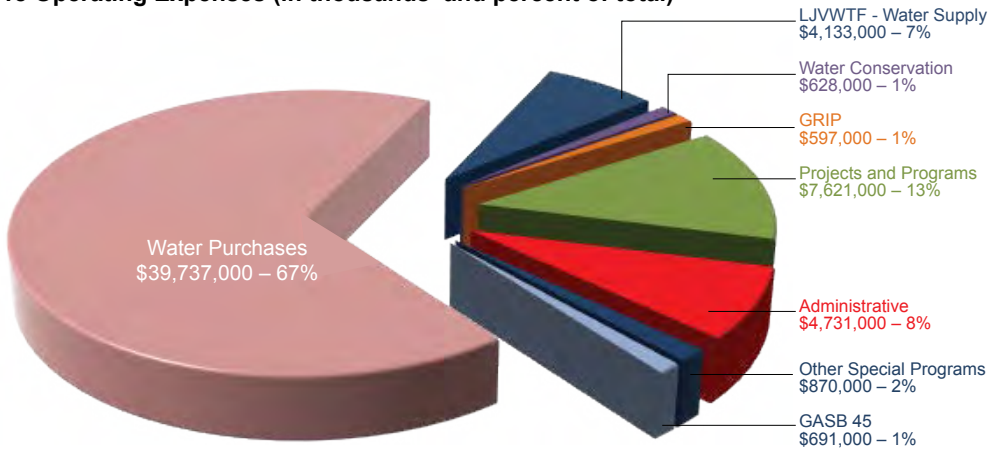


Figure 9 – Total Operating Expenses

Table 3A shows the District's comparative accrual basis Statement of Revenues, Expenses, and Changes in Net Assets. These statements reflect the operations and maintenance expenses and does not include capital expenses, except for the payments to cover debt service.

Table 3

2017/18 Proposed Statement of Revenues, Expenses and Changes in Net Assets

	2015/16 Actual	2016/17 Projected	2017/18 Budget
Operating Revenue			
Replenishment Assessment	$60,301,000	$64,360,000	$69,196,000
LJVWTF - Water Supply	$850,000	$526,000	$1,537,000
Goldsworthy Desalter Sales	$875,000	$25,000	$1,950,000
Total Operating Revenue	**$62,026,000**	**$64,911,000**	**$72,683,000**
Operating Expenses			
Water Purchases	$36,712,000	$41,766,000	$39,737,000
Water Conservation	$329,000	$664,000	$628,000
LJVWTF - Water Supply	$2,998,000	$3,954,000	$4,133,000
Groundwater Reliability Improvement Prog (GRIP)	$213,000	$355,000	$597,000
Projects/Programs	$4,903,000	$6,885,000	$7,621,000
General Administration	$4,998,000	$4,361,000	$4,731,000
GASB 45 (Required Retirement Funding)	$638,000	$628,000	$691,000
Other Special Programs & Supportive Costs	0	$775,000	$870,000
Total Operating Expenses	**$50,791,000**	**$59,388,000**	**$59,008,000**
Use of Water Purchase Carryover Fund	$12,933,000	$(2,800,000)	$-
Prior Year Deficit Recovery	$-	$-	$1,000,000
Subtotal	**$63,724,000**	**$56,588,000**	**$60,008,000**
Operating Income (Loss)	**$(1,698,000)**	**$8,323,000**	**$12,675,000**
Other Revenue (Expenses)			
Interest Income	$562,000	$375,000	$147,000
Debt Service Expense & SFR Loan	1,896,000	(13,232,000)	(12,957,000)
Other (Property Tax & Misc)	$570,000	$140,000	$135,000
Total Other Revenue (Expenses)	**$3,028,000**	**$(12,717,000)**	**$(12,675,000)**
Replenishment of Operating Reserves	$-	$-	$-
Encumbered for Bond Compliance	$-	$-	$-
Change in Net Assets	**$1,330,000**	**$(4,394,000)**	**$-**

REVENUE SOURCES

The District's major revenue sources are as follows:

REPLENISHMENT ASSESSMENT (RA) – The District bills the users of groundwater on a monthly basis for water pumped from the basins. The basins' new top twenty pumpers are as follows:

Table 4

MONTHLY PRODUCTION SUMMARY
Top Twenty Pumpers / Fiscal Year 2016/17

Number	Name	Production (AF)
1	Long Beach, City of	26,342
2	Golden State Water Company	19,955
3	California Water Service Company	14,071
4	Downey, City of	10,987
5	Cerritos, City of	6,394
6	South Gate, City of	6,145
7	Compton, City of	5,717
8	Tesoro Refining & Marketing Company	5,599
9	Lakewood, City of	5,550
10	Vernon, City of	5,307
11	Paramount, City of	5,202
12	Bellflower Somerset Mutual Water Company	4,077
13	Lynwood, City of	3,962
14	Pico Rivera, City of	3,538
15	Liberty Utilities Corporation	3,192
16	Phillips 66 Company	3,181
17	Los Angeles Department of Water and Power	3,005
18	Huntington Park, City of	2,994
19	Whittier, City of	2,485
20	Montebello Land & Water Company	2,423
	Total	**140,124**

LEO J. VANDER LANS AWTF – WATER SUPPLY

The revenue from the Leo J. Vander Lans AWTF comes from the sale of the product water to Orange County Water District as well as a subsidy received from Central Basin Municipal Water District through a Local Resources Program (LRP) offered by MWD.

GOLDSWORTHY DESALTER

Overpumping of the West Coast Basin caused seawater to intrude into some aquifers in coastal area cities affecting the local groundwater supply. To respond to seawater intrusion, the District constructed the Goldsworthy Desalter that is capable of removing 2,000 gallons of brackish water per minute from the City of Torrance's drinking water supply. The product water is then sold to the City of Torrance.

Revenues

Robert W. Goldsworthy Desalter in Torrance, California

The Desalter removes more than 2,000 gallons of brackish water per minute. Over a billion gallons of clean, safe drinking water will be added to the water supply annually as a result of Desalter operations.

Revenues

BASIS FOR REPLENISHMENT ASSESSMENT REVENUE ESTIMATE

The District has statutory authority to set and collect a Replenishment Assessment (RA) from all entities that own or lease water rights on each acre-foot (AF) of groundwater that they pump from the basins.

For fiscal year 2017/18, the District estimates that it will collect approximately $69.2 million from the RA based on the estimated groundwater pumping of 217,300 AF at the adopted RA of $318 per AF.

Pursuant to the Water Code and applicable regulations, the RA is established annually by the Board of Directors. Mathematically, the RA is calculated based on the cost allocation analysis which includes assessing the beneficiaries (i.e., pumpers) their proportional share of the cost to provide water replenishment service.

As required by the Water Code, the District annually prepares the Engineering Survey & Report (ESR) that provides the Board of Directors with the necessary information to justify the setting of an RA for the ensuing fiscal year to purchase replenishment water and to fund projects and programs related to groundwater replenishment and groundwater quality. The ESR contains the following key components:

- A discussion of groundwater production with the District
- An evaluation of groundwater conditions with the District, including estimates of the annual overdraft, the accumulated overdraft, changes in water levels, and the effects of water level fluctuations on the groundwater resources
- An appraisal of the quantity, availability, and cost of replenishment water required for the ensuing water year
- A description of current and proposed programs and projects to accomplish replenishment goals and to protect and preserve high quality groundwater supplies within the District.

Specifically, the ESR provides an estimate of the total groundwater pumping quantity for the ensuing year, which is approximately 217,300 AF in the District's service area. Furthermore, the ESR identifies the quantity of supplemental water required to replenish and protect the groundwater basins from pumping. The total estimated cost of service for FY17/18 is approximately $69,196,000 which is necessary to service the estimated 217,300 AF of groundwater pumped from the basins. Therefore, the estimated total cost of service is allocated in proportion to the estimated total groundwater pumped. The unit cost, or RA, per AF of water pumped is calculated as follows:

$$\frac{\text{Total Cost of Service \$}}{\text{Total Groundwater Pumped (AF)}} = \text{Unit Cost (\$/AF pumped)}$$

Based on the ensuing year's main mitigating factors, there are three Groundwater Pumping Estimates. The originally estimated pumping of 231,000 AF, the 2016/17 pumping estimate of 216,700 AF and a 2017/18 significant changes to worst case scenario of 220,000 AF to 217,300

AF. The 2017/18 pumping estimates were evaluated and refined throughout the budget process. Based on the series of budget presentations during the budget process, the Board of Directors arrived at the total groundwater AF pumped to determine the unit cost as follows:

$$\frac{\text{Total Cost of Service (\$69,196,000)}}{\text{Total Groundwater Pumped (217,300AF)}} = \text{Unit Cost (\$318/AF)}$$

The amount of RA charged to an individual operator is calculated based on the quantity of water they pump multiplied by the RA. For example, if an operator pumps a total of 1,000 AF, that operator will be charged a total of $318,000 (1,000 AF x $318/AF).

The RA consists of two components: funds for replenishment and funds for clean water. Most of the District's efforts are related to the replenishment of the Central and West Coast Groundwater Basins. The revenue collected through the RA is split 94% to the Replenishment Fund and 6% to the Clean Water Fund based on the anticipated use of the revenue.

BASIS FOR CAPITAL REVENUE ESTIMATES

The District receives revenue from two capital assets, the Leo J. Vander Lans Advanced Water Treatment Facility and the Robert W. Goldsworthy Desalter.

The Leo J. Vander Lans Advanced Water Treatment Facility provides advanced treated water to the Alamitos Seawater Barrier Project in order to keep seawater from intruding into the fresh groundwater supplies in the Central Basin. The revenue from the Facility comes from the sale of water production to the Orange County Municipal Water District as well as a subsidy received from the Central Basin Municipal Water District through a Local Resource Program offered by the Metropolitan Water District (MWD). In fiscal year 2015/16, the District completed the Leo J. Vander Lans Expansion Project which doubled the capacity of the treatment plant and completely replaced the need for imported water with highly treated recycled water at the Alamitos Seawater Intrusion Barrier. This is one of the key components in the District's Water Independence Now (WIN) Program. Based on the FY16/17 mid-year review, a decrease of $1.4 million in revenue due to an unanticipated lack of source water from the Los Angeles County Sanitation District is projected. The plant facility's source water and operational issues are being resolved and revenue is estimated to be approximately $1,537,000 for FY2017/18.

Fund Allocation – The primary purpose of this project is to provide a more reliable means of replenishing the basins through the use of advanced treated recycled water, 100% of this revenue is allocated to the Replenishment Fund.

The Robert W. Goldsworthy Desalter has been operating since 2002 to remove 18,000 acre-feet of brackish groundwater from a seawater intrusion plume in the Torrance area that was stranded inland of the West Coast Basin Seawater Intrusion Barrier after the barrier project was put into operation in the 1950s and 1960s. The production well and desalting facility are located within the City of Torrance and the product water that would otherwise be useless due to the Saline Plume located in the West Coast Basin is delivered for potable use to the City's distribution system. The treatment capacity is about 2,200 acre-feet per year. The District is expanding the Goldsworthy Desalter and expected to complete the construction in summer 2017. The expansion project will increase the treatment capacity to 4,800 acre-feet per year. The City is responsible

for the operation and maintenance of the treatment plant under contract with WRD. The revenue from the Desalter comes from the sale of water production to the City of Torrance as well as a subsidy received from the City of Torrance through a Local Resource Program (LRP) offered by the Metropolitan Water District (MWD). Upon completion of the Goldsworthy Desalter Expansion, revenue is estimated to increase from $720,000 to $1,950,000 for FY2017/18.

Fund Allocation – The purpose of the Desalter is directly related to remediating degraded groundwater quality and costs are thus attributed 100% to the Clean Water Fund.

BASIS FOR OTHER REVENUE ESTIMATES

Other Income

The District is estimating revenue for FY2017/18 from property tax to be $400,000 and interest income to be $150,000. There are non-RA related expenses of $263,000 which off-set the above that will bring the estimated revenue from this source to $282,000.

Fund Allocation – The revenue collected through other revenue (e.g., property taxes and interest income) is split 94% to the Replenishment Fund and 6% to the Clean Water Fund based on the anticipated use of the revenue.

Groundwater is a very economical source of water. For example, the District's Replenishment Assessment (RA) is $318 per acre-foot. The cost of pumping and treating water to bring it up to drinking water standards adds slightly to the cost. In contrast, the price for one acre-foot of treated imported water is projected to be about $1,376, a savings of approximately $1,058 per acre-foot.

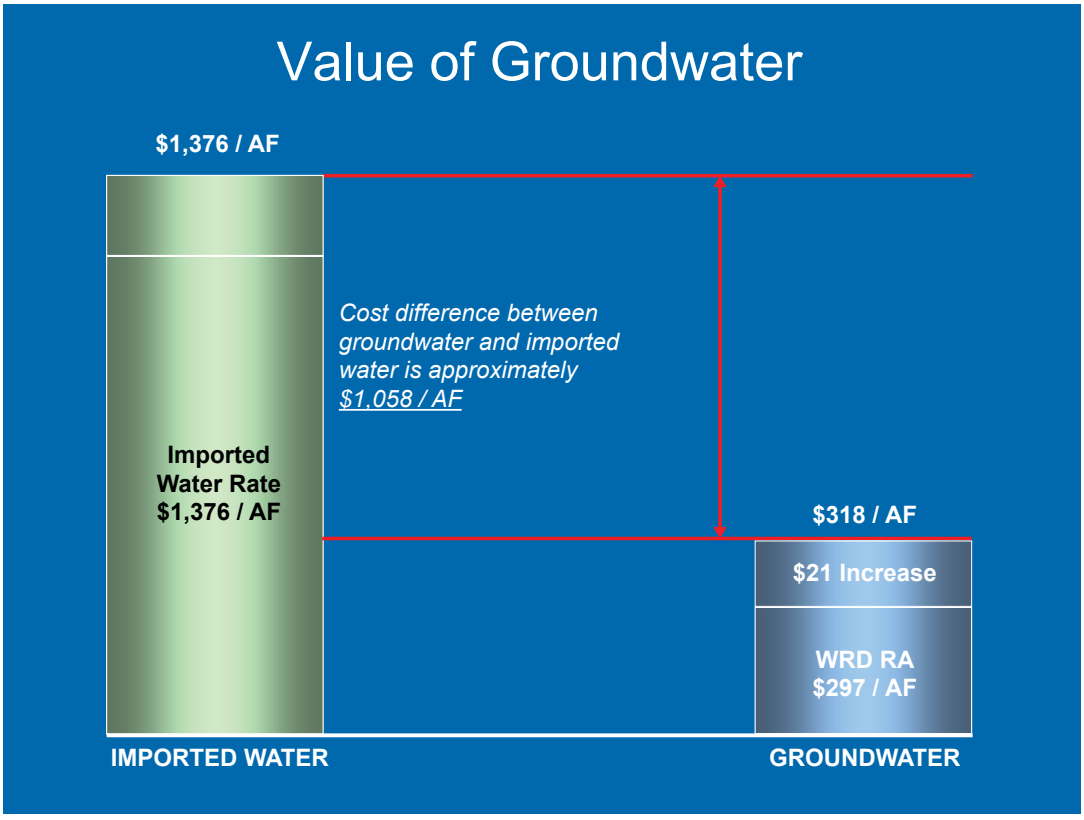


Figure 10 – Value of Groundwater

Table 5
Comparative Revenue by Year by Fund

Description	Allocation Replenishment Fund	Allocation Clean Water Fund	2013/14 Actual	2014/15 Actual	2015/16 Actual	2016/17 Projected	2017/18 Budget
Replenishment Fund							
Replenishment Assessment	94%		$55,146,000	$74,342,000	$56,682,000	$60,498,000	$65,044,000
LJVWTF - Water Supply	100%		$679,000	$444,000	$850,000	$526,000	$1,537,000
Other Revenues/(Expenses)	94%		$1,091,000	$18,000	$2,846,000	$(11,954,000)	$(11,910,000)
Subtotal Replenishment Fund			**$56,916,000**	**$74,804,000**	**$60,378,000**	**$49,070,000**	**$54,667,000**
Clean Water Fund							
Replenishment Assessment		6%	$3,520,000	$4,745,000	$3,619,000	$3,862,000	$4,152,000
Goldsworthy Desalter Sales		100%	$1,042,000	$625,000	$875,000	$25,000	$1,950,000
Other Revenues/(Expenses)		6%	$70,000	$1,000	$182,000	$(763,000)	$(760,000)
Subtotal Clean Water Fund			**$4,632,000**	**$5,371,000**	**$4,676,000**	**$3,124,000**	**$5,341,000**
Total All Funds			**$61,548,000**	**$80,175,000**	**$65,054,000**	**$52,194,000**	**$60,008,000**

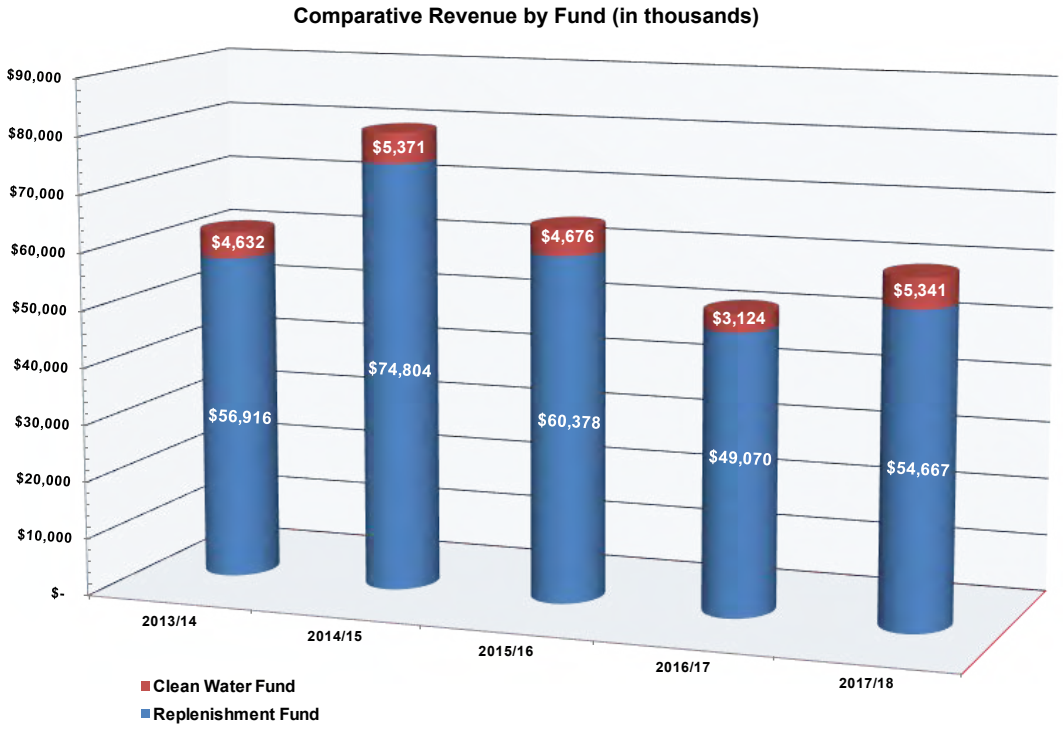
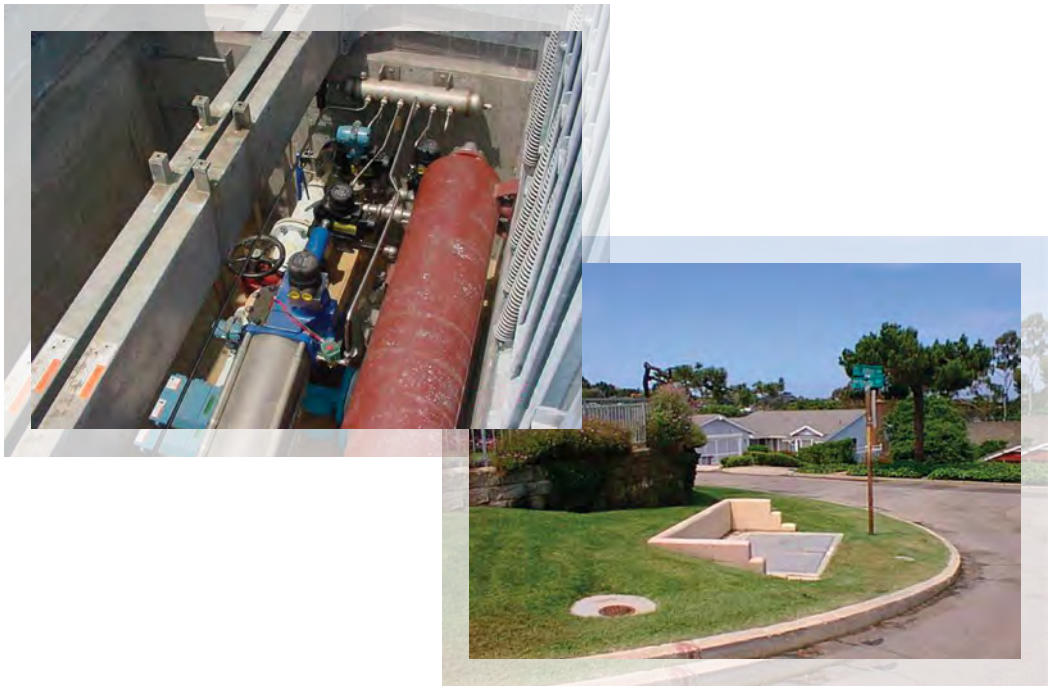


Figure 11 – Comparative Revenue by Fund (in thousands)

Expenses



Barrier Wells

The three seawater barriers (Alamitos, Dominguez Gap, and West Coast Basin Barriers) located along Los Angeles County's Coastal Plain are vital systems that sustain the Central and West Coast Basin's groundwater resources.

The barriers were designed to prevent further seawater intrusion into the basins. Additionally, the Dominguez Gap and West Coast Basin Barriers serve as the primary means of replenishing the West Coast Basin.

Expenses

OPERATING AND CAPITAL EXPENSES BY FUND ALLOCATION

California Water Code Sections 60220 through 60226 describe the broad purposes and powers of the District to perform any acts necessary to replenish, protect, and preserve the groundwater supplies of the District. In order to meet statutory responsibilities, WRD has instituted numerous projects and programs in a continuing effort to effectively manage groundwater replenishment and groundwater quality in the Central and West Coast Basins (Basins). These projects and programs include activities that enhance the replenishment program, increase the reliability of the groundwater resources, improve and protect groundwater quality, and ensure that the groundwater supplies are suitable for beneficial uses.

These projects and programs have had a positive influence on the basins, and WRD will continue these activities into the ensuing year as a necessary act to replenish, protect, preserve and enhance the groundwater resources in the basins. The following sections discuss the projects and programs that WRD will continue or initiate during the upcoming budget year. Tables 5A and 5B breakdown the expenses by fund. The percentages are calculated by relating the costs to the purpose benefited by those costs – replenishment or clean water. The capital expenses are funded through long-term financing.

BASIS FOR CHANGES FROM 2016/17 PROJECTED TO 2017/18 BUDGET

When examining Table 6 – 2017/18 Budget Expense Analysis, it shows that budgeted expenses have increased $3,145,000 which is due to the following:

Water purchases decreased 1,700 acre-feet from 103,300 acre-feet of water purchases in 2016/17 to 101,600 acre-feet in 2017/18. The primary reason is related to a decrease of 1,800 acre-feet of injection water needed at the West Coast Seawater Intrusion Barrier Project. There was also a small increase of 100 acre-feet needed at the Alamitos Seawater Intrusion Barrier. Also contributing to the $2.85 million decrease in water purchase expenses is the decrease in Tier 1 untreated imported water from 16,000 acre-feet in 2016/17 to 8,000 acre-feet in 2017/18. The difference was made up with recycled spreading water.

During the budgeting process for fiscal year 2016/17, the District estimated pumping from the Central and West Coast Basins ("the Basins") to be 231,000 acre-feet. Due to conservation and some key wells under construction, the actual amount of pumping from the Basins was closer to 210,000 acre-feet contributing to a budgetary revenue shortfall of about $6.2 million. Due to the operational flexibility of the Basins, the District will postpone Tier 1 imported spreading water in order to make up for the deficit. Additionally, the District budgeted for $2.8 million of deficit recovery in the fiscal 2017/18 budget. Table 6 shows that other expenses increased $3.53 million; $2.8 million of the increase is due to the deficit recovery. The remaining amount relates debt service for one-half of the $80.0 million, 1.0% interest loan from the California Clean Water State Revolving Fund for completion of the Groundwater Reliability Improvement Project Advanced Water Treatment Facility.

Table 6A

WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA FISCAL YEAR 2017/18
Schedule of Expenses by Fund Allocation - Replenishment Fund

Description	Allocation Replenishment Fund	Allocation Clean Water Fund	2013/14 Actual	2014/15 Actual	2015/16 Actual	2016/17 Projected	2017/18 Budget
Replenishment Fund (RF)							
Replenishment Fund Operating Expenses							
Water Purchases	100%		$29,364,000	$46,342,000	$36,712,000	$41,766,000	$39,737,000
Water Conservation	50%		$217,000	$165,000	$165,000	$332,000	$314,000
Water Supply - Vander Lans	100%		$1,899,000	$1,994,000	$2,998,000	$3,954,000	$4,133,000
Groundwater Reliability Improvement Program (GRIP)	100%		$198,000	$215,000	$214,000	$355,000	$597,000
Montebello Forebay Recycled Water	100%		$273,000	$317,000	$368,000	$612,000	$729,000
Groundwater Resource Planning	100%		$623,000	$773,000	$618,000	$314,000	$238,000
Dominguez Gap Barrier Recycled Water	100%		$217,000	$188,000	$179,000	$248,000	$219,000
LADWP Well Construction	100%		$2,000	$(2,000)	$-	$-	$-
Replenishment Operations	100%		$646,000	$242,000	$173,000	$340,000	$331,000
Engineering Program	100%		$-	$6,000	$18,000	$-	$-
Geographic Information Systems (GIS)	50%		$88,000	$150,000	$112,000	$177,000	$136,000
Groundwater Monitoring	50%		$460,000	$513,000	$406,000	$631,000	$602,000
Hydrogeology Program	50%		$436,000	$300,000	$257,000	$604,000	$546,000
Water Education	50%		$273,000	$397,000	$323,000	$392,000	$306,000
Board of Directors	94%		$261,000	$332,000	$299,000	$337,000	$337,000
General Manager	94%		$402,000	$402,000	$407,000	$-	$-
Administration	94%		$3,873,000	$4,738,000	$3,992,000	$3,762,000	$4,110,000
GASB 45 (Required Retirement Funding)	94%		$730,000	$730,000	$600,000	$590,000	$650,000
Other Special Programs & Supportive Costs	94%		$1,301,000	$9,654,000	$-	$729,000	$818,000
Subtotal RF Operating Expenses			**$41,263,000**	**$67,456,000**	**$47,840,000**	**$55,143,000**	**$53,803,000**
Replenishment Fund Capital Expenses							
Water Supply - Vander Lans	100%		$23,120,000	$4,969,000	$11,000	$535,000	$1,695,000
Water Conservation			$-	$-	$-	$-	$-
Cal Trans Pipeline	100%		$-	$-	$-	$-	$-
Groundwater Resource Planning	100%		$-	$-	$478,000	$-	$-
Dominguez Gap Seawater Intrusion Barrier	100%		$-	$-	$-	$1,200,000	$500,000
Groundwater Monitoring	50%		$1,252,000	$749,000	$-	$745,000	$1,020,000
West Coast Basin Inland Injection Well System	100%		$-	$-	$-	$100,000	$100,000
GRIP	100%		$2,188,000	$2,233,000	$16,287,000	$43,000,000	$69,000,000
Recharge Operations-Flow Meters	100%		$-	$-	$-	$300,000	$100,000
Whittier Narrows Conservation Pool Study	100%		$-	$-	$-	$1,126,000	$400,000
Asset Management Program	100%		$-	$-	$-	$465,000	$805,000
Replenishment Operations	100%		$-	$173,000	$363,000	$-	$-
Supervisory Control and Data Acquisition (SCADA)	100%		$-	$-	$421,000	$1,698,000	$2,024,000
Paramount/Equipment/Fleet Center	100%		$-	$-	$65,000	$3,944,000	$-
Administration	94%		$-	$-	$112,800	$211,500	$317,000
Subtotal RF Capital Expenses			**$26,560,000**	**$8,124,000**	**$17,737,800**	**$53,324,500**	**$75,961,000**
Total Replenishment Fund			**$67,823,000**	**$75,580,000**	**$65,577,800**	**$108,467,500**	**$129,764,000**

Table 6B

Schedule of Expenses by Fund Allocation - Clean Water Fund

Description	Allocation Replenishment Fund	Allocation Clean Water Fund	2013/14 Actual	2014/15 Actual	2015/16 Actual	2016/17 Projected	2017/18 Budget
Clean Water Fund (CWF)							
CWF Operating Expenses							
Water Conservation		50%	$216,000	$165,000	$164,000	$332,000	$314,000
Goldsworthy Desalter		100%	$794,000	$766,000	$737,000	$497,000	$1,695,000
Water Quality Improvement Program		100%	$358,000	$346,000	$381,000	$703,000	$703,000
Safe Drinking Water Program		100%	$1,000	$55,000	$149,000	$565,000	$526,000
Central Basin Watermaster		100%	$-	$86,000	$85,000	$-	$-
Geographic Information Systems (GIS)		50%	$89,000	$149,000	112,000	176,000	136,000
Groundwater Monitoring		50%	$461,000	$513,000	$406,000	$630,000	$602,000
Hydrogeology Program		50%	$436,000	$300,000	$256,000	$604,000	$546,000
Water Education		50%	$274,000	$396,000	$322,000	$392,000	$306,000
Board of Directors		6%	$17,000	$21,000	$19,000	$22,000	$22,000
General Manager		6%	$26,000	$26,000	$26,000	$-	$-
Administration		6%	$247,000	$302,000	$255,000	$240,000	$262,000
GASB 45 (Required Retirement Funding)		6%	$47,000	$47,000	$38,000	$38,000	$41,000
Other Special Programs & Supportive Costs		6%	$83,000	$616,000	$-	$46,000	$52,000
Subtotal CWF Operating Expenses			**$3,049,000**	**$3,788,000**	**$2,951,000**	**$4,245,000**	**$5,205,000**
Clean Water Fund Capital Expenses							
Perchlorate Remediation Project		100%	$-	$-	$-	$75,000	$69,000
Goldsworthy Desalter		100%	$617,000	$1,278,000	$5,512,877	$6,400,000	$8,000,000
Montebello Forebay Optimization Study/Pipeline		100%	$-	$-	$2,000	$250,000	$-
Regional Brackish Water Reclamation Phase 1		100%	$-	$-	$-	$-	$250,000
Groundwater Master Plan Programmatic EIR		100%	$3,000	$-	$-	$-	$-
Water Quality Improvement Program		100%	$-	$591,000	$540,000	$-	$-
Groundwater Monitoring		50%	$1,252,000	$-	$-	$745,000	$1,020,000
Enhanced-Montbello Forebay Recharge		100%	$-	$-	$-	$75,000	$75,000
Safe Drinking Water Program		100%	$-	$1,000	$82,000	$4,255,000	$6,049,000
Centralized Information System		100%	$-	$-	$-	$150,000	$-
Administration		6%	$-	$-	$7,200	$13,500	$20,000
Total CWF Capital Expenses			**$1,872,000**	**$1,870,000**	**$6,144,077**	**$11,963,500**	**$15,483,000**
Total Clean Water Fund			**$4,921,000**	**$5,658,000**	**$9,095,077**	**$16,208,500**	**$20,688,000**
Total O&M Expenses			**$44,312,000**	**$71,244,000**	**$50,791,000**	**$59,388,000**	**$59,008,000**
Total Capital Expenses			**$28,432,000**	**$9,994,000**	**$23,881,877**	**$65,288,000**	**$91,400,000**
Total Expenses By Funds			**$72,744,000**	**$81,238,000**	**$74,672,877**	**$124,676,000**	**$150,408,000**

Table 7
2017/18 Expenses Analysis

Operations and Maintenance	2013/14 Actual	2014/15 Actual	2015/16 Actual	2016/17 Projected	2017/18 Budget	Change from 2016/17 Projection
Water Purchases	$29,364,000	$46,342,000	$36,712,000	$41,766,000	$39,737,000	$(2,029,000)
Water Conservation	$433,000	$330,000	$329,000	$664,000	$628,000	$(36,000)
Water Supply - Vander Lans	$1,899,000	$1,994,000	$2,998,000	$3,954,000	$4,133,000	$179,000
Groundwater Reliability Improvement Program (GRIP)	$-	$-	$213,000	$355,000	$597,000	$242,000
Projects/Programs	$5,629,000	$5,710,000	$4,903,000	$6,885,000	$7,621,000	$736,000
General Administration	$4,826,000	$5,821,000	$4,998,000	$4,361,000	$4,731,000	$370,000
GASB 45 (Required Retirement Funding)	$777,000	$777,000	$638,000	$628,000	$691,000	$63,000
Other Special Programs & Supportive Costs	$1,384,000	$10,270,000	$-	$775,000	$870,000	$95,000
Subtotal Operating Expenses	$44,312,000	$71,244,000	$50,791,000	$59,388,000	$59,008,000	$(380,000)
Other Expenses	$3,168,000	$2,146,000	$2,149,000	$10,432,000	$13,957,000	$3,525,000
Total Operating Expenses	**$47,480,000**	**$73,390,000**	**$52,940,000**	**$69,820,000**	**$72,965,000**	**$3,145,000**

Table 8
2017/18 Expenses by Department

Description	2013/14 Actual	2014/15 Actual	2015/16 Actual	2016/17 Projected	2017/18 Budget
Water Purchases	$29,364,000	$46,342,000	$36,712,000	$41,766,000	$39,737,000
Water Conservation	$433,000	$330,000	$329,000	$664,000	$628,000
Water Supply - Vander Lans	$1,899,000	$1,994,000	$2,998,000	$3,954,000	$4,133,000
Groundwater Realiability Improvement Program (GRIP)	$198,000	$215,000	$214,000	$355,000	$597,000
Goldsworthy Desalter	$794,000	$766,000	$737,000	$497,000	$1,695,000
Montebello Forebay Recycled Water	$273,000	$317,000	$368,000	$612,000	$729,000
Groundwater Resource Planning	$623,000	$773,000	$618,000	$314,000	$238,000
Water Quality Improvement Program	$358,000	$346,000	$381,000	$703,000	$703,000
Geographic Information Systems (GIS)	$177,000	$299,000	$224,000	$353,000	$272,000
Groundwater Monitoring	$921,000	$1,026,000	$812,000	$1,261,000	$1,204,000
Safe Drinking Water Program	$1,000	$55,000	$149,000	$565,000	$526,000
Hydrogeology Program	$872,000	$600,000	$513,000	$1,208,000	$1,092,000
Dominguez Gap Barrier Recycled Water	$217,000	$188,000	$179,000	$248,000	$219,000
LADWP Well Construction	$2,000	$(2,000)	$-	$-	$-
Replenishment Operations	$646,000	$242,000	$173,000	$340,000	$331,000
Engineering Program	$-	$6,000	$18,000	$-	$-
Water Education	$547,000	$793,000	$645,000	$784,000	$612,000
Central Basin Watermaster	$-	$86,000	$85,000	$-	$-
Board of Directors	$278,000	$353,000	$318,000	$359,000	$359,000
General Manager	$428,000	$428,000	$433,000	$-	$-
Administration	$4,120,000	$5,040,000	$4,247,000	$4,002,000	$4,372,000
GASB 45 (Required Retirement Funding)	$777,000	$777,000	$638,000	$628,000	$691,000
Other Special Programs & Supportive Costs	$1,384,000	$10,270,000	$-	$775,000	$870,000
Total Operating Expenses	**$44,312,000**	**$71,244,000**	**$50,791,000**	**$59,388,000**	**$59,008,000**

Fund Balances

City of Norwalk

City of South Gate

The Safe Drinking Water Program was developed to provide area purveyors with incentives to construct wellhead treatment facilities to extract, treat, and put to beneficial use, contaminated groundwater that would otherwise be left in the ground.

Fund Balances

FUND BALANCES, TRUST FUNDS AND RESERVE LEVELS

Based on §60290 of the Water Code, the District may establish an annual reserve fund in an amount not to exceed ten million dollars ($10,000,000). This ten million dollars may be adjusted for the percentage increase or decrease in the blended cost of water from district water supply sources on an annual basis. There has been a 149% increase in the blended cost of water from District supply sources based on the rolling average calculation from the 2001-02 base year and the 2016/17 budget year. When applied to the $10,000,000 in §60290 of the California State Water Code the operating reserve increases to approximately $25,900,000.

If for some reason, the District has more than $25,900,000 (adjusted for the blended cost of water), §60328.1 states that the District shall apply the estimated fiscal year end balance in excess of the amount allowed in §60290 to a replenishment assessment rate reduction or to the purchase of water in the succeeding fiscal year. Additionally, §60291 also states that the limitation on the reserve established in §60290 does not apply to funds appropriated for capital projects.

As of June 30, 2017, the District has $8,990,000 in operating reserve. The following pages provide specific breakdowns of the District cash and investments.

RESTRICTED FUNDS – Restricted by the Board of Directors to recognize future commitments of resources prior to the actual expense.

Restricted for Capital Projects – Funds committed to the Safe Drinking Water Program or set aside for long term capital replacement costs at the Leo J. Vander Lans Advanced Water Treatment Facility and the Robert W. Goldsworthy Desalter.

1. Safe Drinking Water Program

Source of Funds:	Replenishment Assessment
Use of Funds:	Encumbered for Safe Drinking Water Projects
Huntington Park Well #17 – Central Basin	$ 40,000
Restricted for Safe Drinking Water Loan Program	4,416,000
	$ 4,456,000

2. Capital Replacement / Construction

Source of Funds:	Replenishment Assessment
Use of Funds:	Encumbered for Projects Below
Leo J. Vander Lans Water Treatment Facility	$ 2,882,000
Goldsworthy Desalter	368,000
	$ 3,250,000
Total Restricted for Capital Projects	$ 7,706,000

Water Purchase Carryover Fund – This category represents funds restricted by the Board of Directors as follows:

Source of Funds:	Replenishment Assessment
Use of Funds:	Restricted for Water Purchases
Restricted Balance in Account	$ 17,713,000

Debt Service Reserve Fund – Based on the rate covenant, pursuant to the District's Master Agreement, the net revenues less payments made by the WRD for the purchase and delivery of water, availability payments for water and In Lieu Payments made during the fiscal year is equal to a minimum of 120% of the Debt Service on Senior Obligations for the fiscal year.

These funds are reviewed by the Budget Advisory Committee each year during the rate setting process and are used to maintain the District's AA+ rating. We have recently experienced the value of maintaining such a fund during the issuance of the District's Series 2015 Water Revenue Bonds when the WRD obtained AAA pricing in the market due, in part, to its strong financial position.

SOURCE OF FUNDS: REPLENISHMENT ASSESSMENT

Use of Funds: Restricted for Debt Service

Restricted Debt Service Reserve	$ 21,616,000
Less: Funds applied to Prop 218 and Expenses over FY 2015/16 Budget	(8,205,000)
Total Restricted for Debt Service	$ 13,411,000

The District's reserve balances are presented as follows:

Restricted Funds:	
Capital Projects	$ 7,706,000
Water Purchase Carryover Fund	17,713,000
Debt Service Reserve Fund	13,411,000
Total Restricted Funds	$ 38,830,000
Operating Reserve Fund	$ 8,990,000

Table 9
Projected Unreserved Fund Balances at June 30, 2018

Description	Estimated Unreserved Fund Balances 6/30/17	Estimated Revenues	Estimated Expenses	COPs Debt Service	Use of Reserves	Estimated Unreserved Fund Balances 6/30/18
Replenishment Fund	$8,451,000	$66,846,000	$(53,803,000)	$(12,180,000)	$(940,000)	$8,374,000
Clean Water Fund	$539,000	$6,119,000	$(5,205,000)	$(777,000)	$(60,000)	$616,000
Total All Funds	**$8,990,000**	**$72,965,000**	**$(59,008,000)**	**$(12,957,000)**	**$(1,000,000)**	**$8,990,000**

Table 10
Projected Unreserved Funds Balance Five Year Forecast

Description	2017/18 Forecast	2018/19 Forecast	2019/20 Forecast	2020/21 Forecast	2021/22 Forecast
Beginning Funds Balance	$8,990,000	$8,990,000	$8,990,000	$8,990,000	$9,000,000
Add: Estimated Revenues	$72,965,000	$77,910,000	$81,820,000	$83,630,000	$85,460,000
Total Funds Available	$81,955,000	$86,900,000	$90,810,000	$92,620,000	$94,460,000
Less: Estimated Expenditures	$(59,008,000)	$(60,390,000)	$(62,980,000)	$(65,680,000)	$(68,510,000)
Annual Debt Service	$(12,957,000)	$(14,820,000)	$(17,940,000)	$(17,940,000)	$(17,940,000)
Use of Reserves	$(1,000,000)	$(2,700,000)	$(900,000)	$-	$-
Ending Funds Balance	**$8,990,000**	**$8,990,000**	**$8,990,000**	**$9,000,000**	**$8,010,000**

Table 11
June 30, 2017 Reserve Fund Balances

Restricted Funds:	
Capital Projects	$ 7,706,000
Water Purchase Carryover Fund	17,713,000
Debt Service Reserve Fund	13,411,000
Total Restricted Funds	**$ 38,830,000**
Operating Reserve Fund	**$ 8,990,000**

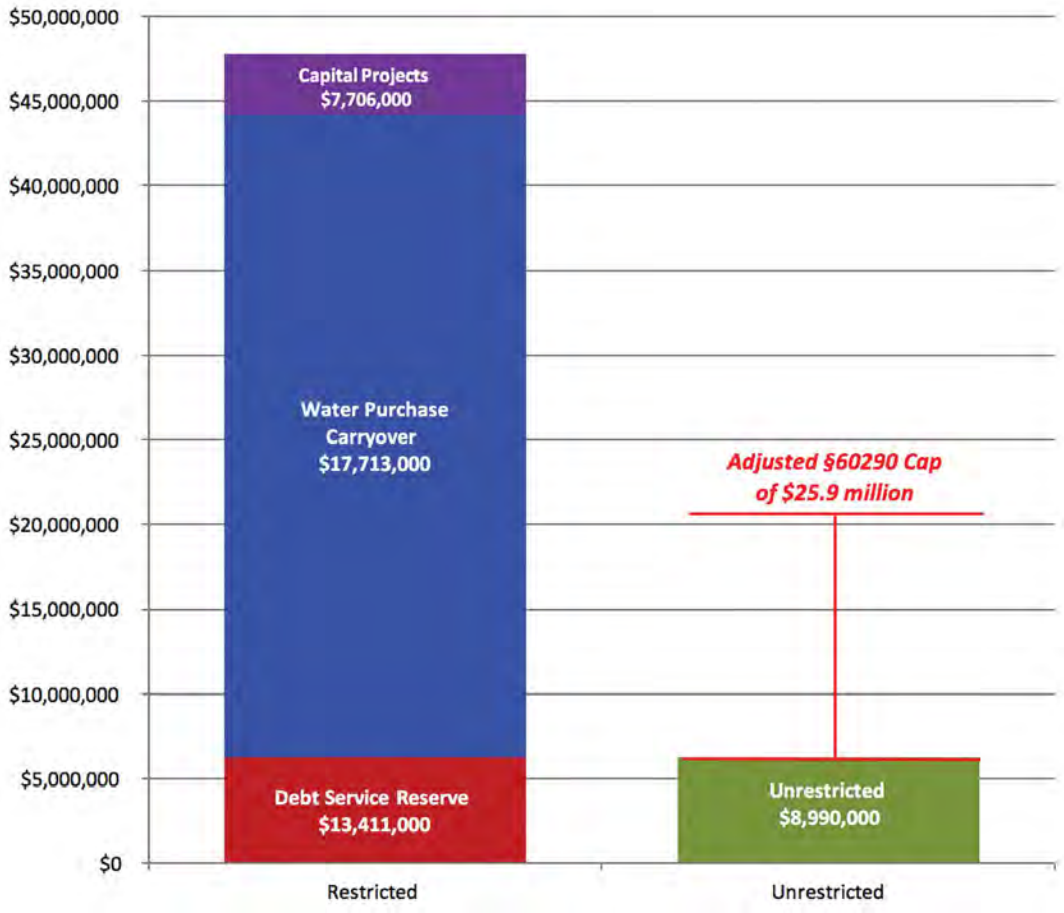


Figure 12 – Reserve Funds as of June 30, 2017

CASH AND INVESTMENTS

At the instruction of the Board of Directors, on March 31, 2009 the District implemented its Community Banking Program and has invested in several community banks.

Table 12
Cash and Investments By Institution
(Rounded to nearest thousand)

Cash and Investments:	
Manufacturers Bank	$16,317,000
ProAmerica Bank	32,910,000
City National Bank	14,914,000
Bank of the West	1,592,000
Banc of California (formally Beach Business Bank)	243,000
Broadway Federal Bank	245,000
US Bank (formerly CalNational Bank)	243,000
First Bank	242,000
Preferred Bank	253,000
Union Bank	240,000

By Amount (in thousands)
June 30, 2017

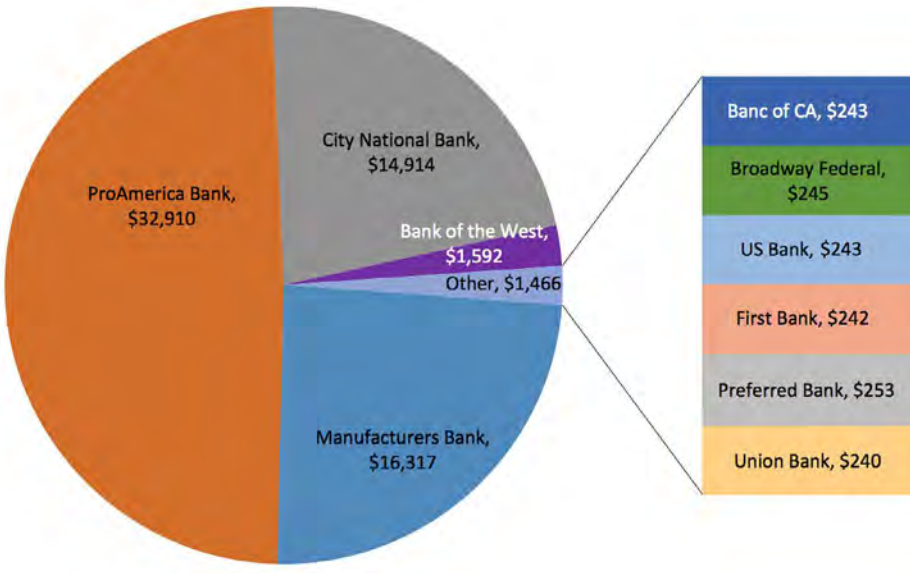


Figure 13 – Cash & Investments by Institution as of June 30, 2017

TRUST FUNDS – A relationship whereby funds are legally held and managed by another party or organization for the benefit of another person or specific purpose.

The Water Replenishment District has a number of trust funds related to the District's capital improvement plan. The District's Trustee, U.S. Bank, holds the majority of the funds which were received from the issuance of the 2015 Revenue Bonds. The remaining amount relates to the funds received from the California Department of Transportation (CalTrans) settlement of $8.0 million which was received in June 2004. Since that time, the District has been reimbursed for costs associated with the project, as well as for charges tied to the amount of water pumped from the basin for dewatering the freeway.

The balance of trust funds as of June 30, 2017 was as follows:

Restricted for Capital Projects – Funds held in trust with US Bank for use in accordance with the Official Statement and the Master Trust Agreement.

Proceeds from the 2015 Revenue Bond

Source of Funds:	2015 Debt Issuances
Use of Funds:	Restricted for Capital Projects Only

Total in Trust for Capital Projects	$ 24,469,000

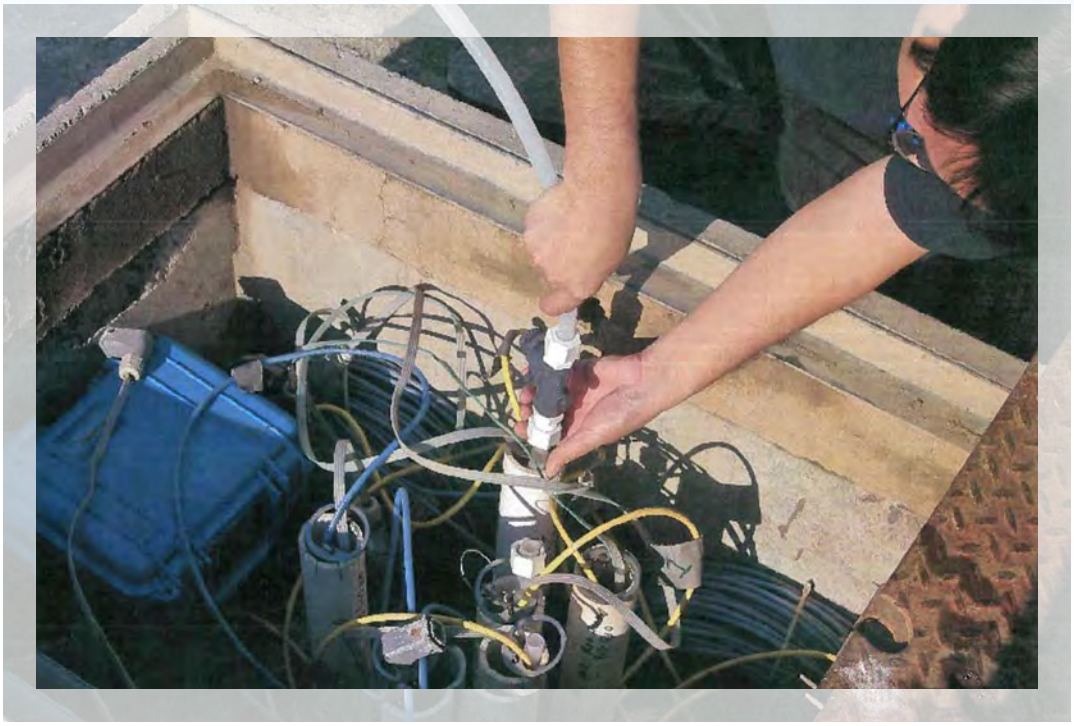
CalTrans Trust – These funds are held in trust by WRD as part of a settlement with the California Department of Transportation (CalTrans) for dewatering the 105 freeway.

Source of Funds:	CalTrans Settlement
Use of Funds:	Restricted for CalTrans Project and RA

Originally, the CalTrans settlement of $8.0 million was received in June 2004. Since that time, the District has been reimbursed for costs associated with the project, as well as for charges tied to the amount of water pumped from the basin for dewatering the freeway.

In Trust for CalTrans Project	$ 5,546,000

Capital Improvement Program



Well Sample Collection

Capital Improvement Program (CIP)

The WRD's primary responsibilities are to protect the basins by replenishing groundwater, deter seawater intrusion, and remove contaminants from the groundwater. Furthermore, with the recent drought and future uncertainty of imported water, the District is moving forward with the WIN program, a series of projects that will fully utilize stormwater and recycled water sources to protect the basins and to ensure sustainable, reliable local groundwater supply to WRD's stakeholders.

Taking a longer view on the cost-benefit side, Figure 14 below depicts the past ten years of imported water cost versus the cost of groundwater. Water imported from Northern California and the Colorado River cannot be relied on to meet the replenishment needs of WRD and the cost of imported water keeps climbing up every year. The only way to stabilize groundwater rates is to become independent of imported water.

The District's Replenishment Assessment of $318 per acre-foot is far below the imported water rate of $1,376 per acre-foot. The District is not impacted by any fluctuations in the local economy or any financial trend indicators. Regardless of the economy, the District receives the Replenishment Assessment because the alternative to groundwater in our service area is approximately 3.75 times the cost.

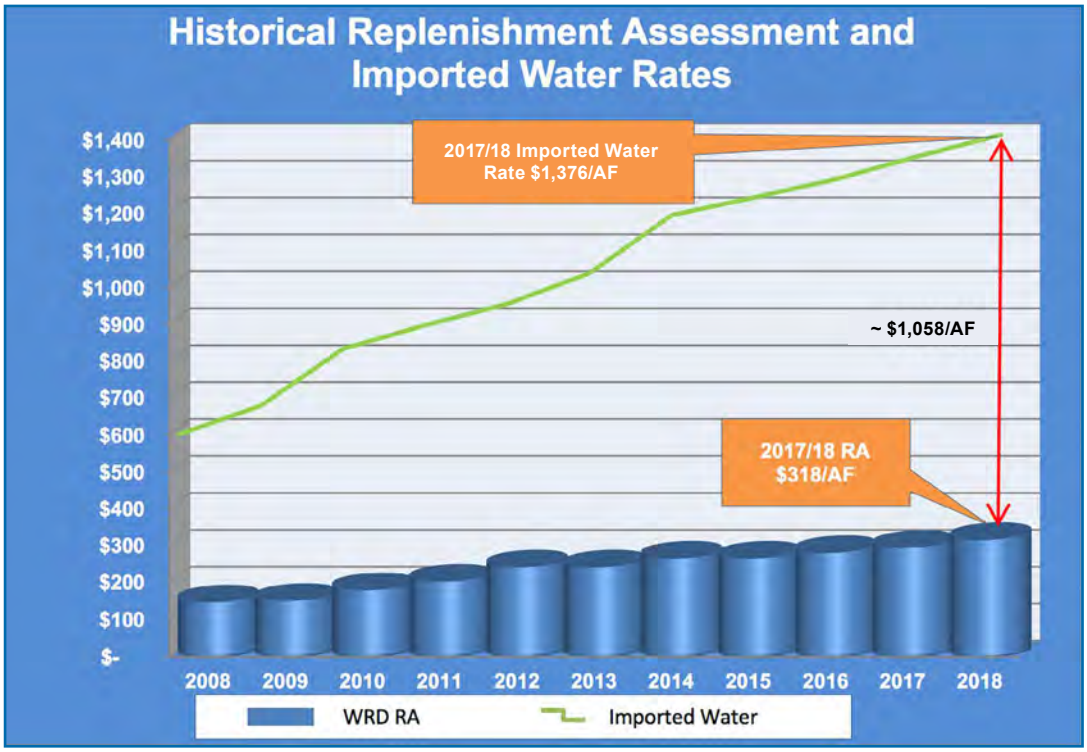


Figure 14 – Historical Replenishment Assessment and Imported Water Rates

OVERVIEW

The District's Updated Capital Improvement Program (CIP) plan serves as a comprehensive planning document that identifies capital project expenses in conjunction with anticipated revenue sources such as grant funding. It is also an update to the District's previous five-year plan that provides information to the public regarding the upcoming capital priorities and allows for multi-year finance planning to support those priorities. Funding sources for the CIP projects depends on the nature of the projects, as the District identifies the most economical means of financing capital improvements (i.e., construction, non-construction, or partnership projects).

The need for future five-year capital funding will peak over the next capital improvement planning horizon as WRD's Groundwater Reliability Improvement Project (GRIP) Advanced Water Treatment Facility (AWTF) related projects transition from the advanced planning and design phase into construction and operations. The CIP includes a total of $245.4 million in capital improvement projects. The CIP reflects grant funding in excess of $40 million, a $3 million increase from last year, and an $80 million one-percent loan from the Clean Water State Revolving Fund (CWSRF) Water Recycling Program for the construction of the GRIP AWTF. In addition, the CIP describes "other" and "new funding" categories, which may be fulfilled via partnerships, grants, and/or low-interest loans.

The Updated Five-Year CIP is organized into six general project categories below. Each proposed capital improvement project was assigned to a specific category. The CIP projects are shown by category in Table 12A. In addition, each project is exclusively summarized in a dedicated worksheet within the CIP. The project worksheets include a project description, capital investment on operating impacts discussion, prior year project highlights, projected five-year capital improvement project cost information and estimated project schedule.

The project categories are as follows:

- WIN: Groundwater Reliability Improvement Program (GRIP)
- Basin Management Projects
- Groundwater Management Projects
- WRD Water Infrastructure Management Projects
- Groundwater Quality Protection and Remediation
- Facilities Management, Maintenance, and Repair

There are two new categories, including the "Groundwater Management Projects," which reflect basin management initiatives, and the "Groundwater Quality Protection and Remediation," which describes water quality and remediation projects. In addition, there are various new projects:

- Leo J. Vander Lans Facility
  - Optimization Alternatives and Onsite Improvements
  - Interconnection Pipeline (Water Wheeling)
  - Central Basin Groundwater Storage Phase 1
  - Central Basin Groundwater Storage Phase 2 (tentative)
- West Coast Basin Injection Well Replacement Project
- Regional Brackish Water Reclamation Phase 1 (Planning)
- Goldsworthy Desalter Upgrades
- Safe Drinking Water Program (SDWP)
- SDWP Maywood Mutual 2 (grant)

Table 13

2017/2018 TO 2021/2022 FIVE YEAR CAPITAL IMPROVEMENT PROGRAM

The Updated CIP budget includes a total of $250 million in capital improvement projects. The CIP reflects more than $40 million in grant funding. In addition, funding sources include an $80 million State Water Resources Loan for GRIP, and $96 million from the 2015 Series Water Revenue Bond. The overall budget reflects a $21 million future funding need. This is summarized below:

Water Independence Now (WIN)	Prior Year Expenditures	FY17-18 Projected Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	Total CIP Budget	Grants	2015 Bonds	Loan	Other (Multi-party/ Partnerships)	New Funding
GRIP: Advanced Water Treatment Facility (AWTF)	$58,000,000	$69,000,000	$5,000,000	$-	$-	$-	$132,000,000	$20,800,000	$31,200,000	$80,000,000	$-	$-
GRIP: Advanced Water Treatment Facility (AWTF) Expansion	$-	$-	$-	$250,000	$500,000	$250,000	$1,000,000	$-	$-	$-	$-	$1,000,000
Whittier Narrows Conservation Pool Feasibility Study	$935,000	$400,000	$500,000	$565,000	$-	$-	$2,400,000	$576,000	$1,824,000	$-	$-	$-
Leo J. Vander Lans Facility: Hydraulic Analysis & Operational Efficiencies Study	$508,000	$175,000	$-	$-	$-	$-	$683,000	$-	$683,000	$-	$-	$-
Leo J. Vander Lans Facility: MWD Bypass Flow-Meter Assembly Improvement Project	$-	$35,000	$-	$350,000	$-	$-	$385,000	$-	$35,000	$-	$-	$350,000
Leo J. Vander Lans Facility: Optimization Alternatives and Onsite Improvements	$-	$476,000	$1,883,000	$550,000	$-	$-	$2,909,000	$-	$2,041,000	$-	$-	$868,000
Leo J. Vander Lans Facility: Interconnection Pipeline (Water Wheeling)	$-	$460,000	$2,850,000	$131,000	$-	$-	$3,441,000	$-	$3,441,000	$-	$-	$-
Leo J. Vander Lans Facility: Central Basin Groundwater Storage Phase 1	$-	$549,200	$2,000,000	$3,032,800	$-	$-	$5,582,000	$-	$5,582,000	$-	$-	$-
Leo J. Vander Lans Facility:Central Basin Groundwater Storage Phase 2 (tentative)	$-	$-	$-	$823,800	$7,549,200	$-	$8,373,000	$-	$-	$-	$8,373,000	$-
Total	**$59,443,000**	**$71,095,200**	**$12,233,000**	**$5,702,600**	**$8,049,200**	**$250,000**	**$156,773,000**	**$21,376,000**	**$44,806,000**	**$80,000,000**	**$8,373,000**	**$2,218,000**

Basin Management Projects	Prior Year Expenditures	FY17-18 Projected Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	Total CIP Budget	Grants	2015 Bonds	Loan	Other (Multi-party/ Partnerships)	New Funding
Dominguez Gap Seawater Intrusion Barrier- Second Connec.	$-	$500,000	$2,200,000	$1,900,000	$-	$-	$4,600,000	$-	$4,600,000	$-	$-	$-
Groundwater Basin Optimization Pipeline: Phase 1 (Planning)	$-	$-	$250,000	$-	$-	$-	$250,000	$-	$250,000	$-	$-	$-
West Coast Basin Injection Well Replacement Project	$-	$-	$2,000,000	$12,000,000	$-	$-	$14,000,000	$3,500,000	$-	$-	$3,500,000	$7,000,000
Montebello Forebay Injection Wells: Phase 1 (Planning)	$-	$-	$-	$-	$-	$100,000	$100,000	$-	$-	$-	$-	$100,000
West Coast Basin Inland Injection Well System: Phase 1 /MWD-San Districts (Planning)	$-	$100,000	$-	$-	$-	$-	$100,000	$-	$100,000	$-	$-	$-
Total	$-	$600,000	$4,450,000	$13,900,000	$-	$100,000	$19,050,000	$3,500,000	$4,950,000	$-	$3,500,000	$7,100,000

Table 13 cont'd

CAPITAL IMPROVEMENT PROGRAM BUDGET OVERVIEW

Groundwater Management Projects	Prior Year Expenditures	FY17-18 Projected Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	Total CIP Budget	Grants	2015 Bonds	Loan	Other (Multi-party/ Partnerships)	New Funding
Regional Groundwater Monitoring Program	$4,400,000	$2,040,000	$1,515,000	$1,930,000	$-	$-	$9,885,000	$-	$9,885,000	$-	$-	$-
Enhanced-Montebello Forebay Recharge Enhancement Study	$-	$75,000	$190,000	$135,000	$-	$-	$400,000	$-	$400,000	$-	$-	$-
Recharge Operations-Flow Meters	$-	$100,000	$300,000	$300,000	$-	$-	$700,000	$-	$700,000	$-	$-	$-
Total	**$4,400,000**	**$2,215,000**	**$2,005,000**	**$2,365,000**	**$-**	**$-**	**$10,985,000**	**$-**	**$10,985,000**	**$-**	**$-**	**$-**

WRD Infrastructure Management Projects	Prior Year Expenditures	FY17-18 Projected Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	Total CIP Budget	Grants	2015 Bonds	Loan	Other (Multi-party/ Partnerships)	New Funding
Asset Management Program	$955,000	$805,000	$775,000	$425,000	$35,000	$35,000	$3,030,000	$-	$2,125,000	$-	$-	$905,000
Supervisory Control and Data Acquisition (SCADA) System	$1,249,100	$2,023,600	$1,000,000	$160,000	$-	$-	$4,432,700	$-	$4,432,700	$-	$-	$-
Total	**$2,204,100**	**$2,828,600**	**$1,775,000**	**$585,000**	**$35,000**	**$35,000**	**$7,462,700**	**$-**	**$6,557,700**	**$-**	**$-**	**$905,000**

Groundwater Management Projects	Prior Year Expenditures	FY17-18 Projected Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	Total CIP Budget	Grants	2015 Bonds	Loan	Other (Multi-party/ Partnerships)	New Funding
Regional Groundwater Monitoring Program	$4,400,000	$2,040,000	$1,515,000	$1,930,000	$-	$-	$9,885,000	$-	$9,885,000	$-	$-	$-
Enhanced-Montebello Forebay Recharge Enhancement Study	$-	$75,000	$190,000	$135,000	$-	$-	$400,000	$-	$400,000	$-	$-	$-
Recharge Operations-Flow Meters	$-	$100,000	$300,000	$300,000	$-	$-	$700,000	$-	$700,000	$-	$-	$-
Total	**$4,400,000**	**$2,215,000**	**$2,005,000**	**$2,365,000**	**$-**	**$-**	**$10,985,000**	**$-**	**$10,985,000**	**$-**	**$-**	**$-**

Table 13 cont'd

CAPITAL IMPROVEMENT PROGRAM BUDGET OVERVIEW

Groundwater Quality Protection & Remediation	Prior Year Expenditures	FY17-18 Projected Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	Total CIP Budget	Grants	2015 Bonds	Loan	Other (Multi-party/ Partnerships)	New Funding
Perchlorate Remediation Project	$-	$68,968	$3,975,751	$3,768,847	$780,707	$520,472	$9,114,745	$7,275,675	$1,839,070	$-	$-	$-
Regional Brackish Water Reclamation: Phase 1 (Planning)	$-	$250,000	$750,000	$-	$-	$-	$1,000,000	$500,000	$500,000	$-	$-	$-
Goldsworthy Desalter Expansion	$16,096,100	$8,000,000	$-	$-	$-	$-	$24,096,100	$7,000,000	$17,096,100	$-	$-	$-
Goldsworthy Desalter Upgrades	$-	$-	$500,000	$-	$-	$-	$500,000	$-	$-	$-	$-	$500,000
SDWP Program (grants)	$-	$-	$1,325,000	$2,650,000	$2,710,000	$2,771,800	$9,456,800	$-	$-	$-	$-	$9,456,800
SDWP: Maywood Mutual 2 (grant)	$-	$1,724,000	$-	$-	$-	$-	$1,724,000	$1,224,000	$500,000	$-	$-	$-
SDWP: Lynwood (grant)	$30,000	$1,325,000	$-	$-	$-	$-	$1,355,000	$-	$1,355,000	$-	$-	$-
SDWP: Huntington Park (grant)	$25,000	$1,100,000	$-	$-	$-	$-	$1,125,000	$-	$1,125,000	$-	$-	$-
SDWP: CA American Water Arlington Well (grant)	$-	$1,900,000	$-	$-	$-	$-	$1,900,000	$-	$1,900,000	$-	$-	$-
Total	$16,151,100	$14,367,968	$6,550,751	$6,418,847	$3,490,707	$3,292,272	$50,271,645	$15,999,675	$24,315,170	$-	$-	$9,956,800

Facilities Management, Maintenance, and Repair	Prior Year Expenditures	FY17-18 Projected Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	Total CIP Budget	Grants	2015 Bonds	Loan	Other (Multi-party/ Partnerships)	New Funding
Headquarters Building- Phase 1 & 2 Improvements	$509,450	$182,500	$-	$-	$-	$-	$691,950	$-	$691,950	$-	$-	$-
Headquarters Building- Roof Replacement	$-	$-	$60,000	$10,000	$-	$-	$70,000	$-	$70,000	$-	$-	$-
Headquarters Building- HVAC Improvements Project	$-	$-	$25,000	$55,000	$-	$-	$80,000	$-	$80,000	$-	$-	$-
Headquarters Building- Drought Tolerant Landscape Demon Garden Improvement	$-	$-	$-	$15,000	$75,000	$-	$90,000	$-	$90,000	$-	$-	$-
Field Operations and Storage Annex Facility Project	$3,944,000	$154,000	$324,000	$900,000	$-	$-	$5,322,000	$-	$4,044,000	$-	$-	$1,278,000
Total	**$4,453,450**	**$336,500**	**$409,000**	**$980,000**	**$75,000**	**$-**	**$6,253,950**	**$-**	**$4,975,950**	**$-**	**$-**	**$1,278,000**

TOTAL CIP BUDGET	$86,700,000	$91,400,000	$27,400,000	$30,000,000	$11,600,000	$3,700,000	$250,800,000	$40,900,000	$96,600,000	$80,000,000	$11,873,000	$21,457,800

CAPITAL IMPROVEMENT PROGRAM ACCOMPLISHMENTS

Montebello Forebay Recharge Enhancement Study (MFRES)

The Montebello Forebay Recharge Enhancement Study (MFRES) reviewed and updated the findings of the Montebello Forebay Recharge Optimization Study (Optimization Study). The Optimization Study, completed in 2001, describes how additional local stormwater could potentially be captured for recharge if the water table could be lowered through increased pumping. The Optimization Study identifies approximately 17,000 AFY of additional stormwater to be captured as a preferred alternative from a range of 2,000 to 29,000 AFY of stormwater; however, it depends on the level of pumping and depth of the water table. The MFRES reviewed the assumptions made in the Optimization Study and assessed its finding with respect to the various physical and operational improvements to the Montebello Forebay completed since 2001.

Field Operations and Storage Annex Facility- Purchase

The District purchased an available 2.3 acre parcel located at 3919 Paramount Blvd (Field Operations and Storage Annex Project) in the City of Lakewood for varying uses, including office space, storage of testing and sampling equipment, miscellaneous supplies and fleet parking. The District had previously leased off-site space for these uses since moving into 4040 Paramount Boulevard, Lakewood, CA. The leased space was unable to provide adequate storage space to meet the District's growing storage needs. Due to its unique proximity to the District and ability to solve WRD's immediate need for additional storage space and future areas for growing inventory of spare and replacement parts for the existing Robert W. Goldsworthy Desalter and Leo J. Vander Lans Advanced Water Treatment Facility, the District purchased the property. In addition, the new facility can be subdivided and sublet in ways that could offset current off-site lease storage space costs and costs associated with servicing debt associated with the acquisition.

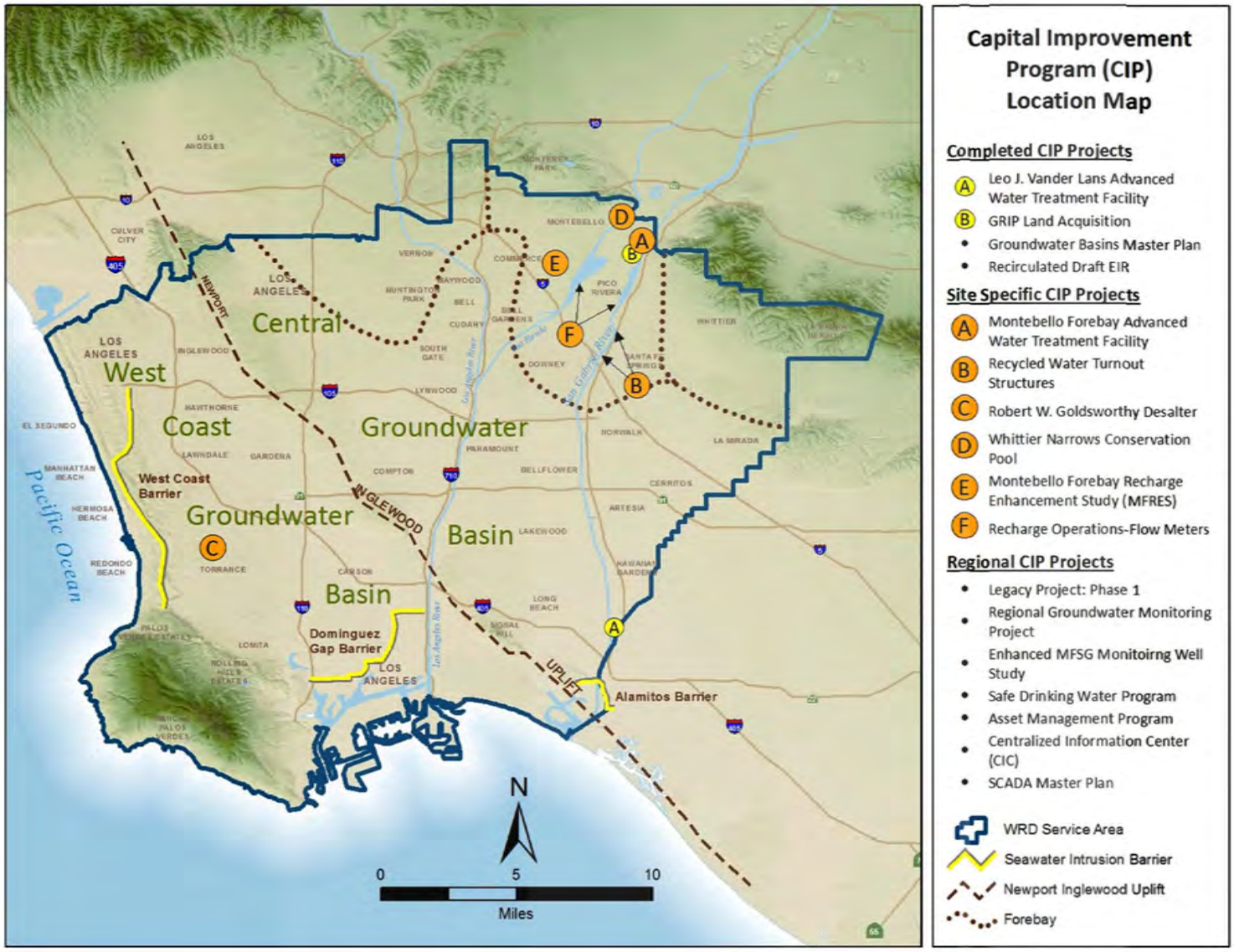


Figure 15 – Capital Improvement Program (CIP)

Water Independence Now

The Water Independence Now (WIN) is a suite of projects aimed to maximize local stormwater and recycled water sources to replenish, preserve and protect the Central and West Coast Basins. In addition, the WIN initiative strives to reduce and ultimately eliminate the District's dependence on imported water for groundwater replenishment.

GROUNDWATER RELIABILITY IMPROVEMENT PROJECT (GRIP)

Project Description

The Groundwater Reliability Improvement Project (GRIP) will offset the current use of imported water by providing up to 21,000 acre-feet per year (AFY) with the construction of an advanced water treatment facility (AWTF), supplemental recharge wells, a brine line and recently completed Recycled Water Turnout Structures. Approximately 11,000 AFY of additional tertiary treated recycled water will be purchased from the Los Angeles County Sanitation Districts (LACSD) and 10,000 AFY of advanced treated water will be generated at the proposed AWTF. The tertiary-treated recycled water would be conveyed in the existing outfall pipeline to the Montebello Forebay Spreading Grounds (MFSG). Below is a description of the various GRIP components:

Advanced Water Treatment Facility (AWTF) - In Progress

The District is constructing the AWTF for advanced treatment of 10,000 AFY of tertiary treated water from the LACSD. A new influent diversion structure will be constructed to transfer tertiary-treated recycled water from the existing outfall pipeline into the proposed AWTF for further treatment. An effluent diversion structure will be constructed to transfer advanced-treated water back to the existing outfall pipeline to allow blending of advanced-treated water with the tertiary-treated recycled water prior to spreading at the Montebello Forebay Spreading Grounds.

Supplemental Recharge Wells - Completed

Three supplemental recharge wells and three monitoring wells were constructed at and near the AWTF site. The supplemental recharge wells will be operated to recharge and store up to 4.5 million gallons per day (mgd) of full advanced-treated recycled water in the underlying aquifers for replenishment. Under normal operating conditions for the GRIP AWTF, the recycled water from the AWTF will be discharged to the existing MFSG for infiltration into the groundwater basin. However, when the spreading basins are unavailable, the recycled water will be directed to the three supplemental recharge wells. The supplemental recharge wells will allow the AWTF to operate at a constant minimum rate by providing alternate means to recharge the produced recycled water. The construction of the wells was completed in June 2017.

Brine Line & Off-Site Improvements- Completed

As part of the GRIP AWTF project, off-site improvements are required, including the construction of a 16-inch diameter pipeline for disposal of brine concentrate that will be generated by the new treatment facility. This 16-inch diameter brine pipeline connects to an existing Los Angeles County Sanitation District 63-inch diameter sewer pipeline that runs in proximity to the GRIP AWTF site. Other necessary off-site improvements included street modifications that were requested by the City of Pico Rivera, including a redesign of traffic lanes and signals at the intersection of San Gabriel River Parkway and Beverly Boulevard in the City of Pico Rivera. The construction of the brine line was completed in February 2017.

Recycled Water Turnout Structures (Turnouts) - Completed

This component of GRIP included the construction of two reinforced concrete turnout structures on the existing recycled water pipeline that extends from the San Jose Creek Water Reclamation Plant (SJCWRP) to the Montebello Forebay Spreading Grounds. Specifically, these Turnouts will allow the delivery of 11,000 AFY of recycled water. The construction of the Turnouts were completed in June 2016.

Funding

In addition to Tax-Exempt Revenue Bond proceeds, the District finalized its agreement in accordance with the Water Recycling Funding Program funded by Proposition 1 and the State Revolving Fund. The District received a $1 million grant from the Rivers and Mountains Conservancy Proposition 1 Grant Program.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time. Operation of the proposed AWTF is expected to commence in late 2018.

Prior Year Highlights

The District commenced construction of the AWTF on August 16, 2016. In addition, three supplemental recharge wells, three monitoring wells, the brine line and off-site street improvements, such as a new curb, sidewalk and traffic signal, were completed. In regards to public outreach, more than 250 people attended the District's ground breaking ceremony on September 22, 2016. Subsequently, a community open house was held on December 17, 2016 to provide an update to the local community on GRIP construction activities. The GRIP Project was awarded the 2017 National Demolition Association of Excellence in Demolition Award in the categories of sustainability, community enhancement and education for the deconstruction and site preparation work that was completed. Also, the GRIP Project received the 2017 Academy of Environmental Engineers and Scientist Grand Prize in Design, for the facility and grounds.

Table 14

GROUNDWATER RELIABILITY IMPROVEMENT PROGRAM (GRIP)
(includes Turnout Structures)
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$19,000,000	$-	$-	$-	$-	$-	$19,000,000
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$39,000,000	$69,000,000	$5,000,000	$-	$-	$-	$113,000,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$58,000,000	$69,000,000	$5,000,000	$-	$-	$-	$132,000,000
Grants	$4,800,000	$14,500,000	$1,500,000	$-	$-	$-	$20,800,000
2015 Bonds	$20,200,000	$9,500,000	$1,500,000	$-	$-	$-	$31,200,000
SRF	$33,000,000	$45,000,000	$2,000,000	$-	$-	$-	$80,000,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

GROUNDWATER RELIABILITY IMPROVEMENT PROJECT (GRIP) ADVANCED WATER TREATMENT FACILITY (AWTF) EXPANSION

Project Description

The proposed advanced water treatment facility (AWTF) is in its initial stages of development. Planning for an expansion will commence until the completion of the proposed AWTF.

Funding

The Capital Improvement Program budget for Fiscal Year 2019/2020 and 2020/2021 is $1 million.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time. The GRIP AWTF Expansion Project will be analyzed in the future as the current phase of the project is completed and put into service.

Prior Year Highlights

The District is in the process of initiating the development of the AWTF.

Table 15

GROUNDWATER RELIABILITY IMPROVEMENT PROGRAM (GRIP) EXPANSION
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$250,000	$-	$-	$250,000
Design	$-	$-	$-	$-	$500,000	$250,000	$750,000
Construction	$-	$-	$-	$-	$-	$-	$-
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$-	$-	$250,000	$500,000	$250,000	$1,000,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$-	$-	$-	$-	$-	$-
New Funding	$-	$-	$-	$250,000	$500,000	$250,000	$1,000,000
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

WHITTIER NARROWS CONSERVATION POOL FEASIBILITY STUDY

Project Description

The Whittier Narrows Dam provides flood control, recreation and a reliable means of capturing storm water flows for groundwater replenishment in the Montebello Forebay. The U.S. Army Corps of Engineers (USACE), Los Angeles County Flood Control District (LACFCD) and WRD are interested in raising the maximum conservation pool elevation from 201.6 feet to 205 feet to allow for an estimated additional 1,100 AFY of storm water conservation that would otherwise be wasted to the ocean. The elevation increase does not require capital improvements; however, it does need USACE approval and updates to various studies and environmental documents related to dam operations at an increased conservation pool elevation. The WRD and LACFCD are working closely with the USACE on a strategy to complete an updated Whittier Narrows Conservation Pool Feasibility Study (Study) to allow for a permanent change to the operating plan.

Funding

This project received a $576,000 Proposition 84 Integrated Regional Water Management (IRWM) Round 2 Grant.

Impact of Capital Investment on Operating Budget

Whittier Narrows Dam is managed by USACE and all operating changes must be approved by the USACE. The project will provide for an estimated 1,100 acre-feet per year of additional storm water capture which will offset the need for imported water..

Prior Year Highlights

The USACE provided a Project Management Plan (PMP) which outlines the scope, schedule and budget for the project.

Table 16

WHITTIER NARROWS
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	$-
Feasibility Study	$935,000	$400,000	$500,000	$565,000			$2,400,000
Construction	$-	$-	$-	$-	$-	$-	$-
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$935,000	$400,000	$500,000	$565,000	$-	$-	$2,400,000
Grants	$-	$288,000	$288,000	$-	$-	$-	$576,000
2015 Bonds	$935,000	$112,000	$212,000	$565,000	$-	$-	$1,824,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Plannning							
Study							
Construction							
Post Construction							

LEO J. VANDER LANS (LVL) FACILITY PROJECTS

The LVL provides advanced treated recycled water to the Alamitos Seawater Intrusion Barrier (Barrier). Built in 2003, LVL receives tertiary-treated wastewater from the Sanitation Districts of Los Angeles County's (LACSD) Long Beach Water Reclamation Plant (LBWRP) and provides multi-barrier treatment including microfiltration (MF), reverse osmosis (RO) and advanced oxidation process (AOP) with ultraviolet light (UV). In 2014, the expansion of LVL increased its capacity from 3 million gallons per day (MGD) to 8 MGD. LVL is operated and maintained by the Long Beach Water Department (LBWD) under contract with WRD.

SUMMARY OF PROJECTS

Implementation of Optimization Alternatives and Onsite Projects

The Optimization Alternative Study (described more in detail below) has identified multiple projects (including the Emergency Interconnection and Injection Wells) for the long-term optimization of LVL. In addition, LBWD has identified several projects for onsite additions, replacements and improvements. These projects include:

Onsite Infrastructure (Additions, Replacements and Improvements) There are numerous projects identified for LVL itself, including the replacement of all 108 pressure vessels for RO Train No. 1, two strainers, the MF filtrate tank and the Uninterruptible Power Supply (UPS) unit. Infrastructure additions include a new neutralization basin or tank, a canopy for the hydrogen peroxide system and a Dissolved Air Flotation (DAF) maintenance platform. Improvements are also necessary for the RO Clean-in-Place (CIP) system and platform, MF backwash CIP system and DAF system.

LBWD Recycled Water Storage Increasing LVL production will cause impacts on the available supply to the LBWD recycled water system. To avoid shortages and capture all available supply from the LBWRP, ample storage must be available or existing storage highly utilized. This project would evaluate opportunities to optimize the existing LBWD recycled water storage, which ensures a stable supply to LVL.

LBWD Customer Demand Management The amount of necessary operational storage in LBWD's recycled water system is dependent on typical diurnal customer demand patterns. It may be possible to reduce LBWD's operational storage volume and provide additional supply to LVL if these demands could be monitored, adjusted and maintained.

LVL Influent Storage This project would examine a potential direct connection between LVL and LBWRP. By connecting LBWRP's chlorine contact tank to LVL's 216,000 gallon wet well, energy efficiency can be improved and additional operational storage provided by an existing LVL asset. Approval from LACSD would be necessary.

Metropolitan Water District (MWD) Bypass Flow-Meter Assembly Improvements This project would improve LVL's operational flexibility for Barrier injection and maximize LVL's output of advanced treated recycled water effluent without incurring MWD's low-flow penalty. Approval from MWD would be necessary.

Amendment of Existing Agreements In order to implement some of the projects mentioned, modifications to existing agreements between WRD and various agencies would be necessary. These agencies include LBWD, LACSD, MWD (via LBWD) and Orange County Water District (OCWD). In addition, a new agreement with the City of Cerritos would be required for the Emergency Interconnection Project.

Interconnection Pipeline (Water Wheeling) This project would analyze a potential connection between LBWD and the City of Cerritos recycled water distribution system. As LBWRP will be shut down for extended periods during the next three years, LVL will not receive any source water due to a lack of backup supply.

Injection Wells (Central Basin Groundwater Storage) Phase 1 and Phase 2 (tentative) As LVL expands production capacity, additional demands downstream from LVL must be accommodated above and beyond the Barrier injection wells. This project would install new injection wells that are operated by LBWD to recharge the underlying Central Basin, from which LBWD pumps their groundwater. The first phase would install one or two injection wells on LVL property; the second phase would install multiple wells in the adjacent El Dorado Park Golf Course

FUNDING

The Capital Improvement Program budget for Fiscal Year 2017/18 is $1,695,200.

IMPACT OF CAPITAL INVESTMENT ON OPERATING BUDGET

The LVL will be offline for extended periods of time (five to six months) for the next three years as LACSD shuts down half of LBWRP for major replacements and repairs.

PRIOR YEAR HIGHLIGHTS

Hydraulic Analysis, Operational Efficiencies and Optimization Alternative Study & MWD Bypass Flow-Meter Assembly Improvement Project

This work involves an analysis of LVL's hydraulic and operational efficiencies, followed by implementation of the study's recommendations for LVL optimization. The goals of this study are (1) to increase LVL effluent injection flow rates to almost 100% of the Los Angeles County portion of the Barrier while avoiding MWD's low-flow penalty and (2) to optimize operational and flow equalization strategies to allow consistent and stable 24/7 LVL operations with minimum shutdowns.

The first phase of the study began in June 2016 and was completed in February 2017. The second phase of the study focuses on the recommended improvements and will be completed by early 2018. To date, the design consultant team of Woodard & Curran (previously RMC Water and Environment) and KEH have completed the following: 1) two technical memoranda submitted to MWD on short-term and long-term concepts, 2) five documented alternatives on hydraulic smoothing, 3) three hydraulic models and 4) Tech Memo No. 3, which ranks 10 optimization alternatives for recycled water supply storage, excess LVL influent supply storage and excess LVL effluent. Remaining work includes 1) developing a fourth hydraulic model, 2) technical analyses and memoranda on selected optimization alternatives and 3) draft and final report (including schedule) for the design and construction/implementation of selected optimization alternatives.

Table 17

LEO J. VANDER LANS ADVANCED WATER TREATMENT FACILITY PROJECTS
HYDRAULIC ANALYSIS, OPERATION EFFICIENCIES
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$508,000	$175,000	$-	$-	$-	$-	$683,000
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$-	$-	$-	$-	$-	$-	$-
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$508,000	$175,000	$-	$-	$-	$-	$683,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$508,000	$175,000	$-	$-	$-	$-	$683,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Study							
Design							
Construction							
Post Construction							

Table 18

LEO J. VANDER LANS ADVANCED WATER TREATMENT FACILITY PROJECTS
INTERCONNECTION PIPELINE (WATER WHEELING)
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	$-
Design	$-	$460,000	$-	$-	$-	$-	$460,000
Construction	$-		$2,644,000	$-	$-	$-	$2,644,000
Post Construction	$-		$206,000	$131,000	$-	$-	$337,000
Total	$-	$460,000	$2,850,000	$131,000	$-	$-	$3,441,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$460,000	$2,850,000	$131,000	$-	$-	$3,441,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Plannning							
Design							
Construction							
Post Construction							

Table 19

LEO J. VANDER LANS ADVANCED WATER TREATMENT FACILITY PROJECTS
(CENTRAL BASIN GROUNDWATER STORAGE)- PHASE 1
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$91,600	$-	$-	$-	$-	$91,600
Design	$-	$457,600	$-	$-	$-	$-	$457,600
Construction	$-		$2,000,000	$3,032,800	$-	$-	$5,032,800
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$549,200	$2,000,000	$3,032,800	$-	$-	$5,582,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$549,200	$2,000,000	$3,032,800	$-	$-	$5,582,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Plannning							
Design							
Construction							
Post Construction							

Table 20

LEO J. VANDER LANS ADVANCED WATER TREATMENT FACILITY PROJECTS (CENTRAL BASIN GROUNDWATER STORAGE)- PHASE 2

Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$137,400	$-	$-	$137,400
Design	$-	$-	$-	$686,400	$-	$-	$686,400
Construction	$-		$-		$7,549,200	$-	$7,549,200
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$-	$-	$823,800	$7,549,200	$-	$8,373,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$-	$-	$-	$-	$-	$-
New Funding	$-	$-	$-	$823,800	$7,549,200	$-	$8,373,000
Project Schedule							
Plannning							
Design							
Construction							
Post Construction							

Table 21

LEO J. VANDER LANS ADVANCED WATER TREATMENT FACILITY PROJECTS OPTIMIZATION ALTERNATIVES AND ONSITE PROJECTS

Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$75,000	$50,000	$-	$-	$-	$125,000
Design	$-	$266,000	$50,000	$-	$-	$-	$316,000
Construction	$-	$135,000	$1,783,000	$550,000	$-	$-	$2,468,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$476,000	$1,883,000	$550,000	$-	$-	$2,909,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$441,000	$1,600,000	$-	$-	$-	$2,041,000
New Funding	$-	$35,000	$283,000	$550,000	$-	$-	$868,000
Project Schedule							
Plannning							
Design							
Construction							
Post Construction							

Table 22

LEO J. VANDER LANS ADVANCED WATER TREATMENT FACILITY PROJECTS
MWD BYPASS FLOW-METER ASSEMBLY IMPROVEMENT PROJECT
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	$-
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$-	$35,000	$-	$350,000	$-	$-	$385,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$35,000	$-	$350,000	$-	$-	$385,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$35,000	$-			$-	$35,000
New Funding	$-	$-	$-	$350,000	$-	$-	$350,000
Project Schedule							
Plannning							
Design							
Construction							
Post Construction							

Basin Management Projects

This includes projects that help manage the basin efficiently by protecting current water supplies, creating operational flexibility and maximizing replenishment.

DOMINGUEZ GAP SEAWATER INTRUSION BARRIER- SECOND CONNECTION/POTABLE BACKUP SUPPLY

Project Description

The Los Angeles Department of Water and Power (LADWP) is expanding the Terminal Island Water Reclamation Plant/Advanced Water Purification Facility (TIWRP/AWPF), which produces the advanced-treated recycled water that is currently injected at the Dominguez Gap Seawater Intrusion Barrier (the Barrier). Once the TIWRP/AWPF Expansion is completed in 2017, 100% advanced treated recycled water will be injected at the Barrier, thus replacing all the imported water that is currently utilized at the Barrier. Currently, the advanced-treated recycled water is delivered by pipeline from the TIWRP/AWPF to a singular connection point at the Barrier; potable water is also delivered to a separate singular connection point at the Barrier. To allow for the increased delivery of recycled water and ensure the reliability of the delivery, a second recycled water connection and an associated pipeline must be constructed. To provide operational flexibility at the Barrier, a new potable backup connection and associated piping must also be constructed.

Design for the pipeline associated with the second recycled water connection was initiated by MWH under contract to LADWP. LADWP's contract with MWH expired and only 60% of the design had been completed. LADWP requested WRD's assistance to complete the remaining 40% of the design and manage the procurement and construction of the pipeline. This project, along with the potable backup supply, will not only increase the use of recycled water in the basin, but will also reduce dependency on imported water, which is a crucial component of WRD's Water Independence Now (WIN) Program.

Funding

The second recycled water connection at the Barrier will be financed, designed and constructed by WRD. Of the total cost of $7.98 million, it is expected that LADWP shall reimburse WRD approximately $3.37 million, which includes any contingency funds that are expended for the design and construction of the pipeline. The balance would be paid for by the District ($4.61 million including contingencies).

The potable backup supply for the Barrier will be financed, designed and constructed by WRD. It is expected that WRD shall pay $6 million, and the balance would be paid by LADWP ($3.6 million).

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time. Once the expansion is completed, 100% advanced treated recycled water will be injected to replace all costly imported water at the Barrier.

Prior Year Highlights

Since LADPW has already commenced design of the associated pipeline with a consultant team, WRD will look to retain the same consultant team for the design of the second recycled water connection. WRD continues to work with LADWP to determine the design of the potable backup supply.

Table 23

DOMINGUEZ GAP SEAWATER INTRUSION BARRIER- SECOND CONNECTION
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	$-
Design	$-	$500,000		$-	$-	$-	$500,000
Construction	$-	$-	$2,200,000	$1,900,000	$-	$-	$4,100,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$500,000	$2,200,000	$1,900,000	$-	$-	$4,600,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$500,000	$2,200,000	$1,900,000	$-	$-	$4,600,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Plannning							
Design							
Construction							
Post Construction							

GROUNDWATER BASIN OPTIMIZATION PIPELINE: PHASE 1 (PLANNING)

Project Description

The WRD's Groundwater Basin Master Plan (GBMP) proposes the Groundwater Basin Optimization Pipeline (GBOP), which will install new extraction wells within the Montebello Forebay and pump water to users to the south, creating storage capacity for additional storm water capture in the MFSG. The Draft GBMP estimates that an additional 17,000 AFY of storm water that currently flows to the ocean during large storm events can be captured and recharged at the MFSG with the increased storage capacity, creating a new, local water supply for the region. The GBOP will require an increase in pumping by 25,000 AFY to reduce elevated groundwater levels and allow for additional storm water recharge during/following high storm flow periods. This project will shift pumping from elsewhere in the Central Basin to the Montebello Forebay. The project will require installation of up to nine new extraction wells, pipelines and pump stations to deliver the water to existing water users downstream of the Montebello Forebay area.

Funding

The total Capital Improvement Program budget for Fiscal Years 2017/18 is $250,000

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time.

Prior Year Highlights

This project is in its planning stages; hence, there are no highlights at this time.

Table 24

GROUNDWATER BASIN OPTIMIZATION PIPELINE
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$250,000	$-	$-	$-	$250,000
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$-	$-	$-	$-	$-	$-	$-
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$-	$250,000	$-	$-	$-	$250,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$-	$250,000	$-	$-	$-	$250,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Plannning							
Design							
Construction							
Post Construction							

WEST COAST BASIN INJECTION WELL REPLACEMENT PROJECT

Project Description

The District will enter into a joint agreement with the Los Angeles County Department of Public Works (County) to co-fund the installation of eleven new injection wells to replace and supplement existing West Coast Basin Barrier Project (WCBBP) facilities located within the cities of Manhattan Beach and Hermosa Beach. Eight injection wells will be constructed to replace existing injection wells that are beyond their useful life and in need of immediate replacement due to severe corrosion and plugging. Three injection wells will be constructed at locations between existing wells along the barrier to supplement the barrier by closing large gaps therein. The existing injection wells will be properly destroyed to prevent the possibility of subsidence or groundwater cross-contamination. Once brought online, the new injection wells will help prevent seawater intrusion by creating a freshwater pressure ridge in the underlying aquifers of the West Coast Basin.

Funding

The total project cost is $14 million. The County has submitted an application for the Groundwater Quality Funding program established by Proposition 1 for $7 million in grant funding. If awarded in summer 2017, the grant will fund 50% of the total project cost. The remaining $7 million of the total project cost will be co-funded by WRD (up to $3.5 million) and the County.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time.

Prior Year Highlights

This project has not commenced; hence, there are no highlights at this time.

Table 25

WEST COAST BASIN INLAND INJECTION WELL SYSTEM
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$100,000	$-	$-	$-	$-	$100,000
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$-	$-	$-	$-	$-	$-	$-
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$100,000	$-	$-	$-	$-	$100,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$100,000	$-	$-	$-	$-	$100,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Plannning							
Design							
Construction							
Post Construction							

MONTEBELLO FOREBAY INJECTION WELLS: PHASE 1

Project Description

To increase replenishment of recycled water, the WRD's Groundwater Basin Master Plan (GBMP) includes additional replenishment via injection at new wells in the Montebello Forebay. This project may require diversions to the existing sewage collection system in the vicinity of the Whittier Narrows Water Reclamation Plant. With the sewer diversions, the wastewater flow that is currently treated at Joint Water Pollution Control Plan (JWPCP) and discharged via Los Angeles County Sanitation District's existing ocean outfall off the coast of Palos Verdes would instead be recharged at the Montebello Forebay. New advanced water treatment facilities will be installed at the Montebello Forebay and Los Coyotes Water Reclamation Plant to produce approximately 18,190 acre-feet of advanced-treated water. This water will then be conveyed and injected into the Montebello Forebay through new pipelines and up to 17 new injection wells. It should be noted that since the development of the GBMP, Metropolitan Water District of Southern California (MWD) has initiated studies to develop recycled water from the JWPCP and convey it to areas of the Central Basin. If this project proceeds, the MWD recycled water would serve as an alternative source for the injection described above.

Funding

The total Capital Improvement Program budget for Fiscal Years 2021/22 is $100,000.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time.

Prior Year Highlights

This project is in its planning stages; hence there are no highlights at this time.

Table 26

MONTEBELLO FOREBAY INJECTION WELLS
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$100,000	$100,000
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$-	$-	$-	$-	$-	$-	$-
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$-	$-	$-	$-	$100,000	$100,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$-	$-	$-	$-	$-	$-
New Funding	$-	$-	$-	$-	$-	$100,000	$100,000
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

Groundwater Management Projects

Projects under this program will assist with continuing and improving the collection and management of groundwater level and groundwater quality data, which provides the information necessary to make groundwater resources and planning adjustments in response to the conditions of the groundwater basins.

REGIONAL GROUNDWATER MONITORING PROGRAM

Project Description

The Regional Groundwater Monitoring Program (RGMP) collects groundwater level and groundwater quality data used for groundwater basin management for the Central Basin and West Coast Basin, two of the most utilized urban groundwater basins in the nation. This is achieved through groundwater monitoring, modeling and planning, which provides the basis to understanding the dynamic changes in the basins. The RGMP currently consists of a network of 324 specialized monitoring wells at 58 locations throughout the District to a maximum depth of nearly 3,000 feet, and WRD staff, comprised of hydrogeologists and engineers, provide the expertise to collect, analyze and report on the groundwater data. WRD uses the data generated by the RGMP to address current and potential water quality issues and groundwater replenishment within the basins. In addition, the RGMP provides flexible management practices to adjust groundwater resources planning as circumstances or conditions warrant. The RGMP has proved valuable as WRD works to implement its Water Independence Now program, maximizing local water sources to replenish, preserve and protect the basins and eliminating its dependence on imported water.

Funding

The capital costs are for the construction of new monitoring wells (five for regional monitoring and six for contamination investigations) and data collection equipment.

Impact of Capital Investment on Operating Budget

Wells are monitored by WRD staff. The new wells will be folded into the current operations plan. There is no measurable financial benefit to drilling additional groundwater monitoring wells. The benefit comes from the data collected related to groundwater levels and the quality of the groundwater to address water quality issues and replenishment in the Central and West Coast Basins.

Prior Year Highlights

The RGMP was awarded the 2011 Groundwater Protection Award from the National Groundwater Association. In 2011, because of success and extensiveness of the RGMP, the State of California designated WRD as the official California Statewide Groundwater Elevation Monitoring (CASGEM) entity for the Central and West Coast Basins, responsible for providing the State's Department of Water Resources with groundwater data from the RGMP.

Table 27

REGIONAL GROUNDWATER MONITORING PROGRAM
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	
Design	$-	$-	$-	$-	$-	$-	
Construction	$4,400,000	$2,040,000	$1,515,000	$1,930,000	$-	$-	$9,885,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$4,400,000	$2,040,000	$1,515,000	$1,930,000	$-	$-	$9,885,000
Grants	$-	$-	$-	$-	$-	$-	
2015 Bonds	$4,400,000	$2,040,000	$1,515,000	$1,930,000	$-	$-	$9,885,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

ENHANCED-MONTEBELLO FOREBAY RECHARGE ENHANCEMENT STUDY (E-MFRES)

Project Description

The Enhanced-Montebello Forebay Recharge Enhancement Study (E-MFRES) will review and update the findings of the Montebello Forebay Recharge Enhancement Study (MFRES). This project will commence at the completion of the MFRES.

Funding

The Capital Improvement Program budget for Fiscal Year 2017/18 is $75,000.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time.

Prior Year Highlights

This project has not commenced; hence, there are no highlights at this time.

Table 28

ENHANCED-MONTEBELLO FOREBAY RECHARGE ENHANCEMENT STUDY (E-MFRES)
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	$-
Study	$-	$75,000	$190,000	$135,000	$-	$-	$400,000
Construction	$-	$-	$-	$-	$-	$-	$-
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$75,000	$190,000	$135,000	$-	$-	$400,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$75,000	$190,000	$135,000	$-	$-	$400,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

RECHARGE OPERATIONS- FLOW METERS

Project Description

The District will install flow metering devices to enhance the measurement of the rate and volume of imported, recycled, and storm waters entering the Montebello Forebay and the spreading grounds. Metering devices will expand the existing network of gaging stations operated by the USGS, Army Corps of Engineers, and Los Angeles County Flood Control District. In addition, troublesome gaging stations may be improved or replaced.

Funding

The Capital Improvement Program budget for Fiscal Year 2017/18 is $100,000.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time. There is no financial benefit analysis for this project, the data obtained through this project will provide a more accurate measure of water flowing into the Montebello Forebay Spreading Grounds.

Prior Year Highlights

This project has not commenced; hence, there are no highlights at this time.

Table 29

RECHARGE OPERATIONS FLOW METERS
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$100,000	$-	$-	$-	$-	$100,000
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$-	$-	$300,000	$300,000	$-	$-	$600,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$100,000	$300,000	$300,000	$-	$-	$700,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$300,000	$200,000	$200,000	$-	$-	$700,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

Water Infrastructure Management Projects

These projects help manage the District's assets. Specifically, facilitate the ability for short and long term asset management, maintenance and replacement. In addition, these projects will create a centralized information system which will improve administrative tasks, enhance security, maintain the integrity of the District's data and help manage the Districts' data more efficiently.

ASSET MANAGEMENT PROGRAM

Project Description

The District has invested more than $127 million in capital improvement projects that need to be managed and maintained over their useful life; hence, the District Board of Directors initiated the development of an Asset Management Program. The Asset Management (AM) Plan was completed in FY 15-16 and it establishes a priority list of recommended actions and projects using factors such as level of effort, business drivers, cost, staff involvement, duration and alignment to the District's strategic direction, including any future strategic plans for Supervisory Control and Data Acquisition (SCADA) and Centralized Information System (CIS), respectively. The completed AM Plan proposed initiatives that are grouped into four elements:

- Planning: Develop an AM strategy, framework, business processes and policy
- Core Service Delivery: Implement asset management program and asset maintenance practices
- Performance Management: Develop levels of service framework
- Support Services:
  - Providing Information Technology (IT) Master Plan development
  - Providing implementation of a Computerized Maintenance Management System (CMMS) software
  - Providing Geographic Information System (GIS) Software Updates
  - Providing Document Management System Updates and Reconfiguration

In addition, the District has initiated the implementation of the CIS at the District headquarters which will serve as the master SCADA System control room and the centralized data repository for the District's Enterprise AM, CMMS, Groundwater Monitoring and Modeling System(s) and GIS. Centralized information will facilitate the development of reports that show the broad range of activities that the District is engaged in, simplify administrative tasks, improve security, make data management more efficient and maintain the integrity of all the data that the District manages.

The implementation of SCADA is discussed in the following section.

Funding

The Capital Improvement Program budget for Fiscal Year 2017/18 is $805,000.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time.

Prior Year Highlights

- CMMS Implementation Phase 1 Pilot Project at the Leo J. Vander Lans Advanced Water Treatment Facility completed
- Core Service Delivery
  - Selection of Cityworks, CMMS software
  - Selection of Assetic, a CMMS planning and forecasting tool
- Performance Management
  - Baseline performances evaluated within the AM Master Plan
- Support Services
  - Information Technology (IT) Master Plan Completed
  - Implementation of CMMS District-wide initiated
  - Automation of committee and board agenda process initiated
  - GIS software update initiated
  - Document Management System Update and Reconfiguration initiated

Table 30

ASSET MANAGEMENT: PLANNING

Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	$-
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$180,000	$80,000	$80,000		$-	$-	$340,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$180,000	$80,000	$80,000	$-	$-	$-	$340,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$180,000	$80,000	$80,000	$-	$-	$-	$340,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

Phase 1 CMMS Implementation; AM Plan Implementation (GHD)

Table 31

ASSET MANAGEMENT: CORE SERVICE DELIVERY
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$35,000	$25,000	$-	$-	$-	$-	$60,000
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$-	$40,000	$40,000	$20,000	$20,000	$20,000	$140,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$35,000	$65,000	$40,000	$20,000	$20,000	$20,000	$200,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$35,000	$65,000	$-	$-	$-	$-	$100,000
New Funding	$-	$-	$40,000	$20,000	$20,000	$20,000	$100,000
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

This inlcudes annual cost/implementation of Cityworks and Assetic

Table 32

ASSET MANAGEMENT: CENTRALIZED INFORMATION SYSTEM
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$100,000	$-	$-	$-	$-	$-	$100,000
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$125,000	$130,000	$125,000	$125,000	$-	$-	$505,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$225,000	$130,000	$125,000	$125,000	$-	$-	$605,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$225,000	$125,000	$125,000	$-	$-	$-	$475,000
New Funding	$-	$-	$-	$125,000	$-	$-	$125,000
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

Includes 10 new servers for SCADA

Table 33

ASSET MANAGEMENT: PERFORMANCE MANAGEMENT
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	$-
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$90,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$90,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$15,000	$15,000	$15,000	$-	$-	$-	$45,000
New Funding	$-	$-	$-	$15,000	$15,000	$15,000	$45,000
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

Table 34

ASSET MANAGEMENT: SUPPORT SERVICES
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$100,000	$-	$-	$-	$-	$-	$100,000
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$400,000	$515,000	$515,000	$265,000	$-	$-	$1,695,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$500,000	$515,000	$515,000	$265,000	$-	$-	$1,795,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$500,000	$515,000	$150,000	$-	$-	$-	$1,165,000
New Funding	$-	$-	$-	$15,000	$15,000	$15,000	$45,000
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM

Project Description

The Supervisory Control and Data Acquisition (SCADA) System project includes the completion of a need assessment, a comprehensive SCADA System Master Plan strategy, which creates a standardized control system architecture for all of the District's respective operating facilities and a project portfolio. The SCADA System Master Plan specifies the priorities and costing of a standardized SCADA system that will meet the expanding needs of the District, as related to ongoing construction projects. These priorities include the expansion of the Robert W. Goldsworthy Desalter (Goldsworthy Desalter), expansion of the new Groundwater Reliability Improvement Program (GRIP) Advanced Water Treatment Facility (AWTF) and anticipated upgrades to existing facilities, including the two turnout structures at the Montebello Forebay Spreading Grounds and the Leo J. Vander Lans Advanced Water Treatment Facility (LVL-AWTF). The SCADA System Master Plan provides a Project Portfolio which describes a list of recommended implementation projects to achieve the intended SCADA vision and objectives set forth by the District. The Project Portfolio is outlined as follows:

- Foundational Projects
  - GRIP Recycled Water Turnout Structures Base Human Machine Interface (Base-HMI), including Galaxy Repository and Historian
  - Programmable Logic Center (PLC) and Base-HMI Software Standards Creations (standards given to System Integrators for upcoming construction projects)
  - HMI Licensing and Support Renewal (Wonderware System Platform - Provides centralized configuration, deployment, communication, security, data connectivity and collaboration)
  - PLC and other Industrial Control System hardware purchasing, software licensing and support renewal
- SCADA System Integration
  - Goldsworthy Desalter Expansion - Communication and Base-HMI integration to the Centralized Information System (CIS)
  - GRIP AWTF communication and HMI integration to the CIS
  - Turnout structures communication and HMI integration to the CIS
  - LVL AWTF communication and HMI integration to the CIS
  - Centralized Information System (CIS) creation at the WRD headquarters
  - Communications to the WRD nested groundwater monitoring well network and integration to the CIS

  - SCADA system integration to WRD's Computerized Maintenance Management System (CMMS)
  - Establish a SCADA Network Security and Maintenance Program
- SCADA System Upgrades and Maintenance
  - Upgrades at the two turnout structures to meet WRD's new SCADA standards
  - Upgrades at the LVL AWTF to meet WRD's new SCADA standards
  - Troubleshooting and maintenance of SCADA systems at all WRD facilities

Funding

The Capital Improvement Program budget for Fiscal Year 2017/18 is $2,023,600.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time.

Prior Year Highlights Foundational projects specified in the SCADA System Master Plan have been completed. SCADA system integration projects, especially in relation to ongoing construction projects, were initiated and expected to continue through 2018.

Table 35

SCADA SYSTEM INTEGRATION AND MAINTENANCE
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$790,400	$323,600	$-	$-	$-	$-	$1,114,000
Design	$-						$-
Construction	$458,700	$1,700,000	$1,000,000	$160,000	$-	$-	$3,318,700
Post Construction	$-						$-
Total	$1,249,100	$2,023,600	$1,000,000	$160,000	$-	$-	$4,432,700
Grants	$-						$-
2015 Bonds	$1,249,100	$2,023,600	$1,000,000	$160,000	$-	$-	$4,432,700
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

Groundwater Quality Protection & Remediation

These projects improve groundwater quality throughout the District's service area. Specifically, through clean-up projects, brackish water desalination, and a safe drinking water program, which provides incentives to groundwater producers to pump and treat contaminated groundwater rather than abandoning affected wells.

PERCHLORATE REMEDIATION IN THE LOS ANGELES FOREBAY PROJECT

Project Description

The District has been investigating a perchlorate groundwater plume with the assistance of various regulatory agencies in association with our Los Angeles Forebay Task Force. The groundwater impacts are located in a disadvantaged community within a deep regional aquifer system currently utilized by various water purveyors in the Los Angeles Forebay. The perchlorate concentrations are among the highest in California. The WRD has identified a "hot spot," which represents a substantial threat to the Central Groundwater Basin and will require treatment to reduce the threat to a local groundwater source within the Los Angeles Forebay region of the Central Groundwater Basin. A responsible party (RP) has not been identified by the Department of Toxic Substances Control (DTSC) or the Los Angeles Regional Water Quality Control Board (LARWQCB).

Funding

In March 2017, WRD was successful in securing a preliminary grant award of $7,275,675 from the Proposition 1 Groundwater Grant administered by the State Water Resources Control Board (SWRCB). The anticipated budget is projected for five years through FY 2021/22. The current award includes treatment system design, construction and two years of functional testing with the state paying up to 80% (WRDs portion will be approximately 20%). WRDs board also approved $1,500,000 for two additional years of remediation (if needed) that will not be eligible for grant funds as the state does not reimburse applicants for treatment system operation and maintenance (O&M). The additional treatment costs are not included in the projected budget below as the work is not anticipated until FY 2022/23. The grant award also provides funding for additional assessment to identify a responsible party and will be implemented in collaboration with our regulatory partners DTSC and LARWQCB. WRD is currently negotiating the contract terms, conditions and final funding amount with the SWRCB.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time.

Prior Year Highlights

This project is in its planning stages; hence, there are no highlights at this time.

Table 36

PERCHLORATE REMEDIATION

Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	$-
Design	$-	$68,968	$206,904	$-	$-	$-	$275,872
Construction	$-	$-	$3,768,847	$3,768,847	$-	$-	$7,537,694
Post Construction	$-	$-	$-	$-	$780,707	$520,472	$1,301,179
Total	$-	$68,968	$3,975,751	$3,768,847	$780,707	$520,472	$9,114,745
Grants	$-	$55,052	$3,173,569	$3,008,412	$623,185	$415,457	$7,275,675
2015 Bonds	$-	$13,916	$802,182	$760,435	$157,522	$105,015	$1,839,070
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Plannning							
Design							
Construction							
Post Construction							

REGIONAL BRACKISH WATER RECLAMATION: PHASE 1

Project Description

This regional project, which will consist of multiple desalter treatment plants, will remove the saline plume in the Silverado Aquifer, located in the West Coast groundwater basin in south Los Angeles County. Operation of seawater barrier injection wells has effectively curtailed seawater intrusion into the West Coast Basin; however, a large residual saline plume remains trapped inland of the barrier wells, occupying 600,000 acre-feet of volume in the West Coast groundwater basin. This project will completely remediate the saline plume over a 40-year period by pumping and desalting 15,000 acre-feet of brackish groundwater each year. This project would provide a significant new potable water supply in the West Coast Basin and also reclaim groundwater storage capacity in the basin by removing the brackish plume. The WRD's Groundwater Basin Master Plan assumes this project would operate on a regional basis, providing a new potable source of water for several groundwater pumpers located within that basin whose pumping options are currently limited by the saline plume. This effort would ultimately adjust pumping patterns to maximize containment and removal of the saline plume, which would result in groundwater contamination remediation, reclamation of significant groundwater storage volume in the basin and creation of a significant new local water supply.

Funding

The total Capital Improvement Program budget for Fiscal Years 2017/18 is $250,000.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time.

Prior Year Highlights

This project is in its planning stages; hence, there are no highlights at this time.

Table 37

REGIONAL BRACKISH WATER
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$250,000	$750,000	$-	$-	$-	$1,000,000
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$-	$-	$-	$-	$-	$-	$-
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$250,000	$750,000	$-	$-	$-	$1,000,000
Grants	$-	$-	$500,000	$-	$-	$-	$500,000
2015 Bonds	$-	$250,000	$250,000	$-	$-	$-	$500,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

ROBERT W. GOLDSWORTHY DESALTER EXPANSION

Project Description

This project will expand the capacity of the existing desalting facility located in the City of Torrance and construct two new groundwater wells to extract water from a saline plume in the West Coast Basin. Once completed, the project will provide approximately 2,400 AFY of additional treated groundwater to supplement potable water supplies in the City of Torrance distribution system. Additional measures may be necessary in the future to fully contain and remediate the saline plume, which extends beyond the Torrance area. The District continues to work with stakeholders in the West Coast Basin to determine long term solutions for cleanup of the saline plume.

Funding

This project received a total of $7 million in grant funding, $4 million from Proposition 84 Integrated Regional Water Management (IRWM) 2014 Drought Grant and $3 million from Proposition 50, Round 3 Desalination Grant Program.

Impact of Capital Investment on Operating Budget

The City of Torrance will continue to operate the Robert W. Goldsworthy Desalter.

Prior Year Highlights

The expansion of the Robert W. Goldsworthy Desalter commenced in January 2016 and is scheduled to be completed by August 2017.

Table 38

GOLDSWORTHY DESALTER EXPANSION
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	$-
Design	$1,000,000	$-	$-	$-	$-	$-	$1,000,000
Construction	$15,096,100	$8,000,000	$-	$-	$-	$-	$23,096,100
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$16,096,100	$8,000,000	$-	$-	$-	$-	$24,096,100
Grants	$2,166,000	$4,834,000	$-	$-	$-	$-	$7,000,000
2015 Bonds	$13,930,100	$3,166,000	$-	$-	$-	$-	$17,096,100
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Plannning							
Design							
Construction							
Post Construction							

ROBERT W. GOLDSWORTHY DESALTER UPGRADES

Project Description

The Robert W. Goldsworthy Desalter Expansion is scheduled to be completed by August 2017. This project is for elements of the facility that need to be upgraded as a result of the expansion.

Funding

The total Capital Improvement Program budget for Fiscal Years 2018/19 is $500,000.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time.

Prior Year Highlighs

The facility expansion is scheduled to be completed by August 2017.

Table 39

GOLDSWORTHY DESALTER UPGRADES
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	$-
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$-	$-	$500,000	$-	$-	$-	$500,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$-	$500,000	$-	$-	$-	$500,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$-	$-	$-	$-	$-	$-
New Funding	$-	$-	$500,000	$-	$-	$-	$500,000
Project Schedule							
Plannning							
Design							
Construction							
Post Construction							

SAFE DRINKING WATER PROGRAM

(Lynwood, Huntington Park, CA American Water Arlington Well & Maywood No.2 May Avenue Well)

Project Description

The Safe Drinking Water Program (Program) provides incentives to groundwater producers to pump and treat contaminated groundwater rather than abandoning affected wells. The Program offers two options: grant assistance and loan assistance to basin pumpers for wellhead treatment to remove contaminants and improve water quality. The grant assistance program provides treatment for removing groundwater contaminants from man-made sources (e.g. Volatile Organic Compounds). The loan assistance program provides ten-year, zero-interest loans for water treatment to remove or reduce to compliance standards groundwater contaminants from natural sources (e.g. iron, manganese, and arsenic). Since the Program's inception, the District has funded 13 grants, four loans and one demonstration project. This CIP project is intended to cover the costs associated with Grant Funded Projects only.

The District Board recently approved three wellhead treatment system projects for FY 16/17, including Lynwood, Huntington Park, and CA American Water Arlington Well. The wellhead treatment system at all three wells will consist of a complete granular-activated filtration system built within the boundaries of the existing well sites owned and operated by the water systems. Granulated Activated Carbon filtration is a closed system that has long been recognized as an effective means for removing Volatile Organic Compounds (VOCs), including PCE and TCE, from groundwater wells. The treatment systems will have the capacity to treat the full flow of the wells. The three wells are affected by VOCs and qualify for a Priority "A" Treatment Grant which provides District fund for the cost of design and construction. In addition, as part of Assembly Bill No. 240, the District was designated to manage and implement a water quality improvement project in the City of Maywood. The appropriated funds were assigned to the Maywood Avenue Wellhead treatment project for iron and manganese removal and the District will be reimbursed through the appropriated funds. The District will take the lead on procurement and installation of the treatment facilities. However, operation, maintenance and all permits remain the responsibility of the water system.

Funding

For Loan Assistance Projects, the District developed the Safe Drinking Water Program Revolving Loan Fund, which stabilizes funding and expands the loan assistance program's overall use.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time.

Prior Year Highlights

The District developed the Safe Drinking Water Program Revitalization Plan to maximize participation in the Program and the Safe Drinking Water Disadvantaged Communities (DAC) Pilot Program, which identifies DAC water systems with contaminated water issues and provides technical assistance.

Table 40

SAFE DRINKING WATER PROGRAM: LYNWOOD
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$30,000	$-	$-	$-	$-	$-	$30,000
Design	$-	$125,000	$-	$-	$-	$-	$125,000
Construction	$-	$1,200,000	$-	$-	$-	$-	$1,200,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$30,000	$1,325,000	$-	$-	$-	$-	$1,355,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$30,000	$1,325,000	$-	$-	$-	$-	$1,355,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

Table 41

SAFE DRINKING WATER PROGRAM: CA AMERICAN WATER ARLINGTON WELL
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	$-
Design	$-	$100,000	$-	$-	$-	$-	$100,000
Construction	$-	$1,800,000	$-	$-	$-	$-	$1,800,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$1,900,000	$-	$-	$-	$-	$1,900,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$1,900,000	$-	$-	$-	$-	$1,900,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

Table 42

SAFE DRINKING WATER PROGRAM: HUNTINGTON PARK
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$25,000	$-	$-	$-	$-	$-	$25,000
Design	$-	$100,000	$-	$-	$-	$-	$100,000
Construction	$-	$1,000,000	$-	$-	$-	$-	$1,000,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$25,000	$1,100,000	$-	$-	$-	$-	$1,125,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$1,125,000	$-	$-	$-	$-	$1,125,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

Table 43

SAFE DRINKING WATER PROGRAM:
MAYWOOD MUTUAL WATER COMPANY NO. 2 MAY AVENUE WELL
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-						$-
Design	$-	$224,000					$224,000
Construction	$-	$1,500,000					$1,500,000
Post Construction	$-						$-
Total	$-	$1,724,000	$-	$-	$-	$-	$1,724,000
Grants	$-	$1,224,000	$-	$-	$-	$-	$1,224,000
2011 Bonds	$-	$-	$-	$-	$-	$-	
2015 Bonds	$-	$500,000	$-	$-	$-	$-	$500,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

Table 44

SAFE DRINKING WATER PROGRAM: OVERALL
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$75,000	$150,000	$150,000	$150,000	$525,000
Design	$-	$-	$250,000	$500,000	$500,000	$500,000	$1,750,000
Construction	$-	$-	$1,000,000	$2,000,000	$2,060,000	$2,121,800	$7,181,800
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$-	$1,325,000	$2,650,000	$2,710,000	$2,771,800	$9,456,800
Grants	$-	$-	$-	$-	$-	$-	
2015 Bonds	$-	$-	$-	$-	$-	$-	
New Funding	$-	$-	$1,325,000	$2,650,000	$2,710,000	$2,771,800	$9,456,800
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

Facilities Management, Maintenance, & Repair

Projects under this program will provide upkeep and maintenance of the Districts various buildings and facilities, including renovations, reconfigurations of office space, and improvements of other work space needs.

HEADQUARTERS BUILDING IMPROVEMENTS PROJECTS

Project Description

The District headquarters building located at 4040 Paramount Blvd in the City of Lakewood has upkeep and maintenance needs, which are outlined in various phases and projects, including:

- Phase 1 and Phase 2 of Tenant Improvement Repair: includes the reconfiguration of office space, improvement and renovation of elements, such as walls, carpets, paint, etc. and other work space needs
- Roof Replacement Project
- HVAC Improvements Project
- Drought Tolerant Landscape Demonstration Garden Improvement

Funding

The Capital Improvement Program budget for Fiscal Year 2017/18 of $182,500 are directly related to Phase 1 and Phase 2 of Tenant Improvement Repairs.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time.

Prior Year Highlights

Planning for Phase 1 and Phase 2 of Tenant Improvement Repair was initiated.

Table 45

HEADQUARTERS BUILDING: PHASE 1 & 2 TENANT IMPROVEMENTS
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	$-
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$509,450	$182,500	$-	$-	$-	$-	$691,950
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$509,450	$182,500	$-	$-	$-	$-	$691,950
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$509,450	$182,500	$-	$-	$-	$-	$691,950
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

Table 46

HEADQUARTERS BUILDING- HVAC IMPROVEMENTS PROJECT
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	$-
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$-	$-	$25,000	$55,000	$-	$-	$80,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$-	$25,000	$55,000	$-	$-	$80,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$-	$25,000	$55,000	$-	$-	$80,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

Table 47

HEADQUARTERS BUILDING- ROOF REPLACEMENT PROJECT
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	$-
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$-	$-	$60,000	$10,000	$-	$-	$70,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$-	$60,000	$10,000	$-	$-	$70,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$-	$60,000	$10,000	$-	$-	$70,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

Table 48

HEADQUARTERS BUILDING- DROUGHT TOLERANT LANDSCAPE DEMO
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	$-
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$-	$-	$-	$15,000	$75,000	$-	$90,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$-	$-	$-	$15,000	$75,000	$-	$90,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$-	$-	$-	$15,000	$75,000	$-	$90,000
New Funding	$-	$-	$-	$-	$-	$-	$-
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

FIELD OPERATIONS AND STORAGE ANNEX FACILITY PROJECT

Project Description

The District purchased an available 2.3-acre parcel located at 3919 Paramount Blvd (Field Operations and Storage Annex Project) in the city of Lakewood. The District purchased the property due to its unique proximity to the District and ability to solve WRD's immediate need for additional storage space and future areas for growing inventory of spare and replacement parts for the existing Robert W. Goldsworthy Desalter and Leo J. Vander Lans Advanced Water Treatment Facility. In addition, the Paramount Equipment and Fleet Center can be subdivided and sublet in ways that could offset current off-site lease storage space costs and costs associated with servicing debt linked to the acquisition of the property. The Field Operations and Storage Annex Project will need improvement repairs and renovations.

Funding

The Capital Improvement Program budget for Fiscal Year 2017/18 of $154,000 is directly related to improvement repairs and renovations.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time.

Prior Year Highlighs

The District purchased the property and closed escrow.

Table 49

FIELD OPERATIONS AND STORAGE ANNEX FACILITY PROJECT
Projected 5-year CIP

Project Budget	Prior Year Expenses	FY 17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Total CIP Budget
Planning	$-	$-	$-	$-	$-	$-	$-
Design	$-	$-	$-	$-	$-	$-	$-
Construction	$3,944,000	$154,000	$324,000	$900,000	$-	$-	$5,322,000
Post Construction	$-	$-	$-	$-	$-	$-	$-
Total	$3,944,000	$154,000	$324,000	$900,000	$-	$-	$5,322,000
Grants	$-	$-	$-	$-	$-	$-	$-
2015 Bonds	$3,944,000	$100,000	$-	$-	$-	$-	$4,044,000
New Funding	$-	$54,000	$324,000	$900,000	$-	$-	$1,278,000
Project Schedule							
Planning							
Design							
Construction							
Post Construction							

Long-Term Debt

REPLENISHMENT ASSESSMENT REVENUE BONDS, SERIES 2015

With water independence on the horizon, on December 10, 2015 the District issued its $148,345,000 Replenishment Assessment Revenue Bonds, Series 2015. Additionally, the District formed "The Authority", a joint exercise of powers agency organized under the laws of the State of California and formed pursuant to that certain Joint Exercise of Powers Agreement dated August 6, 2015 by the California Municipal Finance Authority, a joint exercise of powers authority organized and existing under and by virtue of the laws of the State of California ("CMFA").

Both Standard and Poor's and Fitch ratings affirmed the WRD's credit rating of AA+ with a stable outlook. This helped in the District obtaining AAA pricing, in line with the Metropolitan Water District pricing the day before WRD priced its bonds. The District will have level debt service payments of $9.25 million annually for 30 years. The result of the refunding resulted in a net present value (NPV) of $9.72 million and an all-in lowering of total interest cost of 3.49%, compared to the 2004 COP – 4.52%, 2008 COP – 6.15%, 2011 COP – 4.70%. Due to the District's strong credit rating and aggressive pricing by the District's Underwriting team, the demand for the bonds was four-times the offering amount.

The bonds were issued by the Authority to: (i) finance the acquisition, construction and installation of certain capital improvement projects of the WRD, (ii) currently prepay the Water Replenishment District of Southern California (WRDSC) Revenue Certificates of Participation, prepay in advance the WRDSC 2008 and 2011 Certificates of Participation and (iii) to pay costs of issuance of the bonds.

The net proceeds of $69,500,000 are being used to fund the following:

1. Improvements consisting of the Groundwater Reliability Improvement Program Advanced Water Treatment Facility;
2. Brackish Water Reclamation Program;
3. Stormwater Conservation and Groundwater Storage Program;
4. Groundwater Basin Management Program;
5. Improvements related to the Safe Drinking Water Program; and
6. Improvements related to the Groundwater Infrastructure Management Program.

Groundwater Reliability Improvement Program Facility and Diversion Structures.
A significant portion of the Project will consist of the construction costs for an advanced water treatment facility (the "Treatment Facility") and complementing diversion structures along the San Gabriel River (the "Turnout Structures") under the WRD's Groundwater Reliability Improvement Program ("GRIP. Following the completion of GRIP facilities, this project will offset the current use of 21,000 acre-feet of imported water by providing a local source of recycled water for groundwater replenishment as follows:

- The construction of the proposed Treatment Facility will generate advanced treatment of up to 10,000 acre-feet per year of tertiary treated water acquired from the Los Angeles County Sanitation Districts (the "LACSD").
- The completed Turnout Structures will allow an approximate delivery of 11,000 acre-feet per year of recycled water to the Montebello Forebay Spreading Grounds for groundwater replenishment.

Goldsworthy Brackish Water Reclamation Program. The Project will remediate brackish groundwater to supplement potable water supplies, which includes the expansion of a desalting facility and construction of new groundwater wells. Once completed, the expansion of the desalting facility, the Goldsworthy Desalter located in the City of Torrance, will provide approximately 2,400 acre-feet per year of additional treated, "remediated" brackish groundwater. The new groundwater wells will extract and remediate brackish groundwater from a saline plume in the West Coast Basin. It is anticipated that the City of Torrance will use the product water from the expansion and new groundwater wells.

Stormwater Conservation and Groundwater Storage Program. The Project will increase the flexibility of water delivery to the spreading grounds and groundwater storage. The WRD plans to capture additional storm water from the San Gabriel River and use it via various recharge mechanisms, such as new percolation or injection facilities within the Montebello Forebay and the Los Angeles Forebay in the Central Basin. The U.S. Army Corps of Engineers ("USACE"), Los Angeles County Flood Control District ("LACFCD") and WRD are working closely to complete an updated Whittier Narrows Conservation Pool Feasibility Study to allow for a permanent change to the operating plan to raise the maximum conservation pool elevation at the Whittier Narrows Dam and allow for an estimated additional 1,100 acre-feet per year of storm water conservation. The elevation increase does not require capital improvements, however, it does need USACE approval and updates to various studies and environmental documents related to dam operations at an increased conservation pool elevation. To further augment groundwater storage, opportunities exist to construct a new satellite advanced water treatment facility to produce high quality recycled water for injection into the Los Angeles Forebay. In the West Coast Basin, WRD will develop new injection facilities to increase replenishment opportunities.

Groundwater Basin Management Program. The Project will drill new monitoring wells and install flow meter devices in order to continue expanding the Regional Groundwater Monitoring Program ("RGMP"). The RGMP collects groundwater level and groundwater quality data used for groundwater basin management for the Central Basin and West Coast Basin, two of the most utilized urban groundwater basins in the United States. This is achieved through groundwater monitoring, modeling, and planning, which provides the basis to understanding the dynamic changes in the basins. The RGMP currently consists of a network of 324 specialized monitoring wells at 58 locations throughout the WRD to a maximum depth of nearly 3,000 feet, and WRD staff, comprised of hydrogeologists and engineers,

provide the expertise to collect, analyze and report on the collected groundwater data. WRD uses the data generated by the RGMP to address current and potential water quality issues and groundwater replenishment within the basins. In addition, the RGMP provides flexible management practices to adjust groundwater resources planning as circumstances or conditions warrant. The Project shall include the capital costs of the construction of new monitoring wells (for regional monitoring and contamination investigations) and data collection equipment, all in furtherance of the RGMP.

Safe Drinking Water Program. The Project will continue and expand the Safe Drinking Water Program (the "Program") to construct wellhead treatment facilities to remove contaminants and improve water quality. The Program provides incentives to groundwater producers to pump and treat contaminated groundwater rather than abandoning affected wells. The Program offers two options, grant assistance and loan assistance. The grant assistance program provides treatment for removing groundwater contaminants from man-made sources (e.g., Volatile Organic Compounds). The loan assistance program provides ten-year, zero-interest loans for water treatment, and removing unacceptable levels of contaminants from natural sources (e.g. iron, manganese, and arsenic). Since the Program's inception, the District has funded 13 grants, four loans and one demonstration project. The WRD developed the Safe Drinking Water Program Revolving Loan Fund, which stabilizes funding and expands the loan assistance program's overall use. The costs of wellhead treatment facilities are prohibitive to most pumpers, specifically those serving disadvantaged communities. Accordingly, the WRD developed the Safe Drinking Water Disadvantaged Communities Pilot Program to expand the grant assistance option and maximize participation in the program.

Groundwater Infrastructure Management Program. The Project is expected to include capital improvements that will develop programs and plans to manage all of WRD's assets, data and databases and develop a standardized control system for all respective operating facilities, resulting in reduced long-term maintenance and operating costs. A centralized information system, such as the development and implementation of a computerized maintenance management system ("CMMS") and Supervisory Control and Data Acquisition ("SCADA") system is needed to centralize existing databases and progress District operations. The WRD Centralized Information System Project is intended to fully integrate WRD's Finance, Asset Management, CMMS, SCADA, and other systems and process databases into a single centralized system. The Project shall include capital costs of implementing various components of the Centralized Information System Project, in an amount of approximately $500,000.

CLEAN WATER STATE REVOLVING FUND

As the District moves towards independence from imported water from both the Colorado River and the California State Water Project, we continue to find ways to keep the costs as low as possible. As part of this effort, the District applied for and has been awarded a $15,000,000 million grant and an $80,000,000, 30-year one- percent loan to assist with the building of the Groundwater Reliability Improvement Project through the California Clean Water State Revolving Fund (CWSRF). The savings will amount to nearly $47,000,000 to the District's customers when compared to a 30-year Replenishment Assessment Revenue Bond at the District's last borrowing interest rate of $3.49%.

Projected Budget Impact of Debt Service

The projected budget impact of principal and interest payments associated with the 2015 Series Water Revenue Bonds and funding through the Clean Water State Revolving Fund is as follows:

Table 50
IMPACT OF DEBT SERVICE

	2017/18	2018/19	2019/20	2020/21	2021/22
2015 Replenishment Assessment Bonds	$9.247M	$9.247M	$9.249M	$9.248M	$9.250M
CW State Revolving Fund	3.720M	3.720M	3.720M	3.720M	3.720M
Total	**$12.967M**	**$12.967M**	**$12.969M**	**$12.968M**	**$12.970M**
Projected Production (in acre-feet)	217,300	224,000	228,000	232,000	236,000
Impact to Assessment (per acre-foot)	**$59.67**	**$57.89**	**$56.88**	**$55.90**	**$54.96**

The offset to these capital costs will be replacing 21,000 acre-feet of imported replenishment water with additional use of recycled water, greater storm water capture and the production of highly treated recycled water. The 2017/18 cost of imported spreading water is $758/acre-foot saving about $15.9 million per year. Cost savings will be immediate and the value of the investment in capital assets only increases over time as the cost for imported water continues to climb steadily each year. We anticipate imported water rates for the types of water that the District purchases to increase about 8.0% each year, on average when comparing water rates over the past 30 years.

Debt Ceiling

There is currently no debt limit or ceiling documented in the California State Water Code for the WRD. The costs associated with the Capital Improvement Program projects will be primarily funded through long term debt.

Table 51

CLEAN WATER REVOLVING FUND
Future Debt Service Payments are as follows:

Fiscal Year	Principal	Interest	Total
2017	3,069,157	30,692	3,099,849
2018	3,069,157	30,692	3,099,849
2019	3,069,157	30,692	3,099,849
2020	3,069,157	30,692	3,099,849
2021	3,069,157	30,692	3,099,849
2022	3,069,157	30,692	3,099,849
2023	3,069,157	30,692	3,099,849
2024	3,069,157	30,692	3,099,849
2025	3,069,157	30,692	3,099,849
2026	3,069,157	30,692	3,099,849
2027	3,069,157	30,692	3,099,849
2028	3,069,157	30,692	3,099,849
2029	3,069,157	30,692	3,099,849
2030	3,069,157	30,692	3,099,849
2031	3,069,157	30,692	3,099,849
2032	3,069,157	30,692	3,099,849
2033	3,069,157	30,692	3,099,849
2034	3,069,157	30,692	3,099,849
2035	3,069,157	30,692	3,099,849
2036	3,069,157	30,692	3,099,849
2037	3,069,157	30,692	3,099,849
2038	3,069,157	30,692	3,099,849
2039	3,069,157	30,692	3,099,849
2040	3,069,157	30,692	3,099,849
2041	3,069,157	30,692	3,099,849
2042	3,069,157	30,692	3,099,849
2043	3,069,157	30,692	3,099,849
2044	3,069,157	30,692	3,099,849
2045	3,069,157	30,692	3,099,849
	$92,074,724	**$920,747**	**$92,995,472**

Table 52

REPLENISHMENT ASSESSMENT REVENUE BONDS, SERIES 2015
Future Debt Service Payments are as follows:

Fiscal Year	Principal	Interest	Total
2017	2,350,000	6,944,700	9,294,700
2018	2,445,000	6,850,700	9,295,700
2019	2,560,000	6,752,900	9,312,900
2020	2,690,000	6,624,900	9,314,900
2021	2,830,000	6,490,400	9,320,400
2022	2,975,000	6,348,900	9,323,900
2023	3,125,000	6,200,150	9,325,150
2024	3,285,000	6,043,900	9,328,900
2025	3,455,000	5,879,650	9,334,650
2026	3,630,000	5,706,900	9,336,900
2027	3,815,000	5,525,400	9,340,400
2028	4,015,000	5,334,650	9,349,650
2029	4,220,000	5,133,900	9,353,900
2030	4,435,000	4,922,900	9,357,900
2031	4,660,000	4,701,150	9,361,150
2032	4,900,000	4,468,150	9,368,150
2033	5,155,000	4,223,150	9,378,150
2034	5,415,000	3,965,400	9,380,400
2035	5,695,000	3,694,650	9,389,650
2036	5,985,000	3,409,900	9,394,900
2037	6,295,000	3,110,650	9,405,650
2038	6,615,000	2,795,900	9,410,900
2039	6,955,000	2,465,150	9,420,150
2040	7,315,000	2,117,400	9,432,400
2041	7,685,000	1,751,650	9,436,650
2042	8,040,000	1,367,400	9,407,400
2043	8,370,000	1,045,800	9,415,800
2044	8,710,000	711,000	9,421,000
2045	9,065,000	362,600	9,427,600
	$146,690,000	**$124,949,900**	**$271,639,900**

Replenishment Projects & Programs

Rio Hondo Spreading Grounds in Pico Rivera, California

The projects and programs identified under Replenishment Projects and Programs are ones that have been developed with the main purpose of producing an alternative source of water for the District's replenishment program.

Replenishment Projects and Programs

WATER PURCHASES

Annually, the District faces overdraft because more groundwater is pumped out of the basins than is naturally replaced. Therefore, the District purchases replenishment water from external sources (artificial replenishment water) to help make up the overdraft. The artificial replenishment water enters the basins either by percolation into the underground aquifers at the Montebello Forebay spreading grounds (Rio Hondo, San Gabriel River, and Whittier Narrows Reservoir), or through direct injection into the aquifers at the West Coast Basin, Dominguez Gap, and Alamitos seawater barrier projects.

The District currently has available to it recycled and imported water sources for use as artificial replenishment water. These two sources are described below:

Recycled Water:

Recycled water is sewer water that is treated at local wastewater treatment plants to meet high quality standards so that it can be reused as a valuable water resource instead of being wasted to the ocean. Other agencies use recycled water to irrigate parks, golf courses, plants and crops, or for industrial purposes. WRD and numerous other agencies also use recycled water for groundwater recharge. In semi-arid areas such as Southern California where groundwater and imported water are in short supply, recycled water has proven to be a safe and reliable additional resource to supplement the water supply. Recycled water is used at the spreading grounds after undergoing tertiary treatment and also at the seawater barrier wells after tertiary and additional treatment by microfiltration, reverse osmosis, and in some cases ultraviolet light.

Imported Water:

This source originates from Northern California (State Water Projects) and the Colorado River and is brought to the District by the MWD of Southern California. Raw imported water is used at the spreading grounds for aquifer replenishment. Treated imported water is used at the seawater intrusion barriers and for in-lieu replenishment when available. Because of treatment and transportation costs, it is the most expensive source for recharge water. The supply is under full upstream control, and its availability at the spreading grounds is limited and variable, especially during drought years.

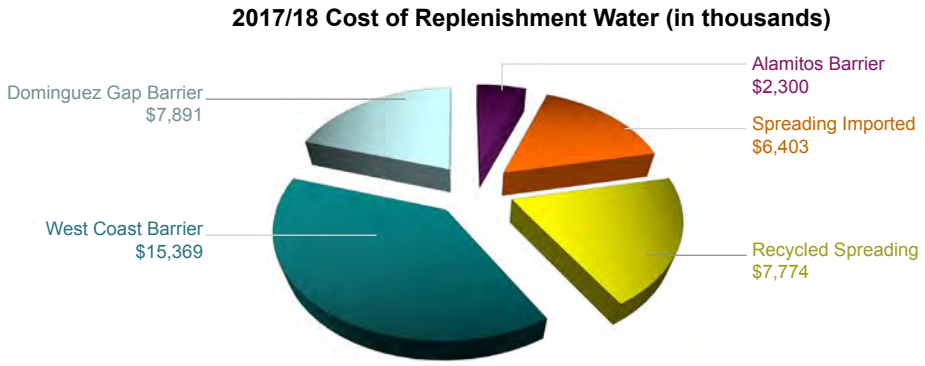


Figure 16 – 2017/18 Cost of Replenishment Water (in thousands)

RECOMMENDED QUANTITIES OF REPLENISHMENT WATER

WRD estimates its projected need for artificial replenishment water by calculating the annual amount of water shortage (overdraft) that is expected to occur. Details of these calculations are presented in the annual Engineering Survey and Report. The artificial replenishment water is placed into the groundwater basin at the spreading grounds or seawater barrier injection wells using recycled and imported water.

Table 53

Cost of Replenishment Water for Fiscal Year 2017/18

EXPENSE CATEGORY	2016/17 Budget	2017/18 Budget	Increase (Decrease) Over Prior Year
	Imported Water		
Spreading - Tier 1 Untreated Imported			
MWD Untreated Tier 1 - Spreading	$10,368,000	$5,504,000	$(4,864,000)
MWD RTS Charge	$142,248	$264,252	$122,004
CBMWD Administrative Surcharge	$1,120,000	$560,000	$(560,000)
CBMWD Water Service Charge	$74,400	$74,400	$-
Total Spreading - Tier 1 Untreated Imported	**$11,704,648**	**$6,402,652**	**$(5,301,996)**
Alamitos Barrier - Imported			
MWD Treated Tier 1 - Alamitos Barrier	$1,028,200	$1,629,720	$601,520
MWD Capacity Charge	$56,160	$56,160	$-
LBWD RTS	$129,320	$197,640	$68,320
LBWD Administrative Surcharge	$5,300	$8,100	$2,800
Total Alamitos Barrier - Imported	**$1,218,980**	**$1,891,620**	**$672,640**
Dominguez Barrier - Imported			
MWD Tier 1 - Barriers	$2,925,520	$887,315	$(2,038,205)
MWD RTS Charge	$373,984	$42,000	$(331,984)
WBMWD Capacity Charge	$237,455	$111,000	$(126,455)
WBMWD Administrative Surcharge	$657,488	$88,000	$(569,488)
WBMWD Water Service Charge	$57,907	$38,000	$(19,907)
Total Dominguez Barrier - Imported	**$4,252,354**	**$1,166,315**	**$(3,086,039)**
West Coast Barrier - Imported			
MWD Tier 1 - Barriers	$2,118,480	$1,647,872	$(470,608)
MWD RTS Charge	$270,816	$77,000	$(193,816)
WBMWD Capacity Charge	$171,951	$207,000	$35,049
WBMWD Administrative Surcharge	$476,112	$163,000	$(313,112)
WBMWD Water Service Charge	$41,933	$70,000	$28,067
Total West Coast Barrier - Imported	**$3,079,292**	**$2,164,872**	**$(914,420)**
In-lieu*			
MWD Member Agency	No IL Program	No IL Program	$-
WBMWD Member Agency	No IL Program	No IL Program	$-
Total for In-lieu Payments	**$-**	**$-**	**$-**
	Recycled Water		
Dominguez Barrier - Recycled			**$-**
LADWP Recycled Water	$4,483,200	$6,724,800	$2,241,600
Total Dominguez Barrier - Recycled	**$4,483,200**	**$6,724,800**	**$2,241,600**
Recycled (SJC) Carryover to 07-08			**$-**
Spreading - Recycled			
SDLAC - Tertiary Water (WN, SJC, Pomona)	$3,975,000	$7,774,000	$3,799,000
Total Spreading - Recycled	**$3,975,000**	**$7,774,000**	**$3,799,000**
West Coast Barrier - Recycled			
WBMWD Recycled Water	$13,430,500	$13,204,440	$(226,060)
Total West Coast Barrier - Recycled	**$13,430,500**	**$13,204,440**	**$(226,060)**
Alamitos Recycled - WRD**			
WRD Recycled Water - Vander Lans	$445,200	$408,240	$(36,960)
Total Alamitos Recycled - WRD	**$445,200**	**$408,240**	**$(36,960)**
Total Water Purchases	**$42,589,174**	**$39,736,939**	**$(2,852,235)**

ACRONYMS:

CBMWD
Central Basin Municipal Water District

LBWD
Long Beach Water Department

LADWP
Los Angeles Department of Water and Power

MWD
Metropolitan Water District of Southern California

RTS
Readiness-to-Serve

SDLAC
Sanitation Districts of Los Angeles County

SJC
San Jose Creek

WBMWD
West Basin Municipal Water District

WN
Whittier Narrows

WRD
Water Replenishment District of Southern California

WRP
Water Reclamation Plant

Table 54
Quantity of Water Purchases in Acre-Feet for Fiscal Year 2017/18

EXPENSE CATEGORY	2016/17 Budget	2017/18 Budget	Increase (Decrease) Over Prior Year
BY ACRE FEET			
Imported Water:			
Spreading Imported	16,000	8,000	(8,000)
West Coast Barrier Imported	2,000	1,720	(280)
Dominguez Gap Imported	3,200	800	(2,400)
Alamitos Imported	1,060	1,620	560
In Lieu - MWD Member Agency	-	-	-
In Lieu - West Basin Customer	-	-	-
Recycled Water:			
Spreading Recycled (SJC & WN)	55,000	63,000	8,000
West Coast Barrier Recycle	17,000	15,480	(1,520)
Dominguez Gap Recycled	4,800	7,200	2,400
Alamitos Recycled	4,240	3,780	(460)
Total Water Purchases	**103,300**	**101,600**	**(1,700)**

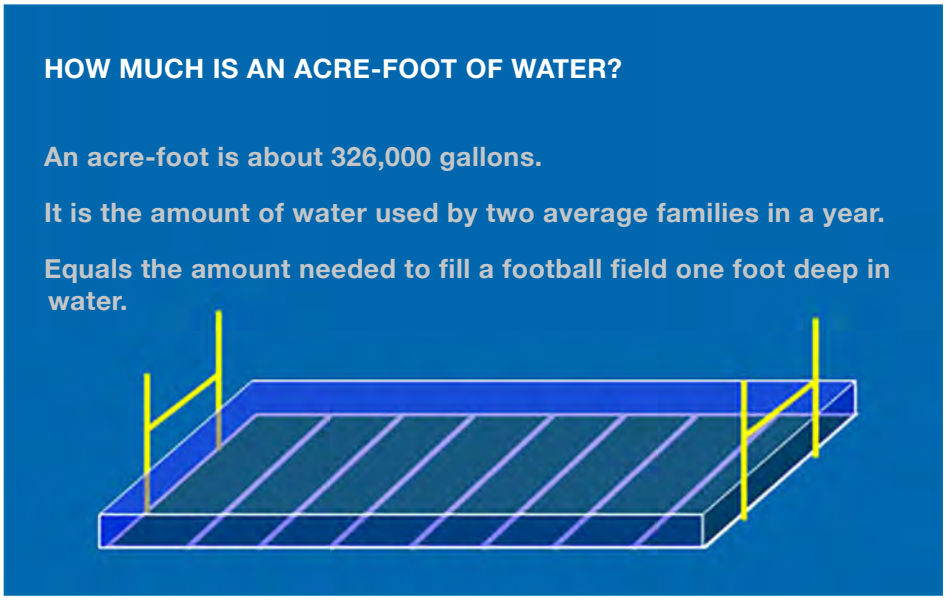


Figure 17 - Definition of Acre-Foot

PROJECT 001 LEO J. VANDER LANS WATER TREATMENT FACILITY – WATER SUPPLY

Background

This facility provides advanced treatment to recycled water through a process train that includes microfiltration (MF), reverse-osmosis (RO), and advanced oxidation (AOP) using hydrogen peroxide and ultraviolet (UV) light. The product water from this facility replaces the imported water that used to supply the Alamitos Seawater Intrusion Barrier, thereby improving the reliability and quality of supply to the barrier.

Table 55
Project 001 - WATER SUPPLY
Vander Lans Budget Summary

EXPENSE CATEGORY	2016/17 Projection	2017/18 Proposed Budget	17/18 Budget compared to 16/17 Projection
Professional Services	2,248,000	2,431,000	183,000
R&M / Materials / Equipment	1,345,000	1,205,000	(140,000)
Other Expenses	10,000	11,000	1,000
Other General & Administrative	351,000	486,000	135,000
Total	**$3,954,000**	**$4,133,000**	**$179,000**

The Long Beach Water Department (LBWD) operates and maintains the treatment plant under contract with WRD. Expected costs for this budget year are primarily for the expenses of operation and maintenance of the plant and for groundwater monitoring requirements from the permit.

Because the primary purpose of this project is to provide a more reliable means of replenishing the basin through injection, 100% of the costs are considered to be drawn from the Replenishment Fund.

2016/17 Accomplishments

- Completed hydraulic modeling and analyzed operational efficiency alternatives to develop operating strategies to maximize recycled water injections at the Alamitos Barrier and optimize the hydraulic performance of the entire recycled water system.
- Continued to operate and optimize facility operations and comply with regulatory requirements for monitoring and compliance.
- Continued to conduct recycled water testing to ensure satisfaction of water quality criteria for barrier injection.

2017/18 Objectives

- Based on the completed hydraulic modeling and operational efficiency alternatives analysis, develop a Recycled Water Interconnect Pipeline Project with the Cities of Cerritos, Lakewood, and Long Beach to wheel recycled water from the Los Coyotes Wastewater Treatment Plant to the LVL Advanced Water Treatment Facility.
- Develop an Inland Injection Wellfield Storage Project with the City of Long Beach to store LVL Advanced Treated Recycled Water into the Central Basin.

- Continue work to optimize LVL AWTF operations, and comply with regulatory requirements for monitoring and compliance.
- Continue to conduct recycled water testing to ensure satisfaction of water quality criteria for barrier injection.

Basis for Changes 2016/17 Projected to 2017/18 Budget

Cost increase in professional services are primarily for the expenses of operating and maintaining the expanded plant by the Long Beach Water Department (LBWD). Additional staff resources are allocated to the facility.

Performance measurement results for the past two fiscal years in addition to goals for FY2017/18 are presented below.

Table 56

LEO J. VANDER LANS ADVANCE WATER TREATMENT FACILITY – WATER SUPPLY
Performance Measures

	FY 201516 ACTUAL	FY 2016/17 ACTUAL	FY 2017/18 BUDGET	DISTRICT GOAL
1. GOAL: Complete construction for plant expansion to increase production capacity from the current 3 million gallons per day (mgd) to 8 mgd.				Obtain Independence from Imported Water Sources
MEASURE: % of Completion of the Advance Water Treatment Facility	Completed	In Operation	In Operation	
2. GOAL: Continue to comply with regulatory requirements for monitoring and compliance.				Provide Safe and Reliable Groundwater
MEASURE: Submit quarterly and annual compliance reports to RWQCB to satisfy permit compliance requirements	Yes	Planned	Planned	
3. GOAL: Continue to conduct recycled water testing to ensure satisfaction of water quality criteria for the County of Los Angeles Department of Public Works.				Provide Safe and Reliable Groundwater
MEASURE: Submit monthly Alamitos Barrier Injection Water Quality Reports that satisfy LADPW's water quality standards	Yes	Yes	Yes	
4. **GOAL:** Operation and Maintenance of the plant with increased recycled water production.				Obtain Independence from Imported Water Sources
MEASURE: Prepare monthly operation reports that document recycled water production quantity	Yes	Yes	Yes	

Table 56 cont.

LEO J. VANDER LANS ADVANCE WATER TREATMENT FACILITY – WATER SUPPLY
Performance Measures

5. GOAL: Provide alternative studies to optimize and stabilize the operation of the facility				Obtain Independence from Imported Water Sources
MEASURE: Technical Support services to optimize operation efficiency	Yes	Yes	Yes	
Perform investigation to troubleshoot issues encountered with the facility operations	Yes	Yes	Yes	
Provide training to District's facility operators to develop standard procedures of operations.	Yes	Yes	Yes	
6. GOAL: Resolve several issues/challenges that have occurred during the first few months of operations.				Obtain Independence from Imported Water Sources
MEASURE: Perform a Hydraulic analysis and operational efficiencies alternative study.	N/A	N/A	Completed	
Increase the recycled water injection flowrates to close to 100% while allowing a small portion of imported water to flow in order to avoid MWD'S low-flow penalties.	N/A	N/A	Continue to develop strategies to increase plant production	
Optimize operational and flow equalization strategies to allow consistent and stable 24/7 operations with minimum shutdowns	N/A	N/A	Continue to optimize plant operations	

PROJECT 004 MONTEBELLO FOREBAY RECYCLED WATER

Background

Recycled water has been and continues to be a cost-effective, reliable source of water for surface spreading in the Montebello Forebay and injection at the seawater intrusion barriers. In light of exposure to prolonged drought like we just encountered with record-low rainfalls and increasing uncertainty in the future availability of imported supplies, recycled water has become increasingly attractive as a locally sustainable solution to improving the reliability of the local groundwater supply. WRD's Water Independence Now, or WIN, program seeks to replace our imported water supplies with recycled water and stormwater to ensure reliable groundwater replenishment sources.

Table 57
Project 004 - MONTEBELLO FOREBAY Recycled Water Budget Summary

EXPENSE CATEGORY	2016/17 Projection	2017/18 Proposed Budget	17/18 Budget compared to 16/17 Projection
Professional Services	314,000	405,000	91,000
R&M / Materials / Equipment	38,000	41,000	3,000
Other Expenses	49,000	71,000	22,000
Other General & Administrative	211,000	212,000	1,000
Total	**$612,000**	**$729,000**	**$117,000**

WRD participates in a variety of activities to ensure that the use of recycled water for groundwater recharge purposes continues to remain safe. From an operational standpoint, the District will continue to fulfill groundwater monitoring as required by the permits and submit the results to the regulatory agencies to demonstrate that the current practices and operation of utilizing recycled water, along with other sources of water, remain safe.

In addition to providing regular monitoring and sampling associated with the spreading grounds, WRD, in conjunction with other agencies, participates in research efforts to more fully investigate the effectiveness of soil aquifer treatment during percolation. These studies are partially sponsored by the WateReuse Foundation and the American Water Works Association Research Foundation (AWWARF). The overall objectives are to characterize the percolation process and quantify the purifying properties of the underlying soil on constituents of concern such as nitrogen, total organic compounds (TOC), biodegradable dissolved organic carbon (BDOC), and emerging contaminants, such as pharmaceuticals, endocrine disruptors, and personal care products. For the upcoming year, a research project with the Colorado School of Mines will look at the blending of different qualities of recycled water (tertiary and fully advanced treated) and the impacts, if any, on soil aquifer treatment.

Recycled water represents a significant portion of the source water portfolio for the three seawater intrusion barrier projects (Alamitos Gap, West Coast, and Dominguez Gap Barriers) as well as the upcoming Groundwater Reliability Improvement Project (GRIP) and Montebello Forebay recharge project.

Projects under this program help to improve the reliability and utilization of an available local resource, i.e., recycled water, which is used to improve replenishment capabilities. This is a regular program with standard, recurring year to year activities. The projects under this program are funded entirely from the Replenishment Fund.

2016/17 Accomplishments

- Continued to comply with water recycling permit requirements for the Montebello Forebay Spreading Grounds, including bi-monthly monitoring of monitoring wells, semi-annual monitoring of production wells and quarterly monitoring of intakes to the spreading facilities.
- Continued to monitor recycled water use at seawater barrier wells, collecting hundreds of groundwater samples for analysis. Completed quarterly and annual permit compliance reports.
- Coordinated with Colorado School of Mines to develop a scope of work for a new research project on using recycled water blends to test their impacts on receiving groundwater and soil aquifer treatment.

2017/18 Objectives

- Update the Compliance Assessment Report (CAR) for the Montebello Forebay tertiary spreading project after receiving comments from Division of Drinking Water.
- Initiate work on the updated Title 22 Engineering Report for the Montebello Forebay tertiary water recharge project.
- Continue to comply with water recycling permit requirements for the Montebello Forebay Spreading Grounds, including bi-monthly monitoring of monitoring wells, semi-annual monitoring of production wells and quarterly monitoring of intakes to the spreading facilities, until permit amendment is obtained with modifications to this sampling plan.
- Continue to facilitate the ongoing dialogue between the Sanitation Districts of Los Angeles County and the Division of Drinking Water to help increase the amount of recycled water from the San Jose Creek East Water Reclamation Plant conveyed to the spreading grounds. Currently, approximately 5 million gallons per day of the plant's influent is being wasted due to certain regulatory constraints.
- Work to develop use of Los Coyotes water reclamation plant water, either directly or as an offset trade with Central Basin MWD to receive their water rights for GRIP.
- Collaborate with other agencies and organizations on research investigations of percolation of recycled water.

Basis for Changes 2016/17 Projected to 2017/18 Budget

The increase is due to a required tracer study to be performed in FY2017/18 which was originally budgeted in FY2016/17 but postponed due to decreased forecast.

Performance measurement results for the past two fiscal years in addition to goals for FY2017/18 are presented below.

Table 58
MONTEBELLO FOREBAY RECYCLED WATER
Performance Measures

	FY 2015/16 ACTUAL	FY 2016/17 ACTUAL	FY 2017/18 BUDGET	DISTRICT GOAL
1. GOAL: Continue to comply with water recycling permit requirements for the Montebello Forebay Spreading Grounds				Provide Safe and Reliable Groundwater
MEASURE: Complied with the water recycling permit requirements for the Montebello Forebay Spreading Grounds	Yes	Yes	Yes	
2. GOAL: Perform bi-monthly monitoring of monitoring wells				Provide Safe and Reliable Groundwater
MEASURE: Successful bi-monthly monitoring of wells	Yes	Yes	Yes	
3. GOAL: Perform semi-annual monitoring of production wells				Provide Safe and Reliable Groundwater
MEASURE: Successful semi-monthly monitoring of wells	Yes	Yes	Yes	
4. GOAL: Perform quarterly monitoring of intakes to the spreading facilities				Provide Safe and Reliable Groundwater
MEASURE: Successful quarterly monitoring of intakes	Yes	Yes	Yes	
5. GOAL: Evaluate opportunities to increase recycled water reuse for groundwater recharge at the spreading grounds				Provide Safe and Reliable Groundwater
MEASURE: Facilitated the ongoing dialogue between the SDLAC and the Division of Drinking Water to help increase the amount of recycled water from the SJC East Water Reclamation Plant conveyed to the spreading grounds	Yes	Yes	Yes	
6. GOAL: Collaborate with other agencies and organizations on research investigations of percolation of recycled water				Provide Safe and Reliable Groundwater
MEASURE: Collaborated with other agencies and organizations on research investigations of recycled water percolation	Yes	Yes	Yes	
7. GOAL: Initiate work on updated Title 22 Engineering Report for the Montebello Forebay and complete CAR.				Provide Safe and Reliable Groundwater and Obtain Independence from Imported Water Sources
MEASURE: Submit CAR and progress towards updated Title 22 Engineering Report	N/A	N/A	N/A	

PROJECT 005 GROUNDWATER RESOURCE PLANNING

Background

The Groundwater Resources Planning Program was instituted to evaluate basin management issues and to provide a means of assessing project impacts over the Central and West Coast Groundwater Basins. Prior to moving forward with a new project, an extensive evaluation is undertaken. Within the Groundwater Resources Planning Program, new projects and programs are analyzed based on benefits to overall basin management. This analysis includes performing an extensive economic evaluation to compare estimated costs with anticipated benefits. As part of this evaluation process, all new capital projects are brought to the District's Technical Advisory Committee (TAC) for review and recommendation. Projects deemed worthy by the TAC and District Board will be recognized as independent projects and may be included within the District's Five-Year Capital Improvement Program.

WRD will continue to coordinate with basin stakeholders to develop groundwater storage programs. Meanwhile, the District will also continue to determine the effects of such programs on the overall management of the basins and the specific impacts to aspects, such as water levels, annual overdraft, accumulated overdraft, etc. The management of this program requires close review and administration by District staff.

Table 59
Project 005 - GROUNDWATER RESOURCE Planning Budget Summary

EXPENSE CATEGORY	2016/17 Projection	2017/18 Proposed Budget	17/18 Budget compared to 16/17 Projection
Professional Services	156,000	137,000	(19,000)
R&M / Materials / Equipment	-	-	-
Other Expenses	14,000	9,000	(5,000)
Other General & Administrative	144,000	92,000	(52,000)
Total	**$314,000**	**$238,000**	**$(76,000)**

During the coming year, work under this program will continue to focus on storage issues, operational alternatives for the Central and West Coast basins, and implementation of the District's Water Independence Now, or WIN program. The WIN program seeks to replace the District's imported water demands at the three seawater intrusion barriers and spreading grounds with locally available recycled water sources.

In addition, District staff will hold workshops with basin stakeholders to review and facilitate the development of concepts identified in the Groundwater Basins Master Plan. The concepts identified in the Plan are intended to further reduce the region's reliance on imported water through the development of local resources.

The District will continue to evaluate projects identified in the CIP. Specifically, funds have been allocated to perform a more in-depth evaluation of projects in order to make them more competitive for grant funding opportunities.

District staff will continue to monitor and participate in the Greater Los Angeles Integrated Regional Water Management Plan (GLAC IRWMP). Specifically, the District serves as the co-chair for the GLAC IRWM Lower Los Angeles and San Gabriel Rivers Subcommittee. Participation in this process is necessary if the District wishes to secure grant funding under Proposition 84, Proposition 1, and other state grant funding opportunities. District staff will also continue to monitor other State and Federal grant programs to determine applicability to the District's list

of potential projects. WRD will continue to work with Federal agencies, such as the U.S. Bureau of Reclamation to identify potential opportunities for funding.

Projects under the Groundwater Resources Planning Program serve to improve replenishment operations and general basin management. Accordingly, this program is wholly funded through the Replenishment Fund.

2016/17 Accomplishments

- Received Proposition 1 Loan and Grant Funding Awards:
- $80 million 1% loan and $15 million grant from the Water Recycling Program.
- $1 million grant from the Rivers and Mountains Conservancy Grant Program.
- $7.2 million grant from the Groundwater Grant Program
- Completion of a Programmatic Environmental Impact Report for the Groundwater Basins Master Plan.
- Developed agendas and provided background information for Technical Advisory Committee meetings, including the Five-Year Capital Improvement Program with detailed project summary information and economic analyses.
- Monitored ongoing activities at other regional water agencies and assessed potential impacts of their actions on WRD.
- Participated in the Greater Los Angeles Integrated Regional Water management Planning Process (GLAC IRWM) and served as co-chair of the GLAC IRWM Lower Los Angeles and San Gabriel Rivers Subcommittee.
- Continued coordination efforts with the U.S Army Corps of Engineers and Los Angeles County Department of Public Works to complete an updated feasibility study, to allow for the capture of additional stormwater behind Whittier Narrows Dam.
- Attended monthly and quarterly meetings of the Central and West Basin Water Associations, providing each with an update of up-to-date basin conditions and ongoing District activities.
- Evaluated potential groundwater storage and supply options to optimize District replenishment functions

2017/18 Objectives

- Identify and initiate follow-up studies that arise as a result of the development of the Groundwater Basins Master Plan, specifically maximizing the utilization of the Montebello Forebay.
- Develop an informational workshop regarding water rights management for basin stakeholders
- Review and update the District's Fiver-Year Capital Improvement Program.

- Continue to provide as needed technical support for Judgment amendments for development of conjunctive use framework.
- Continue to attend meetings of the Central and West Basin Water Associations to keep them apprised of ongoing district activities.
- Monitor local, State and Federal grant funding opportunities and assess applicability to District projects.
- Continue managing grant funding received by the District.
- Continue participation in GLAC IRWM and continued participation as the co-chair of the GLAC IRWM Lower Los Angeles and San Gabriel Rivers Subcommittee.
- Continue to monitor other water agencies and assess the impact of their actions on WRD.

Basis for Changes 2016/17 Projected to 2017/18 Budget

A decreased in Other General & Administrative costs is due to reallocation of staff efforts.

Performance measurement results for the past two fiscal years in addition to goals for FY2017/18 are presented below.

Table 60
GROUNDWATER RESOURCE PLANNING
Performance Measures

	FY 2015/16 ACTUAL	FY 2016/17 ACTUAL	FY 2017/18 BUDGET	DISTRICT GOAL
1. GOAL: Develop, and complete, Programmatic Environmental Impact Report (PEIR) for Groundwater Basins Master Plan **MEASURE:** % completion of PEIR	90%	100%	COMPLETED	Provide Safe and Reliable Groundwater
2. GOAL: Develop and evaluate concepts for increased utilization of locally available resources for replenishment. **MEASURE:** # of evaluations performed and supply options to optimize District replenishment functions	In Progress	In Progress	In Progress	Obtain Independence from Imported Water Sources
3. GOAL: Review and update the District's 5-year capital improvement program **MEASURE:** WRD's 5-year capital improvement program reviewed, updated and approved by BOD	Yes	Yes	Yes	Provide Safe and Reliable Groundwater and Obtain Independence from Imported Water Sources

4. GOAL: Continue participation in IRWM Planning Process for Greater Los Angeles Region **MEASURE:** Participation in the Greater Los Angeles IRWM Planning Process (GLAC IRWM)	Yes	Yes	Yes	Provide Safe and Reliable Groundwater
5. GOAL: Continue coordination efforts with the U.S. Army Corps of Engineers and LACDPW to complete the update of studies to allow for the capture of additional stormwater behind Whittier Narrows Dam	Yes	Yes	Yes	Provide Safe and Reliable Groundwater and Obtain Independence from Imported Water Sources
MEASURE: % completion of study updates	50%	50%	75 %	
6. GOAL: Continue to provide technical support for development of groundwater storage projects **MEASURE:** Stakeholder meetings and workshops	4	6	6	Provide Safe and Reliable Groundwater
7. GOAL: Continue to evaluate District projects in order to make them more competitive for future grant funding opportunities. (e.g., monitoring / assessing potential grant funding opportunities) **MEASURE:** WRD's grant funding evaluation opportunities	Prop 84 Prop 1	Prop 1	Prop 1	Provide Safe and Reliable Groundwater
8. GOAL: Continue to attend meetings of the Central and West Basin Water Associations to keep them appraised of ongoing District activities **MEASURE:** Central and West Basin Water Associations meeting attended	24	24	24	Provide Safe and Reliable Groundwater
9. GOAL: Continue to monitor other water agencies and assess the impact of their actions on WRD **MEASURE:** Number of other water agencies assessed	5	5	5	Provide Safe and Reliable Groundwater

PROJECT 18 DOMINGUEZ GAP BARRIER RECYCLED WATER PROJECT

Background

This Project involves the delivery of recycled water from the City of Los Angeles Terminal Island Treatment Plant (TITP) to the Dominguez Gap Barrier (DGB). The portion of the TITP effluent destined for the Barrier first undergoes a set of advanced treatment, consisting of microfiltration, reverse osmosis, and chlorination, at the Advanced Water Treatment Facility. The plant has been recently expanded from 6.0 million gallons per day (mgd) to 10.0 mgd with the goal to eliminate the use of imported water at the DGB.

Table 61
Project 018 - DOMINGUEZ GAP BARRIER
Recycled Water Budget Summary

EXPENSE CATEGORY	2016/17 Projection	2017/18 Proposed Budget	17/18 Budget compared to 16/17 Projection
Professional Services	112,000	125,000	13,000
R&M / Materials / Equipment	-	18,000	18,000
Other Expenses	6,000	9,000	3,000
Other General & Administrative	130,000	67,000	(63,000)
Total	**$248,000**	**$219,000**	**$(29,000)**

The City of Los Angeles Bureau of Sanitation (LABOS) and Los Angeles Department of Water and Power (LADWP) are responsible for the treatment and delivery of the recycled water and all the water quality sampling at the treatment plant associated the final recycled water. The District conducts groundwater monitoring, which is required to observe changes in aquifer water quality conditions and to anticipate potential problems before recycled water reaches drinking water wells. The District also performs groundwater modeling to simulate the fate and transport of the recycled water in the aquifers after injection. This monitoring commenced with the start of the recycled water deliveries in February 2006. Baseline monitoring was completed to establish preexisting groundwater quality conditions prior to the start of deliveries.

Recycled water use at the barriers improves the reliability of a water supply that is needed on a continuous basis, in order to prevent seawater intrusion. Traditionally, water purchases for the barriers have been viewed as a replenishment function. Therefore, this program is funded entirely through the Replenishment Fund.

2016/17 Accomplishments

- Received regulatory approval on a new permit for the plant expansion and approval to go to 100% recycled water.
- Participated in regular meetings with LABOS, LADWP, and LACDPW to measure treatment plant upgrade progress and draft a new agreement between parties.
- Continued to prepare groundwater compliance monitoring reports to provide to project permittees LADWP, LABOS, and LACDPW.
- Continued to conduct groundwater monitoring in accordance with the permit requirements.

2017/18 Objectives

- Continue to conduct groundwater monitoring and modeling as necessary in accordance with new permit requirements.
- Finalize a new operations and water purchase agreement.

Basis for Changes 2016/17 Projected to 2017/18 Budget

No significant changes noted.

Performance measurement results for the past two fiscal years in addition to goals for FY2017/18 are presented below.

Table 62
DOMINGUEZ GAP BARRIER RECYCLED WATER PROJECT
Performance Measures

	FY 2015/16 ACTUAL	FY 2016/17 ACTUAL	FY 2017/18 BUDGET	DISTRICT GOAL
1. GOAL: Prepare compliance monitoring reports and coordinate reporting reporting/compliance for submittal to permittees (LADWP, LABOS, & LACDPW) to ensure all regulatory permit requirements and deadlines are met.				Obtain Independence from Imported Water Sources
MEASURE % of regulatory permit requirements and deadlines met	100%	100%	100%	
2. GOAL: Conduct groundwater monitoring/sampling in accordance with the new permit requirements				Obtain Independence from Imported Water Sources
MEASURE: In compliance with permit requirements (Yes/No)	Yes	Yes	Yes	

PROJECT 23 REPLENISHMENT OPERATIONS

Background

WRD actively monitors the operations and maintenance practices at the spreading grounds and seawater barrier wells owned and operated by the Los Angeles County Department of Public Works (LACDPW). Optimizing replenishment opportunities is fundamentally important to WRD, in part because imported and recycled water deliveries directly affect the District's annual budget. Consequently, the District seeks to ensure that the conservation of stormwater is maximized, and that imported and recycled water replenishment are optimized.

Table 63
PROJECT 023 - REPLENISHMENT OPERATIONS
Budget Summary

EXPENSE CATEGORY	2016/17 Projection	2017/18 Proposed Budget	17/18 Budget compared to 16/17 Projection
Professional Services	91,000	102,000	11,000
R&M / Materials / Equipment	24,000	34,000	10,000
Other Expenses	42,000	47,000	5,000
Other General & Administrative	183,000	148,000	(35,000)
Total	**$340,000**	**$331,000**	**$(9,000)**

WRD coordinates regular meetings with LACDPW, Metropolitan Water District of Southern California, Sanitation Districts of Los Angeles County, and other water interests to discuss replenishment water availability, spreading grounds operations, scheduling of replenishment deliveries, seawater barrier improvements, upcoming maintenance activities, and facility outages or shutdowns. The District tracks groundwater levels in the Montebello Forebay weekly to assess general basin conditions and to determine the level of artificial replenishment needed. Additionally, WRD monitors the amount of recycled water used at the spreading grounds and seawater barriers, to maximize its use while complying with regulatory limits.

As its name implies, this program deals primarily with replenishment issues, and its costs are borne completely by the Replenishment Fund.

2016/17 Accomplishments

- Finalized the Montebello Forebay Recharge Enhancement Study (MFRES) and the spreading grounds operational model to simulate operations of the Montebello Forebay spreading grounds.
- Continued working cooperatively with the LADWP, LABOS, and LACDPW on the Terminal Island Treatment Plant Expansion to provide increased recycled water to the Dominguez Gap Barrier.
- Continued participating in bimonthly meetings with replenishment agencies to maximize groundwater recharge opportunities.
- Continued to evaluate new potential replenishment opportunities (e.g., replenishment water sources, spreading grounds improvements).
- Presented monthly updates to the WRD Water Resources Committee.

2017/18 Objectives

- Continue working cooperatively with the LACDPW on recommendations from the Montebello Forebay Recharge Enhancement Study (MFRES).
- Continue working cooperatively with the LADWP, LABOS, and LACDPW on the Terminal Island Treatment Plant Expansion to provide increased recycled water to the Dominguez Gap Barrier.
- Continue participating in bimonthly meetings with replenishment agencies to maximize groundwater recharge opportunities.
- Continue to evaluate new potential replenishment opportunities (e.g., replenishment water sources, spreading grounds improvements).
- Continue to provide monthly updates to the WRD Water Resources Committee.

Basis for Changes 2016/17 Projected to 2017/18 Budget

No significant changes noted.

Performance measurement results for the past two fiscal years in addition to goals for FY2017/18 are presented below.

Table 64
REPLENISHMENT OPERATIONS
Performance Measures

	FY 2015/16 ACTUAL	FY 2016/17 ACTUAL	FY 2017/18 BUDGET	DISTRICT GOAL
1. GOAL: Continue working cooperatively with the LADWP, LABOS, and LACDPW on the Terminal Island Treatment Plant Expansion to provide increased recycled water to the Dominguez Gap Barrier				Provide Safe and Reliable Groundwater
MEASURE: Recycled water increased to the Dominguez Gap Barrier	3,590 AF	4,800 AF	Maximize	
2. GOAL: Continue monitoring groundwater levels at the Rio Hondo and San Gabriel River Spreading Grounds				Provide Safe and Reliable Groundwater
MEASURE: Continued monitoring groundwater levels at the Rio Hondo and San Gabriel River Spreading Grounds	Yes	Yes	Yes	
3.GOAL: Continue participating in bimonthly meetings with replenishment agencies to maximize groundwater recharge opportunities				Provide Safe and Reliable Groundwater
MEASURE: Participation in bimonthly meetings	Yes	Yes	Yes	
4. GOAL: Continue to evaluate new potential replenishment opportunities (e.g., replenishment water sources, spreading grounds improvements)				Provide Safe and Reliable Groundwater
MEASURE: # of successful new potential replenishment opportunities	6	N/A	Maximize	
5. GOAL: Complete the Montebello Forebay Recharge Enhancement Study (MFRES) and the spreading grounds operational model to simulate operations of the Montebello Forebay spreading grounds				Provide Safe and Reliable Groundwater
MEASURE: % completion GW Flow Model Conversion and Project Documentation	95%	100%	Completed	

6. GOAL: Testing of Interconnection Pipeline between San Gabriel Coastal Spreading Grounds and Rio Hondo Coastal Spreading Grounds				Provide Safe and Reliable Groundwater
MEASURE: Pumps tested for minimum of five (5) consecutive days	N/A	N/A	Planned	
7. GOAL: Continue working cooperatively with the LACDPW, LBWD, and OCWD on the Alamitos Gap Barrier Project to provide increased recycled water to the Alamitos Gap Barrier				Provide Safe and Reliable Groundwater
MEASURE: Recycled water increased to the Alamitos Gap Barrier	1,310 AF	4,240 AF	Maximize	
8. GOAL: Continue working cooperatively with the LACDPW and WBMWD on the West Coast Barrier Project to provide increased recycled water to the West Coast Barrier				Provide Safe and Reliable Groundwater
MEASURE: Recycled water increased to the West Coast Barrier	13,410 AF	17,000 AF	Maximize	
9. GOAL: Continue working cooperatively with the LACDPW and CSD on the Montebello Forebay Spreading Grounds to provide increased recycled water				Provide Safe and Reliable Groundwater
MEASURE: Recycled water increased recycled water to the Spreading Grounds	55,890 AF	55,000 AF	Target 63,000 AF	

PROJECT 033 GROUNDWATER RELIABILITY IMPROVEMENT PROGRAM

Background

The Water Replenishment District of Southern California (WRD), which serves approximately 4 million people in 43 cities, currently replenishes the Central and West Coast Basins with over 95,000 acre-feet per year of water. Approximately 64,000 acre-feet of this total is met using recycled water with another 21,000 acre-feet of water being imported into the basin. The future availability of this imported water is uncertain. Given the prolonged statewide drought and uncertain future of imported water supplies for Southern California, WRD is in the process of implementing the District's Water Independence Now, or the WIN program. The WIN program seeks to replace the District's imported water demands at the three seawater intrusion barriers and spreading grounds with locally available recycled water sources.

Table 65
Project 033 - GROUNDWATER RELIABILITY IMPROVEMENT Program (GRIP) Budget Summary

EXPENSE CATEGORY	2016/17 Projection	2017/18 Proposed Budget	17/18 Budget compared to 16/17 Projection
Professional Services	201,000	277,000	76,000
R&M / Materials / Equipment	-	-	-
Other Expenses	58,000	56,000	(2,000)
Other General & Administrative	96,000	264,000	168,000
Total	**$355,000**	**$597,000**	**$242,000**

A corner stone of the WIN program is the Groundwater Replenishment Improvement Program (GRIP). The goal of the GRIP is to replace imported water currently being used at the spreading grounds for replenishing the area's groundwater supplies with 21,000 acre feet per year of recycled water, a locally sustainable water resource. The GRIP was instituted to identify new and reliable water supplies for use as replenishment water. One of these program's main elements includes the construction of an Advanced Water Treatment Facility (AWTF), entitled the GRIP AWTF, to further purify recycled water from LACSD's San Jose Creek Water Reclamation Plant using micro filtration and reverse osmosis followed by disinfection with advanced oxidation (utilizing ultra-violet light and hydrogen peroxide). The highly treated recycled water will be transported through an existing pipeline to spreading basins located along the San Gabriel River for percolation into the Central Basin to offset the demand for imported water. The GRIP AWTF will provide 10,000 acre-feet per year of highly treated recycled water that is currently being disposed of in the San Gabriel River, and which ultimately flows to the ocean. An additional 11,000 acre-feet per year of tertiary treated recycled water will also be directed to the spreading basins for groundwater recharge in the same manner which has been in operation for over 50 years.

During the coming year, work will continue to focus on completing both design and construction related project activities simultaneously using a design-build method of project delivery. Work is estimated to continue until the GRIP AWTF is fully operational in FY 2018/19.

The primary purpose of this project is to identify new and reliable water supplies for use as replenishment water, therefore, it is 100% funded from the Replenishment Fund.

2016/17 Accomplishments

- Commenced construction of GRIP AWTF project
- Completed GRIP AWTF Brine Pipeline project
- Completed construction of three (3) groundwater injection wells
- Completed State Revolving Fund funding agreement
- Complete GRIP AWTF Title 22 Engineering Report

2017/18 Objectives

- Continue construction of GRIP AWTF project
- Complete GRIP AWTF Title 22 Engineering Report
- Commence plant startup and preliminary commissioning activities

Basis for Changes 2016/17 Projected to 2017/18 Budget

GRIP construction continues with additional staff resources being allocated to the project. Additionally, $76,000 in other consultants is added to prepare for GRIP going on-line in July 2018.

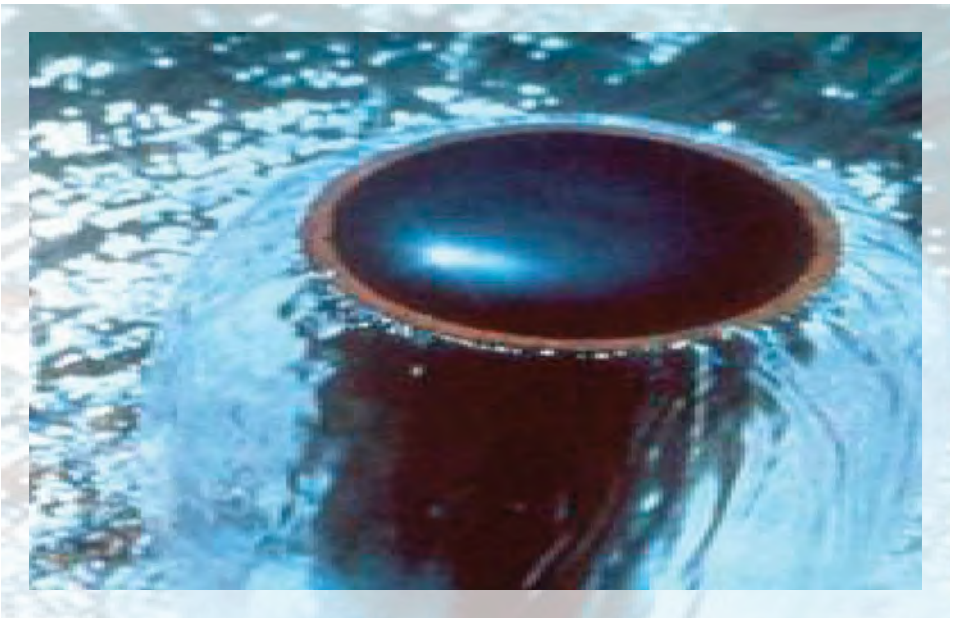
Performance measurement results for the past two fiscal years in addition to goals for FY2017/18 are presented below.

Table 66

GROUNDWATER RELIABILITY IMPROVEMENT PROGRAM
Performance Measures

	FY 2014/15 ACTUAL	FY 2015/16 ACTUAL	FY 2016/17 BUDGET	DISTRICT GOAL
1. GOAL: Design & Construction of the GRIP AWTF				Obtain Independence from Imported Water Sources
MEASURE: Construction Phase of the GRIP	10%	40%	30%	
2. GOAL: Construction of the two new Diversion (Turnout) Structures at the SGRCSG				Obtain Independence from Imported Water Sources
MEASURE: Construction Phase of the two Diversion (Turnout) Structures at the SGRCSG	100%	File Notice of Completion	N/A	
3. GOAL: State Revolving Fund (SRF) funding agreement				Obtain Independence from Imported Water Sources
MEASURE: Update on the SRF	In Process	Final Draft Review	Final Funding Agreement	
4. GOAL: Construction of three groundwater injection wells				Obtain Independence from Imported Water Sources
MEASURE: Installation of groundwater monitoring wells	N/A	Completed	N/A	
Installation Phase of three groundwater injection wells	N/A	Starting Phase	Completed well drilling	
5. GOAL: GRIP AWTF Brine Pipeline Project				Obtain Independence from Imported Water Sources
MEASURE: Brine Disposal Pipeline & Street Improvement Phase	N/A	Construction Contract Awarded	Filed Project Notice of Completion	

Clean Water Projects & Programs



The projects and programs identified under Clean Water Projects and Programs have been developed primarily to preserve high quality groundwater.

Clean Water Projects and Programs

PROJECT 002 GOLDSWORTHY DESALTER

Background

The Robert W. Goldsworthy Desalter (Goldsworthy Desalter) began operating in 2002 to treat brackish groundwater associated with a saline plume stranded inland of the West Coast Basin Barrier after the barrier was put into operation. The Goldsworthy Desalter, including the three associated production wells, are operated by the City of Torrance, and the product water is delivered for potable use via the City's existing distribution system.

The District has been expanding the Goldsworthy Desalter to double its production capacity from 2.5 million gallons per day (mgd) to 5.0 mgd. The District was awarded a total of $7 million in grant funding for this expansion project, including $4 million from the Proposition 84 IRWM Round 3 Grant and $3 million from the Proposition 50 Water Desalination Grant. Plant construction/expansion activities are expected to be completed by the first quarter of FY2017/18.

Table 67
Project 002 - GOLDSWORTHY DESALTER
Budget Summary

EXPENSE CATEGORY	2016/17 Projection	2017/18 Proposed Budget	17/18 Budget compared to 16/17 Projection
Professional Services	250,000	275,000	25,000
R&M / Materials / Equipment	9,000	497,000	488,000
Other Expenses	99,000	467,000	368,000
Other General & Administrative	139,000	456,000	317,000
Total	**$497,000**	**$1,695,000**	**$1,198,000**

The costs for this project will consist of operation & maintenance activities and replacement costs, as well as capital improvement costs (through the District's bond proceeds) for the Goldsworthy Desalter expansion. The purpose of the Desalter is directly related to remediating degraded groundwater quality, and costs are thus attributed 100% to the Clean Water Fund.

Additional measures may be necessary in the future to fully contain and remediate the saline plume. WRD is pursuing long-term solutions to this problem and continues to work with the City of Torrance, the Technical Advisory Committee, and other stakeholders to improve groundwater quality in the West Coast Basin.

2016/17 Accomplishments

Construction activities continued for the expansion of the Goldsworthy Desalter from a production capacity of 2.5 million gallons per day (mgd) to 5.0 mgd. The plant was not operating during this period.

2017/18 Objectives

Goldsworthy Desalter construction/expansion activities are expected to be completed by the end of August 2018. Once expansion activities are completed, it is anticipated that the Goldsworthy Desalter will produce 5 million gallons per day of potable water for use by the City of Torrance.

Basis for Changes 2016/17 Projected to 2017/18 Budget

Due to the Madrona well experiencing groundwater contamination, as well as an extended construction period related to standardization of SCADA, CMMS and Asset Management programs, the Desalter did not use the chemicals, materials and repairs that was anticipated.

Due to the extension of the Goldsworthy Desalter, there are cost increases to chemical costs used during processing, materials and equipment usage, increased electrical costs and general repairs and maintenance. The residual surcharge fee has increased as well as some staff labor costs.

Performance measurement results for the past two fiscal years in addition to goals for FY2017/18 are presented below.

Table 68
GOLDSWORTHY DESALTER
Performance Measures

	FY 2015/16 ACTUAL	FY 2016/17 ACTUAL	FY 2017/18 BUDGET	DISTRICT GOAL
1. GOAL: Construction of two new production wells for the Desalter Expansion project.				Provide Safe and reliable groundwater
MEASURE: % of Completion.	100%	Completed and converted into monitoring wells	N/A	
Number of wells completed as monitoring wells to collect useful information for the basin	2	3	N/A	
2. GOAL: Construction of the Goldsworthy Expansion.				Provide Safe and reliable groundwater
MEASURE: % of Completion.	30%	83%	100%	
3. GOAL: Provide Grant Funding for the Expansion project.				Provide Safe and reliable groundwater
MEASURE: Funds received from the Grant Funding.	$7.0 Million	$7.0 Million	N/A	
4. GOAL: Treatment of degraded groundwater from the saline plume and turn it into potable water to supply to the City of Torrance.				Provide Safe and reliable groundwater
MEASURE: Amount of degraded groundwater treated from the Saline Plume each year.	500 AF	0 AF	1000 AF	
5. GOAL: Permit Compliance for Water Quality				Provide Safe and reliable groundwater
MEASURE Sample for water quality and report to State regulatory agency	Yes	Yes	Yes	

PROJECT 006 GROUNDWATER QUALITY IMPROVEMENT PROGRAM

Background

This comprehensive program represents the District's ongoing efforts to address water quality issues that affect its projects and the pumpers' facilities. The District monitors and evaluates potential impacts of pending water quality regulations and proposed legislations. WRD reviews the justifications and the rationale accompanying the proposed requirements and, if warranted, joins in coordinated efforts with other interested agencies to resolve significant issues of concerns during the early phases of the regulatory and/or legislative processes.

The District continues to evaluate and project water quality compliance in production wells, monitoring wells, and recharge/injection waters of the basins. And where potential issues are identified, appropriate remedial actions are developed along with the associated cost estimates to achieve compliance.

Table 69
Project 006 - GROUNDWATER QUALITY IMPROVEMENT Program Budget Summary

EXPENSE CATEGORY	2016/17 Projection	2017/18 Proposed Budget	17/18 Budget compared to 16/17 Projection
Professional Services	305,000	325,000	20,000
R&M / Materials / Equipment	41,000	31,000	(10,000)
Other Expenses	84,000	84,000	-
Other General & Administrative	273,000	263,000	(10,000)
Total	**$703,000**	**$703,000**	**$-**

The WRD service area includes a large and diverse industrial base. Consequently, many potential groundwater contamination sources exist within the District boundaries, including but not limited to leaking underground storage tanks, refineries and petrochemical plants, dry cleaning facilities, auto repair shops, metal works facilities, and others. Such potential contamination sources may pose a threat to the drinking water aquifers. WRD, therefore, established the Groundwater Contamination Prevention Program as a key component of the Groundwater Quality Program, in an effort to minimize or eliminate existing and potential threats to groundwater supplies.

WRD is also participating in the Water Augmentation Study, a multi-year investigation by the Council for Watershed Health for the purpose of evaluating the feasibility and impact of using low impact development strategy to capture storm runoff that would have otherwise been discharged to the surface water.

Much of the work for the coming year will involve additional investigations at well sites known to have contaminated water, continued tracking of water quality regulations and proposed legislation affecting production and replenishment operations, further characterization of contaminant migration into the deeper aquifers, and evaluating the need to initiate cleanup activities at contaminated sites. All work under this program is related to water quality and cleanup efforts and therefore, is funded entirely by the Clean Water Fund.

The District continues to administer the Title 22 Groundwater Monitoring Program in the Central Basin and one system in the West Basin, which provides source water monitoring of 84 active wells owned and operated by 22 pumpers. In addition to performing the required compliance monitoring, the District prepares the annual Consumer Confidence Reports for these pumpers.

2016/17 Accomplishments

- Coordinated and administered meetings of the Groundwater Contamination Forum as a means for key stakeholders to share data and provide updates on major groundwater contaminated sites in the Central Basin and West Coast Basin.
- Continued to work in close consultation with project managers of the United States Environmental Protection Agency (USEPA), California Department of Toxic Substances Control (DTSC), and Los Angeles Regional Water Quality Control Board (LARWQCB) to provide data and technical support to expedite the investigation and cleanup of high-priority groundwater contaminated sites in the Central Basin and West Coast Basin.
- Continued to administer meetings of the Los Angeles Forebay Groundwater Task Force and work with regulatory agencies and water purveyors to investigate the extent of the regional volatile organic compound (VOC) and perchlorate plumes in the Los Angeles Forebay. WRD received a grant to remediate a groundwater plume "hot spot" within the City of Vernon. The State is covering a majority of the costs with Proposition 1 grant funding in the amount of $7,275,675 (or ~80%). WRD will be providing matching funds in the amount of $1,839,070 (or ~20%).
- Participated in the multi-agency Los Angeles Basin Groundwater Restoration Convening meetings to expedite the investigation, identification, and eventual remediation of potential sources associated with contaminated drinking water wells in the Central Basin and West Coast Basin.
- Attended public meetings for various groundwater cleanup projects in the basin including those associated with the Del Amo / Montrose Superfund Sites and restoration of the former Norwalk Tank Farm.
- Coordinated the sampling of three deep nested groundwater monitoring wells installed by WRD. The wells were installed to characterize the vertical extent of groundwater contamination associated with the Omega Chemical Superfund Site. The data resulted in the regulatory agency requiring additional groundwater delineation as documented in a consent decree issued in April 2016 and subsequent investigation work plans issued in April 2017. WRD continues to work closely with the responsible parties and EPA.
- WRD staff continue to provide technical support to multiple pumpers in the basin regarding the installation of water supply wells in proximity of existing groundwater plumes and concerns raised by the Division of Drinking Water (DDW).

- Monitored potential impacts of pending legislation and regulations on drinking water quality by participating in the California WateReuse Legislative / Regulatory Committee, Association of California Water Agencies' Clean Water and Safe Drinking Water Committees, and subscribing to listserv of various regulatory agencies.
- WRD staff have been participating in various activities related to the Sustainable Groundwater Management Act (SGMA):
  - Hosted a workshop with managers of adjudicated basins led by the Department of Water Resources (DWR).
  - Participating in a group discussion regarding a sustainable solution for two fringe areas located in the northern portion of the Central Basin. The main stakeholders include the City of Beverly Hills, City of Culver City, Golden State Water Company, and Los Angeles Department of Water and Power.
  - Prepared and submitted an "alternative analysis" ahead of the regulatory deadline to the DWR. The analysis presented the current conditions within the fringe areas as required by the act as administered by the DWR.
  - Participated on two panel discussions at a conference sponsored by the Groundwater Resources Association of California (GRAC) and American Groundwater Trust (AGWT).
- Conducted quarterly status update meetings with our on-call water quality laboratory (Eurofins Eaton Analytical). The meetings provide an opportunity for staff to communicate directly with our vendor partners ensuring the highest quality work for the District.
- Presented "addressing groundwater contamination in water supply wells" at the Water Education Seminar / American Water Works Association (WES / AWWA).
- WRD staff participated in the preparation of a perfluorinated compound (an emerging chemical of concern) guidance document entitled "Groundwater and PFAS: State of Knowledge and Practice" recently released for public comment by the National Groundwater Association (NGWA).
- Commenced planning efforts for our annual Groundwater Quality Workshop. The workshop is currently scheduled for August 2017.

2017/18 Objectives

- Maintain a high level understanding of the highest priority contamination sites within the basin and work collaboratively with project managers at the USEPA, DTSC, and LARWQCB. Coordinate regular status update meetings for key sites via the Groundwater Contamination Forum.
- Work collaboratively with various regulatory agencies to identify responsible parties and address groundwater contamination in the Los Angeles Forebay. WRD will continue to build upon the work initiated under the Groundwater Task Force.
- Participate in the multi-agency Los Angeles Basin Groundwater Restoration Convening.
- Monitor potential impacts of pending legislation and regulations on drinking water quality by subscribing to the listserv of various regulatory agencies and participating in the California WateReuse Legislative/Regulatory Committee, Association of California Water Agencies' Clean Water, and Safe Drinking Water Committees.
- Provide technical support to our pumping community and continued communication via the Annual Groundwater Quality Workshop.
- Partner with and evaluate additional stormwater recharge opportunities through the Council for Watershed Health on the Water Augmentation Study and the Southern California Water Committee.
- Participate in the technical advisory committee of the Los Angeles Basin Stormwater Conservation Study undertaken by the Los Angeles County Public Works and United States Bureau of Reclamation.
- Administer the Title 22 Groundwater Monitoring Program.
- Commence groundwater remediation efforts with grant funds being administered by Prop 1. Continue to pursue additional groundwater cleanup projects with available grant funds related to Prop 1.

Basis for Changes 2016/17 Projected to 2017/18 Budget

No significant changes noted.

Performance measurement results for the past two fiscal years in addition to goals for FY2017/18 are presented below.

Table 70
GROUNDWATER QUALITY IMPROVEMENT PROGRAM
Performance Measures

	FY 2015/16 ACTUAL	FY 2016/17 ACTUAL	FY 2017/18 BUDGET	DISTRICT GOAL
1. GOAL: Coordinate and administer meetings of the Groundwater Contamination Forum as a means for key stakeholders to share data and provide updates on major groundwater contaminated sites in the Central Basin and West Coast Basin				Provide Safe and Reliable Groundwater
MEASURE: Successful coordination and hosting of 2 meetings	Yes	Yes	Yes	
2. GOAL: Work in close consultation with project managers of the USEPA, DTSC, and LARWQCB to provide data and technical support to expedite the investigation and cleanup of high-priority groundwater contaminated sites in the Central Basin and West Coast Basin				Provide Safe and Reliable Groundwater
MEASURE: Regular meetings with regulatory agencies	Yes	Yes	Yes	
3. GOAL: Administer meetings of the Los Angeles Forebay Groundwater Task Force and work with regulatory agencies and water purveyors to investigate the extent of the regional VOC and perchlorate plumes in the Los Angeles Forebay				Provide Safe and Reliable Groundwater
MEASURE: Regular meetings with regulatory agencies	Yes	Yes	Yes	
4. GOAL: Participate in the multi-agency agency Los Angeles Basin Groundwater Restoration Convening to expedite the investigation, identification, and eventual remediation of potential sources associated with the contaminated drinking water wells in the Central Basin and West Coast Basin				Provide Safe and Reliable Groundwater
MEASURE: Regular meetings with LA Basin Groundwater Restoration	Yes	Yes	Yes	
5. GOAL: Monitor potential impacts of pending legislation and regulations on drinking water quality				Provide Safe and Reliable Groundwater
MEASURE: Monthly review of pending water quality activities and reporting to Groundwater Quality Committee	Yes	Yes	Yes	
6. GOAL: Conduct the annual groundwater quality workshop for local water purveyors to promote professional learning and networking				Promote Organizational Excellence and also to Advance Groundwater Awareness
MEASURE: Hold Workshop	Yes	Yes	Yes	

7. GOAL: Title 22 Monitoring Program **MEASURE:** Administration of Program	On-going	On-going	On-going	Provide Safe and Reliable Groundwater
8. GOAL: Prop 1 grant funding to remediate perchlorate and VOCs in the Los Angeles Forebay. **MEASURE:** Remediate "hot spot" and identify responsible party in coordination with DTSC and LARWQCB.	N/A	Commenced	On-going	Provide Safe and Reliable Groundwater

PROJECT 012 SAFE DRINKING WATER PROGRAM

Background

WRD's Safe Drinking Water Program ("SDWP") has operated since 1991 and is intended to promote the cleanup of groundwater resources at specific well locations. Through the installation of wellhead treatment facilities at existing production wells, the District expects to remove contaminants from the underground supply and deliver the extracted water for potable purposes. Projects implemented through this program are accomplished through direct input and coordination with well owners.

The current program focuses on the removal of Volatile Organic Compounds (VOCs) and offers financial assistance for the design and equipment of the selected treatment facility. The program is designed to help groundwater pumpers remove VOCs from affected wells to enable the well to meet public drinking water standards. This increases groundwater pumping capacity and reduces dependence on limited and expensive imported water supplies. In addition, removal of VOCs from the groundwater supply helps prevent the contaminants from spreading to other areas.

Table 71
Project 012 - Safe Drinking Water Program Budget Summary

EXPENSE CATEGORY	2016/17 Projection	2017/18 Proposed Budget	17/18 Budget compared to 16/17 Projection
Professional Services	444,000	458,000	14,000
R&M / Materials / Equipment	-	-	-
Other Expenses	17,000	11,000	(6,000)
Other General & Administrative	104,000	57,000	(47,000)
Total	**$565,000**	**$526,000**	**$(39,000)**

Another component of the program offers no-interest loans for other constituents of concern that affect a specific production well. The capital costs of wellhead treatment facilities range from $800,000 to over $2,000,000. Due to financial constraints, this initial cost is generally prohibitive to most pumpers. Financial assistance through the District's SDWP makes project implementation much more feasible. The program places a greater priority on projects involving VOC contamination or other anthropogenic (man-made) constituents, classified as Priority A Projects. Any treatment projects for naturally-occurring constituents would be classified as Priority B Projects and funded on a secondary priority, on a case-by-case basis, and only if program monies are still available during the fiscal year.

New candidates for participation are on the rise. A total of seventeen (17) facilities are already completed and online and one facility has successfully completed removal of the contamination and no longer needs treatment.

Projects under the SDWP involve the treatment of contaminated groundwater for subsequent beneficial use. This water quality improvement assists in meeting the District's groundwater cleanup objectives. Thus, funding for the costs of the program is drawn wholly from the Clean Water Fund.

2016/17 Accomplishments

As an extension of the District's Safe Drinking Water Program, the District approved the creation of the Safe Drinking Water Disadvantage Communities (DAC) Pilot Program. The goal of this program is to assist water systems located in disadvantaged communities within the District's service area with state and federal funding to address the issues related to their drinking water wells. The focus of the program is to provide technical assistance and extensive outreach to help the systems secure funding that is set aside specifically for disadvantaged communities. Currently there are seven water systems participating in the program and receiving assistance and one system has already received state funding.

2017/18 Objectives

The District will continue to assist the water systems participating in the DAC Pilot Program. The District will also continue to see other candidates for the Safe Drinking Water Program.

Basis for Changes 2016/17 Projected to 2017/18 Budget

The decreased in staff labor is being allocated to other projects.

Performance measurement results for the past two fiscal years in addition to goals for FY2017/18 are presented below.

Table 72
SAFE DRINKING WATER PROGRAM
Performance Measures

	FY 2015/16 ACTUAL	FY 2016/17 ACTUAL	FY 2017/18 BUDGET	DISTRICT GOAL
1. GOAL: Identify projects and fund up to $1M to assist candidates with primary or secondary priority contamination removal				Provide Safe and Reliable Groundwater
MEASURE: # of projects funded to provide assistance to candidates with primary or secondary priority contamination removal.	7 (DAC)	3 (SDWP)	7 (DAC) 3 (SDWP) 2 (Loans	

Dual Purpose Projects & Programs

Rubber Dam at the San Gabriel Spreading Grounds

The projects and programs identified under Dual Purpose Projects and Programs support both replenishment activities and high quality groundwater efforts.

Dual Purpose Projects and Programs

PROJECT 010 GEOGRAPHIC INFORMATION SYSTEM (GIS)

Background

The District maintains an extensive database and Geographic Information System (GIS) in-house. The database includes water level and water quality data throughout the entire WRD service area with information drawn not only from the District's Regional Groundwater Monitoring Program, but also from water quality data received from the California Department of Public Health and the District's administration of the Title 22 Monitoring Program in the Central Basin. The system requires continuous update and maintenance but serves as a powerful tool for understanding basin characteristics and overall basin health.

Table 73
Project 010 - Geographic Information Systems (GIS)
Program Budget Summary

EXPENSE CATEGORY	2016/17 Projection	2017/18 Proposed Budget	17/18 Budget compared to 16/17 Projection
Professional Services	50,000	100,000	50,000
R&M / Materials / Equipment	-	-	-
Other Expenses	26,000	45,000	19,000
Other General & Administrative	277,000	127,000	(150,000)
Total	**$353,000**	**$272,000**	**$(81,000)**

GIS, in conjunction with the regional groundwater model, is used to provide better planning and basin management. The system is used to organize and store an extensive database of spatial information, including well locations, water level data, water quality information, well construction data, production data, aquifer locations, and computer model files. Staff uses the system daily for project support and database management. Specific information is available to any District pumper or stakeholder upon request and can be delivered through the preparation of maps, tables, reports, or other compatible format. Additionally, the District's web-based Interactive Well Search tool is available to the public; this web site provides users with limited access to WRD's water quality and production database. The web-based application will be updated in FY 2017/2018 and will expand functionality for WRD staff and outside users.

District staff will continue to streamline and refine the existing data management system and website as well as satisfy both internal and external data requests. Continued use, upkeep, and maintenance of the GIS are planned for the coming year. In addition, District staff is working closely with our consultants to develop and implement the first phase of the District's GIS-based Asset Management and CMMS system. The use of the system supports both replenishment activities and groundwater quality efforts. Accordingly, the cost for this program is equally split between the Replenishment and Clean Water Funds.

2016/17 Accomplishments

- Completed comprehensive review and quality assurance of existing datasets to ensure continued data integrity.
  - Finalized review of the "Wells" layer and identified those wells that we will consider active WRD wells (differentiated from active production wells).
  - Developed proprietary WRD layers for District use, to include:
    - WRD_WaterFacilities_Point
    - WRD_WaterFacilities_Poly
    - WRD_WaterFacilities_Polyline
    - WRD_Owned_Parcels
    - WRD_CIP_Projects
    - WRD_WeatherStations
- Participated in the development and deployment of Phase I of the District's CMMS System and identified areas that need further improvement.
- Updated existing GIS and database management system and made necessary improvements to increase utilization of data.
- Selected consultant to aid the district in developing a replacement for the Interactive Well Search Tool.
- Improved turnaround time to provide maps for all annual reports (RGWMR, ESR, Cost of Service, Watermaster Reports, etc.).
- 2015 Esri User Conference Map Gallery submission selected for 2016 Esri Map Book, Volume 31 (http://www.esri.com/esri-map-book/#/details/20/5)
- Continued integration of GIS with Google Earth for use in presentations and analysis.
- Provided graphics and analysis results, as needed, for District presentations and public outreach materials.

2017/18 Objectives

- Continue comprehensive review of existing datasets and quality assurance measures to ensure continued data integrity.
- Ensure full integration of GIS for presentations and analysis.
- Utilize GIS for development of annual overdraft values used in the ESR.
- Develop graphics for use in the District's Regional Groundwater Monitoring Report
- Continue ongoing review and quality assurance of WRD spatial datasets to ensure continued data integrity.
- Continue participation in the District's CMMS and Asset Management system development and deployment.
- Work with District consultants to achieve goals of District's Information Management Master Plan including:
  - Transition of WRD's extensive data (including spatial data) to a Relational Database Management System (RDBMS) in order to increase utilization and access to data and analysis capabilities.
  - Develop replacement for outdated online Interactive Well Search Tool.
- Work with WRD staff to assess and implement GIS support for new and ongoing projects.
- Work with WRD staff to design and develop Esri Story Maps (https://storymaps.arcgis.com/en/) for use in educational, promotional, and presentation materials.
- Implementation of 3D technologies to visualization of District data.

Basis for Changes 2016/17 Projected to 2017/18 Budget

An increase in professional services is due to a software update to the ArcIMS software. Other General and Administrative costs decreased due to reallocation of staff efforts.

Performance measurement results for the past two fiscal years in addition to goals for FY2017/18 are presented below.

Table 74
GEOGRAPHIC INFORMATION SYSTEMS
Performance Measures

	FY 2015/16 ACTUAL	FY 2016/17 ACTUAL	FY 2017/18 BUDGET	DISTRICT GOAL
1. GOAL: Continue comprehensive review of existing datasets and quality assurance measures to ensure continued data integrity				Provide Safe and Reliable Groundwater
MEASURE: Performed ongoing comprehensive review of existing datasets to ensure continued data integrity	Yes	Yes	Yes	
2. GOAL: Ensure full integration of GIS for presentations and analysis				Provide Safe and Reliable Groundwater
MEASURE: % integration	50%	80%	100%	
3. GOAL: Utilize GIS for development of annual overdraft values used in the ESR				Provide Safe and Reliable Groundwater
MEASURE: Utilized GIS in developing annual overdraft values used in the ESR	Yes	Yes	Yes	
4. GOAL: Develop graphics for use in the District's Regional Groundwater Monitoring Report				Provide Safe and Reliable Groundwater
MEASURE: Generate graphics used in the Regional Groundwater Monitoring Report	Yes	Yes	Yes	
5. GOAL: Refine well location information based on new GPS data				Provide Safe and Reliable Groundwater
MEASURE: Review production, barrier and monitoring well locations (% completed)	50%	100%	Completed	
6. GOAL: Update existing GIS and database management system and make necessary improvements to increase utilization of data				Provide Safe and Reliable Groundwater
MEASURE: Assess and document existing database management system and develop and implement recommended improvements (% completed)	30%	60%	90%	

7. GOAL: Streamline flow of water quality data from the laboratory to District maintained databases **MEASURE:** Develop and document information flows (% completed)	90%	90%	100%	Provide Safe and Reliable Groundwater
8. GOAL: Assess options for further improving GIS data dissemination to groundwater basin stakeholders **MEASURE:** Evaluated various options for continued improvement to disseminate GIS data to groundwater basin stakeholders	Yes	Yes	Ongoing	Provide Safe and Reliable Groundwater and also to Promote Organizational Excellence
9. GOAL: Continue participation in the District's CMMS and Asset Management system development and deployment. **MEASURE:** Assist in development of asset registry, migration to geodatabase and continuing editing and QA/QC	N/A	N/A	Yes	Provide Safe and Reliable Groundwater and also to Promote Organizational Excellence
10. GOAL: Work with District consultants to achieve goals of District's Information Management Master Plan Transition of WRD's extensive data (including spatial data) to a Relational Database Management System (RDBMS) in order to increase utilization and access to data and analysis capabilities. **MEASURE:** Migrate existing file geodatabases to SQL Server SDE format	N/A	N/A	Yes	Provide Safe and Reliable Groundwater and also to Promote Organizational Excellence
11. GOAL: Work with District consultants to achieve goals of District's Information Management Master Plan to replace outdated online Interactive Well Search Tool. **MEASURE:** Complete Phase I online application design and implementation	N/A	N/A	Yes	Provide Safe and Reliable Groundwater and also to Promote Organizational Excellence
12. GOAL: Work with WRD staff to assess and implement GIS support for new and ongoing projects. **MEASURE:** Participate in regular meeting with staff to solicit ideas and aid in project design	N/A	N/A	Yes	Provide Safe and Reliable Groundwater and also to Promote Organizational Excellence
13. GOAL: Work with WRD staff to design and develop Esri Story Maps for use in educational, promotional, and presentation materials **MEASURE:** Participate in regular meetings with CES Staff to develop design and concepts	N/A	N/A	Yes	Provide Safe and Reliable Groundwater and also to Promote Organizational Excellence
14. GOAL: Implementation of 3D technologies to visualization of District data **MEASURE:** Learn to use current software tools and work with staff to develop design and concepts	N/A	N/A	Yes	Provide Safe and Reliable Groundwater and also to Promote Organizational Excellence

PROJECT 011 REGIONAL GROUNDWATER MONITORING

Background

The Regional Groundwater Monitoring Program continues to be very successful and currently consists of a network of over 350 WRD and USGS-installed monitoring wells at nearly 60 locations throughout the District. Monitoring well data is supplemented with information from production wells to capture the most accurate information available. WRD staff, comprised of hydrogeologists and engineers, provides the in-house capability to collect, analyze and report groundwater data. This information is stored in the District's GIS and provides the basis to better understand the characteristics of the Central and West Coast Basins.

Water quality samples from the monitoring wells are collected periodically. Automatic dataloggers record water level daily in most monitoring wells. Dataloggers are downloaded and water levels measured by WRD field staff a minimum of four times per year. These water quality and water level data are available online at http://gis.wrd.org. On an annual basis, staff prepares a report that documents groundwater production, groundwater level, and groundwater quality conditions throughout the District.

Table 75
Project 011 - REGIONAL GROUNDWATER MONITORING Budget Summary

EXPENSE CATEGORY	2016/17 Projection	2017/18 Proposed Budget	17/18 Budget compared to 16/17 Projection
Professional Services	588,000	492,000	(96,000)
R&M / Materials / Equipment	105,000	107,000	2,000
Other Expenses	147,000	153,000	6,000
Other General & Administrative	421,000	452,000	31,000
Total	**$1,261,000**	**$1,204,000**	**$(57,000)**

Most of the work during the coming year will involve continued bi-monthly, quarterly, and semiannual monitoring and reporting activities. The program will also work cooperatively with the U.S. Geological Survey (USGS) to address specific water quality issues, and update the hydrogeology conceptual model. Work associated with the Regional Groundwater Monitoring Program also supports activities relating to both replenishment and water quality projects. The program, therefore, is funded 50% each from the Replenishment and Clean Water Funds.

In November 2009, the State Legislature amended the Water Code mandating a statewide groundwater elevation monitoring program to track seasonal and long-term trends in California's groundwater basins. In October 2011, WRD was designated the agency responsible for collecting and reporting CBWCB groundwater level data to the California Statewide Groundwater Elevation Monitoring (CASGEM) program and continues in this role.

2016/17 Accomplishments

- Completed Spring and Fall groundwater quality sampling at WRD monitoring wells including analysis of over 100 chemical constituents and contaminants.
- Collected quarterly groundwater levels at WRD monitoring wells and compiled daily datalogger data to prepare historical water level hydrographs.

- Published the annual Regional Groundwater Monitoring Report summarizing groundwater data from monitoring wells and production wells in the Central and West Coast Basins for Water Year 2015/16.
- Integrated Regional Groundwater Monitoring Program data into a salt and nutrient groundwater monitoring program that was required as part of a State-mandated basin-wide Salt and Nutrient Management Plan.
- Continued to collect and report CBWCB groundwater level data to the CASGEM program.
- Continued implementation of a telemetry system at several monitoring wells as a test program.
- Performed extensive data logger testing, maintenance and repairs.
- Cross trained staff on sampling methods.

2017/18 Objectives

- Drill and install at least one new deep nested monitoring well with USGS (Los Angeles #5) for use in Sustainable Groundwater Management Act (SGMA).
- Collect Spring and Fall groundwater quality samples at WRD monitoring wells. Analyze samples for over 100 chemical constituents and contaminants.
- Collect quarterly groundwater levels at WRD monitoring wells and compile daily data logger data and prepare historical water level hydrographs.
- Identify emerging contaminants of concern to the water supply community and groundwater basin managers to assess the need for a basin-wide screening to determine whether long-term monitoring is warranted in the Central and West Coast Basins.
- Continue to report Regional Groundwater Monitoring Program data in accordance with the State-mandated Salt and Nutrient Management Plan.
- Continue to collect and report CBWCB groundwater level data to the CASGEM program.
- Publish and share data collected for this program in the annual Regional Groundwater Monitoring Report and WRD Web Sites.

Basis for Changes 2016/17 Projected to 2017/18 Budget

A slight decrease in sampling costs account for the decrease in professional services.

Performance measurement results for the past two fiscal years in addition to goals for FY2017/18 are presented below.

Table 76

REGIONAL GROUNDWATER MONITORING
Performance Measures

	FY 2014/15 ACTUAL	FY 2015/16 ACTUAL	FY 2016/17 BUDGET	DISTRICT GOAL
1. GOAL: Collect Spring and Fall groundwater quality sampling at WRD monitoring wells including analysis of over 100 chemical constituents and contaminants				Provide Safe and Reliable Groundwater
MEASURE: Complete Spring and Fall groundwater quality sampling including analysis of over 100 chemical constituents and contaminants	Completed	Completed	Yes	
2. GOAL: Collect quarterly groundwater levels at WRD monitoring wells and compile daily datalogger data to prepare historical water level hydrographs				Provide Safe and Reliable Groundwater
MEASURE: Complete collection of quarterly groundwater levels at WRD monitoring wells and compile daily datalogger data to prepare historical water level hydrographs	Completed	Completed	Yes	
3. GOAL: Identify emerging contaminants of concern to the water supply community and groundwater basin managers to assess the need for a basin-wide screening to determine whether long-term monitoring is warranted in the Central and West Coast Basins.				Provide Safe and Reliable Groundwater
MEASURE: # of emerging contaminants of concern identified for screening	1	1	2	
4. GOAL: Integrate Regional Groundwater Monitoring Program data into a salt and nutrient groundwater monitoring program				Provide Safe and Reliable Groundwater
MEASURE: % of completion for the integration of Regional Groundwater Monitoring Program data into a salt and nutrient groundwater monitoring program	100%	100%	Completed	

5. GOAL: Publish and share data collected for this program in the annual Regional Groundwater Monitoring Report and WRD Web sites **MEASURE:** Publish the annual Regional Groundwater Monitoring Report summarizing groundwater data from monitoring wells and production wells in the Central and West Coast Basins	Completed	Completed	Yes	Provide Safe and Reliable Groundwater, Promote Organizational Excellence, and Advance Groundwater Awareness
6. GOAL Continue to collect and report CBWCB groundwater level data to the CASGEM program **MEASURE:** Collected and reported CBWCB groundwater level data to the CASGEM program	Yes	Yes	Yes	Provide Safe and Reliable Groundwater
7. GOAL Drill and install one more nested monitoring well in data gap areas with USGS **MEASURE:** Install one more monitoring well	N/A	N/A	Yes	Provide Safe and Reliable Groundwater

PROJECT 025 HYDROGEOLOGY PROGRAM

Background

This recurring program accounts for hydrogeologic analysis of the Central, West Coast, and surrounding groundwater basins. These scientific efforts are necessary for specific issues, projects, programs and basin management issues that face the District. The program includes evaluation of replenishment needs and forecasting at the spreading grounds and barrier wells, computer modeling, and assessing the overall health of the basins by analyzing water levels and water quality data, including salt and nutrient loading.

Staff work performed under this program includes the preparation of the annual Engineering Survey and Report, including the calculation and determination of important hydrogeologic factors such as annual overdraft, accumulated overdraft, change in storage, and replenishment needs. Extensive amounts of data are compiled and analyzed by internal State-certified hydrogeologists and registered engineers to determine these values. Maps are created showing water levels in the basins and production patterns and amounts. The updates, maintenance, and use of the Regional Groundwater Flow Model developed by the USGS and WRD are part of this program. This model is a significant analytical tool utilized by WRD to determine basin benefits and impacts of changes proposed in the management of the Central and West Coast Basins.

Table 77
Project 025 - Hydrogeology Program Budget Summary

EXPENSE CATEGORY	2016/17 Projection	2017/18 Proposed Budget	17/18 Budget compared to 16/17 Projection
Professional Services	871,000	721,000	(150,000)
R&M / Materials / Equipment	28,000	44,000	16,000
Other Expenses	65,000	106,000	41,000
Other General & Administrative	244,000	221,000	(23,000)
Total	**$1,208,000**	**$1,092,000**	**$(116,000)**

A focused effort to better characterize the hydrogeologic conditions in the District is also underway and will continue into the ensuing year. This long-term project involves compiling and interpreting extensive data which were generated during the drilling and logging of the WRD/USGS monitoring wells and collected form historical information for production wells and oil wells within the District, and from seismic reflection data obtained in 2013. The ultimate goal of this project is to incorporate these data in WRD's GIS and models, and use the system to generate aquifer depths, extents, and thicknesses throughout the District to assist staff, pumpers, and stakeholders better plan for groundwater resource projects such as new well drilling, storage opportunities, or modeling. The data will also be made available on WRD's website to be used as a reference source for hydro geologic interpretations and fulfilling project- related data requests.

Hydrogeological analysis is also needed for projects associated with groundwater quality concerns and specific cleanup projects. Work by in-house staff may include investigative surveys, data research, oversight of specific project studies, etc. Such efforts are used to relate water quality concerns with potential impact to basin resources.

Special projects arise occasionally under this program such as well profiling of production wells to define areas of poor water quality entering the well. Other special projects include the publication of the Technical Bulletin Series, which provides hydrogeologic data to the pumpers in the basin, analysis of optimum and minimum groundwater quantities, and groundwater tracer investigations. A State-mandated Salt Nutrient Management Plan was prepared under this Program in 2014, with the Los Angeles Regional Water Board accepting the report in 2015, and now regular updates are required.

New this past year was the WRD taking the lead on folding the un-managed area of the northern Central Basin outside of WRD's Boundary and outside of the adjudicated Central Basin boundary into the Sustainable Groundwater Management Act (SGMA) requirements. WRD worked with stakeholders, including the City of Los Angeles, City of Beverly Hills, City of Culver City, County of Los Angeles, and Golden State Water Company to prepare an "Alternative Analysis" report for submittal to the state under SGMA requirements. WRD will monitor groundwater quality and water level conditions in this northern Central Basin area and incorporate findings into its annual reports which will also be provided for SGMA compliance.

The Hydrogeology Program addresses both groundwater replenishment objectives and groundwater quality matters. This dual service warrants that the cost of the program be split evenly between the Replenishment and Clean Water Funds.

2016/17 Accomplishments

- Preparation of the 2017 Engineering Survey and Report leading to the adoption of the 2017/2018 Replenishment Assessment.
- Preparation of the 2017 Cost of Service Report, including an in-depth analysis of the geology of the WRD Service area. This report, along with the ESR, led to the adoption of the 2017/2018 Replenishment Assessment.
- Significant progress with USGS to update and improve the regional groundwater computer model. Completed 3-D sequence stratigraphic framework and incorporation into EarthVision software. Completed aerial recharge analysis. Completed 3-D textural model in Rockware. Built framework for the Modflow Model with 11 layers. Converted model to new format – Unstructured Grids. Monthly update meetings. Prepared future scenario runs. Brought model into Leapfrog 3D visualization software.
- Presentation of technical materials and papers at groundwater conferences.
- Completed Alternatives Analysis for SGMA compliance.

2017/18 Objectives

- Completion of 2018 Engineering Survey and Report.
- Completion of 2018 Cost of Service Report
- Complete the USGS Modflow groundwater computer model.
- Publish and present technical papers at conferences.
- Prepare the SGMA Alternatives Analysis
- Continue well profiling program.
- Assist groundwater purveyors on data needs for new production wells.

Basis for Changes 2016/17 Projected to 2017/18 Budget

Decrease in professional services is due to completion of modeling work that will not be performed in FY2017/18.

Performance measurement results for the past two fiscal years in addition to goals for FY2017/18 are presented below.

Table 78
HYDROGEOLOGY PROGRAM
Performance Measures

	FY 2015/16 ACTUAL	FY 2016/17 ACTUAL	FY 2017/18 BUDGET	DISTRICT GOAL
1. GOAL: Prepare ESR leading to the adoption of the RA.				Provide Safe and Reliable Groundwater
MEASURE: Prepared ESR which led to the adoption of the RA.	Yes	Yes	Yes	
2. GOAL: Prepare annual Cost of Service report including an in-depth analysis of the geology of the WRD service area.				Provide Safe and Reliable Groundwater
MEASURE: Prepared annual Cost of Service report which included an in-depth analysis of the WRD service area geology.	Yes	Yes	Yes	
3. GOAL: Continue to build USGS Modflow groundwater computer model				Provide Safe and Reliable Groundwater
MEASURE: Complete computer model	75%	85%	100%	
4. GOAL: Present technical materials and papers a groundwater conferences				Promote Organizational Excellence and Advance Groundwater Awareness
MEASURE: Staff to make presentations at conferences	Yes	Yes	Yes	
5. GOAL: Complete Alternatives Analysis for SGMA Compliance				Provide Safe and Reliable Groundwater
MEASURE: Complete Alternatives Analysis for SGMA Compliance	N/A	N/A	Yes	
6. GOAL: Continue well profiling program				Provide Safe and Reliable Groundwater
MEASURE: Perform profiling of water wells	Yes	Yes	Yes	

PROJECT EAE – WATER EDUCATION & OUTREACH

Background

The Water Education and Outreach activities aim to provide direct informative communication between WRD and a broad range of constituents including:

- Groundwater purveyors (pumpers)
- Elected officials and policy makers
- Federal and state regulators
- Members of the general public
- Children and Youth (schools)
- Members of the water industry
- News reporters, bloggers, etc.

Table 79
Project EAE - Water Education Budget Summary

EXPENSE CATEGORY	2016/17 Projection	2017/18 Proposed Budget	17/18 Budget compared to 16/17 Projection
Professional Services	18,000	28,000	10,000
R&M / Materials / Equipment	4,000	4,000	-
Other Expenses	407,000	418,000	11,000
Other General & Administrative	355,000	162,000	(193,000)
Total	**$784,000**	**$612,000**	**$(172,000)**

Water Education and Outreach activities aim to engage constituents on a variety of important policy and project development areas pertaining to groundwater management and practices. These activities include: tours; participation in community events and forums; development of printed and digital educational materials; involvement in industry and organizational conferences; and promotion of education through annual public events, such as the WRD Groundwater Festival. These avenues of communication enable WRD to successfully advance discussions around critical policies and programs that promote public interest in water.

The Communication and Education Services department is tasked with the mission of leading the education and outreach programs, particularly pertaining to the Water Independence Now (WIN) Program presentations at conferences and conventions. This specific program encapsulates WRD's core projects enabling the region to become independent of imported water.

Conference and convention outreach participation includes 20 primary events, averaging approximately 1,500 attendees. Water and education outreach at conferences and conventions alone have reached over 25,000 industry leaders and elected officials and policy makers.

WRD's implementation of Project WET (Water Education for Teachers) – a water education curriculum training for K-12 teachers – has allowed WRD to expand its involvement in the classroom by equipping public school teachers with a comprehensive academic science curriculum that focuses on the science of water and groundwater. The program has already trained and provided materials to more than 100 teachers, thereby increasing the number of students being taught the curriculum to over 4,000. Lastly, the annual Groundwater Festival continues to draw more than 3,000 participants.

2016/17 Accomplishments

- Produced "Water 101" Workshop for local, state and federal legislative officials
- Hosted 10th annual groundwater festival with an attendance of over 3,000 participants, funded completely by sponsorships
- Coordinated the groundbreaking of the Groundwater Reliability Improvement Project, WRD's cornerstone water treatment program
- Coordinated the GRIP Media Day in the City of Pico Rivera that was covered by several major news outlets
- Coordinated the three separate GRIP community outreach events
- Participated in over 50 separate local community outreach events to educate the public about WRD and groundwater management
- Attended and presented at 19 separate industry related conferences
- Expanded social media outreach by increasing postings across all social media platforms and broadened WRD's following by a full 28%
- Expanded rebranding efforts across all WRD printed and digital materials, including production of collateral materials in 6 languages
- Completed the redesign of the District website
- Conducted substantive meetings and discussions on water with more than 35 state legislative officials
- Implemented a fully integrated social media editorial calendar
- Delivered 6 new technical abstracts and presentations at upcoming conferences
- Seven international tours of WRD facilities
- Established a water curriculum for the Paramount Unified School District which is now utilized for all K-12 students

2017/18 Objectives

- Expand the District's website communication capabilities
- Host 11th annual groundwater festival and increase attendance by 10%
- Expand social media outreach activities and following
- Assist technical team with outreach and education related to the Groundwater Reliability Improvement Project (GRIP) Advanced Water Treatment Facility
- Develop the final design and execute the procurement for the GRIP Visitor Center and the Administrative Lobby
- Double the Project WET participation among teachers

- Deliver 4 new technical abstracts and presentations at upcoming conferences
- Plan and lead the GRIP One Year Countdown Ceremony
- Have multiple positive news articles published about GRIP
- Produce a series of educational videos for online publication

Basis for Changes 2016/17 Projected to 2017/18 Budget

Staff labor decreased due to time being allocated to other projects.

Performance measurement results for the past two fiscal years in addition to goals for FY2016/17 are presented below.

Table 80
WATER EDUCATION
Performance Measures

	FY 2015/16 ACTUAL	FY 2016/17 ACTUAL	FY 2017/18 BUDGET	DISTRICT GOAL
1. GOAL: Redesign and launch the District's website as an on-going responsibility to maintain open communication with the public it serves				Advance Groundwater Awareness
MEASURE: Number of District's web presence	1 Consolidated	1	1	
	8 Social Networks	8	8	
2. GOAL: Host Annual Groundwater Festival as an on-going Groundwater Awareness effort				Promote Groundwater Awareness
MEASURE: Number of Groundwater Festival hosted	9th	10th	11th	
3. GOAL: Social Media outreach efforts				Advance Groundwater Awareness
MEASURE: Number of social media outlets manage in-house by staff and increase overall followers as well as day-to-day following	8	8	8	
Expansion of Project Wet	Yes	Yes	Yes	
4. GOAL: To assist on the GRIP related outreach contracts and the Visitor Center procurement				Promote the District's Groundwater Reliability Improvement Program
MEASURE: Number of GRIP related outreach contracts assisted	6	4	4	

5. GOAL: To assist on the GRIP related outreach tasks				Advance the District's Groundwater Reliability Improvement Program
MEASURE:				
Assistance with the following tasks:				
Developed new media materials and newsletter for public outreach	Completed	Completed	Yes	
Marketed GRIP at public events	Yes	Yes	Yes	
Implemented a grassroots effort to educate the public on GRIP, reaching more than 1,500 local households	Yes	Yes	Yes	
Held GRIP Community Design Meetings	Completed	N/A	N/A	
Continuing outreach to inform the public of GRIP's progress will cultivate trusting working relationship with District stakeholders	Yes	Yes	Yes	
Obtain community support for GRIP Conditional Use Permit from City of Pico Rivera	Yes	Completed	N/A	
Lead successful groundbreaking ceremony for GRIP	Yes	Completed	N/A	
Obtain support letters for GRIP from public officials and environmental interest groups	Yes	Yes	Yes	
Garner positive news coverage for GRIP and District's mission for sustainable groundwater basins	Yes	Yes	Yes	
6. GOAL: Initiative to expand its groundwater educational programs with WIN				Advance the District's WIN Program
MEASURE:				
Give Presentations at conferences and conventions	Yes	Yes	Yes	
Produce new water education videos and materials	Yes	Yes	Yes	
7. GOAL: Increase presence at community events				Advance Public Awareness of Groundwater management
MEASURE:				
Attend and present at diverse community events throughout WRD's 5 divisions	N/A	Yes	Yes	
Distribute educational materials and relevant conservation related materials	N/A	Yes	Yes	
Identify engagement through social media postings	N/A	Yes	Yes	

PROJECT EAC – WATER CONSERVATION

Background

The Water Conservation outreach activities call out tangible strategies to successfully engage constituents, pumpers, and cities the resources to meet the State mandate of 20% water savings by 2020 and to the first ever State Mandated Cutbacks. Through custom WRD conservation programs that have long term conservation achievements, stakeholders are on track to meet 20X2020. Moreover, the District's service area exceeded goals set by the state on the mandated cutbacks.

On the heels of the State's historic drought, the WRD conservation program has increased outreach to proactively educate the public and make water conservation a lifestyle. The Communication and Education Services Department expanded the number of Eco-Gardener classes for the public. This past year while WRD conducted ECO Gardener and Smart Gardner courses throughout the service area, staff pursued an RFQ aimed at raising the bar on its program and develop a new curriculum with more comprehensive information for the public. WRD continued to partner with the Los Angeles County Department of Public Works, City of Torrance and West Basin MWD to enhance water conservation awareness to the general public as well as businesses and institutes through special events and workshops.

Table 81
Project EAC - Water Conservation Budget Summary

EXPENSE CATEGORY	2016/17 Projection	2017/18 Proposed Budget	17/18 Budget compared to 16/17 Projection
Professional Services	5,000	30,000	25,000
R&M / Materials / Equipment	-	3,000	3,000
Other Expenses	429,000	485,000	56,000
Other General & Administrative	230,000	110,000	(120,0000)
Total	**$664,000**	**$628,000**	**$(36,000)**

2016/17 Accomplishments

- The Lillian Kawasaki Eco Gardener programs was spread across 10 new venues within WRD's 420-square mile service area to capture broader audiences.
- Promoted a Summer Conservation efforts through carefully a targeted community newspaper education campaign
- Revamped the Eco-Gardner courses with a modernized curriculum that includes more information on best practices for residential gardening
- Developed a groundwater specific education campaign that was picked up by major local television news stations and newspapers to illustrate the direct impacts of the drought on groundwater levels

2017/18 Objectives

- Continue conservation partnerships with the City of Torrance and West Basin Municipal Water District
- Continue efforts in water conservation to prevent backsliding among Southern California residents
- Expand the number of Eco-Gardener attendees by 15%
- Create a series of Eco-Gardener videos
- Broaden the use of social media for Eco-Gardening education

Basis for Changes 2016/17 Projected to 2017/18 Budget

The decrease in Other General & Administrative expenses is due to staff labor being allocated to other projects.

Performance measurement results for the past two fiscal years in addition to goals for FY2017/18 are presented below.

Table 82
WATER CONSERVATION
Performance Measures

	FY 2015/16 ACTUAL	FY 2016/17 ACTUAL	FY 2017/18 BUDGET	DISTRICT GOAL
1. GOAL: Efforts in water conservation in-line with Governor Brown's state-wide mandatory water restrictions				Advance Groundwater Awareness
MEASURE: ECO Gardener Program – hosting residential training	Continue to increase class sizes	Increase class sizes	Increase class sizes	
Write Opinion Editorials pushing for increased conservation efforts	Yes	Yes	Yes	
2. GOAL: Conservation Partnerships with the City of Torrance and West Basin Municipal Water District				Advance Groundwater Awareness
MEASURE: Co-Sponsorship Participation in Commercial, Industrial, Institutional, Residential and Educational Conservation Programs with the City of Torrance	Continue Participation	Continue Participation	Continue Participation	
Co-Sponsorship Participation in Water-Use Efficiency Programs with West Basin Municipal Water District	Continue Participation	Continue Participation	Continue Participation	
3. GOAL: Broaden Eco-Gardener education opportunities for the public				Expand Conservation Awareness
MEASURE: Develop a series of education videos	N/A	N/A	Yes	
Expand the use of social media postings to pass on conservation gardening techniques and practices	N/A	N/A	Yes	

General Administration Departments

WRD Board Members

Administrative costs, or departmental costs, include costs for the departments of Board of Directors, General Manager, Finance, Administration and External Affairs. For simplicity, these departments do not include project and program operations and maintenance costs. Departments include direct costs related to that department's activities. In addition, Finance and Administration include indirect costs such as office supplies, liability insurance, and general legal or legislative fees that are not direct costs to projects.

General Administration

BOARD OF DIRECTORS

Background

The Board of Directors is the policy-making and governing body of the District. It represents the highest authority within the management structure of the District. Certain portions of its authority are delegated to staff in the interest of efficiency, stability, and prudent management.

The Board of Directors develops the District's vision and strategic plan and sets policy to assist the General Manager and staff with implementing the vision and strategic plan. The various responsibilities of the board members include directing District activities, outreach, and cooperation with legislators, regulators, cities, pumpers, consultants, water agencies and other government agencies.

Table 83
Board of Directors Budget Summary

EXPENSE CATEGORY	2016/17 Projection	2017/18 Proposed Budget	17/18 Budget compared to 16/17 Projection
Professional Services	-	-	-
R&M / Materials / Equipment	-	-	-
Other Expenses	82,000	82,000	3,000
Other General & Administrative	277,000	277,000	7,000
Total	**$349,000**	**$359,000**	**$10,000**

There are five members of the Board of Directors; each is elected from one of five divisions within the District service area, within which such Director resides.

The officers of the Board are the President, Vice President, Secretary, Treasurer, and Deputy Secretary. Officers are elected by the Board at the first regular meeting of the Board in January following the District election. With the exception of the Deputy Secretary, all Board officers are Board members.

The President of the Board presides over all meetings of the Board and has all authority afforded the presiding officer, including the power to constitute Standing and Ad Hoc Committees and to assign Board members to serve on such committees.

The Vice President of the Board presides over any meeting at which the President is not present, and performs such other services as may be requested by the President.

The Secretary of the Board records and certifies the minutes of all Board meetings and is responsible for the maintenance of District records. The Secretary may delegate such duties to the Deputy Secretary.

The Treasurer of the Board is responsible for the financial affairs of the District, including financial reporting and investment activities. The Treasurer must also serve on the Finance Committee of the Board.

The Deputy Secretary is recommended by the General Manager and approved by the Board.

2016/17 Accomplishments

See President's Message

2017/18 Objectives

See President's Message

Basis for Changes 2016/17 Projected to 2017/18 Budget

No significant changes noted.

ADMINISTRATION

Background

Administration generally consists of services that are necessary to support the day-to-day functions, projects, and programs of the District. Such services include policy development (Board of Directors), policy implementation and oversight (General Manager), finances, accounting and human resources. In accordance with the FY2017/18 Adopted Budget, Administration includes all standard operating expenses related to non-designated project and program costs. This includes but is not limited to: information technology (IT), legal (non-litigation) support, utilities, insurance, and general maintenance and repairs.

General Manager

The General Manager's goals and objectives are aligned with those of the Board of Directors. The role of the General Manager includes implementing policies set by the Board, overseeing and managing the daily activities of the District, and keeping the Board informed on projects and programs to facilitate good decision making.

Table 84
Administrative Roll-up Budget Summary

EXPENSE CATEGORY	2016/17 Projection	2017/18 Adopted Budget	17/18 Budget compared to 16/17 Projection
Professional Services	808,000	817,000	9,000
R&M / Materials / Equipment	195,000	358,000	163,000
Other Expenses	569,000	605,000	36,000
Other General & Administrative	2,430,000	2,592,000	162,000
Total	**$4,002,000**	**$4,372,000**	**$370,000**

Financial Services Department

The Financial Services Department is responsible for the daily financial business of the District. It reports to the Finance/Audit Committee of the Board the monthly financial statements, reserves, cash and investment reports, and demand list. The Department is responsible for the budget process and ensuring that the District meets all its fiduciary responsibilities. With the creation of the Internal Services Department, the Financial Services Department is providing additional support for the District in areas such as evaluation of the economic feasibility of projects and programs.

Internal Services Department

The Internal Services Department's functional duties include but are not be limited to:

- Human Resources
- Board Administrative Support
- Office Administrative Support
- Information Technology
- Asset Management
- Computerized Maintenance & Management System
- Centralized Filing/Document Retention
- Contracts Administration

Many of these duties were previously the responsibility of the Finance and Administration Departments and some are new projects and programs with duties assigned to this department.

Communication and Education Services Department

The Communication and Education Services Department supports the District's mission to provide clear communications to the public, the District's pumpers, and the legislators about the District's role in meeting the region's water needs. Duties and responsibilities of the Communication and Education Services Department include but are not be limited to:

- Communication
- Legislative Outreach
- Education
- Conservation
- Event Planning

The education and conservation part of the Communication and Education Services' duties are discussed in detail under the Water Education and Water Conservation Projects.

2016/17 Accomplishments

- Received the Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association (GFOA) for our June 30, 2016 Comprehensive Annual Financial Report (CAFR).
- Received the Award of Excellence in Budgeting from the California Society of Municipal Finance Officers (CSMFO) for our 2016/17 operating budget.
- Received the Distinguished Budget Presentation Award from the Government Finance Officers Association (GFOA) for our 2016/17 operating budget.
- Completed the Cost of Service Report for 2017/18 consistent with the proportionality requirements of Article XIII D, Section 6 of the California Constitution.
- Received the Municipal Information Systems Association of California (MISAC) award which recognizes outstanding governance and operational practices relating to quality information technology practices.
- Performed a phone system upgrades with the Voice over Internet Protocol (VoIP) telecommunications system to improve the District's communication needs into the future.
- Hosted the annual State of the District and Groundwater Festival Events.
- Adopted the fiscal year 2017/18 budget reflecting an increase from $297 per acre-foot to $318 per acre-foot or a 7.1% increase.

2017/18 Objectives

- Obtain Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association (GFOA) for our June 30, 2017 Comprehensive Annual Financial Report (CAFR).
- Apply for the Award of Excellence in Budgeting from the California Society of Municipal Finance Officers (CSMFO) for the FY 2017/18 operating budget.
- Apply for the Distinguished Budget Presentation Award from the Government Finance Officers Association (GFOA) for the FY 2017/18 operating budget.
- Complete the Cost of Service Report for the 2018/19 fiscal year consistent with the proportionality requirements of Article XIII D, Section 6 of the California Constitution.
- Apply for the Municipal Information Systems Association of California (MISAC) award which recognizes outstanding governance and operational practices relating to quality information technology practices.
- Host the annual Groundwater Festival and State of the District Meeting.
- Continue strong relationships with local, state and federal legislators.
- Perform upgrades on Supervisory Control and Data Acquisition (SCADA) software, remote facilities network, Computerized Maintenance Management System (CMMS), Enterprise Asset Management (EAM) upgrades.

Basis for Changes 2016/17 Projected to 2017/18 Budget

The increase in materials and equipment costs focused on Supervisory Control and Data Acquisition (SCADA) software, Remote Facilities Network, Computerized Maintenance Management System (CMMS), Enterprise Asset Management (EAM) upgrades.

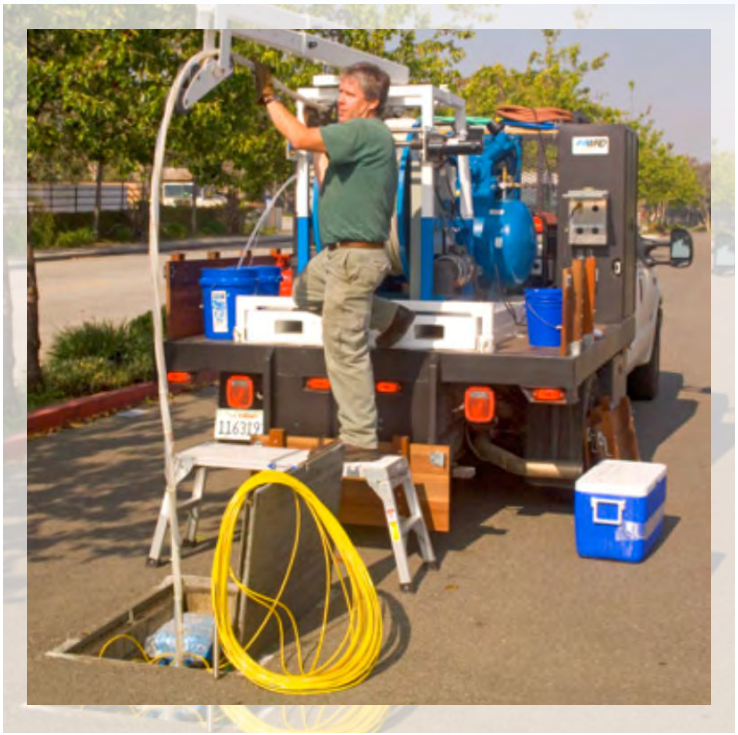
The increase in Other General and Administrative is due to reallocation of staff time to support changes noted above. Staff costs increase primarily due to a shift of emphasis to focus on the new projects.

Performance measurement results for the past two fiscal years in addition to goals for FY2017/18 are presented below.

Table 85
ADMINISTRATION
Performance Measures

	FY 2015/16 ACTUAL	FY 2016/17 ACTUAL	FY 2017/18 BUDGET	DISTRICT GOAL
1. GOAL: Obtain Certificate of Achievement for Excellence in Financial Reporting from the GFOA for the CAFR				Promote Organizational Excellence
MEASURE: Certificate of Achievement for Excellence in Financial Reporting received from the GFOA for the CAFR	Yes	To be submitted	To be submitted	
2. GOAL: Receive the Award of Excellence in Budgeting from the CSMFO for the Annual Operating Budget				Promote Organizational Excellence
MEASURE: Award of Excellence in Budgeting received from the CSMFO for the Annual Operating Budget	Yes	Yes	To be submitted	
3. GOAL: Receive the Distinguished Budget Presentation Award from the GFOA for the Annual Operating Budget				Promote Organizational Excellence
MEASURE: Distinguished Budget Presentation Award received from the GFOA for the Annual Operating Budget.	Yes	Yes	To be submitted	
4. GOAL: Complete the Cost of Service Report consistent with the proportionality requirements of Article XIII, Section 6 of the California Constitution				Promote Organizational Excellence
MEASURE: Cost of Service Report completed, filed and issued	Yes	Yes	Yes	
5. GOAL: Receive the MISAC award which recognizes outstanding governance and operational practices relating to quality information technology practices				Promote Organizational Excellence
MEASURE: MISAC award received	Yes	Yes	To be submitted	
6. GOAL: Host Groundwater Festival and State of the District Meeting				Promote Organizational Excellence
MEASURE: Groundwater Festival and State of the District Meeting held	Yes	Yes	In Planning	
7. GOAL: Continue strong relationship with local, state, and federal legislators				Promote Organizational Excellence
MEASURE: Relationship with local, state, and federal legislators maintained	Yes	Yes	Yes	
8. GOAL: Establish a Replenishment Assessment Rate				Provide safe and reliable groundwater
MEASURE: Replenishment Assessment Rate approved by the Board and filed	$268/AF	$297/AF	$318/AF	

Performance Measures



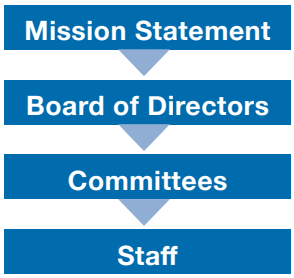
Groundwater Sample Collection

WRD Field Hydrogeologist is installing a submersible pump to a depth of about 20 feet below the groundwater surface in one of WRD's five nested monitoring wells located in Inglewood, CA. The well will be pumped for a period of time while he measures several chemical and physical properties of the produced water to assure that stagnant water is removed from the well. When those measurements indicate that the produced water is representative of actual groundwater, he will collect samples for laboratory analysis.

Performance Measures

As codified in the District's Administrative Code, the Water Replenishment District of Southern California's performance metrics are guided and determined by the District's Mission Statement:

"To provide, protect and preserve high quality groundwater through innovative, cost-effective and environmentally sensitive basin management practices for the benefit of residents and businesses of the Central and West Coast Basins."



The District's mission statement is interpreted and directed by District's policymaking and governing body, the Board of Directors, which represents the highest authority within the management structure of the District. The five member Board is elected every four years and accomplishes its stated goals and objectives through a Committee structure which is responsible and reports to the Board of Directors and which also delegates certain of its authority to staff in the interest of efficiency, stability and prudent management for completion.

The Board of Director's Goals for the District and staff are to:

1. Provide Safe and Reliable Groundwater
2. Obtain Independence from Imported Water Sources
3. Promote Organizational Excellence
4. Advance Groundwater Awareness
5. Foster Environmental Stewardship and Water Sustainability

The Standing Committees of the Board of Directors are as follows:

- Water Resources Committee
- Groundwater Quality Committee
- Finance/Audit Committee
- Administrative Committee
- External Affairs Committee
- Capital Improvement Projects (CIP) Committee

(Note: Completion of departmental, project and program objectives are reflected in the individual summaries. Performance measurement results for the past two fiscal years in addition to goals for FY 2017/18 are presented which link to the overall District goals enumerated above.)

WATER RESOURCES COMMITTEE, THE AD HOC GRIP COMMITTEE, THE AD HOC CONTRACTS COMMITTEE, AND THE AD HOC VANDER LANS FACILITY EXPANSION COMMITTEE

Supported by: The Engineering and Hydrogeology Departments

The Water Resources Committee shall study, advise and make recommendations with regard to the following:

1. The operation, protection and maintenance of the District's replenishment water facilities;
2. Policies, sources and means related to the stewardship of the Central and West Coast Groundwater Basins including, but not limited to, importing and distributing water, transferring water and wheeling as required by the District;
3. Policies regarding recycling, reuse and underground storage of water and use thereof;
4. Environmental compliance and requirements and the effect on the District of existing and proposed federal, state and local environmental statutes and regulations;
5. Engineering aspects of all replenishment water projects;
6. Provide input related to the District's Capital Improvement Program as it relates to replenishment water projects; and,
7. Policies related to the District's conjunctive use efforts including but not limited to California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA).

2016/17 Performance Metrics – Water Resources Committee

Board Action	Staff Performance Measure	Board Objective	District Goal*	Project
Date of Board Action: 7/21/16 Authorize the Assistant General Manager/Chief Engineer to file a Notice of Completion for the Robert W. Goldsworthy Desalter Expansion, New Source Water Wells Project with the Los Angeles County Clerk's office in accordance with the California Public Contract Code.	**Staff Progress: Complete** The new source wells will supply additional potable water to the Desalter after the expansion. The installation was completed in June 2016. The District filed a required Notice of Completion for the New Source Water Wells Project with the County Clerk's office.	Offset District's Operational Costs	1	002
Date of Board Action: 7/21/16 Terminate the Water Leak Repair Emergency Action approved by the Board on July 7, 2016	**Staff Progress: Complete** The Board declares the Water Leak Repair Emergency Action at the Leo J Vander Lans Water Treatment Facility. Resolution 16-1040 authorized Staff to take necessary action to perform field investigation and repairs for the water leak found through the cracks of a pipe joint from the reverse osmosis permeate piping. The leak was immediately repaired and the Emergency Action was terminated.	Provide Safe and Reliable Groundwater	1	001

Date of Board Action: 10/6/16 Authorize the General Manager to execute a no cost time extension with CH2M for Montebello Forebay Recharge Enhancement Study to December 31, 2016	**Staff Progress: On-going** Continue working with CH2MHill in reviewing of historical studies and recently implemented projects, prepare hydrology, spreading grounds operational and groundwater models related to the MFRES that focus on maximizing recycled water and storm-water recharge at the MFSG. The District has the need for some additional alternatives tasks to be added seeking to amend the scope of work and extend a no cost time extension to the agreement.	Perform effective basin management	1	023
Date of Board Action: 10/6/16 Authorize the General Manager to execute a Professional Services Agreement with Water Compliance Solutions, LLC for on-call recycled water permitting and compliance consulting services for a cost not to exceed $50,000.	**Staff Progress: On-going** Work with Water Compliance Solutions to provide on-call professional recycled water consulting services associated with expanding the District's use of recycled water for groundwater recharge especially related to the pending GRIP permit and the upcoming separate permit renewal for the tertiary-treated recycled water that is being spread in the Montebello Forebay.	Utilize recycled water	1 & 2	025 & 033
Date of Board Action: 10/6/16 Authorize the General Manager to execute a Joint Funding Agreement with the U.S. Geological Survey for Water Resources Investigation Agreement #17WSCA60096310 to complete the regional model on the geohydrology of the Central and West Coast Basins in the amount of $200,000.	**Staff Progress: Complete** Enter into a Joint Funding Agreement with the USGS to finalize and publish the Groundwater Model of the Central and West Coast Basins. This model will greatly enhance the understanding of the basins and increase the District's ability to forecast future groundwater conditions.	Perform effective basin management	1	025
Date of Board Action: 10/13/16 Authorize the General Manager to enter into an Installment Sale and Grant Agreement with the State Water Resources Control Board for water recycling construction financing for the GRIP Recycled Water Project.	**Staff Progress: Complete** The State Water Resources Control Board awarded the District with a one-percent loan financing and grant funds to solidify the GRIP AWTF Project's regional and state water sustainability benefits.	Provide Safe and Reliable Groundwater	1	033
Date of Board Action: 11/3/16 Authorize the General Manager to execute Amendment No. 3 with Separation Processes Inc. for technical support to the Vander Lans Facility operations to extend the contract expiration date to December 31, 2018.	**Staff Progress: On-going** Continue working with Separation Processes to provide technical support on an as-needed basis to the Vander Lans Facility operations. Term was extended to December 31, 2018 in the Amendment No. 3 agreement.	Eliminate regional demand for imported water	2	001
Date of Board Action: 12/1/16 Authorize the General Manager to renew membership with the Water Research Foundation for an amount not to exceed $56,058 for the period of October 2016 to September 2017.	**Staff Progress: Complete** The District renewed its membership with the Water Research Foundation which sponsors research and have access to participate in state-of-the-art research developments in the water industry that directly benefits the District's projects and programs.	Advance groundwater awareness with the water industry community	4	006

Date of Board Action: 02/02/17 Enter into the Right of Entry Agreement with the City of Long Beach to access groundwater monitoring wells "Long Beach 4 – Pier C" and "Long Beach 5 – Pier F."	**Staff Progress: Complete** The District monitors two wells in the Port of Long Beach as part of its Regional Groundwater Monitoring Program, "Long Beach 4 – Pier C" and "Long Beach 5 – Pier F", which provide important data on water levels and water quality in this part of the District's service area. Information from these wells is included in the District's annual Regional Groundwater Monitoring Report. The City of Long Beach, acting through its Board of Harbor Commissioners, has prepared a no cost 5-year Right of Entry Agreement with automatic renewal for WRD to continue to have access to these monitoring wells.	Perform effective basin management	1	011
Date of Board Action: 02/02/17 Adopt Resolution No. 17-1049 ordering the preparation of the 2017 Engineering Survey and Report per the requirements of the Water Code §60300.	**Staff Progress: Complete** Perform analysis of groundwater basin and provide information to the Board of Directors	Perform effective basin management	1	025
Date of Board Action: 03/16/17 Receive and file the 2015-2016 Regional Groundwater Monitoring Report.	**Staff Progress: Complete** Major components of the staff implemented program include: establishing and maintaining a network of monitoring wells, collecting and performing in-depth analysis of water levels and water quality samples, and incorporating the information in WRD's Geographic Information System (GIS) for efficient database storage and retrieval.	Perform effective basin management	1	011
Date of Board Action: 03/16/17 Authorize the General Manager to enter into an Agreement with the West Basin Municipal Water District ("WBMWD") for the Supply of Recycled Water and the associated Release Agreement.	**Staff Progress: Complete** West Basin Municipal Water District ("WBMWD") sells recycled water to WRD for injection into the West Basin Barrier ("Barrier") for purposes of preventing seawater intrusion into, and for replenishment of, the groundwater supplies in the West Coast Basin. The County of Los Angeles Department of Public Works owns and operates the Barrier and WRD pays for any water injected into the Barrier. This long-term contract with WBMWD calls for the supply and delivery of up to 17,000 AF of Recycled Water and/or Replacement Water to the Barrier for each year that this agreement is in effect. This Agreement terminates and supersedes all previous agreements and resolves the outstanding claims with the associated Release Agreement.	Perform effective basin management	1	011

Date of Board Action: 05/18/17 Approve the purchase of a replacement field support vehicle from Norm Reeves Ford of Cerritos for a price not to exceed $25,000 (rounded). This item was included in the approved budget for the current fiscal year.	**Staff Progress: Complete** A new field support vehicle budgeted in FY 2016/17 for use by WRD on efforts related to groundwater sampling, groundwater monitoring, data logger downloading and deployment services, well maintenance, research activities, and other field tasks. The new field support vehicle will replace the existing field support vehicle currently in use, a 2001 Chevrolet S-10 Mini-Truck. Staff received quotations from 4 Ford Dealerships in LA County for a basic model. The lowest price was received from Norm Reeves.	Perform effective basin management	1	011
Date of Board Action: 06/15/17 Extend the District's Contract Services Agreement with the City of Torrance one additional year through June 30, 2018 for the Goldsworthy Desalter	**Staff Progress: On-going** The term extension would allow sufficient time for the parties to develop a new pricing structure that reflects the true water production costs taking into account the operations and maintenance costs, the Desalter expansion project, water pumping rights, and the District's replenishment assessment fees.	Increase use of product water	2	002

*District Goal

1 – Provide safe and reliable groundwater
2 – Obtain independence from imported water sources
3 – Promote organizational excellence
4 – Advance groundwater awareness
5 – Foster environmental stewardship & water sustainability

GROUNDWATER QUALITY COMMITTEE

Supported by: The Engineering and Hydrogeology Departments

The Groundwater Quality Committee shall study, advise and make recommendations with regard to the following:

1. The operation, protection and maintenance of the District's water quality facilities;
2. Engineering aspects of all water quality projects;
3. The effect on the District of existing and proposed federal, state and local water quality statutes and regulations;
4. Provide input related to the District's Capital Improvement Program as it relates to water quality projects.

2016/17 Performance Metrics – Groundwater Quality Committee

Board Action	Staff Performance Measure	Board Objective	District Goal*	Project
Date of Board Action: 7/21/16 Authorize the General Manager to execute a no cost time extension contract amendment with CH2MHill for Montebello Forebay Recharge Enhancement Study extending the term to September 30, 2016, subject to approval of form by District Counsel.	**Staff Progress: On-going** **Continue w**orking with CH2MHill in conducting a Montebello Forebay Recharge Enhancement Study to maximize water recycled and storm-water recharge at the MFSG. A time extension is needed to complete the required models for the study due to a new focus for the GRIP Supplemental Recharge Wells Model.	Conserve additional storm water and maximize recycled water at the Montebello Forebay	1&2	023
Date of Board Action: 10/13/16 Authorize the General Manager to approve District participation in the Coalition for Environmental Protection, Restoration and Development (CEPRD) Regional Reliability and Sustainability Project for an amount not to exceed $25,000.	**Staff Progress: Complete** The District continued its participation and support in the Coalition for Environmental Protection, Restoration and Development (CEPRD) with projects to promote enhanced regional water supply on a reliable and sustainable basis within the Greater Los Angeles Region.	Develop new and alternative water sources	1&2	038
Date of Board Action: 11/17/16 Authorize the General Manager to approve a no cost time contract extension through June 30, 2017 with Tetra Tech, Inc. for Professional Services for Well Profiling	**Staff Progress: On-going** Continue working with Tetra Tech Inc on the District's Well Profiling Program, to protect and preserve the groundwater supplies within the District's service area. Time was extended to complete the program due to some wells being out of service for repairs.	Address Groundwater Contamination	1	025

Date of Board Action: 11/17/16 Authorize the General Manager to approve a contract amendment with Weck Laboratories Inc. extending the contract terms to January 1, 2017 through December 31, 2017 for the annual price of $125,000; and that staff begin preparing an RFP in preparation for the following year.	**Staff Progress: On-going** Prepare contract amendment and continue working with Weck Laboratory in the Title 22 Groundwater Monitoring Program to provide water quality monitoring requirements for drinking water wells. An RFP will be prepared in preparation for the following year.	Address Groundwater Contamination	1	006
Date of Board Action: 02/02/17 Adopt a Negative Declaration and file the Notice of Determination for the California America Water Arlington Well Project, Huntington Park Well 15 Project, and Lynwood Well 11 Project; and authorize release of a Request for Bids (RFB) for the California America Water Arlington Well Project, Huntington Park Well 15 Project, and Lynwood Well 11 Project.	**Staff Progress: Complete** WRD staff prepared an Initial Study for all three projects that concluded that no significant environmental impact is expected from the projects. Per the California Environmental Quality Act (CEQA) guidelines, the attached environmental documentations in the form of an initial study was prepared and a public notice was posted for each project. The 30-day public review period has ended and no comments were received for any of the three projects. The Negative Declaration for each project can be adopted and the Notice of Determination filed.	Promote the Safe Drinking Water Program and groundwater cleanup	1	012
Date of Board Action: 02/02/17 Authorize the General Manager to execute a contract amendment with KEH & Associates for professional services for the Maywood Mutual Water Company No. 2 May Avenue Wellhead Treatment Project for an amount not to exceed $150,000.	**Staff Progress: On-going** Performs professional engineering services on an as-needed-basis as directed by the Project Manager. Amendment increases the budgetary amount by $150,000.00	Promote the Safe Drinking Water Program and groundwater cleanup	1	012
Date of Board Action: 04/27/17 Authorize the General Manager to amend and restate Resolution No. 14-985 and approve the Non-Consumptive Water Use Permit with the Boeing Company in order to include an additional extraction well as part of their remediation project.	**Staff Progress: Complete** The Boeing Company notified WRD that they converted an existing monitoring well (MW2153) to an extraction well (EW2153) at Boeing's former C-1 Facility Building 3 Groundwater Extraction and Treatment System. The addition of this new extraction well requires an amendment to the existing Non-Consumptive Water Use Permit (NCWUP), attached, under which extractions for this groundwater cleanup effort are allowed.	Address Groundwater Contamination	1	006
Date of Board Action: 05/18/17 Authorize the General Manager to amend and restate Resolution No. 13-962 to approve a revised non-consumptive water use permit for groundwater cleanup at the Ashland Chemical Company site for five years, with an exemption amount not to exceed 15 acre-feet per year.	**Staff Progress: On-going** Resolution No. 13-962 was amended and restated for groundwater contamination associated with Ashland Chemical Company site. Since Ashland met the criteria set forth in Resolution No. 12-941, the District issued a revised Non-Consumptive Water Use Permit for the groundwater cleanup at the Ashland Chemical Company site, and granted an exemption to the District's Replenishment Assessment for five years with pumping not to exceed 15 acre feet per year.	Address Groundwater Contamination	1	006

Date of Board Action: 05/18/17 Authorize the General Manager to participate in the Water Environment & Research Foundation Project 16-01, Evaluating Post Treatment Challenges for Potable Reuse Applications, for an amount not to exceed $20,000.	**Staff Progress: On-going** By participating to this research project, WRD will have direct access to information which could be beneficial to its various recycled water reuse projects, such as GRIP and Leo J. Vander Lans Advanced Water Treatment Facility as well as contributing to research to benefit future reuse projects. The project is expected to be completed in late 2018.	Perform effective basin management & support water research	1 & 4	004
Date of Board Action: 05/18/17 Adopt Resolution 17-1054 authorizing the General Manager to enter into a funding agreement with the State Water Resources Control Board for the Los Angeles Forebay Perchlorate and VOC Cleanup Project – Phase 1.	**Staff Progress: On-going** Resolution 17-1054 was adopted to allow WRD to enter into a funding agreement with the SWRCB in funding a cleanup project for remediation of groundwater contamination in the Los Angeles Forebay area. Staff is currently working with SWRCB for the grant application.	Address Ground-water Contamina-tion	1	006

*District Goal

1 – Provide safe and reliable groundwater
2 – Obtain independence from imported water sources
3 – Promote organizational excellence
4 – Advance groundwater awareness
5 – Foster environmental stewardship & water sustainability

FINANCE/AUDIT COMMITTEE, AD HOC BUDGET COMMITTEE, AD HOC BOND FINANCING COMMITTEE

Supported by: The Finance Department

The Finance/Audit & Ad Hoc Budget Committee shall study, advise and make recommendations with regard to the following:

1. Financial activities of the District by reviewing the monthly demands, financial statements, reimbursements and other key financial issues of the District;

2. Be the oversight Committee responsible to the Board of Directors for coordinating the annual budget process and monitoring the budget as necessary to ensure that the operations of the District are conducted pursuant to it;

3. Be responsible to the Board for the District's investment policy and monitoring the District's investment portfolio. The committee is to monitor any short, intermediate, and long-term capital needs of the District;

4. Acts as the Audit Committee relating to the Comprehensive Annual Financial Audit (CAFA) conducted by the District's independent financial auditor; and,

5. Shall not make recommendations to the Board of Directors on any matters which are the purview of other committees.

2016/17 Performance Metrics – Finance/Audit Committee

Board Action	Staff Performance Measure	Board Objective	District Goal*	Project
Date of Board Action: 8/4/16 Receive and file the demands list for April 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 8/4/16 Approve the financial statements for April 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 8/4/16 Approve the Reserves Cash and Investment Report for April 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 8/4/16 Approve the Trust Fund Report for April 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 10/6/16 Receive and file the demands for May 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN

Date of Board Action: 10/6/16 Receive and file the demands for June 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 10/6/16 Approve the financial statements for May 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 10/6/16 Approve the financial statements for June 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 10/6/16 Approve the Reserves, Cash and Investment Report for the period ending May 31, 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 10/6/16 Approve the Reserves, Cash and Investment Report for the period ending June 30, 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 10/6/16 Approve the Trust Fund Report for the period ending May 31, 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 10/6/16 The Board of Directors approve the Trust Fund Report for the period ending June 30, 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 10/20/16 Receive and file the demands for July 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 10/20/16 Approve the financial statements for July 31, 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 10/20/16 Approve the Reserves, Cash and Investment Report for the period ending July 31, 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 10/20/16 Approve the Trust Fund Report for the period ending July 31, 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 10/20/16 Reject Claim No. 17-0016 Nellie Woods, received July 24, 2016	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN

Date of Board Action: 11/3/16 Approve the Reserves, Cash and Investment Report for the period ending December 31, 2015.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 11/3/16 Approve the Reserves, Cash and Investment Report for the period ending January 31, 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 11/3/16 Approve the Trust Fund Report for the period ending December 31, 2015.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 11/3/16 Approve the Trust Fund Report for the period ending January 31, 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 11/17/16 Receive and file the demands for August 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 11/17/16 Approve the financial statements for August 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 11/17/16 Approve the Reserves, Cash and Investment Report for the period ending August 31, 2016	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 11/17/16 Adopt Resolution No. 16-1044.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 11/17/16 Adopt Resolution No. 16-1045.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 11/17/16 Adopt Resolution No. 16-1046.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 11/17/16 Adopt an increase to the contract that ends December 2016 for Vasquez and company for an amount not to exceed $5,000; and that staff begin preparing an RFP in preparation for the following year.	**Staff Progress: Complete** During the issuance of the District's 2015 Series RA Revenue Bonds, there were several additional tasks performed by Vasquez and Company in their role as independent auditors. As they complete their final year of their contract, the District needed to increase their contract in order to bridge the gap for their work performed during the latest debt issuance.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN

Date of Board Action:01/05/17 Approve the release of a Request for Proposals (RFP) for Investment Advisor Services.	**Staff Progress: Complete** The District's 2015 Series RA Revenue Bonds, grant and a 1% loan from the State are resources that funded the District's 5-year Capital Improvements Program to assist the District in becoming completely independent of imported water. The funds are expected to be drawn down during the next three years. Investment Management Services are needed to assist in obtaining the maximum level of interest earnings while maintaining safety and liquidity of the assets as the two primary goals.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 01/19/17 Receive and file the demands for October 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 01/19/17 Approve the financial statements for October 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 01/19/17 Approve the Reserves, Cash and Investment Report for the period ending October 31, 2016	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 01/19/17 Approve the Trust Fund Report for the period ending October 31, 2016	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 01/19/17 Adopt Resolution No. 17-1050 approving and accepting the negotiated exchange of property tax revenues resulting from annexation of Tract No. 60513 to County Lighting Maintenance District 1687.	**Staff Progress: Complete** WRD received a request from the County of Los Angeles Department of Public Works regarding participation in the exchange of ad valorem property tax. The District adopted a resolution providing for the exchange of property tax.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 04/27/17 Receive and file the demands for December 2016	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 04/27/17 Receive and file the demands for January 2017	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 04/27/17 Approve the Reserves, Cash and Investment Report for the period ending December 31, 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN

Date of Board Action: 04/27/17 Approve the Reserves, Cash and Investment Report for the period ending January 31, 2017.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 04/27/17 Approve the financial statements for December 2016.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 04/27/17 Approve the financial statements for January 2017.	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 04/27/17 Approve the Trust Fund Report for the period ending December 31, 2016	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 04/27/17 Approve the Trust Fund Report for the period ending January 31, 2017	**Staff Progress: Complete**	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 04/27/17 Authorize the General Manager to approve the Xerox Copier Lease Agreement.	**Staff Progress: Complete** WRD negotiated a new lease for equipment congruent and consistent with existing systems for three new copiers. The new copiers have a higher capacity and a faster speed, all at a reduced cost compared to the prior lease.	Promote organization efficiencies	3	ADMIN
Date of Board Action: 04/27/17 Continue the Public Hearing from the April 6, 2017 Board meeting, receive any staff reports and public comment, and close the Water Code required Public Hearing on the fiscal year 2017/18 replenishment assessment.	**Staff Progress: Complete** Provided the Board of Directors and the public with an open public hearing process related to the 2017/18 Replenishment Assessment and adopted the related Resolution.	Provide public transparency and accountability and comply with California State Water Code	3	ADMIN
Date of Board Action: 04/27/17 Open the Public Hearing pursuant to Article XIII D, Section 6(a)(2) of the California Constitution (Proposition 218) regarding the Replenishment Assessment proposed to be effective July 1, 2017 and provide opportunity for public comment and protests, receive any staff reports and testimony, and close the Public Hearing.	**Staff Progress: Complete** Provided the Board of Directors and the public with an open public hearing process related to the 2017/18 Replenishment Assessment and adopted the related Resolution.	Provide public transparency and accountability and comply with California State Water Code	3	ADMIN

Date of Board Action: 04/27/17 Adopt Resolution No. 17-1053 to establish the fiscal year 2017/18 Replenishment Assessment at $318.00 per acre-foot of groundwater pumped and instruct staff to file an appropriate Notice of Exemption for the action.	**Staff Progress: Complete** Approved the 2017/18 Replenishment Assessment at $318.00 per acre-foot of groundwater pumped, adopted the related Resolution, and filed the appropriate Notice of Exemption.	Provide public transparency and accountability and comply with California State Water Code	3	ADMIN
Date of Board Action: 04/27/17 Approve a 7.1% Replenishment Assessment and adopt the Fiscal Year 2017/18 Budget.	**Staff Progress: Complete** The 2017/18 Budget was approved and filed with the related replenishment assessment.	Provide public transparency and accountability and comply with California State Water Code	3	ADMIN

*District Goal

1 – Provide safe and reliable groundwater
2 – Obtain independence from imported water sources
3 – Promote organizational excellence
4 – Advance groundwater awareness
5 – Foster environmental stewardship & water sustainability

ADMINISTRATIVE COMMITTEE

Supported by: The Administrative Department

The Administrative Committee shall study, advise and make recommendations with regard to the following:

1. Administrative and personnel policies and procedures to be considered by the Board of Directors;

2. Be responsible for the policies and procedures pertaining to the oversight and management of the organization, including but not limited to the District's organization and the flow of the authority and responsibility; and,

3. Periodic independent reviews and studies of the organization, classification of positions and related compensation ranges as outlined in the memorandum of understanding with the employees bargaining unit.

2016/17 Performance Metrics – Administrative Committee

Board Action	Staff Performance Measure	Board Objective	District Goal*	Project
Date of Board Action: 8/4/16 Authorize the General Manager to execute a professional services agreement with Advanced Document Solutions for implementation services related to the Agenda Development and Archival System project for a total contract amount of $30,000, plus a 10% contingency allowance of $3,000, for a total not to exceed project budget amount of $33,000.	**Staff Progress:** See CIP Committee	Implement the automated systems and processes to effectively support the agency and its projects and program	3	ADMIN
Date of Board Action: 8/4/16 Authorize the General Manager to execute a professional services agreement with Xtelesis for installation services related to the VOIP phone system for a total amount of $39,900, plus a 10% contingency allowance of $3,990, for a total not to exceed project budget amount of $43,890.	**Staff Progress: Complete** Xtelesis will provide professional services to replace the District's current phone system with a Voice over Internet Protocol (VoIP) telecommunications system that will carry the District's needs into the future.	To provide the District with better communication technology	3	ADMIN
Date of Board Action: 01/19/17 Authorize the General Manager to execute a professional services agreement with Environment Control Building Services for janitorial services for a three year term for a total contract amount of $90,360, plus a 10% contingency allowance of $9,036, for a total not to exceed budget amount of $99,360.	**Staff Progress: Complete** Environment Control Building Services is a locally owned company that provided regular janitorial services and quarterly carpet cleaning for the District Office building.	Maintain a clean working environment	3	ADMIN

Date of Board Action: 05/25/17 Authorize the General Manager to approve payment to West Coast Cable in the amount of $11,179.83, for services rendered.	**Staff Progress: Complete** As part of its phase one office improvement construction projects for the administration building, WRD contracted with West Coast Cable, Inc. to install network cabling in three areas of the building.	To provide the District with better communication technology	3	ADMIN
Date of Board Action: 05/25/17 Authorize the General Manager to enter into a contract with Spectrum Communications for internet connection services at the Goldsworthy Desalter, for an amount not to exceed $108,000.	**Staff Progress: Complete** A key part of WRD's asset management initiative is the requirement to be able to remotely monitor operations data and equipment at the District's various facilities located throughout the basin, from its Lakewood headquarters. WRD has contracted with Spectrum Communications to provide a robust and reliable network connection.	To provide the District with better communication technology	3	ADMIN

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EXTERNAL AFFAIRS COMMITTEE

Supported by: The Communication and Education Services (CES) Department

The External Affairs Committee shall study, advise and make recommendations with regard to the following:

1. Proposals and recommendations concerning Local, Regional, State and Federal legislation, or amendments thereto, that may affect the District;
2. Opportunities for members of the Board to assist in outreach activities, including efforts to inform members of the Legislature or the Congress of the District's position with regard to proposed legislation;
3. The effectiveness of legislative advocacy efforts;
4. The development and implementation of school education programs, including the expectations and goals for these programs;
5. The effectiveness of the District's external affairs programs and general communications efforts directed at member agencies and the general public; and
6. The selection of public information consultants and the scope of their assignments.

2016/17 Performance Metrics – External Affairs Committee

Board Action	Staff Performance Measure	Board Objective	District Goal*	Project
Date of Board Action: 8/18/16 Approve the budgeted WRD conference sponsorships scheduled for the remainder of the 2016 calendar year to promote and educate industry leaders and public officials about WRD's WIN Program, GRIP project and other programs aimed to ensure a resilient and sustainable water future for the District's service area. The seven specified conferences are not to exceed a cumulative amount of $30,000.	**Staff Progress: Complete** The District participated in water industry association conferences and symposiums to promote WRD's WIN Program and GRIP Project. Through this participation, WRD has had the opportunity to increase awareness of its mission and develop key relationships and partnerships with others in the water industry.	Advance groundwater awareness with the water industry community	4	EAE
Date of Board Action: 9/15/16 Approve the Los Angeles Business Council (LABC) Executive Membership Level sponsorship for an amount not to exceed $2,000.	**Staff Progress: Complete** The District's membership with LABC provided a strong conduit to local, state and federal officials on WRD's mission and educational programs.	Promote water awareness & foster environmental stewardship and water sustainability	3,4 & 5	EAC

Date of Board Action: 9/15/16 Approve sponsorship for Council for Watershed Health 20th Anniversary Event for an amount not to exceed $2,500.	**Staff Progress: Complete** Participated as a sponsor in the CWH 20th anniversary event celebration to promote the District's interest in areas such as watershed planning and management, achieving healthier urban environments and fostering regional landscape ethic that reduces water usage.	Promote water awareness & foster environmental stewardship and water sustainability	3,4 & 5	EAC
Date of Board Action: 9/15/16 Approve the sponsorship for County of Los Angeles Women's Leadership Council Conference for an amount not to exceed $1,500.	**Staff Progress: Complete** The District's sponsorship of the Women's Annual Leadership Conference provided a new opportunity to educate and update local leaders about relevant and critical water issues facing the WRD region, including the status of the GRIP Project.	Promote water awareness & foster environmental stewardship and water sustainability stewardship	3,4 & 5	EAC
Date of Board Action: 10/6/16 Approve sponsorship for the Independent Cities Association Summer Seminar for an amount not to exceed $5,000.	**Staff Progress: Complete** Sponsored the ICA Summer Seminar for the District to be better informed and to share relevant experiences with other city council members and city officials.	Promote water awareness & foster environmental stewardship and water sustainability	3,4 & 5	EAC
Date of Board Action: 10/6/16 Authorize the General Manager to approve sponsorship for CFEE Roundtable on California Water for an amount not to exceed $5,000.	**Staff Progress: Complete** The CFEE Roundtable offered WRD an opportunity to discuss the District's work on the Groundwater Reliability Improvement Project (GRIP) and the Water Independence Now (WIN) program as the strategies the District has implemented to advance locally sustainable water opportunities.	Promote water awareness & foster environmental stewardship and water sustainability	3,4 & 5	EAC
Date of Board Action: 10/6/16 Approve an upgrade to a Premium Membership to the San Pedro Chamber of Commerce for an additional amount not to exceed $1,000.	**Staff Progress: Complete** Provides the District an opportunity to educate members of the community about the mission and goals of WRD.	Promote water awareness & conservation, and to foster environmental stewardship	3, 4, & 5	EAC & EAE
Date of Board Action: 12/1/16 Authorize the General Manager to approve sponsorship for the California Latino Water Summit 2016 in an amount not to exceed $7,500.	**Staff Progress: Complete** WRD staff participated in the 2016 Latino Water Summit as part of its ongoing effort to engage organizations and educate industry leaders about WRD's mission especially the District's WIN and GRIP program.	Promote water awareness & foster environmental stewardship and water sustainability	3,4 & 5	EAC
Date of Board Action: 12/1/16 Authorize the General Manager to approve tuition for the 2017 Water Education Foundation's Water Leaders Class in an amount not to exceed $3,950.	**Staff Progress: Complete** The 2017 WEF Water Leaders Class have enhanced staff's leadership skills and deeper understanding and knowledge of water issues.	Promote water awareness & foster environmental stewardship and water sustainability	3,4 & 5	EAC

Date of Board Action: 12/1/16 Authorize the General Manager to execute a Professional Services Agreement with Reeb Government Relations, LLC for state legislative and advocacy support services for a monthly fee of $15,000 for an amount not to exceed $360,000 through December 31, 2018.	**Staff Progress: Complete** Reeb continues to be instrumental with advising the District on various strategic support services and represent the District on state legislative matters.	Develop & implement state legislative advocacy	3,4 & 5	EAC
Date of Board Action: 12/1/16 Authorize the General Manager to execute a Professional Services Agreement with Pacific Atlantic Partners for federal legislative and advocacy support services for a monthly fee of $15,000 for an amount not to exceed $360,000 through December 31, 2018.	**Staff Progress: Complete** The District's legislative outreach at the Federal level is performed on a continual basis relating to federal legislative analysis.	To maintain contact and to educate Federal Legislators with the assistance of advocacy support services	4	001/033
Date of Board Action: 12/1/16 Authorize the General Manager to execute a Professional Services Agreement with Robert E. Bush Corporation for County advocacy support services for a monthly fee of $3,000 for strategic support services, for an amount not to exceed $72,000 through December 31, 2018.	**Staff Progress: Complete** Continued working with Robert E Bush in advising the Board and staff on various District strategic initiatives and County policies.	To maintain contact and to educate County with the assistance of advocacy support services	4	005
Date of Board Action: 02/02/17 Authorize the General Manager to enter into a Professional Services Agreement with Civic Connect for web hosting for a period of 12 –months in an amount not to exceed $26,400.	**Staff Progress: Complete** Contract provides a comprehensive state-of-the-art managed cloud hosting solution including a robust redundancy, performance and availability with a full service management.	Promote water awareness & conservation, and to foster environmental stewardship	3, 4, & 5	EAC & EAE
Date of Board Action: 03/16/17 Approve the budgeted WRD conference sponsorships scheduled through July 2017 to promote and educate industry leaders and public officials about WRD's WIN Program, GRIP Project and other programs aimed to ensure a resilient and sustainable water future for the District's service area. The seven specified conferences are not to exceed a cumulative amount of $19,500.	**Staff Progress: On-going** Provides the District an opportunity to educate members of the community about the mission, goals, and programs of WRD.	Promote water awareness & foster environmental stewardship and water sustainability	3,4 & 5	EAC, EAE & 033
Date of Board Action: 04/27/17 Approve legislative recommendations for pending legislation during the 2017/18 regular state legislative session.	**Staff Progress: Complete** Twelve pieces of legislation were proposed for the regular session of the 2017 legislative year and recommendations were made based on the legislation's impact on WRD's mission and services.	Promote water awareness & conservation, and to foster environmental stewardship	3, 4, & 5	EAC & EAE

Date of Board Action: 05/18/17 Authorize the General Manager to approve a sponsorship amount not to exceed $7,500 for the Independent Cities Association (ICA) Summer Seminar and Heal the Bay (HTB) events in the amounts of $5,000 and $2,500, respectively.	**Staff Progress: Complete** The District's on-going sponsorships with the Independent Cities Association and Heal the Bay events are avenues of communication enabling WRD to successfully advance discussions around critical policies and programs that promote public interest in water.	Promote water awareness & conservation, and to foster environmental stewardship	3, 4, & 5	EAC & EAE

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CAPITAL IMPROVEMENT PROJECTS (CIP) COMMITTEE

Supported by: Engineering, Hydrogeology, Finance, Admin and Communications and Education Services Departments

The CIP Committee shall study, advise and make recommendations with regard to all capital improvement related projects.

1. Provides systematic evaluation of all potential projects
2. Identify the most economical means of financing capital improvements
3. A communication tool for public relations and stakeholder
4. Focus on completing projects identified under the Water Independence Now (WIN)

2016/17 Performance Metrics – Capital Improvement Projects (CIP) Committee

Board Action	Staff Performance Measure	Board Objective	District Goal*	Project
Date of Board Action: 7/21/16 Authorize the General Manager to execute a professional services agreement with Environmental Science Associates for environmental monitoring services related to the construction of the GRIP AWTF for a total contract amount of $334,400, plus a 10% contingency allowance of $33,500, for a total project budget amount of $368,000.	**Staff Progress: On-going** Worked with Environmental Science Associates (ESA), to track and document compliance with mitigation measures for the constructions of the Groundwater Reliability Improvement Program, (GRIP AWTF) to reduce or avoid potential environmental impacts.	Advance the District's Groundwater Reliability Improvement Program (GRIP)	1&2	033
Date of Board Action: 7/21/16 Authorize the General Manager to execute a professional services agreement with Cityworks for their CMMS software for a total not to exceed amount of $55,000, plus a 10- percent contingency allowance totaling $5,500, for a total project budget of $60,500.	**Staff Progress: On-going** Executed Citywork's CMMS Software license agreement through 7/20/2019 to serve as an asset management and operational tool for the District's assets.	To manage the lifecycle of District's tangible and intangible assets	3	040
Date of Board Action: 7/21/16 Authorize the General Manager to execute a professional services agreement with Woolpert for implementing the District's CMMS software for a total not to exceed amount of $151,500, plus a 10-percent contingency allowance totaling $15,200, for a total project budget of $166,700.	**Staff Progress: On-going** Woolpert implemented the CMMS software for the District at the LJVL facility to effectively navigate the software and provide with ability to successfully manage and monitor the District's assets.	To manage the lifecycle of District's tangible and intangible assets	3	040

Date of Board Action: 7/21/16 Authorize the General Manager to execute Amendment No. 2 of Professional Services Agreement No. 816 with GHD for CMMS implementation oversight and coordination, for a total not to exceed amount of $29,000, plus a 10-percent contingency allowance totaling $2,900, for a total project budget of $31,900.	**Staff Progress: Complete** Worked with GHD to develop the District's Asset Management Master Plan and Phase 1 Pilot project. Amendment No. 2 was executed with additional scope of work to oversee and coordinate the Pilot Implementation of the District's CMMS for the Leo J Vander Lans facility onto the WRD Headquarter server.	To manage the lifecycle of District's tangible and intangible assets	3	040
Date of Board Action: 8/4/16 Authorize the General Manager to execute a contract amendment with West Basin Municipal Water District to continue to provide groundwater sampling services related to permit compliance for recycled water injection into the West Coast Basin Barrier Project, subject to approval of form by District counsel.	**Staff Progress: On-going** **A**greement with WBMWD was extended for another five years because of the WRD's experience in groundwater monitoring sampling program. The District staffs collected groundwater samples on a regular basis and deliver them to WBMWD for analysis.	Monitor and prevent groundwater contamination	1	035
Date of Board Action: 8/4/16 Authorize the General Manager to execute a professional services agreement with Advanced Document Solutions for implementation services related to the Agenda Development and Archival System project for a total contract amount of $30,000, plus a 10% contingency allowance of $3,000, for a total not to exceed project budget amount of $33,000.	**Staff Progress: Complete** Work with Advanced Document Solution (ADOC) to implement an automated and standardized workflow for the District's board and committee agenda process.	Implement the automated systems and processes to effectively support the agency and its projects and program	3	ADMIN
Date of Board Action: 8/18/16 Authorize the General Manager to enter into an agreement with MWD and the City of Torrance, the sponsoring MWD member agency, for MWD's local resources program for the benefit of the GRIP Recycled Water Project.	**Staff Progress: Complete** Work with the Metropolitan Water District under its Local Resources Incentive Program with the City of Torrance (MWD member agency) to provide subsidy benefits for the GRIP AWTF through the expected amount of 10,000 acre-feet per year delivered to the Montebello Forebay.	Advance the District's Groundwater Reliability Improvement Program	3	033
Date of Board Action: 8/18/16 Authorize the General Manager to establish a non-wasting endowment with the Orange County Community Foundation for an amount not to exceed $756,000 as required per the USFW Environmental Concurrence for the benefit of the VIREO in the San Gabriel River Watershed and as a requirement to finalize the SRF loan and grant agreement with the Water Board for the benefit of the construction of the GRIP AWTF,	**Staff Progress: On-going** The District established a non-wasting endowment with the Orange County Community Foundation to benefit the VIREO in perpetuity through restoration, enhancement, and management of riparian habitat within the San Gabriel River Watershed.	Advance the District's Groundwater Reliability Improvement Program	2	033

Date of Board Action: 8/18/16 Execute the MOU with the City of Torrance to express understanding of various matters regarding the Goldsworthy Desalter Expansion Project,	**Staff Progress: Complete** The District and City of Torrance entered into an agreement to express understanding on various project matters, including Financing, Construction and Project Management, Operation and Maintenance, Ownership Responsibilities, and Grant Agreement Responsibilities.	Increase use of potable water supply	1	002
Date of Board Action: 8/18/16 Adopt Resolution No. 16-1041 to authorize the General Manager to execute various documents related to the development of the GRIP AWTF.	**Staff Progress: Complete** Resolution No. 16-1041 was adopted. Staff executed and delivered all planning and entitlement documents required to meet scheduling and project development obligations for the GRIP AWTF facility.	Advance the District's Groundwater Reliability Improvement Program	2	033
Date of Board Action: 9/15/16 Authorize the General Manager to execute a professional services agreement with System Source, Inc. for furniture and installation services for a total amount of $85,350, plus a 10% contingency allowance of $8,535, for a total not to exceed project budget amount of $93,885.	**Staff Progress: Complete** As part of the District's Office Renovation Project, System Source Inc. have purchased, supplied and installed all furniture for the renovation project.	Advance the District Building to effectively support its projects and programs	3	032
Date of Board Action: 9/15/16 Authorize the General Manager to execute a contract with Pico Water District to perform the subject work.	**Staff Progress: Complete** The District contracted with Pico Rivera District to perform the relocation of several interfering utilities, for the construction of the Brine Pipeline as part of the off-site improvement of the GRIP AWTF project.	Advance the District's Groundwater Reliability Improvement Program	2	033
Date of Board Action: 10/6/16 Approves to direct staff to issue an RFQ as soon as possible to retain a consultant to conduct an independent third party design build process and value engineering review of WRD's Owner's Engineer/ Owner's Agent (OE/OA) performance re: the GRIP AWTF to insure that the scope of work being performed and fees being charged are consistent with industry standards and move the CIP recommendation on a pro-rata basis for a six-month period pending the return of the review.	**Staff Progress: Complete** Staff Issued the RFQ to retain a consultant to review and evaluate the Owner's Engineer/Owner's Agent performance on the construction of the GRIP AWTF.	Advance the District's Groundwater Reliability Improvement Program	2	033

Date of Board Action: 10/6/16 Certify the Final Program Environmental Impact Report (PEIR) and adopt the resolution to approve the Groundwater Basins Master Plan (GBMP) Project.	**Staff Progress: Complete** Resolution No. 16-1043 was adopted approving the GBMP project that would increase replenishment and beneficial use of recycled water and captured storm water in the West and Central basins. Based on the certified PEIR report, the approved GBMP showed no significant effect on the environment with implementation of mitigation measures.	Advance the District's GBMP & complements the WIN Program	1&2	005
Date of Board Action: 10/6/16 (Thru the Technical Advisory Committee) Adopt the updated Five-Year Capital Improvement Program for Fiscal Years 2016/17 through Fiscal Years 2020-21 as submitted and authorize staff to file a Notice of Exemption from CEQA.	**Staff Progress: Complete** The District's updated Five-Year CIP program was adopted as a multi-year financial planning tool to support the District's upcoming capital priorities. The CIP is exempt under CEQA and the Notice of Exemption was filed.	To identify capital projects and equipment purchases	ALL	N/A
Date of Board Action: 10/6/16 Adopt the WRD Strategic Plan	**Staff Progress: Complete** The WRD's Strategic Plan of September 2016 was adopted and set forth goals and objectives for the District's numerous programs, projects and initiatives to better serve as the groundwater basin management agency for the LA Coastal Basins.	To review and update the District's vision, goals and objectives	ALL	N/A
Date of Board Action: 10/6/16 Authorize the General Manager to execute a Joint Funding Agreement with the U.S. Geological Survey for Water Resources Investigation Agreement #17WSCA60096310 to complete the regional model on the geohydrology of the Central and West Coast Basins in the amount of $200,000.	**Staff Progress: on-going** Continued working with the USGS in completion of a multi-year study of the Geohydrology to update and improve the groundwater computer model of the Central and West Coast Basins. The study is expected to complete and publish the model by September 2017.	To provide better understanding of the basins and forecast future groundwater conditions	1	011
Date of Board Action: 10/6/16 Authorize the General Manager to execute an agreement with KG Axis Inc. for the Office Renovations at the WRD Administration Building Project – Phase 1 for a total amount not to exceed $167,400, plus a 10% contingency allowance totaling $16,740, for a total project budget of $184,140.	**Staff Progress: Complete** KG Axis, Inc had done various minor interior and exterior renovations for the District's Administration Building including modification, remodeling and painting of existing building walls and spaces.	Advance the District Building to effectively support its projects and programs	3	032
Date of Board Action: 10/6/16 Accept the Diversion Structures at 001B and Basin No. 2 project as complete, authorize the Assistant General Manager/ Chief Engineer to file a Notice of Completion with the Los Angeles County Clerk's office in accordance with the California Public Contract Code, and authorize release of construction contract retention in the amount of $298,082.80.	**Staff Progress: Complete** The construction of Diversion Structures 001B and Basin No.2 by J.F. Shea was fully completed with no outstanding changes or stop notices. Therefore Notice of Completion was filed with the Los Angeles County Clerk's office and the contract retention amount was released.	Advance the District's Groundwater Reliability Improvement Program	2	033

Date of Board Action: 10/20/16 Authorize the General Manager to execute an amendment to the professional services agreement with Gillis Panichapan Architects, Inc. for a total amount of $49,500, plus 10-percent contingency allowance of $4,950 for a total project budget amount not to exceed $54,450.	**Staff Progress: Complete** Continue working with Gillis Panichapan Architects to design, prepare construction documents, and construction administration for the remaining Phase I and future Phase II of the District Administration Building renovation projects.	Advance the District Building to effectively support its projects and programs	3	032
Date of Board Action: 11/3/16 Approve and execute the First Amendment to the Design Build Contract (Contract No. 877) between the Water Replenishment District of Southern California and J.F. Shea Construction, Inc. for the GRIP Advanced Water Treatment Facility.	**Staff Progress: On-going** The District entered into a Design-Build agreement with J.F. Shea for the construction of the GRIP AWTF project. Additional construction requirements relating to the Installment Sale and Grant Agreement for the Water Recycling Construction Financing was added in the Amendment #1.	Advance the District's Groundwater Reliability Improvement Program	2	033
Date of Board Action: 11/3/16 Authorize the General Manager to terminate the current elevator maintenance contract with KONE Inc. and execute a 2-Year Service Contract with Liftech Elevator Services Inc. for an amount not to exceed $14,680 ($4,680 preventative maintenance and $10,000 for extraordinary maintenance contingency).	**Staff Progress: Complete** The District Building elevator maintained and repaired by Kone Inc. since the building was purchased was terminated due to limited and unacceptable services. A new contract agreement was awarded to Liftech Elevator Services for routine elevator maintenance and repair and extraordinary maintenance as needed.	Advance the District Building to effectively support its projects and programs	3	ADMIN
Date of Board Action: 11/3/16 Authorize the General Manager to amend the existing contract with Arcadis (Amendment No. 2) to increase the budget by an amount of $888,418, plus a 10% contingency of $88,842 (rounded), for a total amount not to exceed $977,260, and a time extension of the existing contract to December 31, 2018.	**Staff Progress: On-going** Continue working with Arcadis to establish a fully integrated, comprehensive, and standardized master SCADA System. Arcadis completed the master plan and modification of the contract in order to complete the planned implementation of the remaining phase of the project which is anticipated to occur over the next two years.	Advance the District Building to effectively support its projects and programs	3	039
Date of Board Action: 11/3/16 Authorize the General Manager to execute a professional services contract with Standard Automation and Control LP dba Wonderware West for the amount of $91,215.47, plus a 10% contingency of $9,122 (rounded), for a total amount not to exceed $100,338 (rounded), and the term ending on December 31, 2020.	**Staff Progress: Complete** Staff awarded a contract to Wonderware West for SCADA System Software and upgrades for all existing and future WRD facilities. Wonderware software is utilized at Vander Lans AWTF, CIS, and two turnout structures at the spreading grounds and soon to be installed at the Goldsworthy Desalter.	Advance the District Building to effectively support its projects and programs	3	039
Date of Board Action: 11/3/16 Authorize the General Manager to approve a series of radio advertisements for the GRIP project on KNX-1070 AM Radio to commence on or after November 9, 2016, for an amount not to exceed $75,000.	**Staff Progress: Complete** Series of radio advertisements were scheduled early November 2016 to increase public awareness of the GRIP project.	To enhance GRIP Outreach Program	2 & 4	EAC

Date of Board Action: 11/3/16 Authorize the General Manager to submit a Prop 1 Grant Application to the State Water Resources Control Board for the perchlorate hotspot remedy in the Los Angeles Forebay.	**Staff Progress: Complete** WRD is pursuing state grant funds available from Proposition 1 by submitting a grant application to SWRCB. The State Grant Fund will help fund the construction of the remediation project.	Address Groundwater Contamination	1	006
Date of Board Action: 12/1/16 Authorize the General Manager to approve a contract extension and costs for website programming with Civic Resource Group for a total amount not to exceed $15,000.	**Staff Progress: Complete** Continue working with Civic Resources to redesign the District website. Staff requested design elements not originally included in the initial plan to further improve the website that required the contract extension term and additional funds.	Advance the District website	3	EAE
Date of Board Action: 12/1/16 Authorize the General Manager to execute a professional services agreement with Advanced Document Solutions for implementation services related to the AP automation project for a total contract amount of $64,080, plus a 10% contingency allowance of $6,408, for a total amount not to exceed project budget amount of $70,488.	**Staff Progress: Complete** Advanced Document Solutions is working to automate the District's Accounts Payable workflow as part of the WRD's Asset Management Master Plan initiatives including software and implementation services.	Promote organization efficiencies	3	ADMIN
Date of Board Action: 12/1/16 Authorize the General Manager to execute Amendment No. 1 of the Professional Services Agreement No. 887 with Woolpert, Page 3 of 4, with a revised scope of work for full implementation of CMMS software District wide for a total amount not to exceed $320,000 and extend the contract term to December 31, 2018.	**Staff Progress: Complete** Woolpert is currently leading the pilot Implementation of the EAM. However, CMMS implementation needed to be expanded and integrated to maintain other District owned facilities. Woolpert's current contract is amended to further assist WRD Staff with managing the full implementation of the CMMS software for these facilities.	To manage the lifecycle of District's tangible and intangible assets	3	040
Date of Board Action: 12/1/16 Authorize the General Manager to execute Amendment No. 3 of Professional Services Agreement No. 816 with GHD for CMMS District-wide implementation, for a total amount not to exceed $550,000 and extend the contract term to December 31, 2018.	**Staff Progress: Complete** The District's current contract with GHD includes CMMS implementation oversight and coordination of only Phase 1. Furthermore, GHD has the appropriate expertise to assist in a full implementation of the CMMS software and ensure the integrity of the asset data migration for the District.	To manage the lifecycle of District's tangible and intangible assets	3	040
Date of Board Action: 12/8/16 Approve the amended Resolution No. 16-1048 **–** Approval of Alternative Analysis for the Central Basin under the Sustainable Groundwater Management Act.	**Staff Progress: Complete** The Board approved the Resolution No. 16-1048 to submit an "Alternative Analysis "to DWR pursuant to the SGMA provision of the California Water Code that provides adequate information to show that the Central Sub-basin has operated with its sustainable yield over a period of at least 10 years, and cover the entire Central Sub-basin.	Perform effective basin management	1	025

Date of Board Action: 12/8/16 Authorize release of a Request for Bids (RFB) for a construction contractor for Phase 2 Office renovations.	**Staff Progress: Complete** Staff released a Request for Bids (RFB) to retain a construction contractor for the aforementioned Phase 2 Office Renovation Project to accommodate both departments along with improvements to the lobby and a new reception area.	Advance the District Building to effectively support its projects and programs	3	032
Date of Board Action: 12/8/16 Authorize the General Manager to enter into a Professional Services Contract with Climate Pro Mechanical for an amount not to exceed $30,000 ($20,000 to provide HVAC maintenance services over a period of three years and $10,000 for extraordinary maintenance contingency).	**Staff Progress: Complete** Climate Pro has specialized in preventative maintenance with HVAC and is highly competent in servicing the units to improve the efficiency and reduce the energy footprint of the WRD Administration Building facility.	Advance the District Building to effectively support its projects and programs	3	032
Date of Board Action: 12/8/16 Authorize the General Manager to execute Contract Amendment No. 5 with Ruth Villalobos & Associates, to continue to update the Deviation Study and complete the DRP accordingly and extend the contract term to June 30, 2017.	**Staff Progress: Complete** Amendment #5 to the Ruth Villalobos & Associates contract was issued to continue updating the Deviation Study to accommodate the delays and revisions resulting the U.S. Fish and Wildlife Service (USFW) consultation in the goal of maximizing conservation pool elevation and additional 1,100 af per year of storm water conservation.	Increase storm water capture	1 & 2	005
Date of Board Action: 01/05/17 Authorize the General Manager to amend the existing contract with Mike Prlich & Sons, Inc. to increase the budget for the GRIP Brine Disposal Pipeline and Street Improvements Project by an amount of $46,000 (rounded).	**Staff Progress: Complete** Complete construction of a 16-inch diameter pipeline along San Gabriel River Parkway to connect the AWTF to an existing Los Angeles County Sanitation District 63-inch diameter sewer pipeline that runs along Beverly Road.	Advance the District's Groundwater Reliability Improvement Program	2	033
Date of Board Action: 01/19/17 Authorize the General Manager to enter into a Professional Services Agreement with LA Const. Photo Doc., Inc. dba Multivista for an amount not to exceed $67,385, plus a 10% contingency for unforeseen conditions, for a total cost not to exceed $74,125 and with a term that ends on December 31, 2018.	**Staff Progress: Complete** Multivista provided the District with archived photo documentation of all construction activities of the GRIP AWTF. This information would be useful to ensure compliance with design plans and as part of WRD's asset management program and will serve as a historical reference to all construction details at the GRIP AWTF facility.	Advance the District's Groundwater Reliability Improvement Program (GRIP) and Advance the District's Organization Excellence	2 & 3	033

Date of Board Action: 01/19/17 Authorize the General Manager to approve a contract extension and costs for media training for a total amount not to exceed $10,000.	**Staff Progress: Complete** Work with Milagro Strategy Group to provide trainings for media relations for WRD staff and Board members. Milagro has conducted 3 media trainings.	Promote water awareness & conservation, and to foster environmental stewardship	3, 4, & 5	EAC & EAE
Date of Board Action: 02/02/17 Authorize the General Manager to execute a professional services agreement with Regional Government Services for on-call recruitment services for an amount not to exceed $96,000 through January 25, 2020.	**Staff Progress: On-going** Continue working with Regional Government Services to recruit and fill multiple upper-level technical and professional open positions with qualified and experienced individuals.	Promote organizational excellence	3	ADMIN
Date of Board Action: 02/02/17 Authorize the General Manager to enter into a Professional Services Agreement with Partners in Control, Inc., dba Enterprise Automation to provide on-call professional services for SCADA systems integration and support for an amount not to exceed $509,446, plus a 10% contingency for unforeseen conditions, for a total cost not to exceed $560,000 (rounded) and with a term that ends on June 30, 2020.	**Staff Progress: In-progress** Implements the SCADA system at all of WRD's facilities (i.e. Turnout Structures, Vander Lans AWTF, Goldsworthy Desalter, and eventually GRIP AWTF) to the CIS. Also provides technical expertise and ongoing assistance on the development, maintenance, and periodic upgrades and/or improvements to all of the SCADA systems at WRD's facilities.	Advance the District Building to effectively support its projects and programs	3	039
Date of Board Action: 03/16/17 Authorize the General Manager to execute a professional services agreement with Corporate Business Interiors for furniture and installation services for a total amount of $223,000, plus a 10% contingency allowance of $22,300, for a total not to exceed project budget amount of $245,300.	**Staff Progress: In-progress** This purchase is procured pursuant to the US Communities' Government Purchasing Alliance which explicitly allows participating agencies to enter into piggyback contracts with participating companies to take advantage of negotiated governmental pricing rates.	Advance the District Building to effectively support its projects and programs	3	032
Date of Board Action: 03/16/17 Accept the Brine Disposal Pipeline and Street Improvement project as complete, authorize the General Manager to file a Notice of Completion with the Los Angeles County Clerk's office in accordance with the California Public Contract Code, and authorize release of construction contract retention in the amount of $87,019.97.	**Staff Progress: Complete** Construction of a 16-inch diameter pipeline along San Gabriel River Parkway to connect the AWTF to an existing Los Angeles County Sanitation District 63-inch diameter sewer pipeline was completed. Notice of completion and retention was filed and released.	Advance the District's Groundwater Reliability Improvement Program	2	033
Date of Board Action: 03/16/17 Authorize the General Manager to enter into a Professional Services Agreement with Intera, Inc. for on-call groundwater modeling services for a total. Cost not to exceed $100,000 and a contract termination date of June 30, 2018	**Staff Progress: On-going** The District develops and runs sophisticated computer models to represent and simulate the groundwater flow conditions under current and hypothetical future management scenarios. This contract with Intera is necessary to address the District's current and immediate need for computer modeling services for several projects.	Perform effective basin management	1	025

Date of Board Action: 03/16/17 Authorize the General Manager to enter into a Professional Services Agreement with Mad Systems for interpretive/exhibitry concept, design, construction, and installation for Phase 1 of the WRD Administrative Lobby, Leo J. Vander Lans AWTF and for the GRIP AWTF for an amount not to exceed $440,000 and a contract termination date of July 31, 2018.	**Staff Progress: In-progress** As a supplement to WRD's on-going educational program, Mad System is constructing and installing interpretive/exhibitry in the District facilities to educate the public about groundwater as an essential resource to the region's water supply.	Promote water awareness & conservation, foster environmental stewardship & advance the District's Organization Excellence	3, 4, & 5	033
Date of Board Action: 04/27/17 Authorize the General Manager to release a Request for Proposals (RFP) for security services at the WRD Field Operations & Storage Annex Facility.	**Staff Progress: On-going** In May 2016, the District purchased a 2.3 acre parcel, located at 3919 Paramount Boulevard, which will serve as the District's new field operations and storage annex facility. Security services are needed to better protect the property's premises and provide a safer site for staff access.	Promote organization efficiencies	3	ADMIN
Date of Board Action: 04/27/17 Authorize the General Manager to execute a contract amendment with Water Compliance Solutions for an additional $50,000 and a time extension to December 31, 2017.	**Staff Progress: On-going** Considerable additional consulting services are anticipated in order to secure the final permits for the GRIP facility and other on-call services as needed.	Utilize recycled water	1 & 2	025 & 033
Date of Board Action: 04/27/17 Authorize the General Manager to execute a Professional Services Agreement with Gillis + Panichapan Architects, Inc. for architectural & engineering design services related to the District's new field operations and storage annex facility for a total contract amount of $130,000 (rounded), plus a 10% contingency allowance of $13,000 (rounded), for a total project budget amount of $143,000 (rounded).	**Staff Progress: In-progress** Continue working with Gillis + Panichapan Architects for architectural and engineering design services for the future Field Operations and Storage Annex Facility.	Advance the District Building to effectively support its projects and programs	3	032
Date of Board Action: 04/27/17 Authorize the General Manager to execute an amendment with BrightView Landscape Services for additional landscape services for a total amount not to exceed $25,000.	**Staff Progress: On-going** Contract with BrightView is extended to continue caring and upkeeping sustainable landscape at the District's administrative office, Leo J Vander Lans, the new facility property at 3919 Paramount Blvd., and two wellhead treatment locations in the City of Torrance.	Advance the District's Organization Excellence	3	001, 002 & ADM
Date of Board Action: 04/27/17 Authorize the General Manager to execute an amendment with KG Axis Inc. for the Office Renovations Project – Phase 1 for a total amount not to exceed $4,000.	**Staff Progress: Complete** To close-out contract with KG Axis, Inc for various minor interior and exterior renovations for the District's Administration Building including modification, remodeling and painting of existing building walls and spaces.	Advance the District Building to effectively support its projects and programs	3	032

Date of Board Action: 04/27/17 Authorize the General Manager to execute an amendment with Rincon Consultants, Inc., specifically Amendment No. 2 to Contract No. 854, for environmental services related to the construction of the GRIP AWTF.	**Staff Progress: On-going** Extend the term of the agreement with Rincon Consultants in providing environmental services relating to the deconstruction of the GRIP AWTF site to June 30, 2017 with no additional increase to funding, to complete their final environmental monitoring reports.	Advance the District's Groundwater Reliability Improvement Program (GRIP)	2	033
Date of Board Action: 05/25/17 Accept the Office Renovation Phase 1 project as complete, authorize the General Manager to file a Notice of Completion with the Los Angeles County Clerk's office in accordance with the California Public contract Code, and authorize release of construction contract retention in an amount not to exceed $8,370.	**Staff Progress: Complete** The construction contract is now considered complete, and there are no outstanding change orders or stop notices.	Advance the District Building to effectively support its projects and programs	3	032
Date of Board Action: 05/25/17 Authorize the General Manager to execute an amendment to the Professional Services Agreement with Gillis Panichapan Architects, Inc. for a total amount not to exceed $25,000 for the additional work requested for Phase 2.	**Staff Progress: Complete** Amended the existing contract with Gillis +Panichapan Architects for design modification and construction administration services due to changes in architectural and electrical design coordination.	Advance the District Building to effectively support its projects and programs	3	032
Date of Board Action: 05/25/17 Authorize the General Manager to approve the Maywood Mutual Water Company No. 2 May Avenue Wellhead Treatment Project as a project, and authorize release of a Request for Bids (RFB) for the Wellhead Treatment Project.	**Staff Progress: Complete** Under the District's Safe Drinking Water Disadvantage Communities Pilot Program, staff assisted Maywood Mutual Water Company No.2 with state and federal funding to address the issues related to their drinking water wells. RFB was released for construction of the treatment system at the Maywood Mutual Water Company No.2 May Avenue Well.	Promote the Safe Drinking Water Program and groundwater cleanup	1	012
Date of Board Action: 05/25/17 Authorize the General Manager to enter into a Professional Services Agreement with Assetic for Asset Management System Software and Integrator.	**Staff Progress: Complete** Continue working with Assetic to provide licensing service to their AMMS software purchased by the District to assist with asset planning.	Implement the automated systems and processes to effectively support the agency and its projects and program	3	ADMIN

Date of Board Action: 05/25/17 Approve 1) Making a finding under Water Code Section 60225 that the completion of the proposed groundwater monitoring wells in the Central Basin outside of the District is reasonably necessary to protect the groundwater supplies within the District and that there is a direct, material relationship between the groundwater supply where the wells will be located and the groundwater supplies within the District; 2) executing an agreement with the USGS for 2 deep specialized groundwater monitoring wells for an amount not to exceed $1,260,000 including contingency; 3) executing an agreement with Schlumberger to perform professional geophysical logging services of the 2 new monitoring well sites for an amount not to exceed $181,500 including contingency; 4) approving the purchase of groundwater monitoring equipment from In-Situ Inc. for an mount not to exceed $55,000 including contingency; and 5) directing staff to file a Notice of Exemption for the wells under CEQA.	**Staff Progress: Complete** The District found it reasonably necessary to construct two groundwater monitoring wells less than 2 miles outside of the District's service area but still within the same Central Basin to monitor groundwater conditions that could affect WRD. Awarded contracts to USGS for construction services of the wells, Schlumberger for geophysical logging services and In-Situ Inc. for groundwater monitoring equipment.	Perform effective basin management	1	011
Date of Board Action: 06/15/17 Authorize the General Manager to revise the approved Amendment No. 2 to include an extended contract term through September 30, 2017 with Gillis Panichapan Architects, Inc. for the Phase 2 project.	**Staff Progress: On-going** The professional services agreement with Gillis & Panichapan Architects was amended October 2016 to perform the designs for the renovations and the contract term needed to be extended to June 30, 2017.	Advance the District Building to effectively support its projects and programs	3	032
Date of Board Action: 06/15/17 Authorize the General Manager to execute an amendment with R Dependable Construction Inc. for the Office Renovations Project – Phase 2 for a total amount not to exceed $80,000 (rounded).	**Staff Progress: Complete** The District awarded an amendment to the contract with R Dependable Construction Inc. for the renovation of the District Building due to additional changes in the Interpretive/Exhibit design.	Advance the District Building to effectively support its projects and programs	3	032
Date of Board Action: 06/15/17 Authorize the General Manager to execute a General Services Agreement with Platt Security Systems Inc. for security services at the WRD Field Operations & Storage Annex Facility for a not to exceed amount of $48,000, plus a 10% contingency, for a total project budget of $52,800.	**Staff Progress: On-going** Working with Platt Security System to provide security services at the District's unoccupied Field Operations & Storage Anex Facility until tenant improvement project is ready for construction.	Advance the District Building to effectively support its projects and programs	3	ADMIN

*District Goal

1 – Provide safe and reliable groundwater
2 – Obtain independence from imported water sources
3 – Promote organizational excellence
4 – Advance groundwater awareness
5 – Foster environmental stewardship & water sustainability

FULL-TIME EQUIVALENT (FTE) AND LABOR ALLOCATION

The Water Replenishment District's financial accounting system allows expenses to be tracked by fund, project, task and subtask. This allows for flexibility when determining performance measures on a project-by-project basis. Part of this flexibility allows the District to allocate its labor costs very specifically. The following tables represent the 2017/18 Budgeted Summary of Personnel by Department and by Program along with the District's 2017/18 labor allocation for all employees. Transparency is the most important aspect to the District when reporting its financial information.

The definition of a full-time equivalent (FTE) is the number of working hours that represents one full-time employee during a fixed period of time, such as one fiscal year. FTE simplifies work measurement by converting work load hours into the number of people required to complete that work. FTE calculation is a two-step process that determines how many hours of work there are in a department and how many hours one full-time employee works. The total work load hours are then divided by the working hours of one employee. This calculates the number of full-time equivalents that are needed. FTE analysis is the method of measurement of current work activities with related time and cost measures. This helps the District understand the drivers of work load levels, organizational performance and productivity improvement opportunities.

2017/18 FTE by Program

Table 86 shows a detailed analysis of the number of full-time equivalents required by each of the District's projects, programs, or administrative support department. The table shows that the District's staffing on its various projects remain relatively stable. The only increase of note is due to increased efforts within the Finance/Admin areas, specifically relating restructuring of the organization. WRD's organizational structure adjusts from time to time to make changes to operations and organizational structure in an effort to adjust to changes in District responsibilities and to provide increased efficiency.

2017/18 FTE Labor Cost

All staff labor costs includes employee compensation and benefits, and are allocated to each project as; 'Other General and Administrative Costs'. Employee compensation is based on the Memorandum of Understanding between the Board of Directors of the Water Replenishment District and the American Federation of State, County and Municipal Employee, Chapter 1902.

2017/18 Labor Allocation Worksheet

The annual labor allocation worksheet (Table 53A) is designed to provide an accurate cost allocation of labor and overhead to each individual project, program, and administrative departments.

Table 86
Full Time Equivalents (FTE) by Program

Program Name	2013/14 Actual	2014/15 Actual	2015/16 Actual	2016/17 Budget	2017/18 Budget
Operations and Maintenance					
Leo J Vander Lans	0.40	0.78	0.49	0.78	1.63
Water Conservation	0.80	0.92	0.51	1.50	1.13
Robert Goldsworthy Desalter	0.25	0.22	0.01	0.24	1.04
Montebello Forebay Reclaimed Water	0.37	1.00	1.08	1.15	1.36
Groundwater Resources Planning	0.74	0.70	1.67	0.70	1.47
Water Quality Program	0.92	1.22	1.53	1.40	1.55
Title 22 Program	0.28	0.42	0.26	0.00	0.20
Geographic Information System	1.95	2.17	1.48	1.90	0.51
Regional GW Monitoring Program	2.20	2.40	1.41	2.35	2.44
Dominquez Barrier Recycled Wtr	0.43	0.73	0.52	0.63	0.41
Replenishment Program	0.77	1.00	0.66	0.85	0.70
Hydrogeology	1.51	0.80	0.68	1.25	1.10
Water Education	2.65	3.95	3.75	2.40	1.36
Safe Drinking Water	0.00	0.12	0.30	0.70	0.42
GRIP	0.00	0.00	0.00	0.10	2.10
West Basin Barrier	0.00	0.00	0.04	0.00	0.20
Total	**13.27**	**16.43**	**14.39**	**15.95**	**17.62**
Capital Projects					
Leo J Vander Lans	1.46	0.40	0.25	0.10	0.20
Robert Goldsworty Desalter	0.34	0.90	0.71	0.40	0.40
WRD Building	0.00	0.00	0.00	0.00	0.10
Groundwater Monitoring - New Wells	0.00	0.15	0.00	0.25	0.00
GRIP	1.36	3.02	3.05	4.00	2.93
Safe Drinking Water	0.00	0.00	0.00	0.30	0.20
Watermaster Services	0.10	0.00	0.53	1.50	2.80
LADWP Well Construction Program	0.00	0.00	0.05	0.00	0.00
Total	**3.26**	**4.47**	**4.59**	**6.55**	**6.63**
Finance/Admin/EA					
Finance/Admin/EA	15.88	12.30	14.76	13.40	12.70
General Manager					
General Manager	1.00	1.00	1.00	1.00	1.05
Grand Total	**33.41**	**34.20**	**34.74**	**36.90**	**38.00**

Note: In fiscal year 2013/14 to 2014/15, the District had staff which did not work the entire fiscal year.

Table 87

17/18 Labor Allocation Worksheet

	Finance / Admin / EA	GM	Board of Directors	ADM Total	Operation & Maintenance Projects Total	Capital Projects Total	Grand Total
1010 - Board of Directors							
Director			100%	100%	0%	0%	100%
Director			100%	100%	0%	0%	100%
Director			100%	100%	0%	0%	100%
Director			100%	100%	0%	0%	100%
Director			100%	100%	0%	0%	100%
1005- General Manager							
General Manager		100%		100%	0%	0%	100%
1000- Internal Services (6 Staff)							
Mgr of Internal Services	100%			100%	0%	0%	100%
Network Administrator	100%			100%	0%	0%	100%
Technical Service Coordinator	100%			100%	0%	0%	100%
Sr Admin Specialist	100%			100%			100%
Project Administrator	40%			40%	0%	0%	100%
Administrative Assistant	100%			100%	0%	0%	100%
1040 - Finance (5 staff)							
Chief Financial Officer	100%			100%	0%	0%	100%
Mgr of Financial Services	100%			100%	0%	0%	100%
Sr Accountant	100%			100%	0%	0%	100%
Sr. Accountant	100%			100%	0%	0%	100%
Sr. Accounting	100%			100%	0%	0%	100%
1020 - CES (6 Staff)							
Mgr of Comm & Ed Services	10%	3%	5%	18%	64%	18%	100%
Comm & Ed Services	5%		1%	6%	86%	8%	100%
Comm & Ed Services	2%		1%	3%	87%	10%	100%
Comm & Ed Services	15%	2%	1%	18%	80%	2%	100%
Comm & Ed Services	25%			25%	72%	3%	100%
Comm & Ed Services	25%			25%	73%	2%	100%

Table 87 cont'd

17/18 Labor Allocation Worksheet

	Finance / Admin / EA	GM	Board of Directors	ADM Total	Operation & Maintenance Projects Total	Capital Projects Total	Grand Total
1030- Hydrogeology (9 Staff)							
Chief Hydrogeologist				0%	70%	30%	100%
Water Resources Planner				0%	25%	75%	100%
Sr. Hydrogeologist				0%	100%	0%	100%
Hydrogeologist				0%	100%	0%	100%
Hydrogeologist				0%	100%	0%	100%
Hydrogeologist				0%	100%	0%	100%
Associate Hydrogeologist				0%	100%	0%	100%
Associate Hydrogeologist				0%	100%	0%	100%
Water Quality Specialist					100%	0%	100%
1060 - Engineering (7) Staff)							
Chief of Engineering and Planning	80%			80%	0%	20%	100%
Senior Engineer	0%			0%	80%	20%	100%
Senior Engineer	0%			0%	0%	100%	100%
Engineer	0%			0%	20%	80%	100%
Engineer	0%			0%	20%	80%	100%
Asssociate Engineer	0%			0%	70%	30%	100%
Water Operation Manager	0%			0%	90%	10%	100%
1070 - Water Resources (4) Staff							
Network Administrator				0%	50%	50%	100%
Online Tech & Data Specialist				0%	50%	50%	100%
GIS Analyst				0%	75%	25%	100%
Technical Specialist				0%	50%	50%	100%
1050 - Retirees - (11)							
Retiree	100%			100%	0%	0%	100%
Retiree	100%			100%	0%	0%	100%
Retiree	100%			100%			
Retiree	100%			100%	0%	0%	100%
Retiree	100%			100%	0%	0%	100%
Retiree	100%			100%	0%	0%	100%
Retiree	100%			100%	0%	0%	100%
Retiree	100%			100%	0%	0%	100%
Retiree	100%			100%	0%	0%	100%
Retiree	100%			100%	0%	0%	100%
Retiree	100%			100%	0%	0%	100%
Retiree	100%			100%	0%		

Resolution Adopting Replenishment Assessment

Students from Lowell Academy of Long Beach on a water tour of the San Gabriel River.

RESOLUTION NO. 17-1053

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA LEVYING A REPLENISHMENT ASSESSMENT ON THE PRODUCTION OF GROUNDWATER FROM THE GROUNDWATER SUPPLIES WITHIN THE DISTRICT DURING THE FISCAL YEAR COMMENCING JULY 1, 2017 AND ENDING ON JUNE 30, 2018 AS PROVIDED IN SECTION 60317 OF CALIFORNIA WATER CODE AND MAKING FINDINGS AND DETERMINATIONS REGARDING SAID ASSESSMENT IN ACCORDANCE WITH SECTIONS 60315 AND 60316 OF THE WATER CODE OF THE STATE OF CALIFORNIA

WHEREAS, the Board of Directors ("the Board") of the Water Replenishment District of Southern California ("the District") on February 2, 2017 in compliance with California Water Code § 60300, timely ordered an Engineering Survey and Report ("ESR") to be made regarding the groundwater supplies and groundwater quality issues within the District; and

WHEREAS, the ESR has been prepared pursuant to the Board's request and the ESR has been available for inspection by any interested party for the time required by law; and

WHEREAS, the Board, by Resolution No. 17-1051, has declared that funds shall be raised to purchase water for replenishment of groundwater supplies within the District during the ensuing fiscal year, 2017-2018, and to accomplish all acts reasonably necessary pursuant to said replenishment, including, but not limited to, the development and operation of capital projects, and that such funds shall be raised by a replenishment assessment as provided in Chapter 2 of Part 6 of the California Water Code, and further finding that the funds to be raised will benefit, directly or indirectly, all of the persons or real property and improvements within the District; and

WHEREAS, the Board, by Resolution No. 17-1051, has declared that funds shall be raised to remove contaminants from groundwater supplies and to exercise any other power under California Water Code § 60224, including, but not limited to, the development and operation of capital projects, and that such funds shall be raised by a replenishment assessment as provided in Chapter 2 of Part 6 of the California Water Code, and further finding that the funds so raised will benefit, directly or indirectly, all of the persons or real property and improvements within the District; and

WHEREAS, the District prepared a Cost of Service Report dated April 6, 2017, which has been made available to the public, describing the services the District anticipates performing in Fiscal Year 2017-2018, estimating the costs of providing those services, and calculating a Replenishment Assessment that ensures that those costs are spread amongst water producers in an equitable manner; and

WHEREAS, on April 6, 2017, as required by California Water Code § 60307, the Board opened a public hearing for the purpose of determining whether and to what extent the estimated cost of water replenishment programs and the estimated cost of water quality programs for the ensuing year shall be paid for by a replenishment assessment ; and

WHEREAS, notice of the April 6, 2017 hearing was published as required by law; and

WHEREAS, the April 6, 2017 hearing was further continued to April 27, 2017 at which time the hearing was closed; and

WHEREAS, in addition to the public hearings on the Replenishment Assessment, the District also held budget workshops that were open to the public, where the District provided the public with information concerning its Fiscal Year 2017-2018 budget, which is directly related to the Replenishment Assessment; and

WHEREAS, in addition to the April 6, 2017 public hearing, on April 27, 2017 the Board also held a public hearing pursuant to Article XIII D, Section 6(a)(2) of the California Constitution regarding the proposed Replenishment Assessment; and

WHEREAS, all evidence and testimony relevant to the ESR and the Board's determination that such a Replenishment Assessment shall be levied was heard at these public hearings and at the budget workshops; and

WHEREAS, all other findings required by law have already been made, including, but not limited to, any findings required by California Water Code § 60231; and

WHEREAS, the Board voted at its April 27, 2017 public meeting to make the findings and resolutions set forth below.

NOW, THEREFORE, BE IT RESOLVED AND DECLARED BY THE BOARD OF DIRECTORS OF THE WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA AS FOLLOWS:

1. That said Board pursuant to §60315 of the Water Code of the State of California finds as follows:

    a) The annual overdraft of the preceding water year, 2015-16 was 110,600 acre-feet as provided in the 2017 ESR and any updates.

    b) The estimated annual overdraft for the current water year, 2016-17 is 61,500 acre-feet as provided in the 2017 ESR and any updates.

c) The estimated annual overdraft for the ensuing water year, 2017-18 is 82,800 acre-feet as provided in the 2017 ESR and any updates.

d) The accumulated overdraft as of the last day of the preceding water year was 832,822 acre-feet as provided in the 2017 ESR and any updates.

e) The estimated accumulated overdraft as of the last day of the current water year is 761,700 acre-feet as provided in the 2017 ESR and any updates.

f) The total production of groundwater from the groundwater supplies within the District during the preceding water year was 214,867 acre-feet as provided in the 2017 ESR and any updates.

g) The estimated total production of groundwater from groundwater supplies within the District for the current water year is 216,700 acre-feet as provided in the 2017 ESR and any updates.

h) The estimated total production of groundwater from the groundwater supplies within the District for the ensuing water year is 217,300 acre-feet as provided in the 2017 ESR and any updates.

i) Groundwater levels in the WRD service area over the previous WY ending September 30, 2016 fell on average only 1 foot, with the Montebello Forebay seeing a rise of 0.6 foot, the Los Angeles Forebay a drop of 2.6 feet, the Whittier Area a drop of 2.2 feet, the Central Basin Pressure Area a drop of 0.6 foot and the West Coast Basin a rise of 1 foot.The 2017 ESR and any updates provide details of water levels and basin conditions.

j) In the current WY 2016/17, the District has received over 15 inches of precipitation, which exceeds its normal full year amount of 13.9 inches causing groundwater levels to rise significantly. In addition, WRD purchased imported water and recycled water for additional recharge. As a result, water levels in the Montebello Forebay have risen nearly 40 feet and are within 20 feet of the pre-drought 2011 levels. . The 2017 ESR and any updates provide details of water levels and basin conditions.

k) The quantity of water that should be purchased by the District for the replenishment of the groundwater supplies of the District during the ensuing water year is **101,600** acre-feet, which includes **71,000** acre-feet at the spreading grounds and **30,600** acre-feet at the seawater barrier wells. Details of the calculations for these amounts are presented in the 2017 Engineering Survey and Report and any updates, and on Board decisions at the April 27, 2017 Board meeting and public hearing.

l) The source and estimated cost of the water available for the replenishment described in Section (k) is presented in the 2017 ESR and any updates.

m) The estimated net costs of replenishing the groundwater supplies with the water so purchased are $39,737,000. The derivation of this amount is described in the 2017 ESR, the 2017 Cost of Service Report, and any updates to these documents, and on Board decisions at the April 27, 2017 public meeting. The estimated rate of the replenishment assessment required to fund these purchases based on the anticipated pumping in the ensuing year described in Section (h) is $182.87 per acre-foot of groundwater pumped.

The estimated additional costs to the District for its replenishment program costs, estimated capital costs, and other costs relating to accomplishing replenishment of the groundwater supplies, are $27,186,000. The estimated rate of the replenishment assessment required to fund these costs based on the anticipated pumping in the ensuing year described in Section (h) is $125.11 per acre-foot of groundwater pumped. A listing of the projects and programs and their intended objective – replenishment and/or clean water – is provided in the 2017 ESR and Cost of Service Reports, and any updates to these documents.

n) It is not anticipated that additional replenishment funds need to be raised in the ensuing year for future replenishment water that should be purchased in the ensuing year but cannot be purchased due to an anticipated unavailability of replenishment water in the ensuing year.

o) The estimated rate of the replenishment assessment required to be levied upon the production of groundwater from the groundwater supplies within the District during the ensuing fiscal year for the purposes of accomplishing replenishment activities (replenishment water plus replenishment projects and programs) is $307.98 per acre-foot.

p) Contaminants should be removed from groundwater supplies during the ensuing fiscal year pursuant to the District's projects and programs described in the 2017 ESR and any updates, the April 6, 2017 Cost of Service Report and any updates, the District's capital improvement program, and the District's draft annual budget document. The estimated costs to the District for the groundwater quality program for the 2017-18 fiscal year are estimated at $6,042,000. The estimated additional rate of replenishment assessment required to be levied upon the production of groundwater from the groundwater supplies within the District during the ensuing fiscal year for those purposes is $27.80 per acre-foot.

q) The programs for the removal of contaminants or other actions under Water Code § 60224 are multi-year programs.

r) The estimated amount of reserves on hand at the end of the fiscal year of 2017-18 will not exceed the applicable limitations provided in Water Code Sections 60290 and 60291.

2. After accounting for other revenue, possible debt financing, or use of reserves, the estimated rate of the replenishment assessment required to be levied upon the production of groundwater from the groundwater supplies within the District during the ensuing fiscal year, 2017-18, for the purpose of accomplishing such replenishment and water quality programs by the District is $318.00 per acre-foot of yearly groundwater production. After accounting for the use of an estimated $3,774,000 in other revenue, possible debt financing for capital improvement projects, and District reserve funds as necessary, said replenishment assessment will produce the approximate necessary funds to pay the following costs: $299.73 per acre-foot for the cost of purchasing water, financing capital improvement projects and other costs relating to accomplishing groundwater replenishment, and $18.68 per acre-foot for clean water programs. Of the $299.73 per acre-foot allocated to accomplishing groundwater replenishment, $56.56 per acre-foot is allocated to capital projects. Of the $18.68 per acre-foot allocated to clean water programs, $3.58 per acre-foot may be allocated to capital projects. General and administrative expenses of the District will be met on a pro tanto basis given each function's (replenishment and clean water) load factor on operations.

3. Prior to accounting for other revenue, possible debt financing, or use of reserves, the entire cost of purchasing water for replenishment for the ensuing fiscal year shall be paid for by the assessment identified in Section 2 above. The cost of removing contaminants from groundwater supplies and taking other actions authorized under Water Code § 60224 shall be paid for by the assessment identified in Section 2 above, from possible debt financing for capital improvement projects, and from reserve funds as necessary maintained in accordance with Water Code § 60290. The costs of those capital projects to be undertaken in the ensuing fiscal year, but for which no capital construction accounts have been established pursuant to Water Code § 60291, shall also be paid for by the reserve fund maintained in accordance with Water Code § 60290.

4. All of the estimated costs for the ensuing fiscal year for water replenishment programs and for groundwater quality programs by the District as found in Section 1 of this Resolution shall be paid for by a replenishment assessment levied pursuant to Water Code § 60317 and by the reserve fund maintained in accordance with Water Code § 60290. There is hereby levied on the production of groundwater from groundwater supplies within the District during the fiscal year commencing July 1, 2017 and ending June 30, 2018, a replenishment assessment in the amount of $318.00 per acre-foot produced during said fiscal year.

5. This Replenishment Assessment complies with the California Environmental Quality Act ("CEQA"), based on any one of the following grounds:

(a) That the District's groundwater replenishment program is exempt from CEQA pursuant to CEQA Guidelines §15261(a), in that it is an ongoing project commencing at a date such that an environmental impact report has not been required, and the 2017-2018 program is part of that ongoing project.

(b) Funds generated by the RA will be used for (1) operating expenses, (2) financial reserve needs, (3) purchasing or leasing supplies, equipment and materials, and (4) funds for capital projects necessary to maintain service within existing service areas. That Finding is based on documents and information provided in the record of these proceedings, including but not limited to the annual Engineering Survey Report, the 2017 Cost of Service Report, the proposed 2017-2018 budget, and the staff's written reports and PowerPoint presentations to the Board. Further, the funds raised by the RA will not be used to expand the area or territory in which the District provides services or to fund capital projects that would expand the District's service area or system. Accordingly, the District finds that its adoption of Resolution No. 16-1051 is exempt from CEQA pursuant to, among other bases, CEQA Section 20180(b) (8) and CEQA Guidelines 15261 and 15273, and the Board directs staff to file an appropriate Notice of Exemption.

(c) Notwithstanding the exemptions cited above, an Environmental Impact Report ("EIR") for the District's groundwater replenishment program was previously prepared and that EIR and program have been approved by the District's Board. Subsequent to the preparation of that EIR, the District prepared and certified a number of Mitigated Negative Declarations and Negative Declarations for various water quality and water supply projects (collectively, the "NDs"). The District has examined the imposition of a water replenishment assessment for the 2017-2018 fiscal year to determine whether an additional environmental document must be prepared. Based on this examination, the 2017 Engineering Survey and Report and all other evidence in the administrative record of the District's proceedings herein, the District concludes that: (1) the imposition of a water replenishment assessment for the 2017-2018 fiscal year would not have any effects that were not examined in the EIR and NDs; (2) pursuant to CEQA Guidelines §15162, no new effects would occur and no new mitigation measures would be required; and (3) the imposition of a water replenishment assessment for the 2017-2018 fiscal year is within the scope of the groundwater replenishment program covered by the EIR and NDs and such activity is adequately described in said EIR, and no new environmental document is required.

6. The Replenishment Assessment will be imposed on persons and entities that extract groundwater from the Central Basin and West Coast Basin. Extraction of groundwater from those Basins is governed by court judgments entered in 1962 and 1965 pursuant to groundwater adjudication lawsuits. Those judgments

granted certain parties an allocation to pump water based on prescriptive water rights and not based on any aspect of ownership of land overlying either Basin. Accordingly, since the pumping rights granted by the Judgments were based on prescriptive water rights, the parties do not pump the groundwater pursuant to any tenancy or fee interest in the overlying land or any rights that attach as a result of a tenancy or fee interest in overlying land. Further, neither of the Judgments for the Central and West Coast Basins included a determination of the amount or extent to which any party to said Judgment may extract groundwater from said basin without exceeding the natural safe yield of said basin.

7. The Replenishment Assessment is a charge for water basin management services provided by the District to persons exercising an allocation of pumping groundwater from adjudicated basins per a privilege granted under the court judgments referenced above. These services, which include water replenishment and water quality services, benefit those charged. All persons receiving the services or benefitting from the services by exercising pumping allocations are subject to the Replenishment Assessment. Services are not provided to those who are not charged the Replenishment Assessment and do not benefit those who are not charged the Replenishment Assessment. The amount of the Replenishment Assessment does not exceed the District's reasonable costs to provide services, confer benefits and/or grant privileges as described in this paragraph. Consequently, the Replenishment Assessment is not a "tax" within the meaning of Article XIII C, Section 1(e) of the California Constitution.

The District does not believe that its replenishment assessment is a "property-related fee" subject to the requirements of Article XIII D, Section 6 of the California Constitution. Notwithstanding this, in the interest of public participation, the District has conducted a noticed public hearing with respect to the replenishment assessment. The fact the District has done so should not be interpreted to mean that the District believes that the requirements of Article XIII D, Section 6 apply to the replenishment assessment. The Board also makes the following findings:

(a) Notice of the April 27, 2017 Public Hearing was mailed by the District to the holders of adjudicated pumping rights in the basins.

(b) The purpose of this mailing was to ensure that every adjudicated pumping rights holder in the basins was kept informed of the Replenishment Assessment proposal.

(c) Such notice contained all information required by Article XIII D, Section 6(a)(1) of the California Constitution.

(d) Such notice was mailed not less than 45 days prior to April 27, 2017.

(e) From the date such notice was mailed through the close of the public testimony portion of the April 27, 2017 Public Hearing, the District accepted written testimony and protests, all of which were entered into the record of

the Public Hearing and made available for inspection by the public and by members of the Board.

(f) At the April 27, 2017 Public Hearing, the Board considered all written testimony and protests and heard oral comments from all who wished to speak regarding the proposed Replenishment Assessment.

(g) The Board determines that there is not a majority protest against the proposed Replenishment Assessment in the manner described in Article XIII D, Section 6(a)(2) of the California Constitution. The Board reaches this finding based on its examination of the protests.

(h) The purpose of the Replenishment Assessment is to fund the District's water basin management services. These services are a package of services that make high quality water available to those exercising adjudicated pumping rights, and consist of: monitoring the level and quality of groundwater in the basins; purchasing and producing water needed to replenish the basins; preventing seawater contamination of the groundwater supply; funding replenishment operations; and other activities that make the basins a reliable and low-cost source of safe, high-quality water. Every activity of the District is a part of the water basin management services.

(i) The rate of the Replenishment Assessment is such that proceeds of the Replenishment Assessment will not exceed the funds required to provide the water basin management services.

(j) Revenues derived from the Replenishment Assessment will not be used for any purpose other than providing water basin management services.

(k) The amount of the Replenishment Assessment imposed upon any parcel or person does not exceed the proportional cost of water basin management services attributable to that parcel or person.

(l) No Replenishment Assessment is imposed upon any person who neither actually uses water basin management services nor has water basin management services immediately available to them.

(m) Water basin management services are not a "general government service" that is available to the general public.

(n) The Board finds that the memorandum dated April 6, 2017 from Robb Whitaker to the Board regarding "Cost of Service Report—Supplemental Information" (which is incorporated herein by reference) is true and correct.

(o) The Board notes that, in addition to replenishment assessment proceeds, the District receives an allocation of ad valorem property tax revenues. Such revenues are not subject to the requirements of Article XIII D of the Constitution. It is the intent of the Board that the District's Grants and Sponsorship Program, memberships and dues, water education expenses, and other community programs, be funded from these property tax revenues.

[RECORD OF THE VOTE AND SIGNATURES ON FOLLOWING PAGE]

PASSED, APPROVED AND ADOPTED THIS 27th day of April 2017 by the following vote:

AYES:	President Katherman, Director Allen, Director Calderon, Director Robles
NOES:	None
ABSENT:	Director Murray
ABSTAIN:	None

WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA

Rob Katherman, President

ATTEST:

Sergio Calderon, Secretary

June 8, 2017
DATE

APPROVED AS TO FORM:

H. Francisco Leal
Interim District Counsel

Table 88

Groundwater Conditions and Replenishment Summary

	WATER YEAR Oct 1 - Sep 30		
	2015/16	*2016/2017 (a)*	*2017/2018 (a)*
Total Groundwater Productio	214,867 AF	216,700 AF	217,300 AF
Annual Overdraft	(110,600) AF	(61,500) AF	(82,800) AF
Accumulated Overdraft	(832,822) AF	(761,700) AF	
Quantity Required for Artificial Replenishment for the Ensuing Year			
Spreading			
Imported for Spreading in Montebello Forebay			8,000 AF
Recycled for Spreading in Montebello Forebay			63,000
Subtotal Spreading			71,000
Injection			
Alamitos Seawater Barrier Imported Water (WRD side only)			1,620
Alamitos Seawater Barrier Recycled Water (WRD side only)			3,780
Dominguez Gap Seawater Barrier Imported Water			800
Dominguez Barrier Seawater Barrer Recycled Water			7,200
West Coast Seawater Barrier Imported Water			1,720
West Coast Seawater Barrier Recycled Water			15,480
Subtotal Injection			30,600
In-lieu (b) Subtotal In-lieu			-
Total			**101,600** AF

(a) Estimated values

(b) In-Lieu Program currently not established for ensuing year

Table 89

Quantity and Cost of Replenisment Water for the Ensuing Water Year

	Item	Quantity (AF)	Total Cost
Summary - All Water	Spreading - Tier 1 Untreated Imported	8,000	$ 6,402,652
	Spreading - Recycled	63,000	$ 7,774,000
	Alamitos Barrier - Imported	1,620	$ 1,891,620
	Alamitos Barrier - Recycled	3,780	$ 408,240
	Dominguez Barrier - Imported	800	$ 1,168,055
	Dominguez Barrier - Recycled	7,200	$ 6,724,800
	West Coast Barrier - Imported up to 17kaf barrier total	1,520	$ 1,529,120
	West Coast Barrier - Imported up to 17kaf	200	$ 634,012
	West Coast Barrier - Recycled	15,480	$ 13,204,440
	In-Lieu MWD Member	0	$ -
	In-Lieu WBMWD Customer	0	$ -
	TOTAL	**101,600**	**$ 39,736,939**

Detailed Breakout of Water Costs and Surcharges to WRD

	Item	Quantity	Oct-Dec	Jan-Jun	Jul-Sep	Melded	Total
Imported Water	**CBMWD**						
	MWD Untreated Tier 1 - Spreading ($/af)	8,000	$ 666	$ 695	$ 695	$ 688	$ 5,504,000
	MWD RTS ($/month)	12	$ 19,250	$ 19,250	$ 30,333	$ 22,021	$ 264,252
	CBMWD Administrative Surcharge ($/af)	8,000	$ 70	$ 70	$ 70	$ 70	$ 560,000
	CBMWD Water Service Charge ($/month)	N/A	$ 6,200	$ 6,200	$ 6,200	$ 6,200	$ 74,400
	Total to CBMWD						**$ 6,402,652**
	LBWD						
	MWD Treated Tier 1 - Alamitos Barrier ($/af)	1,620	$ 979	$ 1,015	$ 1,015	$ 1,006	$ 1,629,720
	MWD Capacity Charge ($/cfs/month)	5.0	$ 908	$ 945	$ 945	$ 936	$ 56,160
	LBWD RTS ($/af)	1,620	$ 121	$ 121	$ 125	$ 122	$ 197,640
	LBWD Administrative Surcharge ($/af)	1,620	$ 5	$ 5	$ 5	$ 5	$ 8,100
	Total to LBWD						**$ 1,891,620**
	WBMWD						
	MWD Treated Tier 1-DG/WC Barriers ($/af)	2,520	$ 979	$ 1,015	$ 1,015	$ 1,006	$ 2,535,120
	MWD RTS ($/af)	1,000	$ 116	$ 120	$ 120	$ 119	$ 119,000
	MWD Capacity Charge ($/cfs/month)	46.8	$ 550	$ 572	$ 572	$ 567	$ 318,427
	WBMWD Administrative Surcharge ($/af)	1,000	$ 245	$ 245	$ 270	$ 251	$ 251,000
	WBMWD Water Service Charge ($/cfs/month)	130	$ 67	$ 67	$ 74	$ 69	$ 107,640
	Total to West Basin MWD						**$ 3,331,187**
	IN-LIEU						
	MWD Member Agency ($/af)	0	-	-	-		No IL Program
	WBMWD Member Agency ($/af)	0	-	-	-		No IL Program
	Total for In-Lieu Payments						**$ -**
Recycled Water	**LADWP**						
	Recycled Water for Dominguez Barrier ($/af)	7,200	$ 927	$ 927	$ 955	$ 934	$ 6,724,800
	Total to LADWP						**$ 6,724,800**
	SDLAC						
	Tertiary Water - WN, SJC, Pomona ($/af) ≤50k	50,000	$ 51	$ 51	$ 57	$ 52	$ 2,600,000
	Tertiary Water - WN, SJC, Pomona ($/af) >50k	13,000	$ 394	$ 394	$ 408	$ 398	$ 5,174,000
	Total to SDLAC						**$ 7,774,000**
	WBMWD						
	WBMWD Recycled Water Rate ($/af)	15,480	$ 837	$ 837	$ 899	$ 853	$ 13,204,440
	Total to WBMWD						**$ 13,204,440**
	LBWD						
	Source Water for Vander Lans Plant ($/af)	3,780	$ 107	$ 107	$ 111	$ 108	$ 408,240
	Total to WRD						**$ 408,240**
	TOTAL	**101,600**					**$ 39,736,939**

Updated 3/16/16

Table 90
WRD Projects and Programs

	PROJECT / PROGRAM	DISTRICT FUNCTION	
		Replenishment	Clean Water
001	Leo. J. Vander Lans Water Treatment Facility Project	100%	
002	Robert W. Goldsworthy Desalter Project		100%
004	Recycled Water Program	100%	
005	Groundwater Resources Planning Program	100%	
006	Groundwater Quality Program		100%
010	Geographic Information System	50%	50%
011	Regional Groundwater Monitoring Program	50%	50%
012	Safe Drinking Water Program		100%
018	Domiguez Gap Barrier Recycled Water Injection	100%	
023	Replenishment Operations (Spreading & Barriers)	100%	
025	Hydrogeology Program	50%	50%
033	Groundwater Reliability Improvement Program (GRIP)	100%	
039	Supervisory Control and Data Acquisition (SCADA)	50%	50%
040	Computerized Maintenance Management System (CMMS) and Asset Management	50%	50%

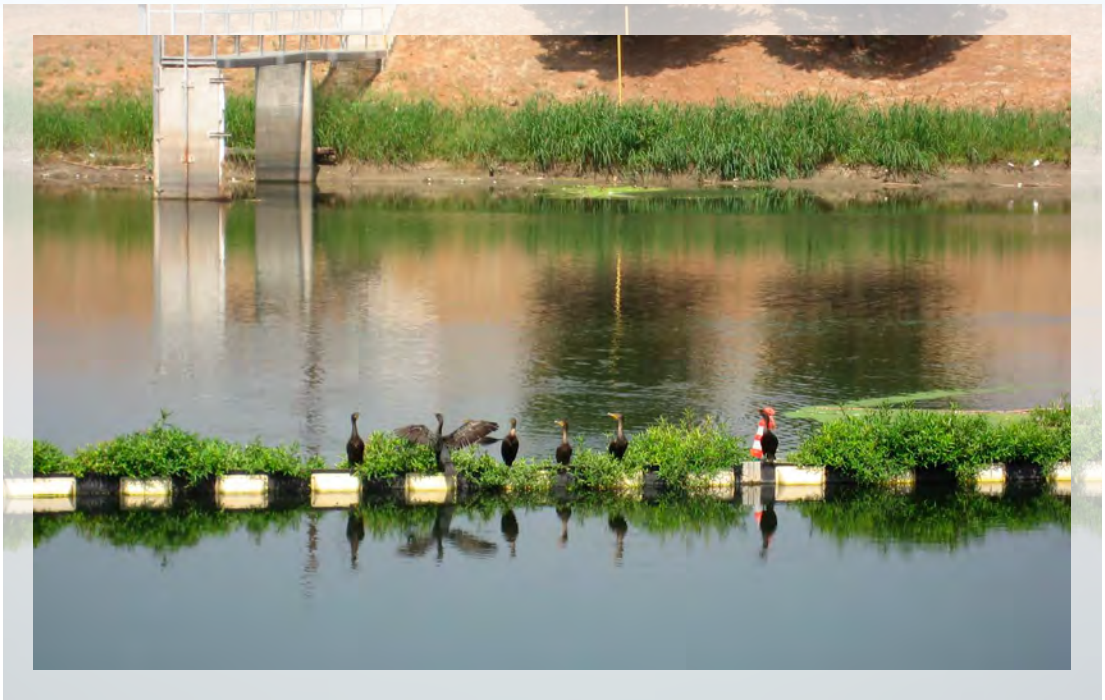
Glossary of Terms

Torrance City Yard Open House - outside the Goldsworthy Desalter

Glossary of Terms

Acre-foot (af):	The volume of water necessary to cover one acre to a depth of one foot, equal to 325,900 gallons. An acre-foot is the amount of water used by two households in one year.
Aquifer:	The geologic formation of sand and gravel where groundwater is stored and can be easily pumped out by wells.
Condensation:	Stage of the water cycle when water transforms from gas into a vapor and becomes a suspended in the atmosphere, visually represented by clouds.
Conservation:	Not wasting, using something wisely
Contamination:	An impurity in air, soil or water that can cause harm to human health or the environment.
Desalination:	A process that converts seawater or brackish water to fresh water.
Discharge:	To expel water that naturally moves from an aquifer to a surface stream or lake.
Drought:	An extended period of dry weather.
Evaporation:	State of the water cycle when water transforms from a liquid into a gas.
Groundwater:	Water under the ground's surface. It fills up the pore spaces (voids) between grains of gravel, sand, silt, or clay, and is a common source of water for drinking and irrigation.
Groundwater flow:	The movement of groundwater beneath the earth's surface.
Hydrologic cycle:	See "Water Cycle"
Imported water:	Water that the WRD purchases from the Colorado River or Northern California to put into the groundwater basins to supplement insufficient local rainfall.
Irrigation:	To supply water to crops, parks, golf courses and lawns.
Overdraft:	Groundwater extractions typically exceed the natural inflows into the groundwater basin.
Permeable:	Any material that allows water to penetrate through.
Precipitation:	Stage of the water cycle when water vapor molecules become too large and heavy to remain in the atmosphere and fall to the ground in the form of rain, snow, sleet, hail, etc.
Quality:	To be at a high degree of excellence; something that is good or well done.
Recharge:	To refill the groundwater basin by infiltrating rain water, imported water, or recycled water down into the aquifers.
Recycle:	To produce a new item from an old item; wastewater from the sewer systems that is reclaimed and purified through extensive treatment at water reclamation plants.
Recycled Water:	Water that has been collected after prior use, then highly treated at wastewater treatment plants so that it can be safely used again, such as for groundwater recharge.
Runoff:	Water that does not become absorbed by the earth but flows across the surface of the land into a stream or lake.
Saturation zone:	The area where water fills the spaces between soil, sand and rock underground.
Treatment:	The process in which water is cleaned and purified.
Water Cycle:	The never-ending movement of water through the atmosphere, ground and back again; also called the hydrologic cycle.
Water Table:	The top of the saturation zone.
Well:	A hole or shaft drilled into the earth to pump water to the surface.
Wheeling:	Use of conveyance facilities by parties other than the owner.
WRD:	The Water Replenishment District of Southern California, an agency responsible for managing two of the most utilized groundwater basins in Southern California . These basins, the Central and West Coast, extend 420 square-miles through southern Los Angeles County and are among the region's most reliable natural water resources.

List of Acronyms



Beautiful day at the San Gabriel Spreading Grounds.

List of Acronyms

ABAC Audit and Budget Advisory Committee
ACWA/JPIA Association of California Water Agencies/ Joint Power Insurance Authority
AF Acre-Feet (equivalent to 325,851 gallons)
AFL-CIO American Federation of Labor and Congress of Industrial Organizations
AFSCME American Federation of State, County and Municipal Employees
AFY Acre-Feet per Year
AGWT American Groundwater Trust
AM Asset Management
AOP Advanced oxidation using hydrogen peroxide
ARC Annual Required Contribution
AWPF Advanced Water Purification Facility
AWTF Advanced Water Treatment Facility
AWWA American Water Works Association
AWWARF American Water Works Association Research Foundation

BAC Budget Advisory Committee
BDOC Biodegradable dissolved organic carbon
BMP Best Management Practice
BOD Board of Directors

CAFA Comprehensive Annual Financial Audit
CAFR Comprehensive Annual Financial Report
CalPERS California Public Employee Retirement System
Caltrans California Department of Transportation
CAR Compliance Assessment Report
CASGEM California Statewide Groundwater Elevation Monitoring
CBMWD Central Basin Municipal Water District
CBWA Central Basin Water Association
CBWCB Central Basin and West Coast Basin
CCR Consumer Confidence Report
CDIR California Department of Industrial Relations
CFA Contributed Funds Agreement
CDPH California Department of Public Health
CDPW California Department of Public Works
CDWR California Department of Water Resources
CEC Constituents of Emerging Concern
CEPRD Coalition for Environmental Protection, Restoration, and Development
CEQA California Environmental Quality Act
CERBT California Employers' Retiree Benefit Trust
CES Communication & Education Services
CFEE California Foundation on the Environment and the Economy
CIS Centralized Information System
CIP Capital Improvement Program
CMFA California Municipal Finance Authority
CMMS Computerized Maintenance Management System
COP Certificates of Participation
CPR Common Pool Resource
CPRA California Public Records Act
CSDLAC County Sanitation Districts of Los Angeles County
CSMFO California Society of Municipal Finance Officers
CSR Cost of Service Report
CWF Clean Water Fund
CWH Council for Watershed Health
CWS California Water Service Company
CWSC California Water Service Company
CWSRF California Clean Water State Revolving Fund

DAC Disadvantaged Communities
DAF Dissolved Air Flotation
DDW Division of Drinking Water
DGB Dominguez Gap Barrier
DRP Deviation Request Package
DTSC California Department of Toxic Substances Control
DWR Department of Water Resources

E-MFRES Enhanced-Montebello Forebay Recharge Enhancement Study
EAM Enterprise Asset Management
EIR Environmental Impact Report
EPA U.S. Environmental Protection Agency
ESR Engineering Survey and Report

FDIC Federal Deposit Insurance Corporation
FTE Full-Time Equivalent

GAAS Generally Accepted Auditing Standards
GASB Government Accounting Standards Board
GBMP Groundwater Basin Master Plan

GBOP	Groundwater Basin Optimization Pipeline
GFOA	Government Finance Officers Association
GIS	Geographic Information System
GLAC	Greater Los Angeles County
GPS	Global Positioning System
GRAC	Groundwater Resources Association of California
GRIP	Groundwater Reliability Improvement Program
GRRR	Groundwater Replenishment using Recycled Water Regulations
GSWC	Golden State Water Company
GW	Groundwater
GWAM	Groundwater Augmentation Model
HTB	Heal the Bay
HMI	Human Machine Interface
ICA	Independent Cities Association
IRWMP	Integrated Regional Water Management Plan
IS/MND	Initial Study/Mitigated Negative Declaration
IT	Information Technology
JPA	Joint Powers Authority
JWPCP	Joint Water Pollution Control Plan
JLAC	Joint Legislative Audit Committee
LABC	Los Angeles Business Council
LABOS	Los Angeles Bureau of Sanitation
LACDPW	Los Angeles County Department of Public Works (Flood Control)
LACFCD	Los Angeles County Flood Control District
LACSD	Los Angeles County Sanitation Districts
LADWP	City of Los Angeles Department of Water and Power
LAIF	Local Agency Investment Fund
LAMS4	Los Angeles County Municipal Stormwater Permit
LARWQCB	Los Angeles Regional Water Quality Control Board
LAX	Los Angeles International Airport
LBWD	City of Long Beach Water Department
LCP	Labor Compliance Program
LEED	Leadership in Energy & Environmental Design
LGCR	Local Government Compensation Report
LJVWTF	Leo J. Vander Lans Water Treatment Facility
LRP	Local Resources Program
LUST	Leaking Underground Storage Tank
LVL	Leo J. Vander Lans
MAR	Managed Aquifer Recharge
MF	Microfiltration
MFI	Modified Fouling Index
MFRES	Montebello Forebay Recharge Enhancement Study
MFSG	Montebello Forebay Spreading Grounds
MFSGOM	Montebello Forebay Spreading Grounds Operational Model
mgd	Million gallons per day
MISAC	Municipal Information Systems Association of California
MODFLOW	MODular three-dimensional finite-difference groundwater FLOW model
MOU	Memorandum of Understanding
MWD	Metropolitan Water District of Southern California
N/A	Not Applicable
NCWUP	Non Consumptive Water Use Permit
ND	Negative Declaration
NEPA	National Environmental Policy Act
NGWA	National Groundwater Association
NPV	Net Present Value
O & M	Operation and Maintenance
OA	Owner's Agent
OCWD	Orange County Water District
OE	Owner's Engineers
OPEB	Other Post-Employment Benefits
PEIR	Programmatic Environmental Impact Report
PEPRA	Public Employees' Pension Reform Act
PLA	Project Labor Agreement
PLC	Programmable Logic Center
PMP	Project Management Plan
PPA	Projects, Programs, Administration
QA	Quality Assurance
QC	Quality Control

RA	Replenishment Assessment
RDBMS	Relational Database Management System
RF	Replenishment Fund
RFB	Request for Bid
RFP	Request for Proposal
RFQ	Request for Quote
RGMP	Regional Groundwater Monitoring Program
RGWMR	Regional Groundwater Monitoring Report
RHSG	Rio Hondo Spreading Grounds
RO	Reverse-osmosis
RP	Responsible Party
RTS	Readiness-to-Serve
RWQCB	LA California Regional Water Quality Control Board – Los Angeles
SAT	Soil Aquifer Treatment
SBPAT	Structural Best Management Practices Prioritization and Analysis Tool
SCADA	Supervisory Control and Data Acquisition
SCWC	Southern California Water Committee
SDLAC	Sanitation Districts of Los Angeles County
SDWP	Safe Drinking Water Program
SGCBSG	San Gabriel Coastal Basin Spreading Grounds
SGMA	Sustainable Groundwater Management Act
SGSG	San Gabriel Spreading Grounds
SJC	San Jose Creek
SJCWRP	San Jose Creek Water Reclamation Plant
SQL	Structured Query Language
SRF	State Revolving Fund
SWRCB	State Water Resources Control Board
TAC	Technical Advisory Committee
TBD	To be determined
TDS	Total Dissolved Solids
TITP	Terminal Island Treatment Plant
TIWRP	Terminal Island Water Reclamation Plant
TLKEGP	The Lillian Kawasaki ECO Gardener Program
TOC	Total organic compounds
UCMR	Unregulated Contaminant Monitoring Rule
UPS	Uninterruptible Power Supply
USACE	U.S. Army Corps of Engineers
USBR	United States Bureau of Reclamation
USEPA	United States Environmental Protection Agency
USFW	United States Fish & Wildlife
USGS	United States Geological Survey
UV	Ultraviolet
VIREO	Virtual Educational Observatory
VOC	Volatile organic compound
VoIP	Voice over Internet Protocol
WAS	Water Augmentation Study
WBMWD	West Basin Municipal Water District
WBWA	West Basin Water Association
WCBBP	West Coast Basin Barrier Project
WDR	Waste Discharge Requirement
WEF	Water Education Foundation
WES	Water Education Seminar
WET	Water Education for Teachers
WE&T	Water Environment & Technology
WEFTEC	Water Environment Federation Technical Exhibition and Conference
WIN	Water Independence Now Program
WN	Whittier Narrows
WPRSF	Water Purchase and Rate Stabilization Fund
WRD	Water Replenishment District of Southern California
WRP	Water Reclamation Plant
WRR	Water Reclamation Requirements

Figures & Tables Index

FIGURES

TABLES