WRD
WATER REPLENISHMENT DISTRICT

ACHIEVEMENTS IN WATER INDEPENDENCE

Annual Budget 2019/2020

ALBERT ROBLES CENTER
WATER RECYCLING & ENVIRONMENTAL LEARNING

THE WATER REPLENISHMENT DISTRICT BOARD OF DIRECTORS

Willard H. Murray, Jr.
Secretary

Rob Katherman
Treasurer

John D. S. Allen
President

Sergio Calderon
Director

Vera Robles DeWitt
Vice President

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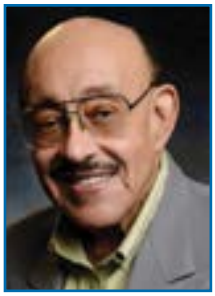
Mission Statement

"To provide, protect and preserve high quality groundwater.."

Board of Directors

Division 1



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Director

Division 5

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Vice President

Budget Team

Robb Whitaker, P.E.
General Manager

Ted Johnson
Assistant General Manager/ Chief Administrative Officer

Lawrence Chiu
Chief Financial Officer

Elizabeth Betham
Senior Accountant

Binhyen Bui
Senior Accountant

Kathryn Burns
Senior Accountant

With special thanks:
Michael Wray

Contact

Water Replenishment District of Southern California

4040 Paramount Boulevard
Lakewood, CA 90712

Phone: 562-921-5521
Fax: 562-921-6101

www.wrd.org

Vision Statement

"Utilizing groundwater storage
to create a locally sustainable water supply
for the Los Angeles Basin."

General Manager's Report

Robb Whitaker
General Manager

HOPE FOR RAIN, PLAN FOR DROUGHT

For the first time in nearly a decade, California is no longer in a condition of severe drought, with above average precipitation in two of the last three years in most parts of the state, including WRD's service area. California's reservoirs are at or near capacity, allocations to State Water Project customers have increased, and groundwater levels in WRD's service area have risen. While this is good news in the short-term for California and our region, it would be a mistake to think the good news will last.

The fact is, precipitation levels have been below historic averages in 14 of the past 20 years. Droughts last longer and are more intense. Persistent drought, combined with aging infrastructure and regulatory curtailment, make the vulnerabilities of imported water supply to Southern California more pronounced. WRD knows that all too well, having to go through extended periods when imported water was simply not available for groundwater replenishment.

WRD had the foresight 15 years ago to radically change the way we looked at water supply for groundwater replenishment. Being heavily reliant on imported water for most of our history, and, in fact, one of the largest users of imported water in the Metropolitan Water District's (MWD's) entire system, we made the conscious decision to undertake programs and projects that would eliminate our use of imported water altogether. We called it the Water Independence Now, or WIN, initiative.

With the opening of the Albert Robles Center for Water Recycling and Environmental Learning (ARC) this year, WIN has been accomplished and we are immune from the uncertainty of imported water supply when it comes to meeting the replenishment needs of the District.

PLANNING FOR THE FUTURE

Even before ARC was completed, the WRD Board adopted what we are calling WIN 4 ALL: WRD's 2040 Plan for Regional Water Independence. The uncertainty of imported supply is as true for the region as it has been for WRD. There will be no "twin tunnels" in the Delta, and there wouldn't be more water flowing south even if there were. Demands on the Colorado River continue to exceed its supply.

Maximizing the use of local resources in the form of additional recycled water facilities and greatly expanded storm water capture projects is an imperative for our region, much as it was for WRD. The guiding principle underpinning WIN 4 ALL is to use the groundwater aquifers to create a locally sustainable water supply for the Los Angeles Basin region.

The strategic goals of WIN 4 ALL include expanding replenishment opportunities and increasing groundwater extraction capacity to enable pumpers to fully exercise their extraction rights. Two very significant planning efforts, along with one contaminated site cleanup and a well construction loan program to advance those strategic goals got underway this year. The voters in November 2018 also approved Measure W, a parcel tax that will generate money for projects that reduce storm water runoff and increase storm water capture for groundwater recharge as well.

REGIONAL BRACKISH WATER RECLAMATION PROGRAM

Underlying the West Coast Basin is a 600,000 acre-feet plume of groundwater that cannot be utilized because of its high salt content. The plume resulted from years of seawater intrusion that occurred before the construction and build-out of the West Coast Basin Seawater Barrier. Working with six stakeholders who pump and wholesale potable water within the basin, WRD this year began the Regional Brackish Water Reclamation Program to evaluate the feasibility of remediating the plume. The feasibility study will also evaluate siting and technologies for brackish water reclamation facilities. The remediation of 600,000 acre-feet will be a huge resource for the region and will enable pumpers to take advantage of currently unused pumping rights. The storage space in the West Coast Basin will also greatly increase. The feasibility study will be completed by the end of 2019.

LOS ANGELES BASIN JOINT MASTER PLAN

WRD and the Los Angeles Department of Water & Power (LADWP) initiated the Los Angeles Basin Joint Master Plan this year to investigate potential opportunities for the extraction and replenishment of groundwater from the Central and West Coast Basins. LADWP has access to the Hyperion Water Reclamation Plant as a potential source of replenishment water. The Hyperion Plant has a capacity exceeding 220,000 acre-feet per year. Among other things, the Master Plan will explore the feasibility of using water from Hyperion as a replenishment source.

PERCHLORATE REMEDIATION PROJECT

WRD has funded or provided financing for multiple wellhead treatment projects over the years, but until now has not directly undertaken a contaminated site cleanup project. Along with various regulatory agencies, the District a few years ago began investigating a perchlorate “hot spot” underlying the City of Vernon in the Los Angeles Forebay. The perchlorate detections were among the highest in the state and the affected groundwater plume is located in the deep potable aquifers. Armed with a grant of more than $7 million from the State Water Resources Control Board, WRD this year began construction of a remediation project to treat the perchlorate along with other commingled volatile organic contaminants (VOCs). We anticipate completion in 2021.

WELL CONSTRUCTION AND REHABILITATION LOAN PROGRAM

The Well Construction and Rehabilitation Loan Program is designed to allow pumpers to utilize their unused pumping rights through a no-interest loan program for new well construction or existing well rehabilitation. The program stipulates that pumpers must increase their 5-year extraction average by a minimum of 10% to receive funding. Four applications totaling over $10 million were received this year.

MEASURE W

While not anticipated at the time the Basin Master Plan was adopted, last November's voter-approved Measure W will generate $300 million annually for projects that minimize urban runoff to the ocean and create local groundwater supply. Nine watershed-based Steering Committees will evaluate regional projects that are eligible for one-half of the annual Measure W funding. WRD is a member of three of the steering committees and looks forward to exchanging ideas with other members and advancing concepts and projects that have regional groundwater supply benefits.

Robb Whitaker
General Manager

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.

President's Report

John D.S. Allen
President

ONE CHAPTER ENDS, ANOTHER BEGINS

With the opening of the Albert Robles Center for Water Recycling and Environmental Learning (ARC), a major chapter in WRD's 60-year history has come to a close and a new chapter begins. ARC is the final step in WRD's Water Independence Now (WIN) journey that began 15 years ago. Turning the page, this year we launched what we are calling WIN 4 ALL to expand to the region the WIN principle of local water self-reliance. With WIN, we demonstrated how it is possible to become totally independent of imported water to meet our replenishment needs. With WIN 4 ALL, our objective is to achieve regional independence from imported water in the Los Angeles Basin region by fully utilizing the groundwater basins.

WIN – STORM WATER CAPTURE

Initiated in 2004, WIN was a guiding principle for WRD's approach to water supply for groundwater replenishment. In practice, it became a suite of projects that eliminated altogether WRD's need for imported water. The projects included three rubber dams on the San Gabriel River, the expansion of the Conservation Pool behind the Whittier Narrows Dam to increase storm water capture, and a pipeline connecting the Rio Hondo and San Gabriel Spreading Grounds. Jointly financed by WRD and the Los Angeles County Department of Public Works (DPW), these three projects increased the volume of storm water available for natural replenishment by an average annual volume of 7,900 acre-feet.

WIN – SEAWATER BARRIERS

Owned and operated separately by WRD, the West Basin Municipal Water District, and the City of Los Angeles, the three facilities that provide advanced treated recycled water for injection into DPW's seawater barriers were all expanded. The expansions totaled an additional 16,000 acre-feet, bringing the capacity of all three facilities to 31,500 acre-feet per year --- more than enough to meet the needs of the barriers.

WIN - ARC

The crown jewel in WRD's WIN portfolio of projects, of course, is ARC, an advanced recycled water treatment facility initially producing 10,000 acre-feet per year for use in the spreading grounds or injection wells. Located in the City of Pico Rivera, ARC is a spectacular facility that in addition to producing water will serve as an educational center and community asset for years to come.

WIN - RESULTS

Three storm water capture projects, three expansions of advanced treated recycled water facilities to produce water for seawater barrier injection, and ARC make up the WIN suite of projects. Combined, they account for an annual average of 33,900 acre-feet of new local

water supply captured or produced in the last 15 years. Combined with WRD's historic average use of recycled water and storm water captured, the new local supply completely eliminates WRD's need for imported water to meet its replenishment needs.

WIN 4 ALL

As early as 2010, the WRD Board had made regional self-reliance a District objective, at least in concept, when it approved the preparation of the Groundwater Basin Master Plan. Following a six-year extensive pumper engagement process accompanied by modeling of basin use concepts, scenarios and alternatives, the Board in 2016 adopted the Master Plan. The Plan identifies possible projects and programs to enhance basin replenishment, increase reliability of groundwater resources, and improve and protect groundwater quality.

The Plan is a blueprint for WIN 4 ALL. One of the concepts explored would result in an additional groundwater supply of 220,250 acre-feet, enough water to meet the needs of more than 1.7 million people. As detailed in the General Manager's report, studies are well underway to assess the feasibility of brackish groundwater remediation on a massive scale and the use of water from the Hyperion Treatment Plant for groundwater replenishment, both of which would contribute to the WIN 4 ALL objective.

NEW DIRECTOR ON BOARD

In August 2018, the WRD Board selected Vera Robles DeWitt to fill a vacancy on its Board. A successful small business owner for many years, Director DeWitt is also a former Mayor and Council Member of the City of Carson. She has already made many positive contributions to the work of our Board.

AWARDS

- WRD received the 2019 Communications Award from the American Water Works Association for "outstanding community involvement, promotion of water education and ongoing accomplishments in creating trust and awareness within the community on sustainable water usage and groundwater replenishment."
- WRD was named the Recycled Water Agency of the Year by national WateReuse Association. The award recognized WRD's "extensive experience in the production and use of recycled water…and its efforts to provide, protect, and preserve the region's groundwater supply through innovative and sustainable measures."
- Once again, WRD received the Distinguished Budget Presentation Award and the Certificate of Achievement Award for Financial Reporting from the Government Finance Officers Association as well as the Meritorious Award from the California Society of Municipal Finance Officers.

LILLIAN KAWASAKI ROOFTOP GARDEN

- The Board named the rooftop garden at ARC "The Lillian Kawasaki Rooftop Garden" in honor of former Director Lillian Kawasaki's tireless advocacy for water conservation and her dedication to the development of WRD's successful Eco Gardener Program.

With a special acknowledgment to those who serve on the Technical Advisory Committee and the Budget Advisory Committee, I want to thank the pumper community for their many contributions to WRD's work this year.

I also want to express appreciation to WRD General Manager Robb Whitaker and the entire WRD staff for the exceptional talent and dedication they bring to the work of the District.

Robb Whitaker warrants special acknowledgement. Robb has been with WRD for 28 years, starting out as an Engineer, working his way up to District Engineer, Assistant General Manager, and for nearly 16 years serving as General Manager of the District. In May he became the longest-serving General Manager in WRD history. All current and former Directors who have had the pleasure of working with Robb applaud his engineering talent, professionalism, innovative ideas, and superior management capabilities. We look forward to Robb's leadership for many more years to come!

And I want to thank my colleagues on the WRD Board for the time, attention, and commitment to WRD they have demonstrated day-in and day-out throughout the year.

This was an exciting and rewarding year for WRD, with the completion of ARC standing out on a long list of solid accomplishments. With WIN 4 ALL and several of its project objectives underway, the momentum continues.

John D.S. Allen
President

Budget-in-Brief

2019/2020 Budget-in-Brief

FINANCIAL OVERVIEW – REPLENISHMENT ASSESSMENT: INCREASE TO $365/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. The District's mission 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

Total 2019/20 Budget = $84,579,000

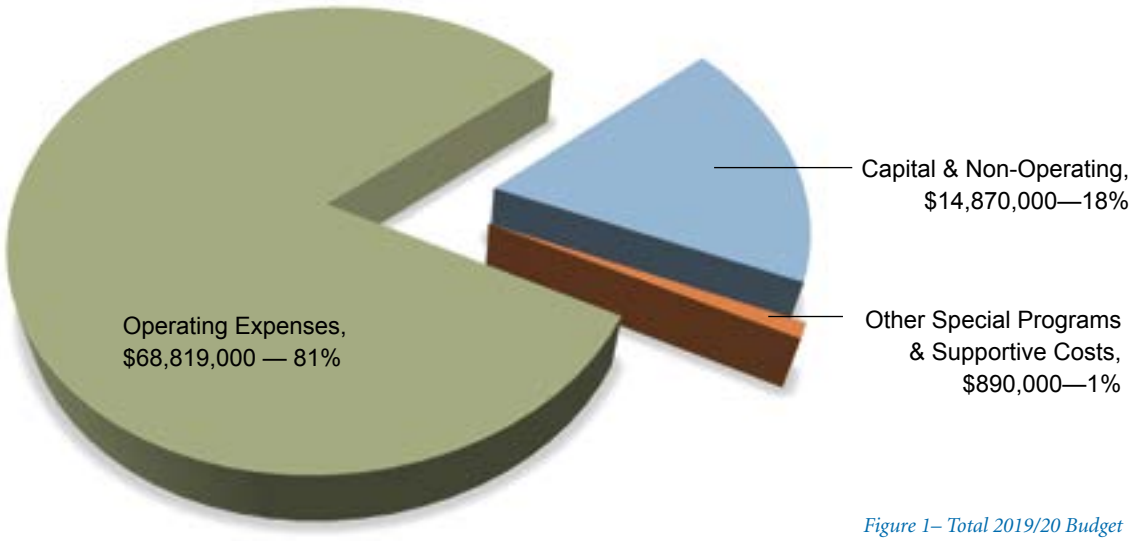


Figure 1– Total 2019/20 Budget

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 groundwater supplies are suitable for beneficial use. Direct administrative support costs include the Board of Directors, Administration, Finance and External Affairs.

Table 1

WRD FISCAL YEAR 2019/20 BUDGET

	2018/19 Budget	2019/20 Budget	2019/20 Compared to 2018/19
Operating Expenditures			
Water Supply Purchases	$38,745,000	$34,534,000	$(4,211,000)
Dominguez Gap Water Purchase Contingency Fund	$-	$900,000	$900,000
Albert Robles Center (ARC)	$4,764,000	$8,573,000	$3,809,000
Water Conservation	$540,000	$499,000	$(41,000)
Water Supply Production - Vander Lans	$5,779,000	$6,025,000	$246,000
Water Supply Production - Goldsworthy Desalter	$2,804,000	$3,086,000	$282,000
Montebello Forebay Recycled Water	$866,000	$765,000	$(101,000)
Groundwater Resource Planning	$268,000	$366,000	$98,000
Water Quality Improvement Program	$1,225,000	$615,000	$(610,000)
Geographic Information Systems (GIS)	$165,000	$166,000	$1,000
Groundwater Monitoring	$1,031,000	$1,115,000	$84,000
Safe Drinking Water Program	$1,329,000	$1,474,000	$145,000
Dominguez Gap Barrier Recycled Water	$398,000	$411,000	$13,000
Replenishment Operations	$352,000	$362,000	$10,000
Hydrogeology Program	$937,000	$1,318,000	$381,000
Engineering Program	$351,000	$375,000	$24,000
Well Construction Program	$-	$1,017,000	$1,017,000
Water Education	$811,000	$1,091,000	$280,000
Board of Directors	$400,000	$459,000	$59,000
Administration	$3,875,000	$4,928,000	$1,053,000
GASB 45 (Required Retirement Funding)	$701,000	$740,000	$39,000
Total Project, Program & Administrative Costs	**$65,341,000**	**$68,819,000**	**$3,478,000**
Other Special Programs & Supportive Costs			
Litigation	$150,000	$125,000	$(25,000)
Cost of Services and Notices	$15,000	$15,000	$-
Election Expense	$700,000	$750,000	$50,000
Total Other Special Programs & Supportive Costs	**$865,000**	**$890,000**	**$25,000**
Capital and Other Non-Operating			
Revenue Bond Debt Service Payments	$12,957,000	$14,870,000	$1,913,000
Prior Year Deficit Recovery			
Total Capital & Other Non-Operating Costs	**$12,957,000**	**$14,870,000**	**$1,913,000**
Total Budget	**$79,163,000**	**$84,579,000**	**$5,416,000**
Revenue			
Replenishment Assessment	$73,665,000	$77,837,000	$4,172,000
Vander Lans Income/MWD Subsidy/OCWD	$910,000	$660,000	$(250,000)
Goldsworthy Desalter Income/MWD Subsidy	$3,306,000	$4,300,000	$994,000
Other Income & Expense	$282,000	$282,000	$-
Carryover Conversion	$1,000,000	$1,500,000	$500,000
Total Revenue	**$79,163,000**	**$84,579,000**	**$5,416,000**

Other special programs and supportive costs include expenses related to litigation and election expenses (which 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 Replenishment Assessment Revenue Bonds, 2018 Replenishment Assessment Revenue Bonds, and the State Revolving Fund Loan. Debt service is included in the third category of expenses: Capital and Other Non-Operating Revenues and Expenses.

In order to meet the District's statutory responsibilities in its mission statement, WRD has instituted numerous projects and programs in a continuing effort to effectively manage groundwater replenishment and quality in the 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.

RELATIONSHIP OF FUNDS, PROJECTS AND PROGRAMS

The projects and programs have had a positive impact on the basins and WRD anticipates continuing them into the ensuing year 2019/20. The District operates in two major funds: the Replenishment Fund and the Clean Water which tracks expenses related to the District's replenishment and water quality efforts. For budget purposes, projects and programs are separated into either Replenishment, Clean Water, 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. The District has the authority and responsibility under the California State Water Code to acquire water supplies for recharge to make up this 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 Albert Robles Center for Water Recycling & Environmental Learning (ARC), which make up 65% of 2019/20 RA operating expenses. Total budgeted operating expenses related to the Replenishment Fund are about $75.9 million or 90% (see table 1, page 14) of the total budget.

CLEAN WATER FUND

Consistent with the District's mission to provide, protect and preserve high quality groundwater, the District annually collects nearly 600 groundwater samples from its monitoring well network. The District tests these samples 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. In addition, the District funds programs to help prevent, reduce and eliminate contamination in the basin to increase the amount of water available for pumping. 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 $8.6 million or 10% (see Figure 2, page16) of the total budget.

2019/20 Replenishment Assessment (RA) Operating Expenses By Fund

Total RA Expenses Split by Fund = $84,579,000

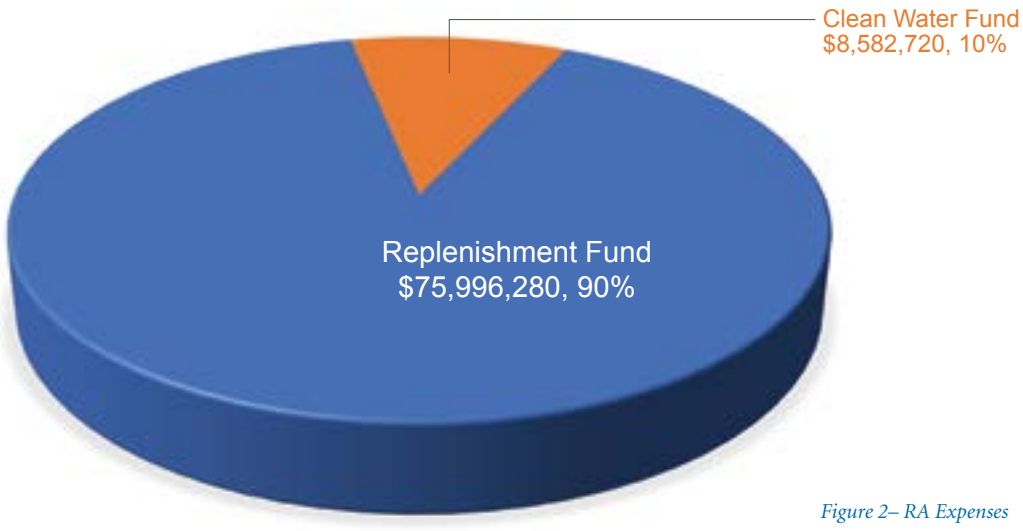


Figure 2– RA Expenses

REVENUES – RA IS THE PRIMARY SOURCE OF REVENUES

The District's primary source of revenue comes from the replenishment assessment; making up 92% of the District's revenue or $77,837,000. Replenishment assessment revenue is based on the amount of water pumped from the Central and West Coast basins. The Replenishment Assessment is applied to every acre-foot of water pumped.

The District also expects to collect $660,000 or 1% of total revenue from recycled water sales to the Orange County Water District (OCWD) from the J. Vander Lans Advanced Water Treatment Facility, along with incentives received from the Metropolitan Water District of Southern California (MWD) for every acre-foot produced by the plant. This facility provides advanced treated water to the Alamitos Seawater Intrusion Barrier Project which would otherwise be supplied with more expensive imported water from MWD.

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 $4,300,000 increasing to 5% of the District revenue.

Carryover conversion revenues are expected to increase by $500,000 to $1,500,000, or 2% of the District revenue.

Other income and expenses account for $282,000 or 0.1% and is the net of interest income, property tax revenue and other expenses not charged to the replenishment assessment.

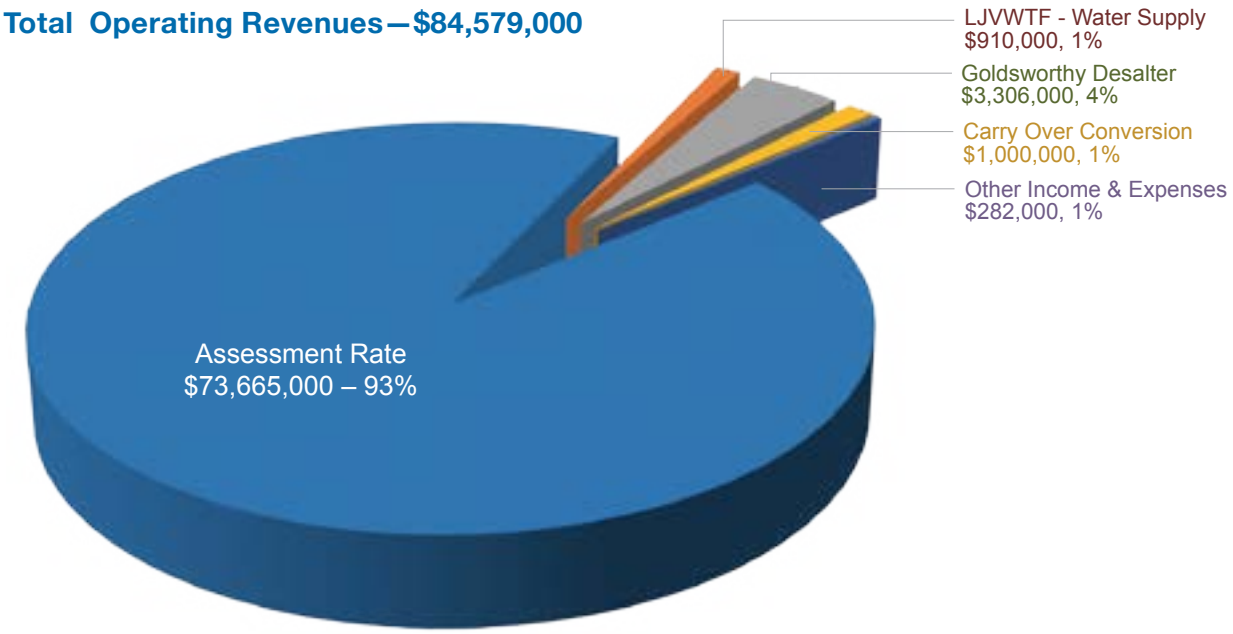


Figure 3– Operating Revenues

COMPARISON TO 2018/19 YEAR'S BUDGETED REVENUES

Table 1 shows budgeted revenues for 2019/20 are approximately 6.7% higher than the budget in fiscal year 2018/19 due primarily to the increase in the Replenishment Assessment from $339/acre-foot to $365/acre-foot, effective on July 1, 2019. As a result, Replenishment Assessment revenues are approximately $4.1 million higher (5.1% higher) than in last year's budget. In addition, Carryover Conversion revenues are up $500,000, while the Goldsworthy Desalter revenues are higher by another $994,000. The increase in revenue from the Goldsworthy Desalter is due to expected production from the expanded facility.

EXPENSES – EXPENSES INCREASE MODESTLY

The most significant budgetary item for the District is water and water-related costs. Of the District's total budgeted expenses of $84,579,000, about $50,531,000 (59.7%) is related to either water supply purchases, production of water or water conservation efforts. The water costs include $900,000 of contingency funds in case imported water supplies are needed. Details and explanations of the various Projects and Programs are located in their specific sections of this budget document. Administration costs, including funding for Other Post Employment Benefits (OPEB) payments, are budgeted at $5.7 million, with debt service related costs expected to be $14.9 million.

Total Replenishment Assessment (RA) Expenses = $77,837,000

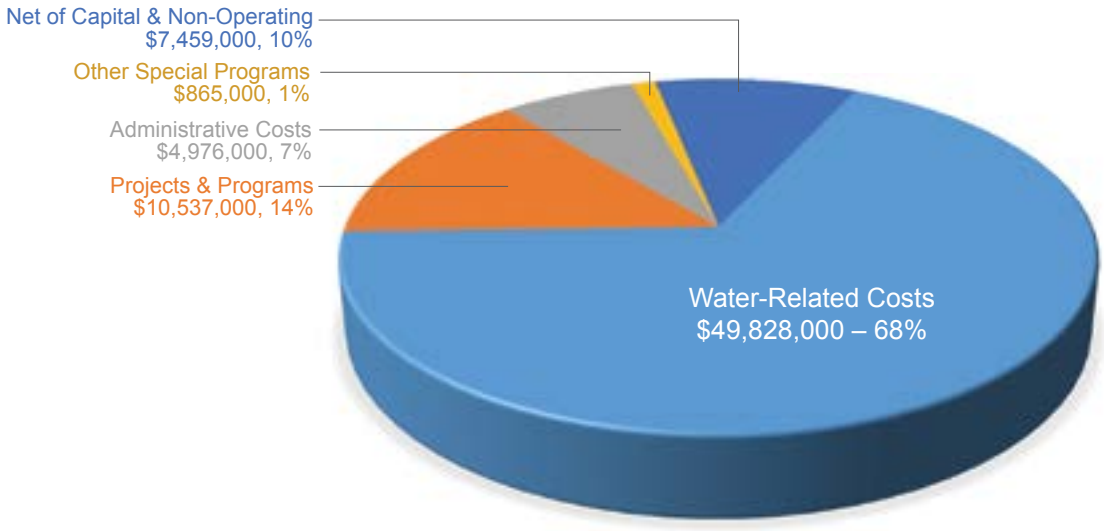


Figure 4– Replenishment Assessment Expenses

COMPARISON TO 2018/19 YEAR'S BUDGETED EXPENSES

Total budgeted expenses for 2018/19 were $79,163,000 with 67.6% of those costs relating to water and water-related costs. In 2019/20, total expenses are expected to increase to $84,579,000 (an increase of 6.8%). Water and water-related costs decreased as a percent of total expenditures to 59.7%. While water related costs remained relatively stable, debt service costs are anticipated to be $14,870,000, an increase of almost $2 million over 2018/19, reflecting increased debt service associated with the ARC facility. The 2019/20 budget also reflects $1,017,000 to fund a new program to assist pumpers' well construction needs, which was not budgeted in 2018/19.

FUND BALANCE

The District's fund balance was governed by §60290 of the California State Water Code which set limits on the District's reserve funds. In part, the statute stated, "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." The statute exempted funds appropriated for capital projects and described how any reserves in excess of the limit were to be used. Senate Bill 963 revised these limits in the recent legislative session. As a result, the District no longer has a statutory limit on its reserves, and can maintain prudent reserves to meet emergencies, debt service, capital requirements and other needs as described in its Reserve Policy.

SHORT-TERM FACTORS INFLUENCING THE 2019/20 BUDGET

The challenges and short-term factors which impact the development of the District's budget are different every year. The Southern California region experienced above average rainfall during the past fiscal year, with record or near record rainfall in May 2018 throughout most of the area. On the positive side, this results in less pumping and higher groundwater levels. But this also affects the District's Replenishment Assessment as pumping is expected to remain lower than in past years at approximately 213,000 acre-feet, compared to 217,300 acre-feet in the 2018/19 budget. As noted above, the Replenishment Assessment was increased to $365/acre-foot from the prior year's $339/acre-foot to meet the District's expected expenditures for 2019/20.

The largest impact to the 2019/20 budget relates to the completion of the Albert Robles Center for Water Recycling and Environmental Learning (ARC). The completion of this major facility was delayed until 2019/20 for a number of construction related reasons, but is anticipated to be operating this year. In anticipation of commercial operation of ARC, imported water costs have been reduced to a contingency amount of $900,000. The 2019/20 budget includes $8,573,000 for ARC operating costs, about $3,809,000 more than last year, reflecting almost a full year's worth of operation.

As was done last year, the District's 2019/20 budget includes revenues for anticipated carryover conversions. This occurs when a pumper determines it is in their interest to convert a pumping right to storage and pays the District even though it has not pumped its right, but rather reserves the water to be pumped in a future year. The estimated carryover conversion revenues in the 2019/20 budget are $1,500,000, an increase of $500,000.

IMPACTS OF LONG-RANGE PLANS ON FUTURE BUDGETS

In the past, a large percentage of replenishment water for the Central and West Coast Basins came from sources in Northern California and the Colorado River. Over the last 15 years, the District has been moving toward its goal of independence from 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 are expected to allow the District to become completely independent from imported water. In order to fund WIN, the District obtained financing through its 2015 Series Replenishment Assessment Revenue Bonds., the 2018 Replenishment Assessment Revenue Bonds, and a California State Revolving Fund (SRF) loan and grant. The SRF loan ($80 million) bears a 1% interest rate and will be repaid on a level debt basis over the next thirty years. With the leadership provided by the Water Replenishment District's Board of Directors, the transparency and financial stability of the District and AA+ ratings from both Standard and Poor's and Fitch Ratings, the District was able to obtain low cost financing for these important capital initiatives. This will provide benefits to the pumpers and ratepayers in the Central and West Coast basins for decades to come.

The projected budget impact of principal and interest payments associated with the 2015 Series Bonds, 2018 Series Bonds[1] and SRF Loan is projected to be as follows:

	2019/20	2020/21	2021/22	2022/23	2023/24
2015 Series Bond	$9.25M	$9.25M	$9.25M	$9.25M	9.25M
2018 Series Bond	1.64M	4.30M	4.30M	4.30M	4.30M
State Revolving Fund	2.64**M**	3.05M	3.10M	3.10M	3.10M
Total	**$13.54M**	**$16.60M**	**$16.65M**	**$16.65M**	**$16.65M**

1 Not including any additional bond reserve fund related expenditures

Debt service costs will be mitigated by reduced purchases of imported replenishment water as the District will be able to use additional recycled water and capture more storm water runoff. 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. Given the completion and commercial operation of ARC in 2019/20, the District replace 21,000 acre-feet of imported water. The 2019/20 cost for 21,000 acre-feet of imported water is about $16 million.

The District's 5-Year Capital Improvement Plan includes projects which will need additional funding. To lessen the financial burden to rate payers, staff will continue to seek grant funding when available and seek cost-effective borrowings as needed.

STAFFING

District staffing increased two positions and has increased from 42 to 44 budgeted professional and administrative staff: 40 are paid for through the collection of the replenishment assessment (RA) and 4 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.

Lawrence Chiu
Chief Financial Officer

ORGANIZATION CHART

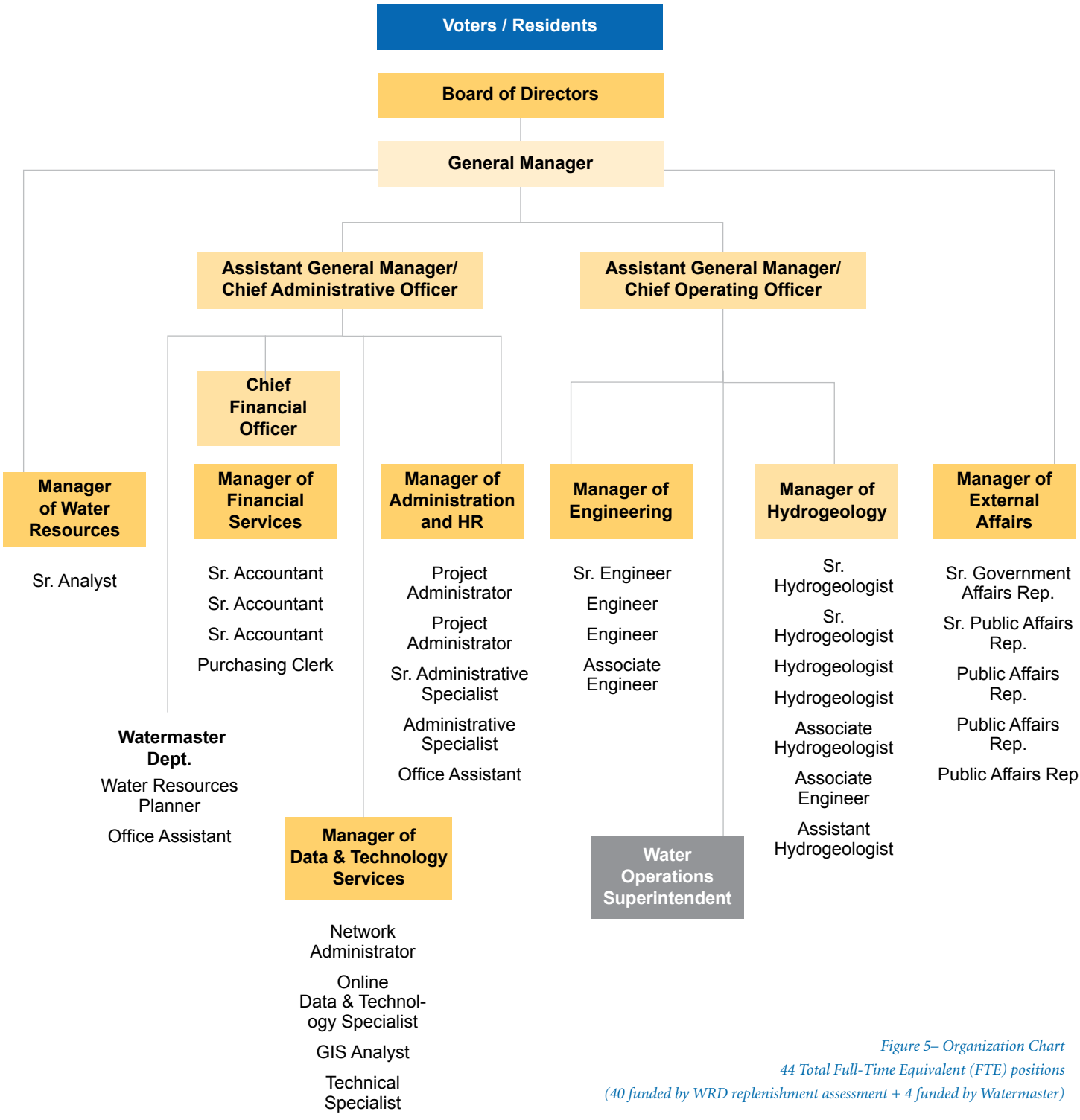


Figure 5– Organization Chart
44 Total Full-Time Equivalent (FTE) positions
(40 funded by WRD replenishment assessment + 4 funded by Watermaster)

Table 2

Summary of Personnel by Department
2019/20 Budget

	2017/18 Actual	2018/19 Budget	2019/20 Budget	Change from 2018/19 Budget
General Management				
General Manager	1	1	1	-
Assistant General Manager/Chief Administrative Officer	**-**	**-**	**1**	**1**
Assistant General Manager/Chief Operating Officer	**1**	**1**	**1**	**-**
Hydrogeology Department				
Chief Hydrogeologist	1	1	-	
Manager of Hydrogeology	-	-	1	1
Senior Engineer	-	-	-	-
Senior Hydrogeologist	1	1	1	-
Hydrogeologist	3	3	3	-
Associate Hydrogeologist	2	2	2	-
Water Quality & Regulatory Compliance Specialist	1	1	-	
Associate Engineer	-	-	1	1
Watermaster Department				
Water Resources Planner	1	1	1	-
Office Assistant	-	1	1	-
Engineering Department				
Manager of Engineering	-	1	1	-
Senior Engineer	2	1	1	-
Engineering	2	2	2	-
Associate Engineer	1	1	1	-
Water Operations Superintendent	1	1	1	-
Water Resources Department				
Manager of Water Resources	-	-	1	1
Senior Analyst	-	-	1	1
Financial Services Department				
Chief Financial Officer	1	1	1	-
Manager of Financial Services	1	1	1	-
Senior Accountant	3	3	3	-
Purchasing Officer	-	1	1	-
External Affairs				
Manager of External Affairs	1	1	1	-
Senior Government Affairs Rep	-	-	1	1
Senior Public Affairs Rep	-	-	1	1
Public Affairs Rep	5	5	3	(2)
Administration and Human Resources Department				
Manager of Administration and HR	1	1	1	-
Senior Administrative Specialist	3	2	1	
Administrative Specialist	-	-	1	1
Project Administrator	1	2	2	-
Office Assistant	1	1	1	-
Data and Technology Services				
Supervisor of Data and Technology	1	1	-	
Manager of Data and Technology Services			1	1
Online Technology and Data Specialist	1	1	1	-
Technical Specialist	1	1	1	-
Network Administrator	1	1	1	-
Geographic Information Systems Analyst	1	1	1	-
Document Imaging Specialist	-	1	-	
Total	**39**	**42**	**44**	**2**

Table 3

WRD Projects and Programs Fund Allocation

	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	ARC	100%	
039	Supervisory Control and Data Acquisition (SCADA)	50%	50%
040	Computerized Maintenance Management System (CMMS) and Asset Management	50%	50%
041	Paramount Equipment / Fleet Center	100%	
042	Watermaster	100%	
043	Regional Brackish Reclamation	100%	

Background & History

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 6 – WRD Groundwater Demand

WATER REPLENISHMENT DISTRICT SERVICE AREA MAP

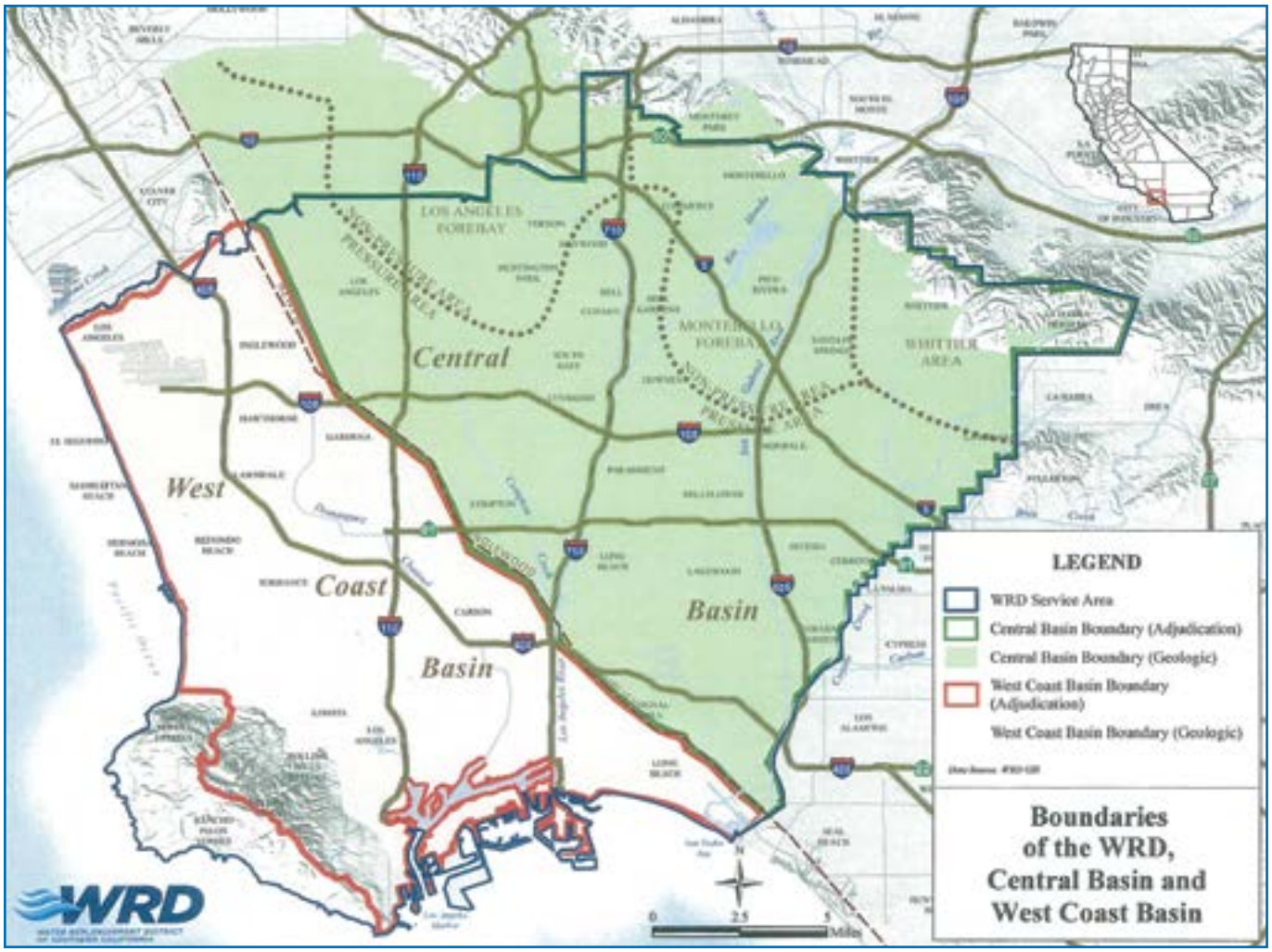


Figure 7 – Service Area Map

Local Economy

The District office is located in Los Angeles County, California's most populous 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. Los Angeles boasts a workforce of more than 5.1 million people and is the nation's largest manufacturing center. In 2018, real GDP in Los Angeles County grew at 2.8 percent to $807 billion, with the unemployment rate down to 4.6%.

Los Angeles County's economy remains dynamic and growing. In addition to a large manufacturing base, the County is home to a thriving entertainment and tourism industry. High paying technology based jobs continue to increase, particularly on the Westside.

Job growth has been positive since 2011, averaging 2.5 percent annually. Another 59,000 jobs were added in 2018. Continued job growth of 60,000 jobs per year is anticipated in 2019 and 2020.

Personal income in Los Angeles County has been rising, posting consecutive year-over-year increases since 2013. The Los Angeles Economic Development Corporation forecasts continued real personal income growth of 2.6% in 2019. Median household income has also been rising, reaching $65,006 in 2017.

It is expected that almost all industry sectors will continue to add jobs over the next two years, with the largest increase in the leisure and hospitality industry and education and health services. Professional services will continue to expand as well.

The public sector will continue to be a large employer in Los Angeles County. Local, state and federal governments all have a strong presence here, accounting for roughly 13 percent of all payroll jobs in the county. Jobs in the government sector are expected to be relatively flat over the next two years, with a slight downturn of about 0.2 percent.

Of course, water in California remains at the top of the State's priority list, and this year is no different. WRD provided input to the Governor's Water Resiliency Portfolio for the state. This plan is a "portfolio approach to meeting water needs, including municipal, industrial, environmental and agricultural into the future. WRD has been a leader in conservation and water recycling for decades and will continue to innovate and develop resilient independent supplies of water for its service area.

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, with the completion of the ARC, the demand for imported water to replenish the basin has dropped to zero.

Source of economic data: 2019 Economic Forecast & Industry Outlook; Los Angeles County Economic Development Corporation.

Table 4

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)
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
2018	4.40%	4.20%	3.80%	10,457,330	$544,136,709	$52,034
2019	4.50%	4.10%	3.70%	10,549,490	$559,745,389	$53,059

POPULATION

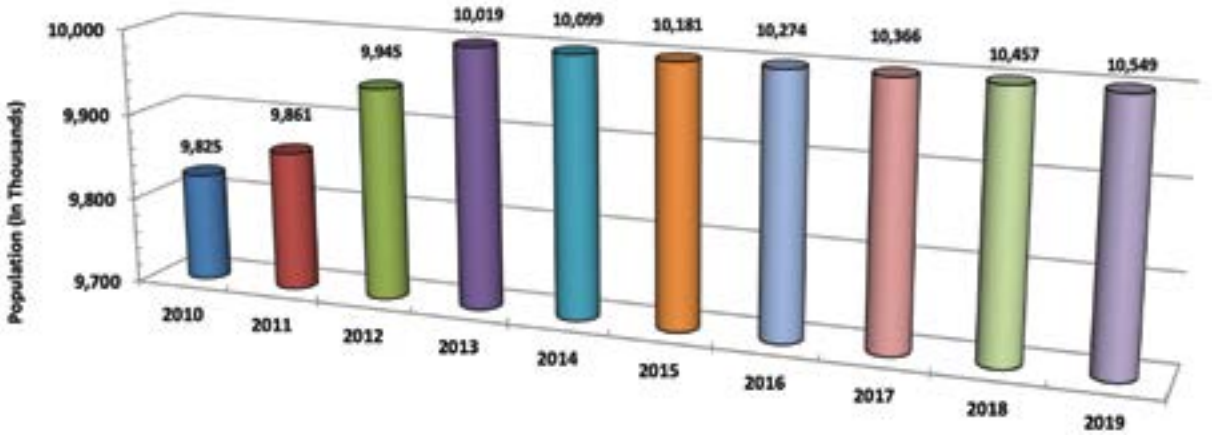


Figure 8 – Population

PERSONAL INCOME PER CAPITA

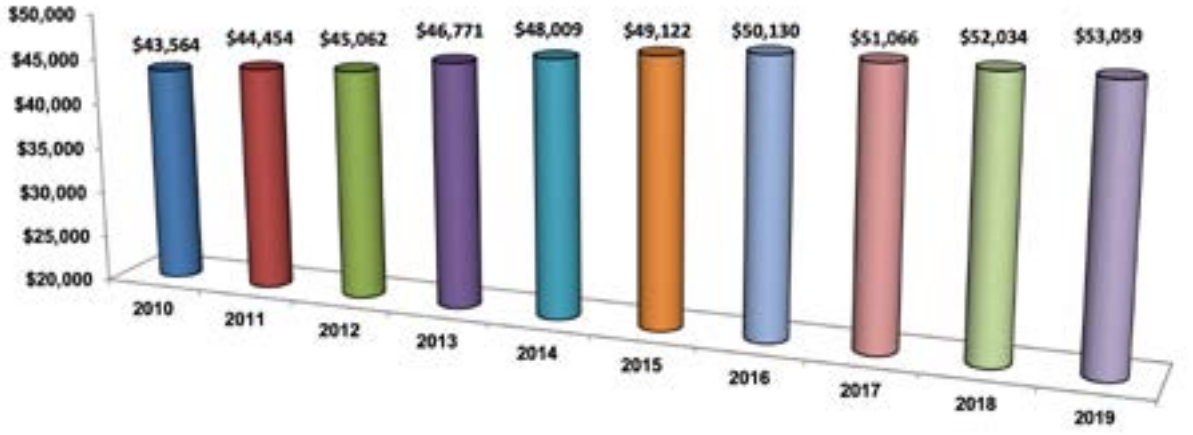


Figure 9 – Per Capita

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

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.

Given recent changes in legislation with SB 963 removing any limit on District reserve funds, this annual analysis of funds is an important part of responsible financial planning, particularly as WRD transitions from an agency that produces water to one that produces water and operates and maintains three capital facilities.

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.

- Capital Projects Reserve – This category of funds is used to fund periodic replacement of assets with expected useful lives of three to twenty years. Effective use of a replacement reserve helps to stabilize annual budgets, reducing the need for large expenditures as equipment is replaced. Capital projects which include Leo J. Vander Lans AWTF, ARC AWTF, and Goldsworthy Desalter. In addition, capital projects in the Safe Drinking Water Program and Well Construction and Rehabilitation Program are included in this category to help clean up the groundwater basin and reducing demands for imported water.

- 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. The debt service reserve fund is necessary to meet bond and/or loan covenants. These covenants often require the borrower to hold an amount equal to one year's worth of principal and interest payments or an amount equal to the highest year of principal and interest (maximum annual debt service). Such reserves provide additional comfort to investors regarding the District's ability to meet its annual principal and interest payments.

  The Debt Service Reserve Fund is used to set aside funds for future use to meet the District's debt service obligations. Currently, the District has three major debt instruments:

  - Sate Revolving Fund (SRF) – Prop 1 Funding with the State Water Resources Control Board. This restricted fund is established pursuant to the covenants equal to one year's debt service.

  - 2015 & 2018 Revenue Bonds – The District does not have a bond covenant requiring it to maintain a debt service reserve.

- 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.

- Unreserved – With SB 963 removing any limit on District reserve funds, this reserve is used to stabilize finances in the event of lower than expected sales, unbudgeted expenses and other unforeseen events.

Budget Process

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.

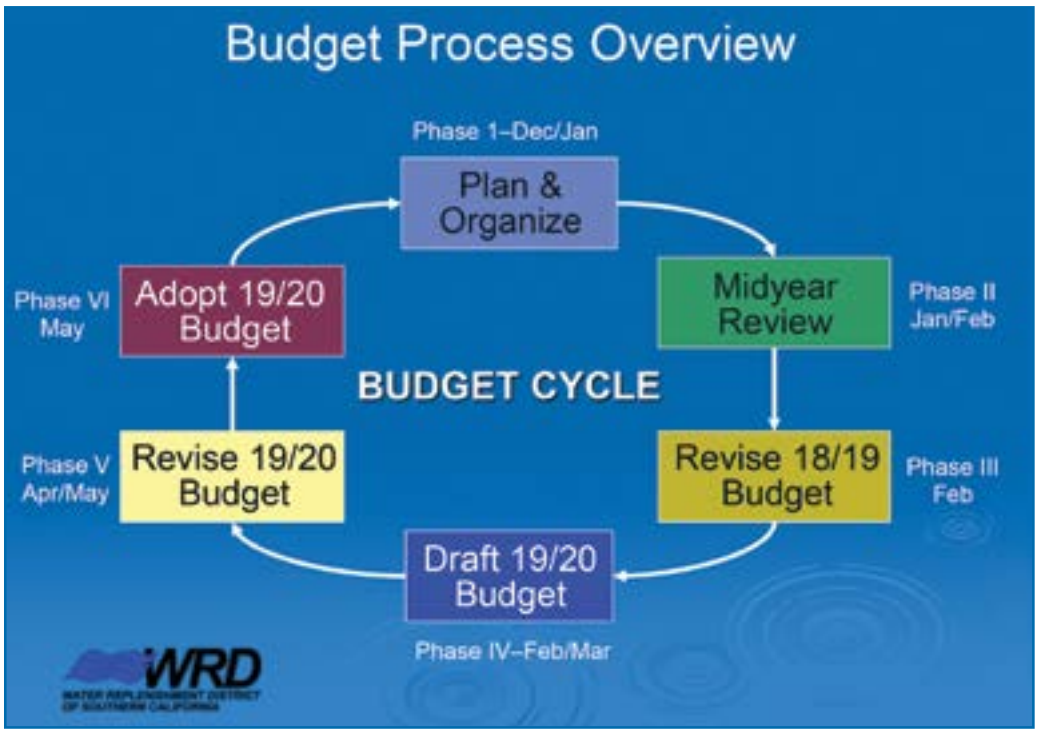


Figure 10 – Budget Process

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 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. Every year, the District conducts a series of public budget meetings to seek comment pursuant to the Water Code and other applicable regulatory requirements.

To ensure transparency, accountability, and fiscal responsibility, the District has a Budgetary Advisory Committee (BAC) with representatives from stakeholders pursuant to SB620, are charged with providing guidance and advice on budgetary, finance, and technical matters relating to the District's projects and programs. The BAC will make its recommendation to the

WRD Board of Directors on the annual replenishment assessment, reserve funds and the draft budget. After considering the recommendations from the BAC, as well as the public, the Finance/Audit Committee makes budget recommendations to the Board of Directors. Upon final approval by the Board, the preliminary estimates contained herein will be revised accordingly to reflect the approved budget amounts and corresponding levels of services.

The District's Replenishment Assessment rate have increased gradually over the years as shown in the chart below, for the District to meet the demands of maintenance and preservation of the Basins, and, thus, availability of water for pumpers to pump. To estimate the ensuing year's replenishment assessment rate, WRD has made a forecast based on the current year's anticipated pumping. The Budget Advisory Committee's (BAC) recommendation for the 2019/20 Replenishment Assessment is $365.00 per acre foot (7.7% or $26.00 increased from the prior fiscal year). This recommendation was based on the following assumptions:

(1) ensuing year's pumping to be 213,000 acre-feet. It anticipates that pumpers will remove 213,000 acre-feet from the Basins

(2) ensuing year's water purchases to be 78,500 acre-feet to replenish the Basins

(3) $1,500,000 of revenue will come from the Water Purchase Carryover, (water storage for future extraction by pumpers).

The District anticipates that the net cost of its operations for FY2019/20 will be $77,837,000, therefore, the cost of providing services will be $365 per acre-foot of water removed from the Basins.

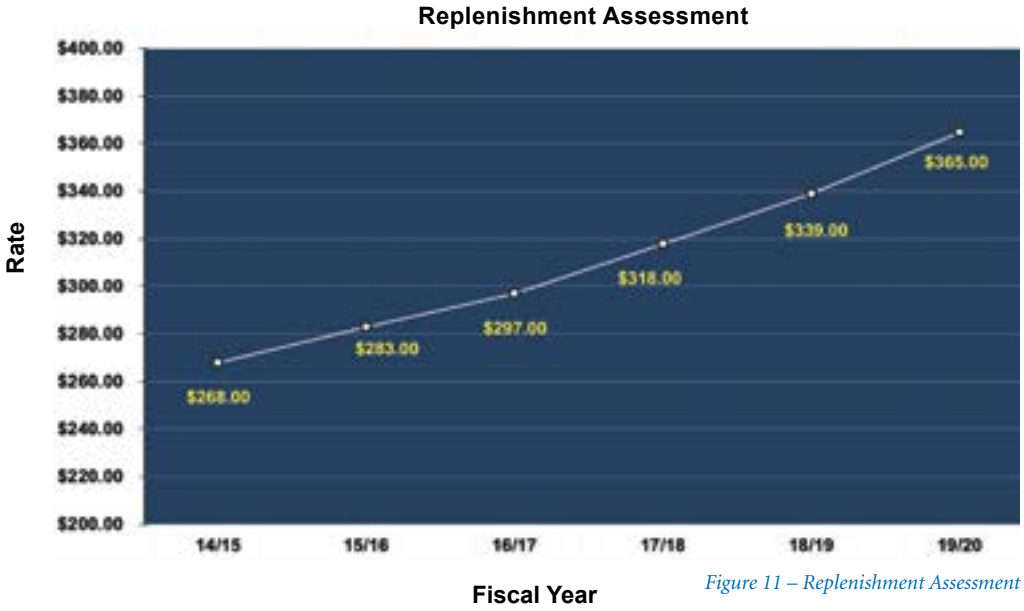


Figure 11 – Replenishment Assessment

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 2018/19 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 3, 2019 Hearing has been conducted pursuant to Article XIII D, Section 6 of the California Constitution. On March 10, 2019 the District mailed notice of the April 3, 2019 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 $365 for fiscal year 2019/20 at the public hearing on May 7, 2019. 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

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

January 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 six months of actual financial data from July 1 through December 31, six 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.

February 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 assessment no later than the second Tuesday in May.

March

March 04, 2019 – Finance/Audit Committee – Finance staff's 2018/19 mid-year and 2019/20 budget presentation.

March 06, 2019 – Board of Directors – Finance/Audit Committee's budget presentation of 2018-19 mid-year and 2019/20 budget to the Board of Directors.

March 12, 2019 – Budget Advisory Committee received 2019/20 budget presentation from Finance/Audit Committee and Board of Directors.

March 21, 2019 – Finance/Audit Committee – 2019/20 budget presentation to The Board of Directors.

March 22, 2019 – Budget Advisory Committee accepted the 2019/20 budget Recommendation from Finance/Audit Committee and Board of Directors

April

Based on input received from the public budget meetings; Finance staff continues to refine the budget.

April 15, 2019 – Finance/Audit Committee – 2019/20 budget discussion.

April 18, 2019 – Board of Directors, 2019/20 budget discussion and continue public hearing.

May

Present the proposed budget to the Board of Directors for consideration in setting the annual replenishment assessment rate

May 02, 2019 – Board of Directors – 2019/20 budget discussion and continue public hearing.

May 07, 2019 – Board of Directors – approved 2019/20 Replenishment Assessment and 2019/20 Budget.

Financial Highlights

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 = $84,579,000

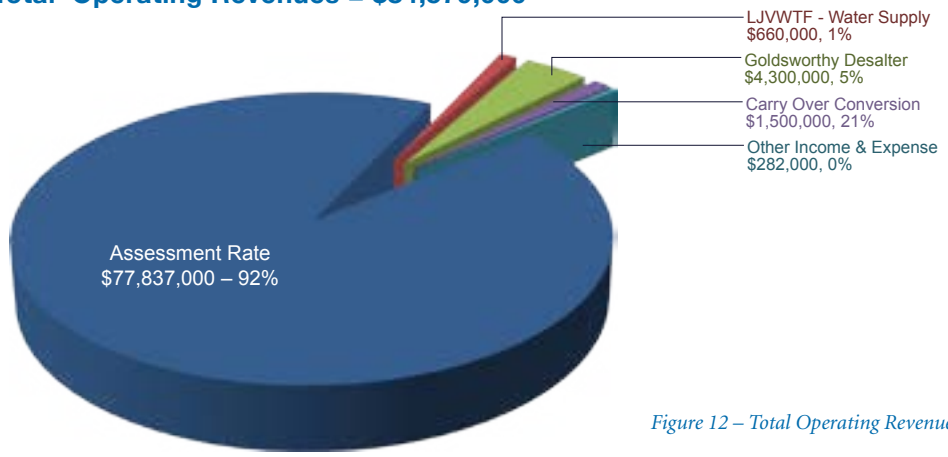


Figure 12 – Total Operating Revenues

Total Operating Expenses = $69,709,000

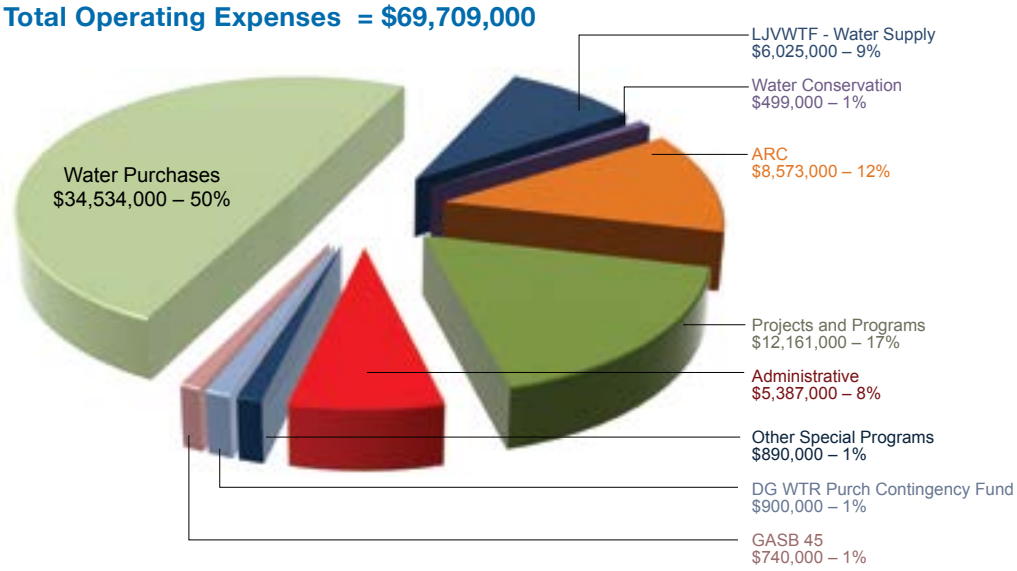


Figure 13 – Total Operating Expenses

The table below 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 5

2019/20 PROPOSED STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS

	2017/18 Actual	2018/19 Projected	2019/20 Budget
Operating Revenue			
Replenishment Assessment	$73,688,000	$68,781,000	$77,837,000
LJVWTF - Water Supply	$166,000	$5,000	$660,000
Goldsworthy Desalter Sales	$436,000	$1,701,000	$4,300,000
Total Operating Revenue	**$74,290,000**	**$70,487,000**	**$82,797,000**
Operating Expenses			
Water Purchases	$38,716,000	$36,641,000	$34,534,000
Dominguez Gap Water Purchase Contingency Fund	$-	$-	$900,000
Water Conservation	$505,000	$447,000	$499,000
LJVWTF - Water Supply	$2,510,000	$2,901,000	$6,025,000
ARC (GRIP)	$234,000	$3,217,000	$8,573,000
Projects/Programs	$6,119,000	$7,319,000	$12,161,000
General Administration	$19,188,000	$7,019,000	$5,818,000
Board of Directors	$329,000	$400,000	$459,000
GASB 45 (Required Retirement Funding)	$760,000	$868,000	$740,000
Total Operating Expenses	**$68,361,000**	**$58,812,000**	**$69,709,000**
Subtotal	**$68,361,000**	**$58,812,000**	**$69,709,000**
Operating Income (Loss)	**$5,929,000**	**$11,675,000**	**$13,088,000**
Non-Operating Revenue (Expenses)			
Interest Income/(Expenses)	$1,027,000		$-
Debt Service Expense & SFR Loan	11,601,000	(12,957,000)	(14,870,000)
Property Taxes	$659,000	$282,000	$282,000
Misc Revenue	$4,103,552	$1,000,000	$1,500,000
Total Other Revenue (Expenses)	**$17,390,552**	**$(11,675,000)**	**$(13,088,000)**
Change in Net Assets	**$23,319,552**	**$-**	**$-**

* Include other special programs supportive costs

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 6

PRODUCTION SUMMARY

Top Twenty Pumpers / Fiscal Year 2018/19

Number	Name	Production (AF)
1	Long Beach, City of	27,796
2	Golden State Water Company	25,542
3	California Water Service Company	15,170
4	Downey, City of	14,298
5	Lakewood, City of Water Department	8,903
6	South Gate, City of	8,190
7	Liberty Utilities Corporation	8,158
8	Cerritos, City of	7,840
9	Compton, City of	7,269
10	Vernon, City of	6,081
11	Bellflower-Somerset Mutual Water Company	5,066
12	Paramount, City of	4,950
13	Lynwood, City of	4,909
14	Whittier, City of	4,733
15	Phillips 66 Company	4,656
16	Torrance, City of	4,304
17	Pico Rivera, City of	4,222
18	Tesoro Refining & Marketing Company LLC	3,896
19	Huntington Park, City of	3,190
20	Montebello Land and Water Company	2,969
	Total	**172,143**

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

Over pumping 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

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 2019/20, the District estimates that it will collect approximately $77,837,000 from the RA based on the estimated groundwater pumping of 213,000 AF at the adopted RA of $365 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 213,000 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 FY 2019/20 is approximately $77,837,000 which is necessary to service the estimated 213,000 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:

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

The 2019/20 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:

$$\frac{\text{Total Cost of Service (\$77,837,000)}}{\text{Total Groundwater Pumped (213,000/AF)}} = \text{Unit Cost (\$365/AF)}$$

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 $365,000 (1,000 AF x $365/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 its two projects, 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 FY2018/19 mid-year review, there is a decrease from $990,000 to $660,000 in revenue due to the plant being shut down for maintenance.

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 expanded the Goldsworthy Desalter and completed the construction in the summer 2017. The expansion project increased 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 $3,306,000 to $4,300,000 for FY2019/20.

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 FY2019/20 from property tax to be $410,000 and interest income to be $375,000. There are non-RA related expenses of $503,000 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.

Table 7

COMPARATIVE REVENUE BY YEAR BY FUND

Description	% Allocation Replenishment Fund	Clean Water Fund Actual	2015/16 Actual	2016/17 Actual	2017/18 Projected	2018/19 Budget	2019/20 Budget
Replenishment Fund							
Replenishment Assessment	94%		$56,682,000	$69,393,000	$69,267,000	$72,371,000	$73,167,000
LJVWTF - Water Supply	100%		$850,000	$750,000	$166,000	$5,000	$660,000
Other Revenues	94%		$2,846,000	$577,000	$1,618,000	$265,000	$265,000
Carryover Conversion	94%		$-	$2,963,000	$3,824,000	$940,000	$1,410,000
Subtotal Replenishment Fund			**$60,378,000**	**$70,720,000**	**$74,875,000**	**$72,641,000**	**$75,502,000**
Clean Water Fund							
Replenishment Assessment		6%	$3,619,000	$4,429,000	$4,421,000	$1,619,000	$4,670,000
Goldsworthy Desalter Sales		100%	$875,000	$1,000	$436,000	$1,701,000	$4,300,000
Other Revenues		6%	$182,000	$37,000	$103,000	$17,000	$17,000
Carryover Conversion		6%	$-	$189,000	$244,000	$60,000	$90,000
Subtotal Clean Water Fund			**$4,676,000**	**$4,467,000**	**$5,204,000**	**$3,337,000**	**$9,077,000**
Total All Funds			**$65,054,000**	**$75,187,000**	**$80,079,000**	**$75,978,000**	**$84,579,000**

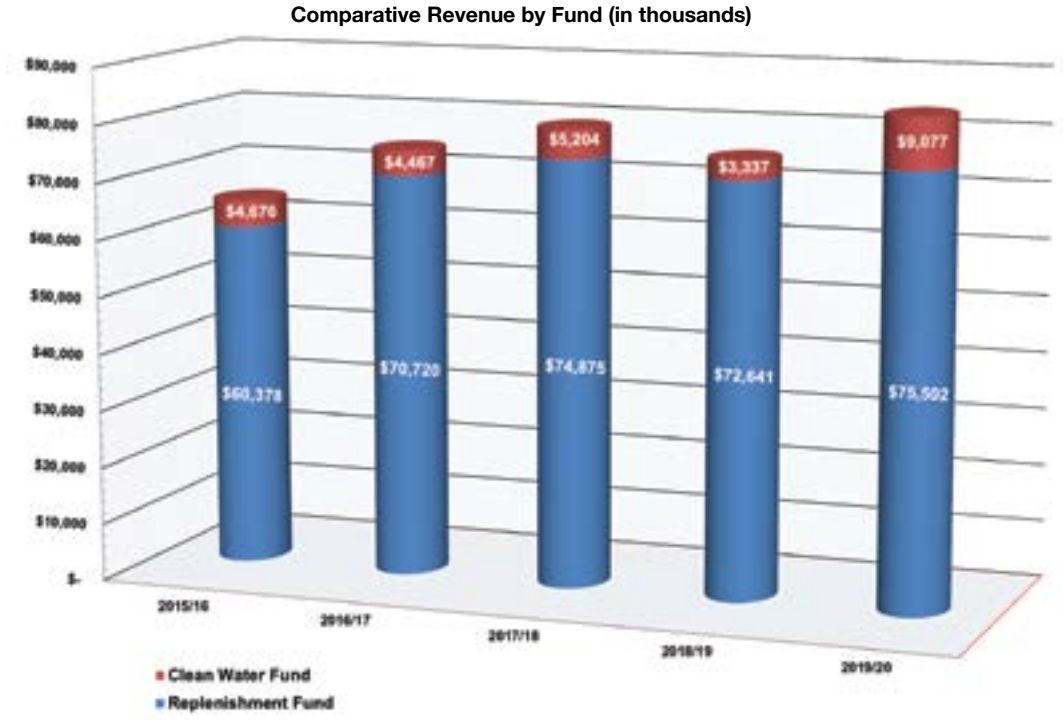


Figure 14 – Comparative Revenue by Fund (in thousands)

Groundwater is a very economical source of water. For example, the District's RA is $365 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 $1,268, resulting in a savings of approximately $903 per acre-foot.

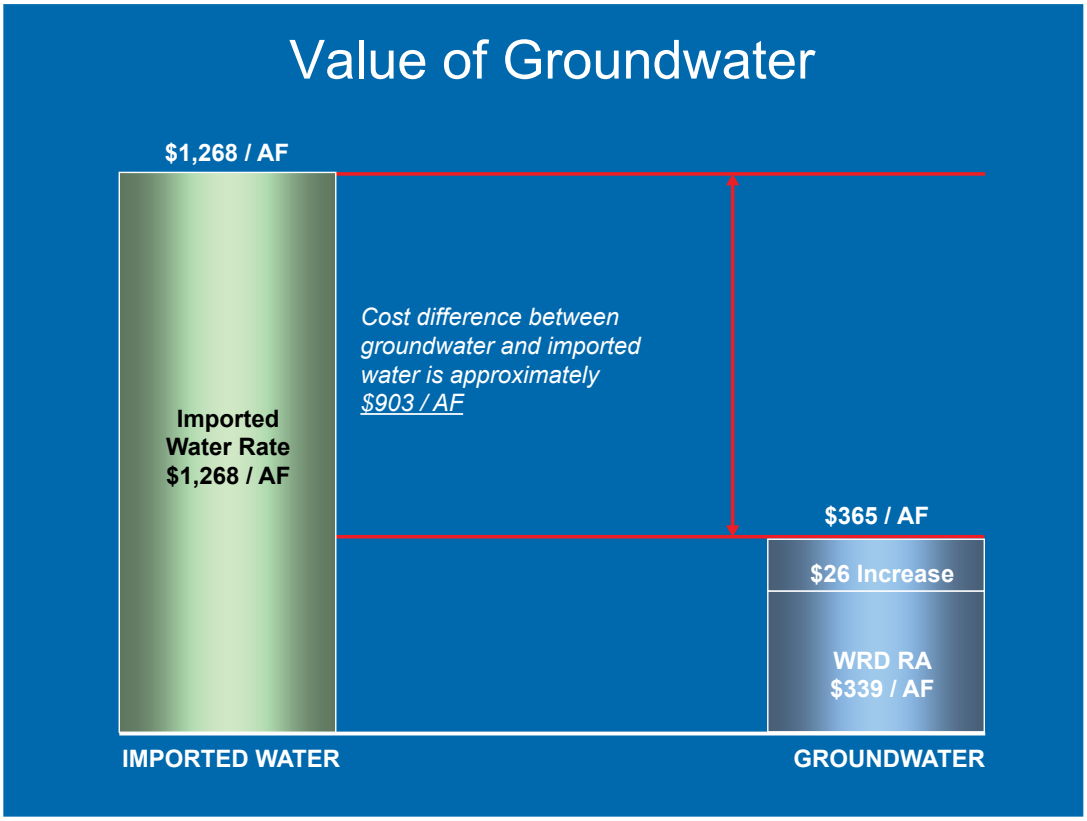


Figure 15 – Value of Groundwater

Taking a different and longer view on the cost-benefit side, Figure 16 below (on page 52?) 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 $365 per acre-foot is far below the imported water rate of $1,268 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.

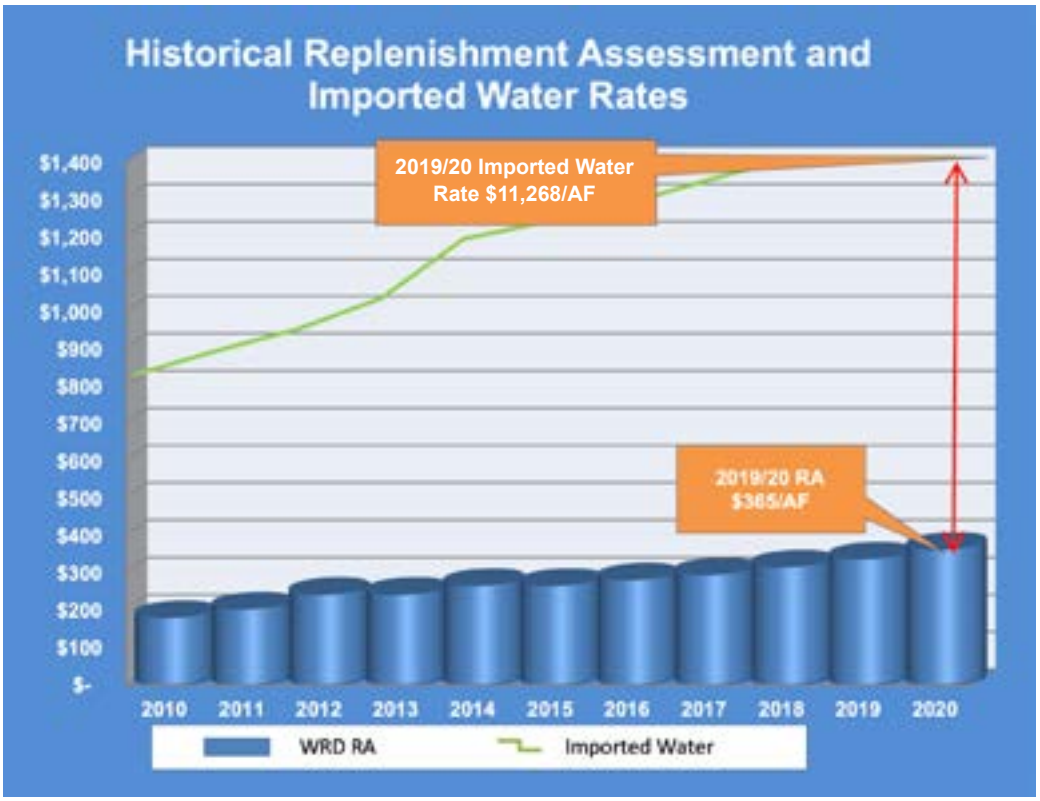


Figure 16 – Historical Replenishment Assessment and Imported Water Rates

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.

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. 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 9A and 9B 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 2018/19 PROJECTED TO 2019/20 BUDGET

When examining Table 8 – 2019/20 Expense Analysis, it shows that budgeted expenses have increased $12,811,000 which is due to the following:

The Albert Robles Center (ARC) is near completion and will start producing water to replace expensive imported water. This project is the corner stone to the District's Water Independence Now (WIN) Initiative. The operating costs associated with the plant is expected to be about $8.57 million for 2019/20; a $5.36 million increase over the prior year. However, we do not see an immediate one-for-one decrease in imported water costs due to the ramp-up of operations. Water purchase cost decreased by $2.11 million. Based on the completion of ARC, an advanced treated recycled water facility, and the three expansions of advanced treated recycled water facilities for the barriers, the local supply from these facilities will completely eliminate WRD's need for imported water.

Changes made to the operations of the Leo J. Vander Lans Advanced Water Treatment Facility (LVL), resulted in a higher output of product water sent to the Alamitos Seawater Intrusion Barrier. The District is anticipating LVL producing close to the plant's production capacity, increasing the cost of operations by $3.12 million from the prior year. Additionally, there will be a decrease in LVL revenue of about $1 million because the plant will be undergoing repairs and will anticipate a lack of source water.

In 2019/20, the District plans to increase services to vital areas of its projects and programs, accounting for the $4.84 million increase over the prior year which is due to the following changes:

1. The Goldsworthy Desalter project was $1.82 million under budget due to the plant shutdown. There is an associated decrease in Desalter revenue of $1.6 million.

2. The remaining Projects, Programs and Administration were $0.95 million under budget.
3. Other supportive costs of $2 million was over budget.
4. The District has developed a Well Construction and Rehabilitation program this year, budgeted at $1.02 million to assist groundwater producers the ability to utilize their full groundwater extraction rights and reduce their need for imported water.

Finally, in the prior years, the District had debt service covenants that required funds set aside for future use to meet the District's debt service obligations. Currently, the District has three majors debt instruments; State Revolving Fund (SRF) – Prop 1 Funding, 2015 Revenue Bonds, and 2018 Revenue Bonds that increased a budget by $1.91 million from $12.96 million to $14.87 million.

Table 8
2019/20 EXPENSES ANALYSIS

Operations and Maintenance	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Projection	2019/20 Budget	Change from 2018/19 Projection
Water Purchases	$36,712,000	$47,086,000	$38,716,000	$36,641,000	$34,534,000	$(2,107,000)
Dominguez Gap Water Purchase Contingency Fund	$-	$-		$-	$900,000	$900,000
Water Conservation	$329,000	$337,000	$505,000	$447,000	$499,000	$52,000
Water Supply - Vander Lans	$2,998,000	$3,276,000	$2,510,000	$2,901,000	$6,025,000	$3,124,000
Albert Robles Center (ARC)	$213,000	$200,000	$234,000	$3,216,000	$8,573,000	$5,357,000
Projects and Program	$4,903,000	$5,659,000	$6,119,000	$7,319,000	$12,161,000	$4,842,000
General Administration	$4,998,000	$4,483,000	$13,343,000	$4,554,000	$5,387,000	$833,000
GASB 45 (Retirement Funding)	$638,000	$628,000	$760,000	$868,000	$740,000	$(128,000)
Other Special Programs & Supportive Costs	$-	$1,914,000	$-	$2,865,000	$890,000	$(1,975,000)
Total Operating Expenses	**$50,791,000**	**$63,583,000**	**$62,187,000**	**$58,811,000**	**$69,709,000**	**$10,898,000**
Other Non-Operating Expenses	$2,149,000	$2,012,000	$6,174,000	$12,957,000	$14,870,000	$1,913,000
Total Operating Expenses	**$52,940,000**	**$65,595,000**	**$68,361,000**	**$71,768,000**	**$84,579,000**	**$12,811,000**

Table 9A

WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA FISCAL YEAR 2019/20
Schedule of Expenses by Fund Allocation

Description	Replenishment Fund	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Projection	2019/20 Budget
Replenishment Fund (RF)						
Replenishment Fund Operating Expenses						
Water Purchases	100%	$36,712,000	$47,086,000	$38,716,000	$36,641,000	$34,534,000
Dominguez Gap Water Purchase Contingency Fund	100%	$-	$-	$-	$-	$900,000
Water Conservation	50%	$165,000	$169,000	$252,500	$223,500	$249,500
Water Supply - Vander Lans	100%	$2,998,000	$3,276,000	$2,510,000	$2,901,000	$6,025,000
Albert Robles Center (ARC)	100%	$214,000	$200,000	$234,000	$3,216,000	$8,573,000
Montebello Forebay Recycled Water	100%	$368,000	$275,000	$338,000	$493,000	$765,000
Groundwater Resource Planning	100%	$618,000	$547,000	$378,000	$279,000	$366,000
Dominguez Gap Barrier Recycled Water	100%	$179,000	$170,000	$173,000	$183,000	$411,000
Replenishment Operations	100%	$173,000	$183,000	$205,000	$310,000	$362,000
Engineering Program	100%	$18,000	$50,000	$181,000	$357,000	$375,000
Geographic Information Systems (GIS)	50%	$112,000	$118,000	$149,500	$91,250	$83,000
Groundwater Monitoring	50%	$406,000	$477,000	$573,000	$518,750	$557,500
Hydrogeology Program	50%	$257,000	$328,000	$136,000	$402,500	$659,000
Well Construction Program	100%	$-	$-	$-	$-	$1,017,000
Water Education	50%	$323,000	$522,000	$596,000	$484,500	$545,500
Board of Directors	94%	$299,000	$276,000	$309,260	$376,000	$431,460
General Manager	94%	$407,000	$-	$-	$-	$-
Administration	94%	$3,992,000	$3,938,000	$12,144,800	$6,687,160	$4,632,320
GASB 45 (Required Retirement Funding)	94%	$600,000	$590,000	$714,400	$815,920	$695,600
Other Special Programs & Supportive Costs	94%	$-	$1,799,000	$-	$-	$836,600
Subtotal RF Operating Expenses		**$47,841,000**	**$60,004,000**	**$57,610,460**	**$53,979,580**	**$62,018,480**
Clean Water Fund (CWF)						
CWF Operating Expenses	**Clean Water Fund**					
Water Conservation	50%	$164,000	$168,000	$252,500	$223,500	$249,500
Goldsworthy Desalter	100%	$737,000	$811,000	$827,000	$986,000	$3,086,000
Water Quality Improvement Program	100%	$381,000	$228,000	$341,000	$347,000	$615,000
Safe Drinking Water Program	100%	$149,000	$450,000	$559,000	$1,371,000	$1,474,000
Central Basin Watermaster	100%	$85,000	$55,000	$166,000	$ -	$-
Geographic Information Systems (GIS)	50%	$112,000	$118,000	$149,500	$91,250	$83,000
Groundwater Monitoring	50%	$406,000	$477,000	$573,000	$518,750	$557,500
Hydrogeology Program	50%	$256,000	$327,000	$136,000	$402,500	$659,000
Water Education	50%	$322,000	$522,000	$596,000	$484,500	$545,500
Board of Directors	6%	$19,000	$19,000	$19,740	$24,000	$27,540
General Manager	6%	$26,000	$ -	$ -	$-	$-
Administration	6%	$255,000	$251,000	$775,200	$426,840	$295,680
GASB 45 (Required Retirement Funding)	6%	$38,000	$38,000	$45,600	$52,080	$44,400
Other Special Programs & Supportive Costs	6%	$ -	$115,000	$ -	$ -	$53,400
Subtotal CWF Operating Expenses		**$3,788,000**	**$3,579,000**	**$4,440,540**	**$4,927,420**	**$7,690,520**
Total O&M Expenses		**$71,244,000**	**$63,583,000**	**$62,051,000**	**$58,907,000**	**$69,709,000**

Table 9B

WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA FISCAL YEAR 2019/20
Schedule of Capital Expenses by Fund Allocation

Description	Fund Allocation Replenishment Fund	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Projection	2019/20 Budget
Replenishment Fund Capital Expenses						
Water Supply - Vander Lans	100%	$11,000	$398,000	$(217,000)	$600,000	$5,400,000
Groundwater Resource Planning	100%	$478,000	$340,000	$-	$-	$-
Dominguez Gap Seawater Intrusion Barrier	100%	$-	$4,000	$29,000	$500,000	$-
Groundwater Monitoring	50%	$-	$-	$141,000	$450,000	$450,000
Albert Robles Center (ARC)	100%	$16,287,000	$35,380,000	$42,802,000	$73,250,000	$200,000
Asset Management Program	100%	$-	$501,000	$161,000	$600,000	$300,000
Replenishment Operations	100%	$363,000	$183,000	$1,000	$100,000	$400,000
Engineering ADM	100%	$-	$-	$147,000	$3,000,000	$3,090,000
Supervisory Control and Data Acquisition (SCADA)	100%	$421,000	$938,000	$104,000	$2,500,000	$1,400,000
Paramount/Equipment/Fleet Center	100%	$65,000	$55,000	$32,000	$1,000,000	$2,000,000
Regional Brackish Water Reclamation Phase 1	50%	$-	$-	$610,500	$750,000	$300,000
Connection Pipelines	100%	$-	$-	$-	$3,400,000	$10,000,000
Administration	94%	$112,800	$666,000	$4,700	$-	$-
Subtotal RF Capital Expenses		**$17,737,800**	**$38,465,000**	**$43,815,200**	**$86,150,000**	**$23,540,000**
Clean Water Fund Capital Expenses Clean Water Fund						
Goldsworthy Desalter	100%	$5,512,877	$10,084,000	$707,000	$-	$-
Montebello Forebay Optimization Study/Pipeline	100%	$2,000	$-	$-	$-	$-
Water Quality Improvement Program	100%	$540,000	$1,000	$455,000	$500,000	$500,000
Groundwater Monitoring	50%	$-	$-	$141,000	$450,000	$450,000
Enhanced-Montbello Forebay Recharge	100%	$-	$-		$250,000	$1,250,000
Safe Drinking Water Program	100%	$82,000	$8,000	$3,980,000	$3,200,000	$1,600,000
Regional Brackish Water Reclamation Phase 1	50%	$-	$-	$610,500	$750,000	$300,000
Energy Management Plan Study and Implementation	100%	$-	$-	$-	$300,000	$2,000,000
Administration	6%	$7,200	$43,000	$300	$-	$-
Subtotal CWF Capital Expenses		**$6,144,077**	**$10,136,000**	**$5,893,800**	**$5,450,000**	**$6,100,000**
Total Capital Expenses		**$23,881,877**	**$48,601,000**	**$49,709,000**	**$91,600,000**	**$29,640,000**

Table 10

2019/20 EXPENSES BY PROJECT & PROGRAMS

Description	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Projection	2019/20 Budget
Water Purchases	$36,712,000	$47,086,000	$38,716,000	$36,641,000	$34,534,000
Dominguez Gap Water Purchase Contingency Fund	$-	$-	$-	$-	$900,000
Water Conservation	$329,000	$337,000	$505,000	$447,000	$499,000
Water Supply - Vander Lans	$2,998,000	$3,276,000	$2,510,000	$2,901,000	$6,025,000
Albert Robles Center (GRIP AWTF)	$214,000	$200,000	$234,000	$3,216,000	$8,573,000
Goldsworthy Desalter	$737,000	$811,000	$827,000	$986,000	$3,086,000
Montebello Forebay Recycled Water	$368,000	$275,000	$338,000	$493,000	$765,000
Groundwater Resource Planning	$618,000	$547,000	$378,000	$279,000	$366,000
Water Quality Improvement Program	$381,000	$229,000	$380,000	$347,000	$615,000
Geographic Information Systems (GIS)	$224,000	$236,000	$299,000	$183,000	$166,000
Groundwater Monitoring Program	$812,000	$954,000	$1,146,000	$1,038,000	$1,115,000
Safe Drinking Water Program	$149,000	$450,000	$559,000	$1,371,000	$1,474,000
Hydrogeology Program	$513,000	$655,000	$272,000	$804,000	$1,318,000
Dominguez Gap Barrier Recycled Water	$179,000	$170,000	$173,000	$183,000	$411,000
Replenishment Operations	$173,000	$183,000	$205,000	$310,000	$362,000
Engineering Program	$18,000	$50,000	$168,000	$357,000	$375,000
Well Construction Program	$-	$-	$-	$-	$1,017,000
Water Education	$645,000	$1,044,000	$1,208,000	$969,000	$1,091,000
Central Basin Watermaster	$85,000	$55,000	$166,000	$-	$-
Board of Directors	$318,000	$294,000	$329,000	$400,000	$459,000
General Manager	$433,000	$475,000	$-	$-	$-
Administration	$4,247,000	$3,714,000	$13,014,000	$4,153,000	$4,928,000
GASB 45 (Required Retirement Funding)	$638,000	$628,000	$760,000	$868,000	$740,000
Other Special Programs & Supportive Costs	$-	$1,914,000	$-	$2,865,000	$890,000
Total Operating Expenses	$50,791,000	$63,583,000	$62,187,000	$58,811,000	$69,709,000

Fund Balances

Fund Balances

RESERVE FUND POLICY

The level of reserves maintained by the District is an important component of short and long-term financial management, and is a key consideration in the rate-setting process. Furthermore, the level of reserves is one of the key financial metrics used by credit rating agencies when evaluating the financial strength of an organization. Prudent reserves are an important financial tool that benefits both WRD and the pumpers. A prudent level of reserves helps mitigate financial risks due to changes in pumping levels, unexpected cost increases, and emergencies.

Given recent changes in legislation (SB 963), WRD established a new reserve policy and adopted formal practices to ensure that reserves meet WRD's financial and operational objectives. Among other things, the Reserve Policy articulates:

- How these balances are established
- How funds are used
- How the adequacy of each respective reserve fund balance is determined
- How reserves are replenished when used

The District's new reserve policy will be reviewed annually during the budgeting process to monitor current levels and evaluate compliance with the policy. Decisions can then be made to maintain, increase, or spend down reserve balances, as appropriate, with an understanding of the impact of such decisions to the upcoming budget period and WRD's long-term financial plan.

With SB 963 removing any limit on the District's reserve funds, this annual analysis of funds is an important part of responsible financial planning, particularly as WRD transitions from an agency that produces water to one that produces water and operates and maintains three capital facilities.

As of June 30, 2019, the District had $67,443,000 in the Unrestricted Reserve Funds Account.

The following pages provide specific breakdowns of the District cash and investments.

RESERVE BALANCE

RESERVE FUNDS – These funds are designated by the Board of Directors for specific purposes as described below. The Reserve Policy was updated in July but this report shows balances as of June 30,2019.

Reserved for Capital Projects – These funds are designated for use in the Safe Drinking Water Program and Well Rehabilitation Loan Program or set aside for capital replacement costs at the Leo J. Vander Lans Advanced Water Treatment Facility and the Robert W. Goldsworthy Desalter.

Safe Drinking Water Program – is used to account for, and fund, loans and grants to help clean up the groundwater basin. This fund will be a "revolving" fund, to be replenished by repayment of outstanding loans as well as any needed funding in WRD.

Source of Funds: Replenishment Assessment	
Use of Funds: Safe Drinking Water Projects	
Restricted for Safe Drinking Water Loan Program	$ 3,842,000

Well Rehabilitation Program – is used to pay for well constructions and rehabilitation to assist groundwater producers' ability to utilize their full groundwater extraction rights, reducing demands for imported water. This fund will be a 'revolving' fund, replenished by repayment of loans as well as any additional contributions by WRD.

Source of Funds: Replenishment Assessment	
Use of Funds: Well Rehabilitation Projects	
Restricted for Well Rehabilitation Program	$ 1,500,000

Capital Replacement / Construction – is used to fund periodic replacement of assets with expected useful lives of three to twenty years. Effective use of a replacement reserve helps to stabilize annual budgets, reducing the need for large expenditures as equipment is replaced.

Source of Funds: Replenishment Assessment	
Use of Funds: Repair and Replacement Costs	
Leo J. Vander Lans Water Treatment Facility	$ 3,730,000
Goldsworthy Desalter	1,048,000
Restricted for Capital Replacement/Construction	$ 4,778,000
Total Reserved for Capital Projects	$10,120,000

Reserved for Water Purchase Carryover – is funded with remaining revenues that have been budgeted for purchasing imported water or other supplies but were not expended for this purpose due to the lack of availability of water.

Source of Funds: Replenishment Assessment	
Use of Funds: Water Purchases	
Total Reserved for Water Purchase Carryover	$ 19,326,000

Reserved for Debt Service – is a restricted fund established pursuant to the covenants in WRD's State Revolving Fund Loan Program. Based on the District's rate covenant, Net Reserves (all revenues less operation expenses – not including depreciation) must be at least 120% of the Debt Service (principal and interest payments).

Source of Funds: Replenishment Assessment
Use of Funds: Restricted for Debt Service

Total Reserved for Debt Service $ 15,560,000

Reserved for Operation – is a an unrestricted reserve used to stabilize finances in the event of lower than expected sales, unbudgeted expenses and other unforeseen events.

Source of Funds: Replenishment Assessment
Use of Funds: Restricted for Debt Service

Total Reserved for Operation $ 22,437,000

The District's reserve balances are presented as follows:

Table 11
2019/20 Reserve Fund Balances

Reserved Funds:	
Capital Projects	$ 10,120,000
Water Purchase Carryover Fund	19,326,000
Reserved for Debt Service	15,560,000
Operating Reserve Fund	22,437,000
TOTAL Reserve balances as of June 30, 2019	**$ 67,443,000**

Reserve Fund Balances as of June 30, 2019

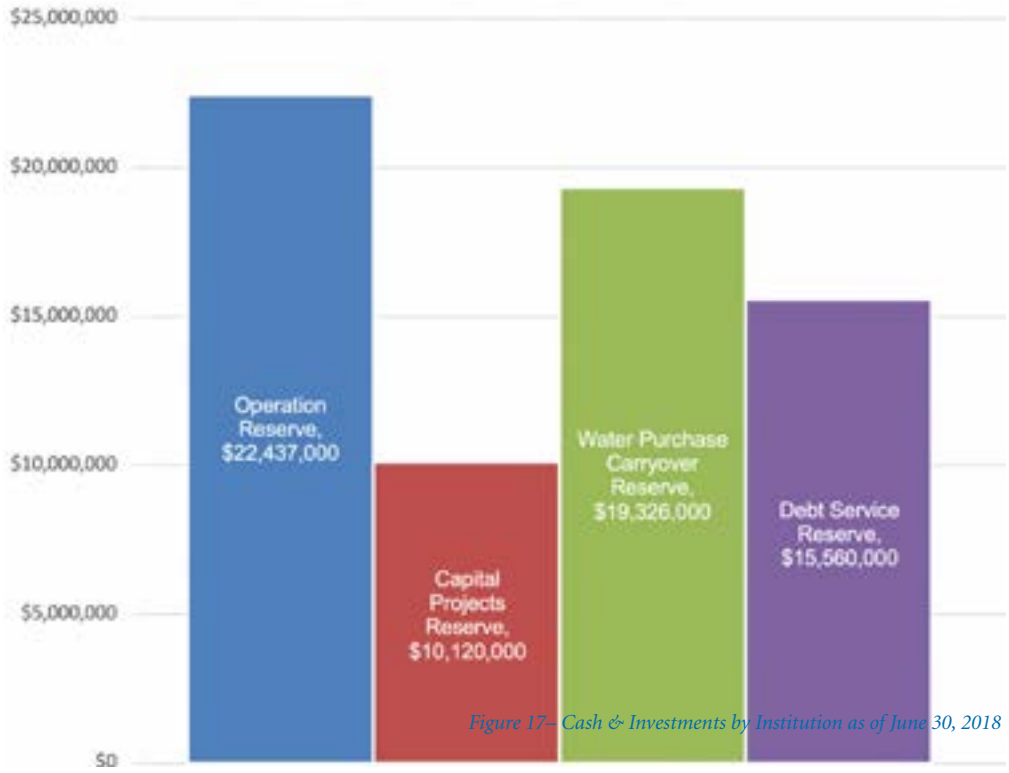


Figure 17– Cash & Investments by Institution as of June 30, 2018

CASH AND INVESTMENTS

At the direction of the Board of Directors, on March 31, 2009 the District implemented its Community Banking Program and has funds deposited in several community banks in addition to the two major accounts at First Choice Bank and First Bank.

Table 12

CASH AND INVESTMENT BY INSTITUTION

	Cash and Investments:
Manufacturers Bank	$ 348,000
First Bank	23,816,000
First Choice Bank	38,983,000
City National Bank	1,956,000
Bank of the West	1,595,000
Broadway Federal Bank	246,000
Preferred Bank	259,000
Union Bank	240,000
Total Cash in Bank	**$67,443,000**

Cash and Investment by Institution

By Amount (in thousands)

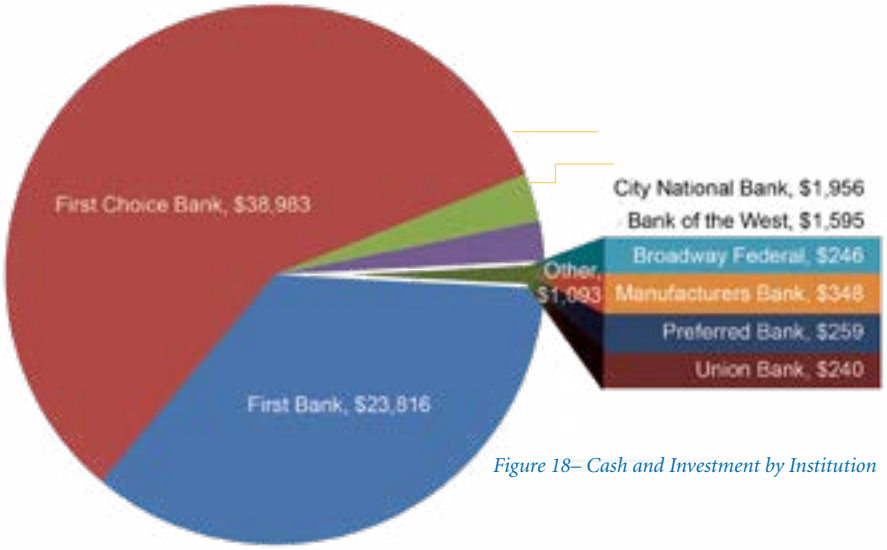


Figure 18– Cash and Investment by Institution

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 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 Certificates of Participation (COP). 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, 2019 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 Debt Issuances	
Total in Trust for 2015 Debt Issuance	**$ 31,000**
Proceeds from the 2018 Debt Issuances	
Source of Funds: 2018 Revenue Bond Use of Funds: Restricted for Capital Projects Only	
Total in Trust for 2018 Debt Issuance	**$73,442,000**

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.

Total in Trust for CalTrans Project	**$ 5,552,000**
TOTAL Trust balances as of June 30, 2019	**$79,025,000**

Table 13

PROJECTED UNRESERVED FUND BALANCES AS OF JUNE 30, 2019

Description	Estimated Unreserved Fund Balance 6/30/19	Estimated Revenues	Estimated Expenses	Debt Service	Estimated Unreserved Fund Balances 6/30/20
Replenishment Fund	$11,962,000	$75,502,000	$(65,526,460)	$(13,977,800)	$7,959,740
Clean Water Fund	$4,012,000	$9,077,000	$(4,182,540)	$(892,200)	$8,014,260
Total All Funds	$15,974,000	$84,579,000	$(69,709,000)	$(14,870,000)	$15,974,000

Table 14

PROJECTED UNRESERVED FUNDS BALANCE FIVE-YEAR FORCAST

Description	2019/20 Budget	2020/21 Forecast	2021/22 Forecast	2011/23 Forecast	2023/24 Forecast
Beginning Funds Balance	$15,974,000	$15,974,000	$16,984,000	$16,984,000	$16,984,000
Add: Estimated Revenues	$84,579,000	$89,160,000	$93,450,000	$96,170,000	$99,250,000
Total Funds Available	$100,553,000	$105,134,000	$110,434,000	$113,154,000	$116,234,000
Less: Estimated Expenditures	$(69,709,000)	$(70,560,000)	$(73,080,000)	$(75,800,000)	$(77,200,000)
Annual Debt Service	$(14,870,000)	$(17,590,000)	$(20,370,000)	$(20,370,000)	$(20,370,000)
Ending Funds Balance	$15,974,000	$16,984,000	$16,984,000	$16,984,000	$18,664,000

Long Term Debt

Long-Term Debt

DEBT MANAGEMENT POLICY

Pursuant to the requirements of SB 1029, the District adopted the Debt Management Policy that established guidelines for the issuance and the on-going administration process for debt securities and other forms of indebtedness issued by the District.

The District is committed to long-term financial planning, maintaining appropriate reserves levels and employing prudent practices in governance, management and budget administration. The District intends to issue debt for the purposes stated in these Debt Management Policies and to implement policy decisions incorporated in the District's Five-Year Financial Plan and its annual operating budget.

The District hereby recognizes that a fiscally prudent debt policy is required to:

- Maintain the District's sound financial position.
- Ensure the District has the flexibility to respond to changes in future service priorities, revenue levels, and operating expenses.
- Protect the District's credit-worthiness.
- Ensure that all debt is structured to protect both current and future taxpayers, ratepayers and constituents of the District.
- Ensure that the District's debt is consistent with the District's planning goals and objectives and capital improvement program or budget, as applicable.

The District issued Long-Term Debts such as other revenue bonds and bond or grant anticipation notes, to finance the constructions, acquisition, and rehabilitation of capital improvements and facilities, equipment and land to be owned and operated by the District. Long-term debt financings are not appropriate for current operating expenses and routine maintenance expenses. Details of the District's long-term debt are presented as follows:

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 (CMFA), a joint exercise of powers authority organized and existing under and by virtue of the laws of the State of California.

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%, and 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 2004 Revenue COP, prepay the 2008 and 2011 COPs, and (iii) to pay costs of issuance of the bonds.

The net proceeds of $69,500,000 are being used to fund the following projects which are discussed in detail in the Updated Five-Year CIP:

1. Albert Robles Center Advanced Water Treatment Facility (ARC AWTF) – completed.
2. Goldsworthy Brackish Water Reclamation Program – completed
3. Stormwater Conservation and Groundwater Storage Program – on-going
4. Groundwater Basin Management Program – on-going
5. Improvements related to the Safe Drinking Water Program – on-going
6. Improvements related to the Groundwater Infrastructure Management Program – on-going

REPLENISHMENT ASSESSMENT REVENUE BONDS, SERIES 2018

As the District goes through the annual update of its CIP, the District looks to the capital funding needs for the next three to five years. With the completion of the ARC-AWTF and the Goldsworthy Desalter Expansion, it is evident that additional funds will be needed to continue WRD's mission to supply clean and reliable water to the West Coast and Central Groundwater Basins.

In December 2018, the District issued its $65,785,000 Replenishment Assessment Revenue Bonds, Series 2018. The 2018 Revenue Bond are being issued pursuant to an Indenture of Trust among the Water Replenishment District of Southern California Financing Authority ('the Authority'), WRD ('the District") and U.S. Bank as trustee. The

Bonds were being issued by the Authority to finance the acquisition, construction, and installation of certain capital improvement projects and pay costs of issuance of bonds. The following projects are discussed in detail in the Updated Five-Year CIP:

1. Leo J. Vander Lans (LVL) Facility Improvement Projects
2. Regional Brackish Water Reclamation Project
3. Field Operations and Storage Annex Facility Project
4. Whittier Narrows Conservation Pool Feasibility Study
5. Dominguez Gap Seawater Intrusions Barrier – Second Connection/potable backup supply
6. Groundwater Basin Management Program
7. Safe Drinking Water Program

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 Program 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 & 2018 Series Water Revenue Bonds and funding through the CWSRF is as follows:

Table 15
IMPACT OF DEBT SERVICE

	2019/20	2020/21	2021/22	2022/23	2023/24
2015 Water Revenue Bonds	$9.247M	$9.249M	$9.248M	$9.250M	$9.250M
State Revolving Fund	3.720M	3.720M	3.720M	3.720M	3.720M
2018 Water Revenue Bonds	4.298M	4.298M	4.298M	4.298M	4.298M
Total	**$17.265M**	**$17.267M**	**$17.266M**	**$17.268M**	**$17.268M**
Projected Production (in acre-feet)	213,000	224,000	226,000	228,000	228,000
Impact to Assessment (per acre-foot)	**$81.06**	**$77.08**	**$76.40**	**$75.74**	**$75.74**

The projects constructed with these borrowings will replace the need to purchase 21,000 acre-feet of imported water for replenishment purposes. This reduction in imported water costs mitigates the impact of the ongoing debt service payments shown above. In addition, the cost of imported water is expected to increase over time, while debt service will be essentially level for the next thirty years – providing a hedge against uncertainty regarding the future cost of imported water supplies.

DEBT CEILING

There is currently no debt limit or ceiling in the California State Water Code for water districts such as WRD. The District has the authority to collect the cost of debt in its replenishment assessment and debt service is about 18% of the 2019/20 assessment. Capital Improvement Program additions and betterments will be primarily funded through long term debt.

Table 16

CLEAN WATER STATE REVOLVING FUND

Future Debt Service Payments are as follows:

Fiscal Year	Principal	Interest	Total
2019	1,883,891	549,314	2,433,205
2020	2,184,471	665,230	2,849,702
2021	2,386,081	735,600	3,121,680
2022	2,386,224	735,456	3,121,680
2023	2,410,087	711,593	3,121,680
2024	2,434,188	687,492	3,121,680
2025	2,458,529	663,151	3,121,680
2026	2,483,115	638,565	3,121,680
2027	2,507,946	613,734	3,121,680
2028	2,533,025	588,655	3,121,680
2029	2,558,356	563,324	3,121,680
2030	2,583,939	537,741	3,121,680
2031	2,609,779	511,901	3,121,680
2032	2,635,876	485,804	3,121,680
2033	2,662,235	459,445	3,121,680
2034	2,688,857	432,823	3,121,680
2035	2,715,746	405,934	3,121,680
2036	2,742,904	378,777	3,121,680
2037	2,770,333	351,348	3,121,680
2038	2,798,036	323,644	3,121,680
2039	2,826,016	295,664	3,121,680
2040	2,854,276	267,404	3,121,680
2041	2,882,819	238,861	3,121,680
2042	2,911,647	210,033	3,121,680
2043	2,940,764	180,916	3,121,680
2044	2,970,171	151,509	3,121,680
2045	2,999,873	121,807	3,121,680
2046	3,029,872	91,808	3,121,680
2047	3,060,171	61,509	3,121,680
2048	3,090,772	30,908	3,121,680
	$80,000,000	**$12,689,948**	**$92,689,948**

Table 17A

2018 BOND PAYMENT SCHEDULE
ESTIMATED INSTALLMENT PAYMENTS OF THE DISTRICT

Due Date	Principal	Interest	Total
02/01/2019		392,882.64	392,882.64
08/01/2019		1,644,625.00	1,644,625.00
02/01/2020		1,644,625.00	1,644,625.00
08/01/2020	1,035,000.00	1,644,625.00	2,679,625.00
02/01/2021		1,618,750.00	1,618,750.00
08/01/2021	1,085,000.00	1,618,750.00	2,703,750.00
02/01/2022		1,591,625.00	1,591,625.00
08/01/2022	1,145,000.00	1,591,625.00	2,736,625.00
02/01/2023		1,563,000.00	1,563,000.00
08/01/2023	1,200,000.00	1,563,000.00	2,763,000.00
02/01/2024		1,533,000.00	1,533,000.00
08/01/2024	1,260,000.00	1,533,000.00	2,793,000.00
02/01/2025		1,501,500.00	1,501,500.00
08/01/2025	1,325,000.00	1,501,500.00	2,826,500.00
02/01/2026		1,468,375.00	1,468,375.00
08/01/2026	1,395,000.00	1,468,375.00	2,863,375.00
02/01/2027		1,433,500.00	1,433,500.00
08/01/2027	1,465,000.00	1,433,500.00	2,898,500.00
02/01/2028		1,396,875.00	1,396,875.00
08/01/2028	1,540,000.00	1,396,875.00	2,936,875.00
02/01/2029		1,358,375.00	1,358,375.00
08/01/2029	1,620,000.00	1,358,375.00	2,978,375.00
02/01/2030		1,317,875.00	1,317,875.00
08/01/2030	1,705,000.00	1,317,875.00	3,022,875.00
02/01/2031		1,275,250.00	1,275,250.00
08/01/2031	1,790,000.00	1,275,250.00	3,065,250.00
02/01/2032		1,230,500.00	1,230,500.00
08/01/2032	1,885,000.00	1,230,500.00	3,115,500.00
02/01/2033		1,183,375.00	1,183,375.00
08/01/2033	1,980,000.00	1,183,375.00	3,163,375.00

Table 17B

2018 BOND PAYMENT SCHEDULE
ESTIMATED INSTALLMENT PAYMENTS OF THE DISTRICT

Due Date	Principal	Interest	Total
02/01/2034		1,133,875.00	1,133,875.00
08/01/2034	2,080,000.00	1,133,875.00	3,213,875.00
02/01/2035		1,081,875.00	1,081,875.00
08/01/2035	2,190,000.00	1,081,875.00	3,271,875.00
02/01/2036		1,027,125.00	1,027,125.00
08/01/2036	2,300,000.00	1,027,125.00	3,327,125.00
02/01/2037		969,625.00	969,625.00
08/01/2037	2,420,000.00	969,625.00	3,389,625.00
02/01/2038		909,125.00	909,125.00
08/01/2038	2,540,000.00	909,125.00	3,449,125.00
02/01/2039		845,625.00	845,625.00
08/01/2039	2,675,000.00	845,625.00	3,520,625.00
02/01/2040		778,750.00	778,750.00
08/01/2040	2,810,000.00	778,750.00	3,588,750.00
02/01/2041		708,500.00	708,500.00
08/01/2041	2,955,000.00	708,500.00	3,663,500.00
02/01/2042		634,625.00	634,625.00
08/01/2042	3,105,000.00	634,625.00	3,739,625.00
02/01/2043		557,000.00	557,000.00
08/01/2043	3,265,000.00	557,000.00	3,822,000.00
02/01/2044		475,375.00	475,375.00
08/01/2044	3,430,000.00	475,375.00	3,905,375.00
02/01/2045		389,625.00	389,625.00
08/01/2045	3,610,000.00	389,625.00	3,999,625.00
02/01/2046		299,375.00	299,375.00
08/01/2046	3,795,000.00	299,375.00	4,094,375.00
02/01/2047		204,500.00	204,500.00
08/01/2047	3,990,000.00	204,500.00	4,194,500.00
02/01/2048		104,750.00	104,750.00
08/01/2048	4,190,000.00	104,750.00	4,294,750.00
Total	**65,785,000.00**	**62,510,257.64**	**128,295,257.64**

Table 18A

2015 BOND PAYMENT SCHEDULE
ESTIMATED INSTALLMENT PAYMENTS OF THE DISTRICT

Due Date	Principal	Interest	Total
08/01/2016	1,655,000.00	4,118,895.00	5,773,895.00
02/01/2017	0.00	3,472,350.00	3,472,350.00
08/01/2017	2,350,000.00	3,472,350.00	5,822,350.00
02/01/2018	0.00	3,425,350.00	3,425,350.00
08/01/2018	2,445,000.00	3,425,350.00	5,870,350.00
02/01/2019	0.00	3,376,450.00	3,376,450.00
08/01/2019	2,560,000.00	3,376,450.00	5,936,450.00
02/01/2020	0.00	3,312,450.00	3,312,450.00
08/01/2020	2,690,000.00	3,312,450.00	6,002,450.00
02/01/2021	0.00	3,245,200.00	3,245,200.00
08/01/2021	2,830,000.00	3,245,200.00	6,075,200.00
02/01/2022	0.00	3,174,450.00	3,174,450.00
08/01/2022	2,975,000.00	3,174,450.00	6,149,450.00
02/01/2023	0.00	3,100,075.00	3,100,075.00
08/01/2023	3,125,000.00	3,100,075.00	6,225,075.00
02/01/2024	0.00	3,021,950.00	3,021,950.00
08/01/2024	3,285,000.00	3,021,950.00	6,306,950.00
02/01/2025		2,939,825.00	2,939,825.00
08/01/2025	3,455,000.00	2,939,825.00	6,394,825.00
02/01/2026		2,853,450.00	2,853,450.00
08/01/2026	3,630,000.00	2,853,450.00	6,483,450.00
02/01/2027		2,762,700.00	2,762,700.00
08/01/2027	3,815,000.00	2,762,700.00	6,577,700.00
02/01/2028		2,667,325.00	2,667,325.00
08/01/2028	4,015,000.00	2,667,325.00	6,682,325.00
02/01/2029		2,566,950.00	2,566,950.00
08/01/2029	4,220,000.00	2,566,950.00	6,786,950.00
02/01/2030		2,461,450.00	2,461,450.00
08/01/2030	4,435,000.00	2,461,450.00	6,896,450.00
02/01/2031		2,350,575.00	2,350,575.00
08/01/2031	4,660,000.00	2,350,575.00	7,010,575.00

Table 18B

2015 BOND PAYMENT SCHEDULE
ESTIMATED INSTALLMENT PAYMENTS OF THE DISTRICT

Due Date	Principal	Interest	Total
02/01/2032		2,234,075.00	2,234,075.00
08/01/2032	4,900,000.00	2,234,075.00	7,134,075.00
02/01/2033		2,111,575.00	2,111,575.00
08/01/2033	5,155,000.00	2,111,575.00	7,266,575.00
02/01/2034		1,982,700.00	1,982,700.00
08/01/2034	5,415,000.00	1,982,700.00	7,397,700.00
02/01/2035		1,847,325.00	1,847,325.00
08/01/2035	5,695,000.00	1,847,325.00	7,542,325.00
02/01/2036		1,704,950.00	1,704,950.00
08/01/2036	5,985,000.00	1,704,950.00	7,689,950.00
02/01/2037		1,555,325.00	1,555,325.00
08/01/2037	6,295,000.00	1,555,325.00	7,850,325.00
02/01/2038		1,397,950.00	1,397,950.00
08/01/2038	6,615,000.00	1,397,950.00	8,012,950.00
02/01/2039		1,232,575.00	1,232,575.00
08/01/2039	6,955,000.00	1,232,575.00	8,187,575.00
02/01/2040		1,058,700.00	1,058,700.00
08/01/2040	7,315,000.00	1,058,700.00	8,373,700.00
02/01/2041		875,825.00	875,825.00
08/01/2041	7,685,000.00	875,825.00	8,560,825.00
02/01/2042		683,700.00	683,700.00
08/01/2042	8,040,000.00	683,700.00	8,723,700.00
02/01/2043		522,900.00	522,900.00
08/01/2043	8,370,000.00	522,900.00	8,892,900.00
02/01/2044		355,500.00	355,500.00
08/01/2044	8,710,000.00	355,500.00	9,065,500.00
02/01/2045		181,300.00	181,300.00
08/01/2045	9,065,000.00	181,300.00	9,246,300.00
Total	148,345,000.00	129,068,795.00	277,413,795.00

Replenishment Projects & Programs

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 ultimate goal of WRD is to be independent from imported water for groundwater replenishment under its Water Independence Now (WIN) initiative. The District anticipates 100% of purchases of recycled water in 2019/20 for replenishment of the basins.

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.

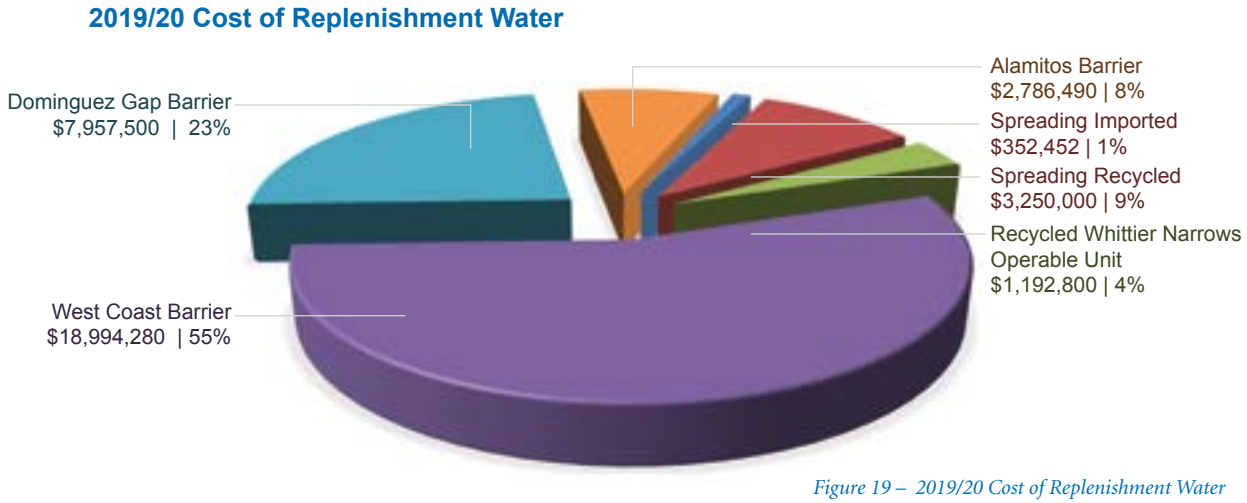


Figure 19 – 2019/20 Cost of Replenishment Water

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 19

Cost of Replenishment Water for Fiscal Year 2019/20

EXPENSE CATEGORY	2018/19 Budget	2019/20 Budget	Increase (Decrease) Over Prior Year
IMPORTED WATER			
Spreading - Tier 1 Untreated Imported			
MWD Untreated Tier 1 - Spreading	$5,768,000	$-	$(5,768,000)
MWD RTS Charge	$177,000	$278,000	$101,000
CBMWD Administrative Surcharge	$560,000		$(560,000)
CBMWD Water Service Charge	$74,000	$75,000	$1,000
Total Spreading - Tier 1 Untreated Imported	**$6,579,000**	**$353,000**	**$(6,226,000)**
Alamitos Barrier - Imported			
MWD Treated Tier 1 - Alamitos Barrier	$1,580,000	$2,410,000	$830,000
MWD Capacity Charge	$41,000	$66,000	$25,000
LBWD RTS	$198,000	$299,000	$101,000
LBWD Administrative Surcharge	$8,000	$12,000	$4,000
Total Alamitos Barrier - Imported	**$1,827,000**	**$2,787,000**	**$960,000**
Dominguez Barrier - Imported			
MWD Tier 1 - Barriers	$-	$-	$-
MWD RTS Charge	$-	$-	$-
WBMWD Capacity Charge	$112,000		$(112,000)
WBMWD Administrative Surcharge	$-	$-	$-
WBMWD Water Service Charge	$38,000		$(38,000)
Total Dominguez Barrier - Imported	**$150,000**	**$-**	**$(150,000)**
West Coast Barrier - Imported			
MWD Tier 1 - Barriers	$-	$18,994,280	$18,994,280
MWD RTS Charge	$-	$-	$-
WBMWD Capacity Charge	$208,000		$(208,000)
WBMWD Administrative Surcharge	$-	$-	$-
WBMWD Water Service Charge	$70,000		$(70,000)
Total West Coast Barrier - Imported	**$278,000**	**$18,994,000**	**$18,716,000**
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	$8,128,000	$7,957,500	$(170,500)
Total Dominguez Barrier - Recycled	**$8,128,000**	**$7,956,000**	**$(172,000)**
Spreading - Recycled			
SDLAC - Tertiary Water (WN, SJC, Pomona)	$5,372,000	$3,250,000	$(2,122,000)
Total Spreading - Recycled	**$5,372,000**	**$3,250,000**	**$(2,122,000)**
Spreading-Whittier Narrows Operable Unit			
MSGBWM	$822,000	$1,192,800	$(370,800)
Total Spreading - WN Operable Unit	**$822,000**	**$1,193,000**	**$(370,800)**
West Coast Barrier - Recycled			
WBMWD Recycled Water	$15,589,000		$(15,589,000)
Total West Coast Barrier - Recycled	**$15,589,000**	**$-**	**$(15,589,000)**
Alamitos Recycled - WRD			
WRD Recycled Water - Vander Lans	$-	$-	$-
Total Alamitos Recycled - WRD	**$-**	**$-**	**$-**
Total Water Purchases	**$38,745,000**	**$34,533,000**	**$(4,212,000)**

ACRONYMS:

ARC AWTF
Albert Robles Center Advanced Water Treatment Facility

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 20

QUANTITY OF WATER PURCHASES IN ACRE-FEET FOR FISCAL YEAR 2019/20

EXPENSE CATEGORY	2018/19 Budget	2019/20 Budget	Increase (Decrease) Over Prior Year
BY ACRE FEET			
Imported Water:			
Spreading Imported	8,000	-	(8,000)
West Coast Barrier Imported	-		-
Dominguez Gap Imported	-	-	-
Alamitos Imported	1,500	2,250	750
In Lieu - MWD Member Agency	-	-	-
In Lieu - West Basin Customer	-	-	-
Recycled Water:			
Spreading Recycled (SJC & WN & Pomona)	56,000	50,000	(6,000)
Spreading Recycled (ARC AWTF)	7,000	10,000	3,000
Spreading (Whittier Narrows Operable Unit)	1,000	1,400	400
West Coast Barrier Recycle	17,000	17,000	-
Dominguez Gap Recycled	8,000	7,500	(500)
Alamitos Recycled	2,500	2,250	(250)
Total Water Purchases	**101,000**	**90,400**	**(10,600)**

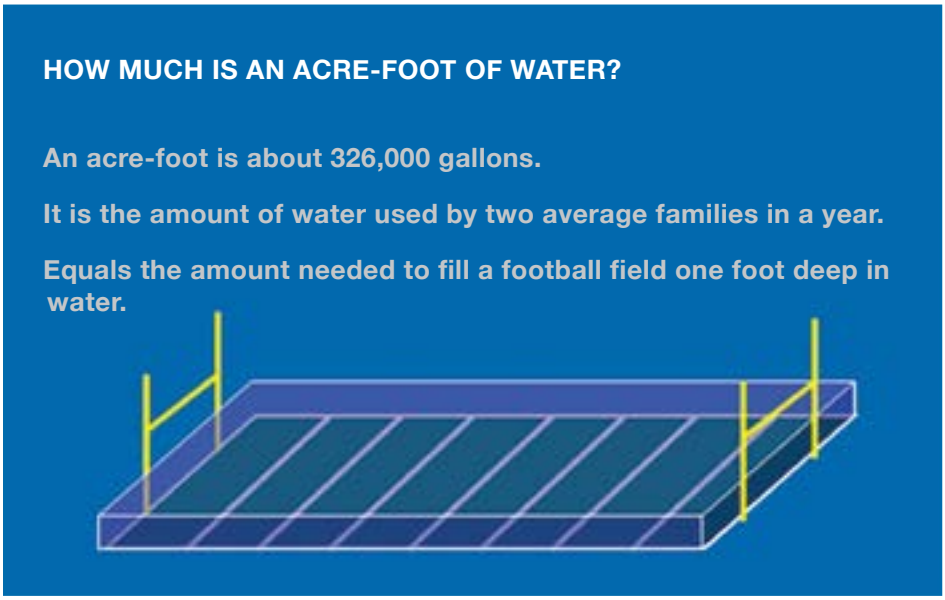


Figure 20 - Definition of Acre-Foot

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 had been used to supply the Alamitos Seawater Intrusion Barrier, thereby improving the reliability and quality of supply to the barrier. The facility was originally constructed in 2004 but expanded in 2015.

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 associated with the plant, including labor, power, and treatment chemicals.

As the original facility continues to age, additional capital investment through rehabilitation and replacement (R&R) of specific equipment is anticipated.

Because the primary purpose of this project is to provide a more reliable means of replenishing the basin through injection, 100% of the O&M costs are considered to be drawn from the Replenishment Fund, while capital investments will be paid for through local, state and federal grant opportunities or debt financing.

2018/19 Accomplishments

- Completed emergency repairs on chemical delivery systems within the treatment process.
- Completed design for the addition of a calcium chloride chemical tank to add operational reliability.
- Continued to work with project partners for ensuring a reliable supply of source water to the facility.
- Executed contracts directly with vendors for the supply and delivery of chemicals to ensure price consistency and stability across all WRD facilities.

2019/20 Objectives

- Determine the most cost-effective means of increasing plant production through supplementation of source water from the Los Coyotes Water Reclamation Plant.
- Determine the most cost-effective use of additional product water beyond the barrier demand. Additional injection wells will be reviewed.
- Complete construction of additional calcium chloride storage tank.
- Complete rehabilitation of the reverse osmosis clean-in-place tank platform
- Update and modernize Standard Operating Procedures for the facility

Basis for Changes 2018/19 Projected to 2019/20 Budget

Cost to operate the facility is expected to increase in 2019/20 and the plant will undergo major repair and maintenance services, groundwater monitoring at the barrier and improvements aimed at optimizing current and future facility operations.

Table 21
Project 001 - WATER SUPPLY
Vander Lans Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	1,655,000	2,237,000	582,000
R&M / Materials / Equipment	1,116,000	1,871,000	755,000
Other Expenses	61,000	1,687,000	1,626,000
Other General & Administrative	69,000	230,000	161,000
Total	**$2,901,000**	**$6,025,000**	**$3,124,000**

Table 22A
LEO J. VANDER LANS ADVANCE WATER TREATMENT FACILITY – WATER SUPPLY
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 BUDGET	DISTRICT GOAL
1. GOAL: Maximize recycled water injection at the Alamitos Barrier.				Obtain Independence from Imported Water Sources
MEASURE: AF Measurement	3MGD	3MGD	8MGD	
2. GOAL: Comply with regulatory requirements for monitoring and compliance.				Provide Safe and Reliable Groundwater
MEASURE: Submit compliance reports to RWQCB to satisfy permit compliance requirements	Yes	Yes	Planned	
3. GOAL: 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	Planned	
4. **GOAL:** Operation and Maintenance of the plant with increased recycled water production.				Obtain Independence from Imported Water Sources
MEASURE: Annual Water Production by AF	1935	1970	2250	

Table 22B

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

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/19 BUDGET	DISTRICT GOAL
5. GOAL: Maximize source water from LBWRF and determine need for supplemental source water from LCWRF.				Obtain Independence from Imported Water Sources
MEASURE: Execute new agreement with LBWD from supply of recycled water from LCWRF	N/A	N/A	Planned	
Determine volume, cost, and schedule for options related to supplemental feed supply from LCWRF.	N/A	N/A	Planned	
6. GOAL: Complete Calcium Chloride Storage Tank Project				Provide Safe and Reliable Groundwater
MEASURE: Complete Design and advertise bid package	N/A	N/A	Complete	
Complete Construction project	N/A	N/A	Planned	

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 the region encounters quite frequently, with record-low rainfalls and increasing uncertainty in the winter snow pack and 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 and high quality groundwater replenishment sources for the Central and West Coast Basins.

WRD participates in a variety of activities to ensure that the use of recycled water for groundwater recharge continues to remain safe and reliable. From an operational standpoint, the District will continue to fulfill groundwater monitoring duties as required by our various recycled water for recharge 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 Montebello Forebay spreading grounds, WRD, in conjunction with other agencies, participates in research efforts to more fully investigate the effectiveness of soil aquifer treatment during infiltration of recycled water into the aquifers, and the travel time of recycled water once recharged to the nearest drinking water wells through tracer studies. The overall objectives are to characterize the percolation process and quantify the purifying properties of the underlying soil on constituents of concern such as perfluorinated compounds (PFAS), nitrogen, total organic compounds (TOC), biodegradable dissolved organic carbon (BDOC), and emerging contaminants, such as pharmaceuticals, endocrine disrupters, and personal care products. For the upcoming year, research into these issues will continue.

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 new Albert Robles Center for Water Recycling and Environmental Learning (ARC – formerly known as GRIP). Preparation for a new tertiary-quality recycled water permit to replace the 1991 permit for the Montebello Forebay will also be a major collaborative effort with the Sanitation Districts of Los Angeles County.

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.

2018/19 Accomplishments

- Initiated work on a revised permit for spreading tertiary-treated recycled water into the Montebello Forebay.
- Continued to comply with water recycling permit requirements for the Montebello Forebay Spreading Grounds, including bi-monthly sampling 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.
- Initiated sampling of monitoring wells for the latest chemicals of emerging concern, PFAS

2019/20 Objectives

- Continue collaborating with the Sanitation Districts on a revised tertiary-treated recycled water permit for the Montebello Forebay. Work will include data analysis, potential new monitoring well drilling, submitting drafts to the regulatory agencies, and drafting a Title 22 Engineering Report.
- Perform additional sampling for PFAS compounds to determine relationship to recycled water for recharge.
- 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.
- Continue to comply with water recycling permit requirements for the seawater barrier injection wells, including monitoring well sampling and permit compliance reporting.
- Continue to facilitate the ongoing dialogue between the Sanitation Districts, Metropolitan Water District, and City of Los Angeles to help increase the amount of recycled water available for groundwater recharge in the WRD service area.

Basis for Changes from 2018/19 Projected to 2019/20 Budget

Additional staff labor costs have also been allocated to this program for FY2019/20.

Table 23
Project 004 - MONTEBELLO FOREBAY
Recycled Water Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	310,000	328,000	18,000
R&M / Materials / Equipment	19,000	40,000	21,000
Other Expenses	65,000	58,000	(7,000)
Other General & Administrative	97,000	339,000	242,000
Total	**$491,000**	**$765,000**	**$274,000**

Table 24

MONTEBELLO FOREBAY RECYCLED WATER
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY 2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 BUDGET	DISTRICT GOAL
1. GOAL: Continue to comply with water recycling permit requirements for the Montebello Forebay Spreading Grounds. Work on Title 22 Engineering Report.				Provide Safe and Reliable Groundwater
MEASURE: Complied with the water recycling permit requirements for the Montebello Forebay Spreading Grounds	Yes	Yes	Yes	
2. GOAL: Continue to facilitate the ongoing dialogue between agencies to provide more recycled water for groundwater recharge.				Provide Safe and Reliable Groundwater
MEASURE: Continued facilitation. Identify projects.	Yes	Yes	Yes	
3. GOAL: Perform additional sampling for PFAS compounds to determine relationship to recycled water for recharge.				Provide Safe and Reliable Groundwater
MEASURE: Collect samples in Spring and Fall, compile results	N/A	Yes	Yes	
4. GOAL: Continue to comply with water recycling permit requirements for the seawater barrier injection wells, including monitoring well sampling and permit compliance reporting.				Provide Safe and Reliable Groundwater
MEASURE: Complete sampling and reporting requirements	Yes	Yes	Yes	

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 potential projects and the associated impacts over the Central and West Coast Groundwater Basins. Prior to moving forward with a new project, an extensive evaluation is always undertaken. Within the Groundwater Resources Planning Program, new projects and programs are analyzed and evaluated based on benefits to overall basin management. Beyond technical feasibility, this analysis also 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 then 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 projects that increase replenishment resiliency and utilize available groundwater storage. 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.

During the coming year, work under this program will continue to focus on identifying opportunities to utilize available storage, reviewing operational alternatives for the Central and West Coast basins, and full implementation of the District's Water Independence Now, or WIN program. The WIN program is the District's 15-year effort to replace the need for imported water at the three seawater intrusion barriers and spreading grounds for replenishment. Instead, these demands would be met with recycled water – and opportunistic purchases of imported water to increase basin levels and enhance basin resiliency in the face of future droughts. With the WIN program almost complete, WRD is now looking forward toward further increasing local resiliency by expanding replenishment and extraction opportunities within both basins.

Additionally, the District will continue to evaluate projects identified in the CIP. Specifically, funds have been allocated within this program to perform an in-depth evaluation of projects with the goal of increasing the District's competitiveness for grant funding opportunities.

District staff will also continue to monitor and participate in the Greater Los Angeles Integrated Regional Water Management Plan (GLAC IRWMP). The District serves as the co-chair for the GLAC IRWM Lower Los Angeles and San Gabriel Rivers Subcommittee. The District also coordinates the subregion meetings and manages the outreach to subregion members. 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 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.

2018/19 Accomplishments

- 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.
- 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.
- 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.
- Initiated the Regional Brackish Water Reclamation Program Feasibility Study, working with six stakeholders in the West Coast Basin to identify alternatives for remediation and beneficial use of the saline plume.
- Initiated a partnership and planning effort with Los Angeles Department of Water and Power to evaluate alternatives for new replenishment and extraction of local water supplies in the West Coast and Central Groundwater Basins.
- Signed agreements with Las Virgenes Municipal Water District and Orange County Water District to participate in two research and planning efforts that have received Future Supply Actions funding from Metropolitan Water District. These projects both aim to increase operational flexibility in replenishment source water supplies.
- Revised and adopted the District's Five-Year Strategic Plan that identifies the key strategic goals of expanding replenishment opportunities and extraction capacity, maximizing innovation and resiliency, and promoting organizational excellence. The Plan also outlines the programs and projects that the District is undertaking to achieve the Strategic Goals.

2019/20 Objectives

- Complete the Regional Brackish Water Reclamation Program Feasibility Study and work with the Program Stakeholders to select a final project.
- Review and update the District's Five-Year Capital Improvement Program and Five-Year Strategic Plan.
- Continue to attend meetings of the Central and West Basin Water Associations to keep them apprised of ongoing District activities.

- Monitor and apply for any applicable local, State, and Federal grant funding opportunities.
- Continue to manage grant funding received by the District.
- Continue participation in the GLAC IRWM and continue participation as the co-chair of the GLAC IRWM Lower Los Angeles and San Gabriel Rivers Subcommittee.
- Begin role as committee member to three of the Los Angeles County Safe Clean Water Program's Watershed Area Steering Committees.
- Continue to seek out and secure partnership opportunities with other water agencies in research, planning, and operational coordination.

Basis for Changes from 2018/19 Projected to 2019/20 Budget

Professional services increased due to consultant for the new Montebello Forebay permit.

Table 25
Project 005 - GROUNDWATER RESOURCE PLANNING
Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	200,000	275,000	75,000
R&M / Materials / Equipment	-	-	-
Other Expenses	27,000	36,000	9,000
Other General & Administrative	52,000	55,000	3,000
Total	**$279,000**	**$366,000**	**$87,000**

Table 26

GROUNDWATER RESOURCE PLANNING
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 BUDGET	DISTRICT GOAL
1. GOAL: Identify and Initiate studies that arise as a result of the development of the Groundwater Basins Master Plan				Obtain Independence from Imported Water Sources
MEASURE: Proposed capital improvement projects in categories to the needs of the basins	7	7	Under revision	
2. GOAL: # of Capital Projects reviewed and updated in the District's 5-year capital improvement program	29	35	30	Provide Safe and Reliable Groundwater and Obtain Independence from Imported Water Sources
MEASURE: WRD's 5-year capital improvement program reviewed, updated and approved by BOD	Yes	Yes	Yes	
3. GOAL: Continue participation in GLAC IRWM Planning Process for Greater Los Angeles Region				Provide Safe and Reliable Groundwater
MEASURE: Participation in the Greater Los Angeles IRWM Planning Process (GLAC IRWM)	Yes	Yes	Yes	
4. GOAL: Monitor local, State and Federal grant and other funding opportunities and assess applicability to District projects.				Provide Safe and Reliable Groundwater
MEASURE: Total of Funding Opportunities awarded	$229M	$222M	$225M	
5. 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)				Provide Safe and Reliable Groundwater
MEASURE: WRD's grant funding evaluation opportunities	4 DWR Prop 1 Grants, 1 USBR Water Smart	2 DWR Prop 1 1 MWD LRP	2 DWR Prop 1 MWD LRP USBR, USEPA	
6. GOAL: Continue to attend meetings of the Central and West Basin Water Associations to keep them appraised of ongoing District activities				Promote Organizational Excellence
MEASURE: Central and West Basin Water Associations meeting attended	24	24	24	
7. GOAL: Continue to monitor other water agencies and assess the impact of their actions on WRD				Provide Safe and Reliable Groundwater
MEASURE: Number of other water agencies and stakeholders met with	5	10	10	

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 12.0 mgd with the goal to eliminate the use of imported water at the DGB.

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.

2018/19 Accomplishments

- Participated in regular meetings with LABOS, LADWP, and LACDPW to measure treatment plant start-up progress.
- Finalized water purchase agreement with LADWP
- Finalized recycled water use agreement with LACDPW.
- Finalized four party MOU for the Dominguez Gap Barrier Project between LACDPW, LADWP, LABOS and WRD.
- Continued to conduct groundwater monitoring in accordance with the permit requirements.
- Continued to prepare groundwater compliance monitoring reports to provide to project permittees LADWP, LABOS, and LACDPW.

2019/20 Objectives

- Increase recycled water contribution to the DGB.
- Continue to conduct groundwater monitoring and modeling as necessary in accordance with new permit requirements.
- Continue to provide groundwater compliance monitoring data to project permittees LADWP, LABOS, and LACDPW.
- Finalize construction agreement for Second Gap Connection & Potable Backup Projects. Construction is anticipated to begin in 2020.

Basis for Changes from 2018/19 Projected to 2019/20 Budget

There are no significant changes noted.

Table 27

Project 018 - Dominguez Gap Barrier
Recycled Water Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	76,000	75,000	(1,000)
R&M / Materials / Equipment	17,000	39,000	22,000
Other Expenses	7,000	15,000	8,000
Other General & Administrative	83,000	282,000	199,000
Total	**$183,000**	**$411,000**	**$228,000**

Table 28

DOMINGUEZ GAP BARRIER RECYCLED WATER PROJECT
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 BUDGET	DISTRICT GOAL
1. GOAL: Prepare compliance monitoring reports and coordinate 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.

WRD coordinates regular meetings with LACDPW, Metropolitan Water District of Southern California, Sanitation Districts of Los Angeles County (LACSD), 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.

2018/19 Accomplishments

- Continued working cooperatively with the LACDPW, Orange County Water District (OCWD), LACSD, and Long Beach Water Department (LBWD) on the Leo Vander Lans (LVL) Plant Expansion, OCWD Barrier Expansion, and Long Beach Waste Treatment Plant (LBWTP) Multi-year Maintenance Project to provide increased recycled water to the Alamitos Gap Barrier.
- Continued working cooperatively with the LACDPW and West Basin Municipal Water District (WBMWD) to maximize recycled water to the West Coast Basin Barrier.
- Continued working cooperatively with the Los Angeles Department of Water and Power (LADWP), Los Angeles Bureau of Sanitation (LABOS), and LACDPW on the Terminal Island Treatment Plant (TITP) following 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.

2019/20 Objectives

- Work with United States Geological Survey (USGS), United States Army, Corp of Engineers (COE), LACDPW, San Gabriel River Watermaster (SGRWM), and other applicable agencies/stakeholders on enhancement/upgrade of existing surface water gaging stations.

- Work with the LACDPW on the West Coast Basin Barrier expansion project (Unit 13).
- Continue working cooperatively with the LACDPW on an operations plan for the Interconnection Pipeline to maximize its usage to move recycled water.
- Finalize the Montebello Forebay Spreading Grounds Operational Model (MFSGOM) Enhancements project and update the Montebello Forebay Recharge Enhancement Study (MFRES; eMFRES).
- Finalize the Zone 1 Condition Assessment to evaluate the confluence of the Zone 1 Ditch and the Crossover Channel, and the water pathway under Rosemead Blvd., to restore normal water flows to the Rio Hondo on the west side of Rosemead Blvd.
- Continue working cooperatively with the LACDPW on recommendations from the eMFRES.
- Continue working cooperatively with the LADWP, LABOS, and LACDPW on the expanded TITP to provide increased recycled water to the Dominguez Gap Barrier.
- Continue working cooperatively with the LACDPW, OCWD, LACSD, and LBWD on the LVL Plant Expansion follow-up, OCWD Barrier Expansion, and LBWTP Multi-year Maintenance Project to provide increased recycled water to the Alamitos Gap Barrier.
- Continue working cooperatively with the LACDPW and WBMWD to maximize recycled water to the West Coast 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, WRD/LADWP Joint L.A. Basin Replenishment and Extraction Master Plan).
- Continue to provide monthly updates to the WRD Water Resources Committee.

Basis for Changes 2018/19 Projected to 2019/20 Budget

No significant changes noted

Table 29
Project 023 - Replenishment Operations
Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	101,000	102,000	1,000
R&M / Materials / Equipment	24,000	24,000	-
Other Expenses	45,000	49,000	4,000
Other General & Administrative	140,000	187,000	47,000
Total	**$310,000**	**$362,000**	**$52,000**

Table 30A

REPLENISHMENT OPERATIONS
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 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	Maximized Recycled Water in light of TITP start-up and barrier shutdowns			Provide Safe and Reliable Groundwater 100% Recycled Water
MEASURE: Recycled water increased to the Dominguez Gap Barrier		6,500 AF	7,500 AF	
2. GOAL: Continue monitoring groundwater levels at the Rio Hondo and San Gabriel River Spreading Grounds				Provide Safe and Reliable Groundwater, Monitor Water Levels
MEASURE: Continued monitoring groundwater levels at the Rio Hondo and San Gabriel River Spreading Grounds	Yes	Yes	Ongoing; Quarterly Sampling	
3. GOAL: Continue participating in bimonthly meetings with replenishment agencies to maximize groundwater recharge opportunities				Provide Safe and Reliable Groundwater, Maximize Recharge Opportunities
MEASURE: Participation in bimonthly meetings	Yes	Yes	Ongoing; Bimonthly Meetings	
4. GOAL: Continue to evaluate new potential replenishment opportunities (e.g., replenishment water sources, spreading grounds improvements)				Provide Safe and Reliable Groundwater, Continued Development of Replenishment Opportunities
MEASURE: Pumps tested for minimum of five (5) consecutive days	Maximize	Continuing	Continue Evaluating	
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, Evaluate Additional Opportunities to Expand the MFRES Work
MEASURE: % completion GW Flow Model Conversion and Project Documentation	Completed	Phase 2 completed	Phase 2 Testing	

Table 30B

REPLENISHMENT OPERATIONS
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 BUDGET	DISTRICT GOAL
6. GOAL: Testing of Interconnection Pipeline between San Gabriel Coastal Spreading Grounds and Rio Hondo Coastal Spreading Grounds **MEASURE:** Pumps tested for minimum of five (5) consecutive days	Planned	Phase 1 completed	Phase 2 Testing	Provide Safe and Reliable Groundwater, Evaluate Additional Opportunities to Expand the ICP Usage.
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 **MEASURE:** Recycled water increased to the Alamitos Gap Barrier	Maximized Recycled Water in light of LVL start-up and LBWTP shutdowns	2,500 AF	Full operation of LVL to barrier	Provide Safe and Reliable Groundwater, Maximize Recycled Water usage with the LBWTP 6-7 month shutdown
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 **MEASURE:** Recycled water increased to the West Coast Barrier	Maximized Recycled Water	14,500 AF	17,000 AF	Provide Safe and Reliable Groundwater, 100% Recycled Water, New Barrier Wells
9. GOAL: Continue working cooperatively with the LACDPW and LACSD on the Montebello Forebay Spreading Grounds to provide increased recycled water. Goal is 63,000 including 56,000 tertiary and 7,000 ARC water for its first year. **MEASURE:** Recycled water increased recycled water to the Spreading Grounds	Target 63,000 AF	50,000 AF	71,000 AF	Provide Safe and Reliable Groundwater, Maximize Recycled Water Usage and Opportunities at Montebello Forebay Spreading Grounds

ALBERT ROBLES CENTER (ARC)

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.

A corner stone of the WIN program is the Albert Robles Center (ARC), previously Groundwater Replenishment Improvement Program (GRIP). The goal of the ARC 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 (AFY) of recycled water, a locally sustainable water resource. The ARC was instituted to identify new and reliable water supplies for use as replenishment water. The ARC is an Advanced Water Treatment Facility (AWTF) that purifies recycled water from LACSD's San Jose Creek Water Reclamation Plant using ultrafiltration and reverse osmosis followed by disinfection with advanced oxidation (utilizing ultra-violet light and sodium hypochlorite). The highly treated recycled water is 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 ARC AWTF will provide 10,000 AFY of highly treated recycled water. An additional 11,000 AFY 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 construction-related project activities and commissioning the ARC AWTF. Work is estimated to continue until the ARC AWTF is fully operational in Fall 2019.

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.

2018/19 Accomplishments

- Construction of the diversion structure was completed, which allowed tertiary-treated recycled water to be diverted into the plant for advanced treatment.
- Plant commissioning began in Fall 2018, and the ARC AWTF was able to produce advanced treated recycled water by December 2018.

- Since April 2019, advanced treated recycled water produced by the ARC AWTF during plant commissioning has been discharged to the San Gabriel River for groundwater replenishment.
- Installation of the permeable pavement, landscaping, and bioswales were completed in June 2018.
- Solar panels were installed at the site and began generating enough energy to power the entire Administration and Learning Center beginning on July 15, 2019.

2019/20 Objectives

- Complete plant startup and commissioning activities
- Complete construction of ARC AWTF project
- Begin continuous operation of the ARC-AWTF to produce 10,000 AFY of advanced treated recycled water

Basis for Changes from 2018/19 Projected to 2019/20 Budget

ARC is expected to be fully operational in late 2019 and anticipate an increase in O&M cost.

Table 31
Project 033 – ALBERT ROBLES CENTER (ARC)
ARC Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	937,000	2,263,000	1,326,000
R&M / Materials / Equipment	675,000	2,426,000	1,751,000
Other Expenses	1,285,000	3,548,000	2,263,000
Other General & Administrative	320,000	336,000	16,000
Total	**$3,217,000**	**$8,573,000**	**$5,356,000**

Table 32

ALBERT ROBLES CENTER
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 BUDGET	DISTRICT GOAL
1. GOAL: Design & Construction of the ARC				Obtain Independence from Imported Water Sources
MEASURE: Construction Phase of completion of the ARC for Water Recycling and Environmental Learning	30%	95%	100%	
2. GOAL: Funding agreement				Obtain Independence from Imported Water Sources
MEASURE: State Revolving Fund (SRF) funding agreement	20% Funding/	85% Funding Received	Approx. 50% of Reimbursements Remain	
2015 Loan Proceeds	20% Reimb	80% Reimb.		
2018 Loan Proceeds	N/A	NA		
USBR & RMC Grant Funding	N/A	100% Received		
3. GOAL: Construction of three groundwater injection wells.				Provide Safe and Reliable Groundwater
MEASURE: State Revolving Fund (SRF) funding agreement	20% Funding	85% Funding Received	98% Funding Received	Obtain Independence from Imported Water Sources
2015 Loan Proceeds	20% Reimb.	80% Reimb.	100% Reimb.	
2018 Loan Proceeds	Starting	NA	98% Reimb.	
USBR & RMC Grant Funding	Phase	100% Received	NA	

PROJECT 046 WELL CONSTRUCTION PROGRAM

Background

The District developed a new Well Construction and Rehabilitation Loan Program (Program) in 2019 to assist groundwater producers within its service area to increase their groundwater pumping capabilities. This Program will improve the producers' ability to utilize their full groundwater extraction rights and reduce their need for imported water. The Program will provide 10-year, zero percent interest loans, up-front capital, and expert assistance with the design, construction, and implementation of new production wells and well rehabilitation projects.

2018/19 Accomplishments

The program was initiated in 2019. The Board then selected two candidates for the Program, including City of Vernon and City of Signal Hill. WRD has have signed an agreement with Vernon and are in the process of completing the one with Signal Hill. Create a reserve fund policy that hold funds for additional wells.

2019/20 Objectives

- Have agreements from both candidates completed and initiate the start of both projects
- Initiate the second round of applications for the Program.

Basis for Changes 2018/19 Projected to 2019/20 Budget

This program was initiated in 2019/20 and has no changes to the prior year.

Table 33
Project 046 - WELL CONSTRUCTION PROGRAM
Program Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	$ -	822,000	822,000
R&M / Materials / Equipment	$ -	$ -	$ -
Other Expenses	$ -	$ -	$ -
Other General & Administrative	$ -	195,000	195,000
Total	**$ -**	**$1,017,000**	**$1,017,000**

Table 34

Project 046 - WELL CONSTRUCTION PROGRAM
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 BUDGET	DISTRICT GOAL
1. GOAL:				
1.Development of the Loan Program				
MEASURE:				
Prospective Candidates				
City of Vernon	N/A	N/A	Application in process	
City of Signal Hill	N/A	N/A	In Process	

Clean Water Projects & Programs

Clean Water Projects & 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 expanded 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 were completed in FY2017/18.

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

2018/19 Accomplishments

- Executed contracts directly with vendors for the supply and delivery of chemicals to ensure price consistency and stability across all WRD facilities
- Implemented a Computerized Maintenance Management System (CMMS) to improve tracking and management of O&M activities.
- Rehabilitated the high pressure pump feed pump associated with the original reverse osmosis train.
- Obtained approval for the Operations Optimization Plan (OOP) submitted to the Los Angeles Regional Water Quality Control Board (LARWQCB).

2019/20 Objectives

- Rehabilitation of the City Yard and Delthorne Park Wells to regain lost capacity resulting from normal clogging.
- Conduct pilot testing to investigate the efficacy of a new reverse osmosis (RO) membrane cleaning chemical with the potential to improve RO system performance.
- Perform a comprehensive facility condition assessment and utilize findings to develop a proactive repair and rehabilitation program to address assets approaching the end of useful life.

Basis for Changes 2018/19 Projected to 2019/20 Budget

Due to the expansion of the Goldsworthy Desalter, there are cost increases to chemical expenses used during processing, materials and equipment usage, increased electrical costs and general repairs and maintenance.

Table 35
Project 002 - GOLDSWORTHY DESALTER
Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	286,000	607,000	321,000
R&M / Materials / Equipment	46,000	1,021,000	975,000
Other Expenses	625,000	1,361,000	736,000
Other General & Administrative	30,000	97,000	67,000
Total	**$987,000**	**$3,086,000**	**$2,099,000**

Table 36
GOLDSWORTHY DESALTER
Performance Measures
Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 BUDGET	DISTRICT GOAL
1. 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.	1000 AF	1600 AF	4300 AF	
2. GOAL: Permit Compliance for Water Quality Measure				Provide Safe and Reliable Groundwater
MEASURE: Sample for water quality and report to State regulatory agency	Yes	Yes	Planned	

PROJECT 006 WATER 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.

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.

2018/19 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 implement a groundwater cleanup project using grant funds received from the State Water Resources Control Board (SWRCB). The grant funds will be used to investigate and remediate a perchlorate "hot spot" and other commingled contaminant including 1,4-Dioxane and volatile organic compounds (VOCs) in the Los Angeles Forebay. The State is covering a majority of the costs with Proposition 1 grant funding in the amount of $7,171,088 (or ~80%). WRD will be providing matching funds in the amount of $1,922,811 (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):
    - Continue to participate in a group discussion for two fringe areas in the unadjudicated 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 (LADWP).
    - Central basin was reclassified as a "very low" priority basin by the Department of Water Resources (DWR). This action allowed the stakeholder group to withdraw an "alternative analysis" previously submitted to the DWR. Thus, no action is currently required to comply with SGMA.

- 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 "Priority Ranking System used to Evaluate Contamination Potential in a Large Groundwater Basin" at the Water Education Seminar / American Water Works Association (WES / AWWA).
- Provided groundwater contamination updates at the administrative committee and board of director meetings of the Southeast Water Coalition (SEWC) and at a city council meeting for the City of South Gate.
- Presented "Groundwater Contamination Related Programs and Regional Groundwater Monitoring Program" to board members of the LARWQCB.
- Published an article entitled "At the Root: Operating a Groundwater Contamination Prevention Program While Keeping Tabs on High Priority Sites" in a quarterly magazine prepared by AWWA (Winter 2019).
- Presented on "Chemicals of Emerging Concern – Central Basin and West Coast Basin" at the Association of Ground Water Agencies / American Ground Water Trust (AGWA/AGWT) and a water quality colloquium sponsored by the Chino Basin Watermaster.
- Presented on "Monitoring Constituents of Emerging Concern during Recharge Operations" at the American Water Resources Association (AWRA).
- Continue to participate in various environmental justice events including the 5th Annual Environmental Health & Enforcement Symposium and the "Your Life is Now" event sponsored by California Safe Schools.
- WRD staff continue to track the progress of and provide updates to various pumpers regarding various perfluorinated compounds (an emerging chemical of concern) including perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA).
- WRD and the LARWQCB signed an MOU to work collaboratively on mutually selected sites and/or areas to evaluate groundwater contamination or threat of contamination to the Basin. The MOU may help to identify other "high priority" sites and possible identification of groundwater remediation projects that could be partially funded by a grant program such as Proposition 1. Quarterly meetings are held between the WRD and LARWQCB.

2019/20 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.
- Continue groundwater remediation efforts with grant funds being administered by Prop 1. Pursue additional groundwater cleanup projects with available grant funds related to Prop 1.

Basis for Changes 2018/19 Projected to 2019/20 Budget

Professional services increased for Vernon Perchlorate Hot Spot Program. Increase in Other Expenses are due to fees assessed by the Department of Toxic Substances Control (DTSC) related to the Vernon Hot Spot.

Table 37
Project 006 - GROUNDWATER QUALITY IMPROVEMENT
Program Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	148,000	277,000	129,000
R&M / Materials / Equipment	$ -	32,000	32,000
Other Expenses	73,000	76,000	3,000
Other General & Administrative	151,000	230,000	79,000
Total	**$372,000**	**$615,000**	**$243,000**

Table 38A

GROUNDWATER QUALITY IMPROVEMENT PROGRAM
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 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	

Table 38B

GROUNDWATER QUALITY IMPROVEMENT PROGRAM
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 BUDGET	DISTRICT GOAL
5. GOAL: Monitor potential impacts of pending legislation and regulations on drinking water quality **MEASURE:** Monthly review of pending water quality activities and reporting to Groundwater Quality Committee	Yes	Yes	Yes	Provide Safe and Reliable Groundwater
6. GOAL: Conduct the annual groundwater quality workshop for local water purveyors to promote professional learning and networking **MEASURE:** Hold Workshop	Yes	Yes	Yes	Promote Organizational Excellence and also to Advance Groundwater Awareness
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.	Commenced	Ongoing	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.

Another component of the program offers no-interest loans for secondary 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.

As an extension of the District's Safe Drinking Water Program, the District also offers the Safe Drinking Water Disadvantage Communities (DAC) 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 application efforts 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 eleven (11) water systems participating in the program and receiving assistance and four systems have already received state funding and one project is currently under construction using state funding.

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 entirely from the Clean Water Fund.

2018/19 Accomplishments

- Completed design and began construction on Granular Activated Carbon (GAC) treatment system for Huntington Park Well 15 to treat VOCs.
- Completed design and began construction on GAC treatment system for City of Lynwood Well 11 to treat VOCs.
- Completed design and began construction on GAC treatment system for California American Water Arlington Well to treat VOCs.

2019/20 Objectives

- Complete construction on Granular Activated Carbon (GAC) treatment system for Huntington Park Well 15 to treat VOCs.
- Complete construction on GAC treatment system for City of Lynwood Well 11 to treat VOCs.
- Complete construction on GAC treatment system for California American Water Arlington Well to treat VOCs.
- Complete construction on Maywood Mutual Water No. 2 Well 1 for Iron/ Manganese treatment.
- Pursue DAC grant funding for the current water system DAC participants

Basis for Changes 2018/19 Projected to 2019/20 Budget

- Increase to this program is based on planning and designing services for the two Safe Drinking Water projects and on-call engineering service for the Disadvantage Community (DAC) projects.

Table 39

Project 012 - Safe Drinking Water Program
Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	1,219,000	1,315,000	96,000
R&M / Materials / Equipment	-	-	-
Other Expenses	12,000	14,000	2,000
Other General & Administrative	138,000	145,000	7,000
Total	**$1,369,000**	**$1,474,000**	**$105,000**

Table 40

SAFE DRINKING WATER PROGRAM
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY 2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 BUDGET	DISTRICT GOAL
1. GOAL: Identify projects and fund up to $1M from a WRD Grant to assist candidates with primary priority contamination removal through the Safe Drinking Water Program				Provide Safe and Reliable Groundwater
MEASURE: # of projects funded to provide assistance to candidates with primary priority contamination removal.	3 (Grant)	3 (Grant)	3 (Grant)	
2. GOAL: Identify projects and fund up to $1M from a WRD loan to assist candidates with secondary priority contamination removal through the Safe Drinking Water Program				Provide Safe and Reliable Groundwater
MEASURE: # of projects funded to provide assistance to candidates with secondary priority contamination removal.	2 (Grant)	0 (Grant)	1 (Grant)	
3. GOAL: Identify projects and funding from local, state, and federal grant programs to assist candidates with primary or secondary priority contamination removal through the Safe Drinking Water Disadvantaged Community Program				Provide Safe and Reliable Groundwater
MEASURE: # of DAC projects funded to provide assistance to candidates with primary or secondary priority contamination removal	7 (DAC)	2 (DAC)	4 (DAC)	

PROJECT 038 ENGINEERING PROGRAM

Background

The Engineering Department provides technical, engineering, program management, and hands on support on capital improvement projects ranging from concept development through engineering design, project management and construction inspections. The engineering department is also responsible for developing, updating, and managing the capital improvement program (CIP) and its related projects. The engineering department prepares and/or oversees the preparation plans, specifications and engineer's estimates of probable construction costs (PS&E's), or creates request for proposals/qualifications (RFPs/RFQs) for professional engineering consultation and construction management services depending on the size and specific needs of the project.

This engineering department receives and reviews public bids and provides recommendations to various committees and the Board of Directors to award contracts. The engineering department also applies, secures, and administers/manages grants from various, Federal, State, and Local organizations to supplement funds allocated by WRD.

The engineering department also provides (oversees) project planning and environmental review/entitlement services for its CIP projects. The engineering department monitors construction work in progress, reviews/approves progress pay estimates, and provides quality assurance/control oversight services on approved development projects to ensure compliance with Board goals and objectives.

The Engineering Program is intended to provide a mechanism for engineering staff to plan and further develop alternatives for potential capital improvement projects. Not all CIP project concepts develop into multi-year capital improvement program projects, and more often than not require many months of advanced planning and concept development before being capitalized. The Engineering Program deals primarily with replenishment issues and therefore its costs are borne by the Replenishment Fund until such time as alternative capital improvement program funding is identified.

2018/19 Accomplishments

- Updated the 5-year CIP Plan
- Implemented on-call engineering and construction management service program

2019/20 Objectives

- Develop a Capital Improvement Project Prioritization Process
- Update and maintain standard specifications and drawings
- Update the 5-year CIP Plan

Basis for Changes 2018/19 Projected to 2019/20 Budget

No significant changes noted.

Table 41

Project 038 – Engineering Program
Program Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	6,000	8,000	2,000
R&M / Materials / Equipment	-	-	-
Other Expenses	40,000	40,000	-
Other General & Administrative	311,000	327,000	16,000
Total	**$357,000**	**$375,000**	**$18,000**

Table 42

ENGINEERING PROGRAM
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 BUDGET	DISTRICT GOAL
1. GOAL: Develop a Capital Improvement Project Prioritization Process				
MEASURE: Allocate financial and human resources based on adopted prioritization process..	N/A	N/A	In progress	
2. GOAL: Update the 5-year CIP budget.				
MEASURE: 5-year CIP budget to be finalized and approved.	In progress	Completed	In progress	

Dual Purpose Projects & Programs

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.

GIS, in conjunction with the regional groundwater model, is used to provide better planning and basin management. The system is used to organize, store, and access spatial information and accompanying datasets, 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 website provides users with access to WRD's data on wells in its service area, including water quality and water levels. The web-based application is continually updated to 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 new geospatial applications and add features to existing ones. 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.

2018/2019 Accomplishments

- Launched a new Interactive Well Search Tool on a modern software platform, replacing the previous version running on legacy software
- Launched the WRD GIS Hub, which serves as a publicly accessible landing page for obtaining GIS maps, data, and access to related properties such as the Interactive Well Search Tool
- Expanded data web service capabilities, including breaking ground on an inter-agency collaboration with the Los Angeles Department of Water and Power

- Began preparing data web services for a collaboration with the United States Geological Survey (USGS) on their National Groundwater Monitoring Network (NGWMN), contributing data on 17 wells within the District's jurisdiction to a larger national dataset.
- Completed the spatial data and asset registry components of the Computerized Maintenance Management System (CMMS) at the Leo J. Vander Lans Advanced Water Treatment Facility
- Participated in the migration of the District's water data from Microsoft Access to Microsoft SQL Server, dramatically improving data robustness and access speed
- Continued comprehensive review of existing datasets and quality assurance measures to ensure continued data integrity.
- Utilized GIS for development of annual values used in ESR.
- Performed analyses and developed graphics for use in the District's Regional Groundwater monitoring Report (RGWMR).
- Worked with WRD Staff to assess and implement GIS support for new and ongoing projects.
- Provided graphics and analyses results, as needed, for District presentation, reports, and public outreach materials.
- Participated in regional and international GIS user groups and conferences.

2019/2020 Objectives

1. Continue developing new features to improve the District's online Interactive Well Search Tool
2. Develop in-house applications for WRD Staff to easily access GIS layers and well/water data
3. Work with WRD staff to design and develop Esri Story Maps for use in educational, promotional, and presentation materials.
4. Continue comprehensive review of existing datasets and quality assurance measures to ensure continued data integrity.
5. Develop relationships with GIS staff in other, local water agencies with goal of sharing data.

6. Utilize GIS for development of annual values used in ESR.
7. Perform analyses and develop graphics for use in the District's Regional Groundwater monitoring Report (RGWMR).
8. Continue participation in the District's CMMS and Asset Management system development and deployment for other facilities
9. Work with WRD Staff to assess and implement GIS support for new and ongoing projects
10. Provide graphics and analyses results, as needed, for District presentation, reports, and public outreach materials
11. Participate in regional and international GIS user groups and conferences.
12. Implement 3D technologies for visualization of District data

Basis for Changes 2018/19 Projected to 2019/20 Budget

Decrease due to reallocation of staff time

Table 43
Project 010 - Geographic Information Systems (GIS)
Program Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	59,000	100,000	41,000
R&M / Materials / Equipment	-	-	-
Other Expenses	34,000	65,000	31,000
Other General & Administrative	90,000	1,000	<89,000>
Total	$183,000	$166,000	$(17,000)

Table 44A

GEOGRAPHIC INFORMATION SYSTEMS
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 BUDGET	DISTRICT GOAL
1. GOAL: Complete replacement for outdated online Interactive Well Search Tool and develop an in-house application for WRD Staff to easily access GIS layers and well/water data.				Provide Safe and Reliable Groundwater
MEASURE: Complete report development and user interface design. Use well search application as base for additional applications.	Yes	Yes	N/A; goal complete	
2. GOAL: Work with WRD staff to design and develop Esri Story Maps for use in educational, promotional, and presentation materials.				Provide Safe and Reliable Groundwater
MEASURE: Participate in regular meetings with Public Relations Staff to develop design and concepts	N/A	Yes	Yes	
3. GOAL: Continue comprehensive review of existing datasets and quality assurance measures to ensure continued data integrity.				Provide Safe and Reliable Groundwater
MEASURE: Perform ongoing comprehensive review of existing datasets to ensure continued data integrity.	Yes	Yes	Yes	
4. 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.				Provide Safe and Reliable Groundwater
MEASURE: Migrate existing file geodatabases to SQL Server SDE format	Yes	Yes	Yes	
5. GOAL: Develop relationships with GIS staff in other, local water agencies with goal of sharing data in order to secure the most accurate data for WRD				Provide Safe and Reliable Groundwater
MEASURE: Attend local GIS Water user group meetings and develop contacts	N/A	Yes	Yes	
6. GOAL: Ensure full integration of GIS for presentations and analysis				Provide Safe and Reliable Groundwater
MEASURE: 100% integration	100%	100%	Yes	

Table 44B

GEOGRAPHIC INFORMATION SYSTEMS
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

7. GOAL: Utilize GIS for development of annual overdraft values used in the ESR **MEASURE:** Utilized GIS in developing annual overdraft values used in the ESR	Yes	Yes	Yes	Provide Safe and Reliable Groundwater
8. GOAL: Perform analyses and develop graphics for use in the District's Regional Groundwater Monitoring Report (RGWMR). **MEASURE:** Using groundwater elevation data, perform spatial analyses to generate data for the RGWMR. Generate graphics used in the report	Yes	Yes	Yes	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	Yes	Yes	Provide Safe and Reliable Groundwater and also to Promote Organizational Excellence
10. GOAL: Work with WRD staff to assess and implement GIS support for new and ongoing projects. **MEASURE:** Participate in regular meetings with staff to solicit ideas and aid in project design	Yes	Yes	Yes	Provide Safe and Reliable Groundwater and also to Promote Organizational Excellence
11. GOAL: Provide graphics and analyses results, as needed, for District presentation, reports, and public outreach materials. **MEASURE:** Work with all departments to prepare accurate, cartographically appealing maps and data for reports, presentations, and public outreach materials.	Yes	Yes	Yes	Provide Safe and Reliable Groundwater and also to Promote Organizational Excellence
12. GOAL: Participate in regional and international GIS user groups and conferences **MEASURE:** Attend user groups and conferences pertinent to WRD GIS goals.	Yes	Yes	Yes	Provide Safe and Reliable Groundwater and also to Promote Organizational Excellence
13. 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	Yes	Yes	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.

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 hydrogeologic 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.

2018/2019 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 2017/18.
- 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.
- Grant funding became available for a National Groundwater Monitoring Program through the USGS. WRD Staff secured funding and signed contract for National Groundwater Monitoring Network.

- 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.
- Installed a new deep nested monitoring well known as LA#6 with USGS.
- Performed extensive data logger testing, maintenance and repairs.

2019/2020 Objectives

- Drill and install two new deep nested monitoring well with USGS 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.
- Identify other potential Grant opportunities for the National Groundwater Monitoring Network

Basis for Changes 2018/19 Projected to 2019/20 Budget

Anticipate a 4% increase in Rent and Leases for District material, equipment and vehicle for sampling. Reallocation of staff labor hours due to sampling demands.

Table 45

Project 011 - REGIONAL GROUNDWATER MONITORING
Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	489,000	494,000	5,000
R&M / Materials / Equipment	114,000	130,000	16,000
Other Expenses	123,000	158,000	35,000
Other General & Administrative	311,000	333,000	22,000
Total	**$1,037,000**	**$1,115,000**	**$78,000**

Table 46

REGIONAL GROUNDWATER MONITORING
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 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	Yes	Yes	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	Yes	Yes	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	2	2	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%	100%	
5. GOAL: Publish and share data collected for this program in the annual Regional Groundwater Monitoring Report and WRD Web sites				Provide Safe and Reliable Groundwater, Promote Organizational Excellence, and Advance Groundwater Awareness
MEASURE: Publish the annual Regional Groundwater Monitoring Report summarizing groundwater data from monitoring wells and production wells in the Central and West Coast Basins	Yes	Yes	Yes	
6. GOAL Continue to collect and report CBWCB groundwater level data to the CASGEM program				Provide Safe and Reliable Groundwater
MEASURE: Collected and reported CBWCB groundwater level data to the CASGEM program	Yes	Yes	Yes	
7. GOAL Drill and install two more nested monitoring wells in data gap areas with USGS				Provide Safe and Reliable Groundwater
MEASURE: Install two more monitoring wells	Yes	Yes	Yes	
8. GOAL Identify other potential grant opportunities for the National Groundwater Monitoring Network program				Provide Safe and Reliable Groundwater
MEASURE: Secure Grant funding and signed contract for the National Groundwater Monitoring Network		Yes	Yes	

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, 3D aquifer imaging, 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.

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. 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 preparation of the Cost of Service Report, saline plume evaluation and modeling, analysis of optimum and minimum groundwater quantities, and groundwater tracer investigations.

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.

2018/2019 Accomplishments

- Preparation of the 2019 Engineering Survey and Report leading to the adoption of the 2019/2020 Replenishment Assessment.
- Preparation of the 2019 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 2019/2020 Replenishment Assessment.
- Significant progress with USGS to finalize the regional groundwater computer model. Updated 3-D sequence stratigraphic framework and incorporation into EarthVision and Leapfrog software. Implemented future management runs. Finalized Draft Reports.
- Presentation of technical materials and papers at groundwater conferences.
- Completed modeling for MWD on recycled water supply from Carson Joint Plant.
- Utilized on-call modeling services for saline plume evaluations and injection wells at Leo J. Vander Lans advanced water treatment facility.

2019/2020 Objectives

- Completion of 2020 Engineering Survey and Report.
- Completion of 2020 Cost of Service Report
- Complete the USGS Modflow groundwater computer model, publish the final report, and convert the model to Modflow 6.
- Publish and present technical papers at conferences.
- Continue well profiling program.
- Assist groundwater purveyors on data needs for new production wells.
- Complete modeling for brackish groundwater investigation and Vander Lans facility.

Basis for Changes 2018/19 Projected to 2019/20 Budget

Increase in professional consulting services for Well Profiling and Brackish water activities and increase costs for laboratory services and the 5-year plan update.

Table 47
Project 025 - Hydrogeology Program
Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	485,000	766,000	281,000
R&M / Materials / Equipment	22,000	34,000	12,000
Other Expenses	78,000	208,000	130,000
Other General & Administrative	219,000	310,000	91,000
Total	**$804,000**	**$1,318,000**	**$514,000**

Table 48

HYDROGEOLOGY PROGRAM
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 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	90%	100%	Update model	
4. GOAL: Present technical materials and papers at groundwater conferences				Promote Organizational Excellence and Advance Groundwater Awareness
MEASURE: Staff to make presentations at conferences	Yes	Yes	Yes	
5. GOAL: Complete SGMA Compliance Documents				Provide Safe and Reliable Groundwater
MEASURE: Complete SGMA Compliance Documents	Yes	Yes	Not applicable	
6. GOAL: Continue well profiling program				Provide Safe and Reliable Groundwater
MEASURE: Perform profiling of water wells	Yes	Yes	Yes	
7. GOAL: Complete Recycled Water Modeling for MWD, Saline Plume, and Vander Lans Injection Wells				Provide Safe and Reliable Groundwater
MEASURE: Complete Recycled Water Modeling for MWD, Saline Plume, and Vander Lans Injection Wells	N/A	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, other media.

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, as well as recycled water production and use. 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, and awareness of, water.

The External Affairs department is tasked with the mission of leading the education and outreach programs for the District—with particular attention to the Water Independence Now (WIN) Program and the WIN 4 ALL Program—through presentations at conferences, conventions, and regional community events. These programs encapsulate WRD's core projects that are helping the region to become independent of imported water.

Conference and convention outreach participation includes 24 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 its classroom and auditorium presentation program reached nearly 19,000 students throughout the WRD service area in the 2018-19 school year. Alongside classroom visits, the External Affairs staff have hosted school field trips to WRD facilities such as the Leo J. Vander Lans Advanced Water Treatment Facility, the Albert Robles Center, and the WRD Main Office.

The 12th annual Groundwater Festival drew upwards of 3,000 attendees who had the opportunity to learn about the different facets of WRD's work including the Engineering Department's water treatment projects and the Hydrogeology Department's monitoring duties. The environmentally-focused, STEAM-promoting festival educated attendees about water topics while honoring water advocates from the community.

2018/2019 Accomplishments

- WRD-Hosted Events WRD-hosted events have a reputation for being well-attended by community leaders, elected officials, and relevant industry stakeholders, while being inviting and accessible to the public. WRD External Affairs staff was responsible for coordinating and facilitating ten (10) events throughout the year for audiences that total more than 3,000 people.

  - Highlights include the 12th Annual Groundwater Festival, two groundbreaking events for well improvement projects, three community updates about the ARC construction site, and hosting the two-day long Department of Water Resources Water Education Committee winter meeting.

- Tours The External Affairs team hosted and facilitated eleven (11) tours of WRD facilities through the fiscal year for a diverse set of groups that included domestic and international stakeholders, government regulators, elected officials, and students from high schools and universities.

  - Highlights include tours of ARC members of Congress, staff from the US Bureau of Reclamation and the State Water Resource Control Board.

  - Featured as a Technical Tour for the CA WateReuse Conference.

- Community & Chamber of Commerce Events As a member of over 50 chambers of commerce and non-profit organizations, WRD participates as a sponsor, a speaker, or an attendee of many local community events throughout the year. Through the last fiscal year, WRD participated in one of these capacities at over 60 community events.

- Conferences & Awards External Affairs staff attended 24 conferences as either a WRD exhibitor, a presenter, or as support staff for other WRD presenters. WRD has been invited to join conferences as awardees selected by the hosting agencies' award committees. WRD won 2 prestigious awards this year, including the CA WateReuse Agency of the Year Award and the AWWA Public Communications Achievement Award.

- Presentations WRD Board Members and staff are often invited to present at conferences, City Council meetings, workshops, and even to testify before a Congressional Committee on the importance of recycled water projects. External Affairs staff either spoke at, or supported the presenter at ten (10) presentations.

- Community & Education Programs External Affairs staff run ongoing community and education programs that reached tens of thousands of students and community members throughout the year. This year, the education team began work on crafting the ARC Education Program which will provide free field trips to ARC for students in the WRD service area.
  - Hosted 17 Eco Gardener Classes in diverse locations throughout the District.
  - Received over 1,200 art submissions for the Annual Calendar Contest Program.
  - Reached over 18,000 students through classroom and auditorium water education presentations.
- Web and Media External Affairs collaborated with other departments to make the WRD webpage appealing, accessible and informative. WRD social media accounts were safeguarded against potential threats through the implementation of a social media policy and archiving service. The tri-annual newsletter reached over 300,000 people through print and online distribution.
- ARC Education Center Special projects such as the ARC indoor and outdoor educational exhibits continued this year with External Affairs staff managing the progress by:
  - Procuring a contract for outdoor educational and wayfinding signage fabrication.
  - Overseeing 3 contractors and finalizing content for 40 indoor exhibits and 10 outdoor educational signs.

2019/2020 Objectives

- Host the Grand Opening of the Albert Robles Center for Advanced Water Treatment and Environmental Learning
- Continue to expand existing social media platforms
- Expand outreach and educational opportunities at the Albert Robles Center
- Increase the number of students WRD can educate through our water education programs
- Begin WRD's pilot program for school field trips to the ARC Center
- Deliver 5 technical presentations at industry conferences
- Seek earned media opportunities for the Grand Opening

Basis for Changes 2018/19 Projected to 2019/20 Budget

Anticipate an increase in printing and office expenses due to the increase in the District's Water Education and Outreach activities.

Table 49

Project EAE – Water Education & Outreach
Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	145,000	65,000	(80,000)
R&M / Materials / Equipment	12,000	5,000	(7,000)
Other Expenses	528,000	723,000	195,000
Other General & Administrative	284,000	298,000	14,000
Total	**$969,000**	**$1,091,000**	**$122,000**

Table 50A

WATER EDUCATION
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 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	9	9	15	
2. GOAL: Host Annual Groundwater Festival as an on-going Groundwater Awareness effort				Promote Groundwater Awareness
MEASURE: Number of Groundwater Festivals hosted	11th	12th	13th	
3. GOAL: Social Media outreach efforts				Advance Groundwater Awareness
MEASURE:				
Number of social media platforms	6	6	6	
Number of social media posts	780	650	800	
Number of followers	8,820	9,020	10.000	
4. GOAL: To assist on the Albert Robles Center (ARC) related outreach contracts and the Visitor Center unveiling				Promote the District's Albert Robles Center
MEASURE:				
Number of ARC related outreach contracts assisted	4	6	1	
Unveiling of ARC	Complete	Complete	Complete	
Timeline for ARC Groundbreaking	In progress	Complete	Complete	

Table 50B

WATER EDUCATION
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

5. GOAL: To assist on the ARC related outreach tasks				Advance the District's Albert Robles Center
MEASURE:				
Assistance with the following tasks:				
# of media materials and newsletter for ARC :				
Updated Tri-fold for ARC	1,000	3,140	500	
Award Summary Sheet for ARC	1,000	500	500	
Construction "Door hangers" for ARC	3,500	3,100	0	
Construction Notices/Letters for ARC	7,000	3,000	0	
Lead successful groundbreaking ceremony for ARC	2	Complete	Complete	
Number of support letters for ARC from public officials and environmental interest groups	15	20	Complete	
Number of times ARC was marketed at public events	200	200	200	
6. GOAL: Initiative to expand its groundwater educational programs with WIN				Advance the District's WIN Program
MEASURE: Number of presentations and educational videos				
Number of presentations at conferences and conventions	15	24	30	
Number of new videos created for presentation	55	30	25	
7. GOAL: Increase presence at community events for WIN Project				Advance Public Awareness of Groundwater management
MEASURE: Number of school events attended including school nights, science fairs, presentations, career days, etc.	40	40	60	
Number of earth day events attended	8	8	10	
Number of media materials developed:				
Goldsworthy Tri-fold	1,000	540	600	
Win Tri-fold	500	540	600	
Cut Sheets for media packets	10,000	10,000	10,000	
Large print renderings	30	25	30	

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. Through custom WRD conservation programs that have long term conservation achievements, stakeholders are on track to meet 20% by 2020. 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 External Affairs Department expanded the number of Eco Gardener classes for the public. This past year WRD conducted 17 Eco Gardener courses throughout the service area, half of which featured a new outdoors component where participants had the opportunity to analyze the resources used for the host location's landscaping. WRD continued to partner with public agencies to enhance water conservation awareness to the general public as well as non-profit organizations, chambers of commerce and educational institutions through special events and workshops.

2018/2019 Accomplishments

- Hosted 17 Eco Gardener Classes in diverse locations throughout the District
- Received over 1,200 art submissions for the Annual Calendar Contest Program which asks students to submit artwork that portrays and promotes water conservation
- Expanded conservation partnerships with local organizations including libraries and historical sites
- Improved Eco-Gardener curriculum and streamlined content for individualized classes

2019/2020 Objectives

- Continue to expand conservation partnerships with the cities and schools
- Develop an Eco-Gardener program focused on the Albert Robles Center
- Expand Conservation outreach at community events and work with local elected officials to spread conservation message

Basis for Changes 2018/19 Projected to 2019/20 Budget

Increase in staff labor for Water Conservation activities.

Table 51

Project EAC - Water Conservation
Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	80,000	65,000	(15,000)
R&M / Materials / Equipment	-	-	-
Other Expenses	347,000	296,000	(51,000)
Other General & Administrative	20,000	138,000	118,000
Total	**$447,000**	**$499,000**	**$52,000**

Table 52

WATER CONSERVATION
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 BUDGET	DISTRICT GOAL
1. GOAL: Efforts in water conservation in-line with Governor Brown's state-wide mandatory water restrictions				Advance Groundwater Awareness
MEASURE: Number ECO-Gardening Classes hosted	6	17	25	
Number of Eco-Gardening Class attendees	Average 50 per class	Average 50 per class	50 per class	
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	Participated	Participated	Continue Participation	
Co-Sponsorship Participation in Water-Use Efficiency Programs with West Basin Municipal Water District	Participated	Participated	Continue Participation	
3. GOAL: Broaden ECO-Gardener education opportunities for the public				Expand Conservation Awareness
MEASURE: Develop a series of education videos	Yes	Yes	Yes	
Use of social media for ECO-Gardening Education	8 posts	13 posts	20 posts	

General Administration Department

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.

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.

2018/19 Accomplishments
See President's Message

2019/20 Objectives
See President's Message

Basis for Changes 2018/19 Projected to 2019/20 Budget
No significant changes noted.

Table 53
BOARD OF DIRECTORS
Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	-	-	-
R&M / Materials / Equipment	-	-	-
Other Expenses	102,000	146,000	44,000
Other General & Administrative	298,000	313,000	15,000
Total	**$400,000**	**$459,000**	**$59,000**

ADMINISTRATION AND HUMAN RESOURCES

Background

The Administration and Human Resources Department is responsible for ensuring the delivery of core District administrative functions through innovative technology driven solutions. The department's core areas of operation are Data and Technology Services, Administration and Board Support, Human Resources and Risk Management, Procurement and Contract Management, and Building Maintenance.

Highlight of 2018/2019 Accomplishments

- Combined District information assets into a common outlet called the WRD Portal
- Changed the Agenda and Agenda Packet development process, including development of an online form to process agenda items using only a web browser
- Insourced recruitment of part-time staff from various temporary agencies
- On-boarded two (2) fulltime staff persons: Engineer, Office Assistant
- On-boarded five (5) part-time staff persons: Intern (5)
- Made significant progress on the WRD Procurement Manual
- Made significant progress on a new WRD Employee Handbook
- Completed two (2) updates to the Administrative Code

2019/20 Department Objectives

- Improve Internal Services Department staff coordination and efficiency through shared goal setting.
- Better coordinate delivery of internal business services (mail delivery, document automation, retention and archival, and office management).
- Finalize Employee Handbook
- Finalize procurement manual
- Ensure appropriate information technology and architecture support to all WRD administrative office and off-site facilities.
- Continue managing the Employee Relations Program
- Improve agency-wide coordination of large procurements, including implementation of an Electronic Procurement System.

Basis for Changes 2018/19 Projected to 2019/20 Budget

Decrease in professional services due to decrease in litigation expenses.

Table 54
ADMINISTRATION
Budget Summary

EXPENSE CATEGORY	2018/19 Projection	2019/20 Adopted Budget	19/20 Budget compared to 18/19 Projection
Professional Services	2,741,000	1,127,000	(1,614,000)
R&M / Materials / Equipment	1,011,000	720,000	(291,000)
Other Expenses	1,102,000	1,140,000	38,000
Other General & Administrative	2,260,000	1,941,000	(319,000)
Total	**$7,114,000**	**$4,928,000**	**($2,186,000)**

Table 55A
ADMINISTRATION
Performance Measures
Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

	FY 2017/18 ACTUAL	FY 2018/19 ACTUAL	FY 2019/20 BUDGET	DISTRICT GOAL
1. GOAL: Create, maintain and develop a highly qualified, professional, diverse and responsive workforce; including development of the Operations Branch				Promote Organizational Excellence
MEASURE:				
a. Restructuring of the District Organization Chart in total staff	39	44	44	
b. Restructuring of the District Organization Chart in Department Lead Positions	2			
2. GOAL: Promote a safe, healthy and supportive work environment for all employees.				Promote Organizational Excellence
MEASURE:				
a. Implement the Employee Relations Program (ERP) through safety audit, field safety, ergonomics evaluation, team building, employee appreciation events & All hands meetings	80% of programs implemented	90% of programs should be implemented	100% of programs completed	
3. GOAL: Provide excellent Board and record-keeping of Board Actions				Promote Organizational Excellence
MEASURE:				
a. Agenda Automation	40% implemented	80%	Full Implementation in FY 2020	

Table 55B

ADMINISTRATION
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

4. GOAL: Carry out the goals of the Information Management Master Plan; centralize all data information from all District facilities.				Promote Organizational Excellence
MEASURE:				
a. Complete 2018/19 phases of the Information Management Master Plan.	40%	80%	100%	
b. Separate Components of the IMMP;				
SCADA Automation	75%	100%		
CMMS Automation	25%	80%	100%	
ASSETIC (Projection Model)	0	100%		
CIS (Centralize Information System)	25%	100%		
5. GOAL: Provide procurement support to all District staff based on best practices and fiscal sustainability.				Promote Organizational Excellence
MEASURE:				
a. Staff training on best practices in public procurement.	0	2 staff training	4 staff training over the course of the Fiscal Year	
b. Implement process improvement towards centralized procurement	None	In progress	Done by one staff	
c. Oversee the preparation and monitoring of contracts	Yes	Done by one staff	Done by one staff	
d. Seek an Achievement of Excellence in Procurement Award	None	In progress	In progress	
6. GOAL: Provide data for WRD programs, initiatives and projects.				Advance Groundwater Awareness
MEASURE:				
a. Respond to data and mapping requests from Engineering, Hydrogeology and Watermaster Programming.	Production Data	Production Data	Production Data	
b. Respond to data and mapping requests from partner agencies.	GIS Data	GIS Data	GIS Data	
7. GOAL: Improve the distribution of information internally through the development of the WRD Portal.				Promote Organizational Excellence
MEASURE:				
a. Expand the WRD Portal Services to include according to best practices for intranet development.	Yes	Improved	Upgrade Portal	
b. Expand the WRD portal to include a employee facing data dashboard.				

Table 55C

ADMINISTRATION
Performance Measures

Performance measurement results for the past two fiscal years in addition to goals for FY2019/20 are presented below.

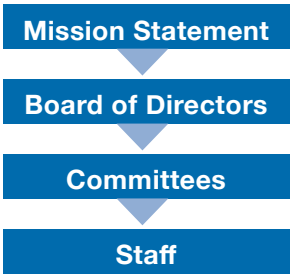
8. GOAL: Improve document automation and methods of records retention.				Provide safe and reliable groundwater
MEASURE:				
a. Develop and implement a one point On-Base scanning system.	Yes	Improved System	Complete system	
b. Scan all Watermaster files	Yes	75%	100%	
c. Scan all paper files being stored around WRD Main Administration Office building.	60%	80%	100%	
d. WRD Portal	0	New	Update	
9. GOAL: Comply with current local, state and federal laws governing the regulations of Water Districts				Promote Organizational Excellence
MEASURE:				
a. Ensure Board actions, documents, resolutions and ordinances are appropriately recorded for future reference.	Yes	Yes	On-Base Scanning, WRD Portal, U-Drive	

Performance Measures

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. Water Independence Now (WIN)
2. Provide High Quality Groundwater
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 2019/20 are presented which link to the overall District goals enumerated above.)

WATER RESOURCES 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).

2018/19 Performance Metrics – Water Resources Committee

Board Action	Staff Performance Measure	Board Objective	District Goal*	Project
Date of Board Action: 07/03/18 Extend the Contract Services Agreement one additional year with the City of Torrance for the Robert W. Goldsworthy Desalter through June 30, 2019.	Staff Progress: On-going A continuous agreement with the City of Torrance who operates the RWGD facility helped the District developed new pricing structure that reflects the true water production costs. The term is extended for an additional year.	Increase use of product water	2	002
Date of Board Action: 07/03/18 Authorize the General Manager to renew membership with the Water Research Foundation for an amount not to exceed $57,459 for the period of October 2017 to September 2018.	Staff Progress: Complete The District renewed its membership with the Water Research Foundation which sponsor research and have access to participate in stat-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: 07/03/18 Authorize a pledge of $110,000 to Water Research Foundation in the amount not to exceed $110,000.	Staff Progress: Complete Water Research Foundation (WRF) had launched the Direct Potable Reuse (DPR) Initiative to advance DPR as a water supply option in California. As a pioneer in water reuse, WRD pledged funds for the research effort. Success in DPR can lead to the shared use of potable infrastructures by advance-treated water; this can open up limitless opportunities for groundwater resources management, greatly benefiting WRD and the purveyors.	Advance groundwater awareness with the water industry community	4	025

Date of Board Action:08/25/18 Approve WRD's sponsorship participation to the Heal the Bay's Coastal Cleanup event for an amount not to exceed $1,500.	Staff Progress: Complete Coastal Cleanup Day is the largest global volunteering event to protect the environment and is celebrated in communities worldwide. This year, Coastal Cleanup Day took place on Saturday, September 15, 2018. WRD sponsored this event toward tools and equipment necessary for volunteer cleanup activities.	Continue Outreach and engagement with the public	5	EAC
Date of Board Action: 09/19/18 Enter into an Agreement with the County of Los Angeles Flood Control District and the Orange County Water District regarding recycled water service to the Alamitos Seawater Barrier Project, subject to approval as to form by District Counsel.	Staff Progress: Complete WRD had entered into multiple agreements with LACFCD, OCWD and LBWD regarding recycled water for recharge in the Alamitos Barrier to increase the overall reliability of water supplies to the barrier. The existing agreements were modified to bring consistency with agreement at the two other barrier projects (Dominguez and West Coast) for the next ten years.	To reduce the dependency upon imported supplies and to increase the overall reliability of water supplies to the region	1,2 &3	001
Date of Board Action: 09/19/18 Authorize Amendment #2 with the U.S. Geological Survey for Groundwater Modeling Improvements, Management Scenarios, and Publications for an amount not to exceed $220,000, which includes contingency.	Staff Progress: On-going Continue working with USGS in updating, improving and upgrading the District's complex geologic and groundwater flow model which has greatly enhanced the District's understanding of the groundwater basins and increased the ability to forecast future groundwater conditions. The agreement was amended to upgrade the old out-dated model to the new model.	Perform effective basin management	2 & 4	011 & 025
Date of Board Action: 09/19/18 Execute the MOU with Los Angeles Department of Water and Power to establish a formal working group regarding various matters surrounding potential future project and program partnerships, subject to approval as to form by District Counsel.	Staff Progress: Complete The Water Replenishment District (WRD) and Los Angeles Department of Water and Power (LADWP) have been working collaboratively to establish a partnership on several projects and programs with overlapping objectives. Both staffs have been working to develop an MOU to formalize the working partnership towards mutually beneficial goals.	Perform effective basin management	2 & 4	025
Date of Board Action:10/3/18 Enter into an Agreement with the City of Los Angeles Department of Water and Power to provide advanced treated recycled water to the Dominguez Gap Seawater Barrier Project and right to capacity in the advanced treated recycled water system, subject to approval as to form by District Counsel.	Staff Progress: Complete Entered a thirty-year agreement with LADWP to purchase advanced treated recycled water at a purchase price to reflect the costs to provide such water to the Barrier and other replenishment facilities as well as the reservation of capacity in Advanced Water Purification Facility (AWPF) to effectuate the long-term sale of water to WRD	To reduce the dependency upon imported supplies and to increase the overall reliability of water supplies to the region	1, 2 & 3	WTR
Date of Board Action:10/17/18 Adopt the Central Basin Watermaster Administrative Body Rules.	Staff Progress: Complete As the Administrative Body of Watermaster, staff has reviewed the Central and West Coast Basin Watermaster Administrative Body rules to provide a framework for various Administrative Body responsibilities and to ensure that they are consistent with the Judgement.	Ensure adjudicated pumping water rights for each basin	3	042
Date of Board Action: 12/5/18 Enter into an updated Joint Funding Agreement with the U.S. Geological Survey for monitoring well drilling, subject to approval of form by District Counsel, to extend the term of the JFA through June 30, 2020.	Staff Progress: On-going The District joint funding with USGS to construct two nested groundwater monitoring wells in support of WRD's Regional Monitoring Program. Construction of the wells are being delayed due to permit requirement issues and extended the agreement with no cost.	Perform effective basin management	1	011

Date of Board Action:03/06/19 Receive and file the 2019 Engineering Survey and Report and adopt Resolution No. 19-1096.	Staff Progress: Complete The Board of Directors adopted, received and filed Resolution No. 19-1096 for the 2019 ESR report. The report determines, among other things, the past, current, and ensuing year groundwater conditions in the Central Basin and West Coast Basin. It also determines the District's replenishment water needs and the estimated costs for that water.	Determine engineering needs for water conditions in the basins	1	All
Date of Board Action: 03/06/19 Receive and file the Water Year 2017/18 Regional Groundwater Monitoring Report.	Staff Progress: Complete The Board of Directors received, approved and filed the 2017/18 Regional Groundwater Monitoring Report. The purpose of the RGWMP is to perform the basic District function of tracking groundwater levels and groundwater quality to determine the overall health of the basins.	To optimize the use of local groundwater resources	1	All
Date of Board Action: 04/03/19 Authorize staff to release a request for qualifications for the development of a customer portal for water producers and rights holders.	Staff Progress: On-going WRD created an internet based customer portal for Pumpers to interact with Watermaster activities, integrate with SQL server Database, and improve efficiency. Staff request a release for qualifications for the development of this portal.	Optimize internal Operation	3	Admin
Date of Board Action: 04/18/19 Approve the Cooperative Funding Agreement, subject to approval as to form by District Counsel, with Las Virgenes Municipal Water District for the Phase 2 White Paper on Tapping into Available Capacity in Existing Infrastructure to Create Water Supply and Water Quality Solutions, for an amount not to exceed $20,000.	Staff Progress: Complete WRD joined with LVMWD and MSGBW in completing the Phase 1 White Paper to create water supply and water quality solutions increasing water supplies available for recycling. A need for more study prompted Phase 2 White Paper study to address the potential challenges and complexities of this effort and to engage a much broader of stakeholder agencies responsible for the underlying water management functions	Provide benefits of increasing water supply	1 & 4	038
Date of Board Action: 05/16/19 Approve a 10-year, zero interest Loan Agreement, subject to approval as to form by District Counsel, with the City of Vernon for the Well Construction and Rehabilitation Loan Program for an amount not to exceed $1,500,000.	Staff Progress: Complete WRD has selected City of Signal Hill and the City of Vernon during the launch of a new Well Construction and Rehabilitation Loan Program. The new wells will improve reliability of groundwater production, allow the Cities to fully pump its adjudicated water rights.	Decrease the dependency on imported water	2	006
Date of Board Action: 06/06/19 Approve a one year extension for the Groundwater Monitoring Operations Facility lease.	Staff Progress: Complete The District's field supplies, equipment, and vehicles are stored at a leased space 3673 Industry Avenue in Lakewood while the District is constructing its own storage facility and the year extension is required until the completion of the storage facility.	Provide storage for District's material & equipment	3	011
Date of Board Action: 06/06/19 Approve the preparation and issuance of a Request for Qualifications for As-Needed Groundwater Monitoring and Field Services Consultant.	Staff Progress: Complete The District manages the groundwater in the Central and West Coast Basins. Occasional professional consulting services is needed to assist staff with various field-related activities such as groundwater monitoring and field services.	Maximize Innovation & Resiliency	1	011

Date of Board Action: 06/06/19 Approve Amendment No. 2 to Contract No. 943, subject to approval as to form by District Counsel, with NorthSouth GIS applications and a time extension through June 30, 2020 for $72,975 plus a 10% contingency for a total amount not to exceed $80,000.	Staff Progress: Complete NSGIS was selected to provide professional integration and design services to replace the District's online GIS Software application that will meet the District's current industry standards and needs. Enhancement was required and to amend the existing contract.	Provide online GIS interactive mapping application and functions	1 & 4	010
Date of Board Action: 06/20/19 Enter into an Access License Agreement to access WRD's groundwater monitoring wells located at Long Beach #8 on the Long Beach City College Campus.	Staff Progress: On-going WRD is to observe six groundwater observation wells at the Long Beach #8 in place to monitoring well site located on the Long Beach City College campus as part of its Regional Groundwater Monitoring Program that provides important data on water levels and water quality.	Perform effective basin management	1	011

*District Goal

1 – Water Independence Now (WIN)
2 – Provide High Quality Groundwater
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.

2018/19 Performance Metrics – Groundwater Quality Committee

Board Action	Staff Performance Measure	Board Objective	District Goal*	Project
Date of Board Action: 07/03/18 Enter into an Access and Indemnity Agreement with Murex Environmental (or Arconic Incorporated).	Staff Progress: Complete The District granted Murex Environmental to access WRD's annex parking lot to drill and collect groundwater samples as directed by the LARWQCB to define an existing groundwater contamination plume.	Perform Water Quality and Contamination issues	1 & 2	005
Date of Board Action:07/18/18 (1) Reject the bid from Mocon Corporation; and (2) Award the construction contract to Pacific Hydrotech Corporation for an amount not to exceed $2,065,300 plus a 15% contingency, for a total of $2,375,300 for the CA AM Arlington Well Treatment Project.	Staff Progress: Complete Pacific Hydrotech has provided construction service for the CA AM Arlington Well Treatment Project as part of the District's Safe Drinking Water Program (SDWP) assisting basin pumpers in sustaining active production from contaminated wells.	Promote the Safe Drinking Water Program	2	012
Date of Board Action: 10/17/18 Authorize the General Manager to enter into a reimbursement agreement with the Department of Toxic Substances Control, subject to approval as to form by District Counsel, for an amount not to exceed $516,528 for regulatory agency oversight associated with the Los Angeles Forebay Perchlorate and VOC Cleanup Project – Phase 1. WRD will be fully reimbursed for these expenses through our Proposition 1 grant for this Project.	The District received grant funding from the SWRCB to remediate a groundwater plume affecting a drinking water supply in the City of Vernon. DTSC is a lead regulatory oversight agency for the project and WRD will be reimbursed for these agency oversight cost through the grant reimbursement.	Perform Water Quality and Contamination issues	1 & 2	006
Date of Board Action: 10/17/18 Award the construction contract to Pacific Hydrotech Corporation for an amount not to exceed $1,593,750 plus a 15% contingency ($240,000), for a total of $1,833,750 for the Maywood Avenue Treatment Project.	Staff Progress: Complete Pacific Hydrotech has provided construction service for the Maywood Avenue Treatment Project as part of the District's Safe Drinking Water Program (SDWP) assisting basin pumpers in sustaining active production from contaminated wells.	Protect Groundwater quality against contamination	1 & 2	012

Date of Board Action:11/21/18 Enter into a software license agreement with Seequent Limited, subject to approval as to form by District Counsel for a total cost not to exceed $20,000 which includes contingency.	Staff Progress: Complete The District purchased a software licensing agreement with Seequent Limited for use of their Leapfrog Works, Central, and Edge Software platforms ("Leapfrog") for 3-D hydrogeologic modeling, visualization, and statistical analyses. It is built to handle the types of data WRD specializes in, including water well drilling, water levels, soil types, contaminant plumes, geophysical data, barrier injection wells, seawater intrusion, and more.	Perform effective basin management	1 & 2	025
Date of Board Action: 11/21/18 Enter into a memorandum of understanding with the State Water Resource Control Board and the Los Angeles Regional Water Quality Control Board, subject to approval of form by District Counsel, for the Los Angeles Forebay Perchlorate Cleanup Project.	Staff Progress: On-going WRD has been investigating a perchlorate groundwater "hot spot" plume with the assistance of various regulatory agencies. WRD is in the final stages of negotiating the grant agreement with the SWRCB, which requires a memorandum of understanding (MOU) between the WRD, SWRCB, and Los Angeles Regional Water Quality Control Board (LARWQCB).	Perform Water Quality issues	1	025
Date of Board Action:12/20/18 Receive and file the report.	Staff Progress: Complete On July 20, 2017, the Board of Directors entered into an agreement with the Colorado School of Mines Advanced Water Technology Center for a research project known as the "Sequel to Performance Assessment of Surface Spreading Operations Receiving Different Blends of Tertiary/Fully Advanced Treated Recycled Water". This project has been completed, and the findings have been filed.	Perform Water Quality and Contamination issues	1	004
Date of Board Action:01/17/19 Authorize the General Manager to submit a Proposition 1 Grant Application to the State Water Resources Control Board for a Well Destruction Program.	Staff Progress: Complete The District submitted a grant application to SWRCB for the Prop 1 Grant to fund its well destruction program to eliminate the potential threat of contaminants entering an inactive well and moving into and impacting the water quality in aquifers.	Protect Groundwater quality against contamination	1 & 2	012
Date of Board Action:02/21/19 Approve execution of Contract Amendment No. 1 with Butier Engineering Inc. for construction management services for three Safe Drinking Water approved projects for an additional amount not to exceed $260,000 subject to approval as to form by District Counsel	Staff Progress: On-going Continue working with Butier Engineering Inc. providing Construction Management Services for construction of the three Safe Drinking Water projects; California American Water Arlington Well, Huntington Park Well 15, and Lynwood Well 11.	Assist Water systems within the District service area	2 & 4	012
Date of Board Action:03/06/19 Approve the attached novation of agreement for contracts 820 and 972.	Staff Progress: Complete WRD currently has two agreements with KEH & Associates Inc., contracts numbered 820 and 972. Recently KEH merged with Gannett Fleming Inc. The purpose of this novation is to document that merger and to amend the existing contracts to reflect the merger by supplanting Gannett Fleming Inc. in the place of KEH.	Protect Groundwater quality against contamination	4	012 & 041
Date of Board Action: 03/06/19 Execute a no cost time extension contract amendment with Gannett Fleming (KEH) for professional services related to the Safe Drinking Water Program & Disadvantaged Communities Pilot Program, extending the rate and term to December 31, 2019, subject to approval as to form by District Counsel.	Staff Progress: On-going The Safe Drinking Water Disadvantaged Communities (DAC) Pilot Program assists water systems located in disadvantaged communities within the District's service area with applying for state and federal funding to address the issues related to their drinking water wells. Gannett Fleming (formerly KEH) is contracted with providing technical assistance for several of these programs, and no cost extension of the contract to December 31, 2019 is advised.	Protect Groundwater quality against contamination	2 & 4	012

Date of Board Action: 03/06/19 Execute a no cost time extension contract amendment with Tetra Tech for professional services related to the Safe Drinking Water Program & Disadvantaged Communities Pilot Program, extending the rate and term to December 31, 2019, subject to approval as to form by District Counsel.	Staff Progress: On-going The Safe Drinking Water Disadvantaged Communities (DAC) Pilot Program assists water systems located in disadvantaged communities within the District's service area with applying for state and federal funding to address the issues related to their drinking water wells. Tetra Tech is contracted with providing technical assistance for several of these programs, and no cost extension of the contract to December 31, 2019 is advised.	Protect Groundwater quality against contamination	2 & 4	012
Date of Board Action: 03/06/19 Execute a no cost time extension contract amendment with Intera Geoscience & Engineering Solutions, Inc. for professional services related to the Well Profiling Program, extending the term to December 31, 2019, subject to approval as to form by District Counsel.	Staff Progress: On-going The Well Profiling Program is used to test water supply wells to determine the flow and water quality profiles entering the wells from different zones across the perforated intervals. Intera Geoscience & Engineer Solutions, Inc currently provides services for this program, and it is recommended to extend the contract from March, 2019 to December, 2019.	Perform Water Quality and Contamination issues	1, 2 & 4	025
Date of Board Action: 03/06/19 Adopt the Mitigated Negative Declaration for the Sativa Well 5 Treatment Project.	Staff Progress: Complete Sativa LA County Water Company is a participant in the Safe Drinking Water Disadvantaged Communities (DAC) Pilot Program. After analysis, an Initial Study-Mitigated Negative Declaration (IS-MND) was determined as the appropriate level of documentation.	Protect Groundwater quality against contamination	2 & 4	012
Date of Board Action: 04/18/19 Approve Amendment Number 001, subject to approval as to form by District Counsel, with WECK Laboratories for the Title 22 Groundwater Monitoring Program for an additional amount not to exceed $400,000.	Staff Progress: Complete The District has an existing contract with WECK Laboratories for Groundwater Monitoring Program. With the recent changes that require an increase in the amount of samples per well, Staff is requesting a rise of $400,000 in the budget to accommodate the additional required sampling.	Protect Groundwater quality against contamination	2 & 4	006
Date of Board Action: 06/06/19 Adopt Resolution No. 19-1105 granting a Non-Consumptive Water Use Permit to the City of Norwalk for assignment to Santa Fe Pacific Pipeline, L.P. (SFPP) for groundwater cleanup activities at the Norwalk Tank Farm site.	Staff Progress: Complete The District has the authority to issue pumping groundwater treatment programs that remedy groundwater contamination and do not put the treated water to beneficial use. Staff is requesting an approval for NCWUP for assignment to SFPP for the water use permits.	Protect Groundwater quality against contamination	2	006
Date of Board Action: 06/06/19 Adopt Resolution No. 19-1098 granting a Non-Consumptive Water Use Permit to the City of Norwalk for assignment to Defense Logistics Agency – Installation Management for Energy (DLA – Energy) for groundwater cleanup activities at the Norwalk Tank Farm site.	Staff Progress: Complete The City of Norwalk has agreed to apply for the NCWUP to assign the rights to remove contaminated groundwater pursuant to Defense Logistics Agency – Installation Management for Energy (DLA-Energy). To provide water use permits, staff is requesting an approval for NCWUP to give assignment to DLA-Energy.	Protect Groundwater quality against contamination	2	006
Date of Board Action: 06/20/19 Authorize individual as-needed professional consulting services contracts with the following firms, subject to approval as to form by District Counsel, to perform tasks associated the Los Angeles Forebay Perchlorate and Volatile Organ Compound Cleanup Project for a not to exceed aggregate budget amount of $1,820,000.	Staff Progress: Complete Advisian and AECOM provided construction management and on-call engineering services for the District's groundwater cleanup in the City of Vernon as part of the Los Angeles Forebay Perchlorate and VOC cleanup project.	Protect Groundwater quality against contamination	2	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,
Supported by: The Finance Department

The Finance/Audit Committee & Budget Advisory Committee (BAC) shall study, advise and make recommendations with regards 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.

2018/19 Performance Metrics – Finance/Audit Committee

Board Action	Staff Performance Measure	Board Objective	District Goal*	Project
Date of Board Action:08/15/18 Receive and file the monthly demands for March, 2018.	Staff Progress: Complete Received and filed demands for March 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 08/15/18 Receive and file the monthly demands for April, 2018.	Staff Progress: Complete Received and filed demands for April 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 08/15/18 Receive and file the monthly demands for May, 2018.	Staff Progress: Complete Received and filed demands for May 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 08/15/18 Approve the financial statements for March 2018.	Staff Progress: Complete Approved the financial statements and the Statement of Net Assets as of March 31, 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 08/15/18 Approve the financial statements for April 2018.	Staff Progress: Complete Approved the financial statements and the Statement of Net Assets as of April 30, 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 08/15/18 Approve the financial statements for May 2018.	Staff Progress: Complete Approved the financial statements and the Statement of Net Assets as of May 31, 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 08/15/18 Approve the monthly Reserves, Cash and Investment Report for March 2018.	Staff Progress: Complete Approved the Reserve, Cash and Investment report as of March 31, 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 08/15/18 Approve the monthly Reserves, Cash and Investment Report for April 2018.	Staff Progress: Complete Approved the Reserve, Cash and Investment report as of April 30, 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN

Date of Board Action: 08/15/18 Approve the monthly Reserves, Cash and Investment Report for May 2018.	Staff Progress: Complete Approved the Reserve, Cash and Investment report as of April 31, 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 08/15/18 Approve the monthly Trust Fund Report for March 2018.	Staff Progress: Complete Approved Trust Fund report for March 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 08/15/18 Approve the monthly Trust Fund Report for April 2018.	Staff Progress: Complete Approved Trust Fund report for April 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 08/15/18 Approve the monthly Trust Fund Report for May 2018.	Staff Progress: Complete Approved Trust the Fund report for May 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 09/19/18 Receive and file the monthly demands for June, 2018.	Staff Progress: Complete Received and filed demands for June 2018 in the amount of $11,472,961.20	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 09/19/18 Approve the monthly Reserves, Cash and Investments Report for June 2018.	Staff Progress: Complete Approved the Reserve, Cash and Investment report as of June 30, 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 09/19/18 Approve the monthly Trust Fund Report for June 2018.	Staff Progress: Complete Approved the Trust Fund report for June 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action:11/7/18 Receive and file the monthly demands for July, 2018.	Staff Progress: Complete Received and filed demands for July 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 11/7/18 Receive and file the monthly demands for August, 2018.	Staff Progress: Complete Received and filed demands for August 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 11/7/18 Receive and file the monthly financial statements for July, 2018.	Staff Progress: Complete Received and filed financial statement for July 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action:11/7/18 Receive and file the monthly financial statements for August, 2018.	Staff Progress: Complete Received and filed financial statement for August 2018.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 11/21/18 Approve the attached resolution authorizing the 2018 Bond issuance. Receive and file the report.	Staff Progress: Complete The Board of Directors approved the resolution authorizing the issuance of the 2018 Revenue Bond. The fund proceeds is used to fund capital projects in the District's 5-Year Capital Improvement Plan.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 01/17/19 Approve the agreement, subject to approval as to form by District Counsel, with NP Solutions, Inc. for an amount not to exceed $44,000.	Staff Progress: On-going Continue working with NP Solutions to automate the District's timesheet, accounts payable and other workflows to enhance productivity and to improve the technological capabilities at WRD.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 02/21/19 Approve a three-year contract with the Pun Group.	Staff Progress: On-going Continue working with the Pun Group to assist the District with financial auditing services for three years.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action:03/21/19 Approve expenses over 90 days.	Staff Progress: Complete The Board approved staff expenses submitted over 90 days.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN

Date of Board Action: 04/18/19 Adopt a Resolution approving and accepting the negotiated tax exchange resolution of project tract NO. 71925 to County Lighting Maintenance District 1697.	Staff Progress: Complete This legislation (Streets & Highways §22500) allows local governmental agencies to form Landscape & Lighting Maintenance Districts for the purpose of financing the costs and expenses of landscaping and lighting public areas.	Promote organization efficiencies & provide transparency and accountability	3	ADMIN
Date of Board Action: 05/07/19 Open the Public Hearing on the fiscal year 2019/20 proposed replenishment assessment and close the public hearing after receiving all oral and written evidence and public testimony and considering whether a majority protest exists from active pumpers.	Staff Progress: Complete Provided the Board of Directors and the public with an open public hearing process related to the 2019/20 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: 05/07/19 Adopt Resolution No. 19-1102 to establish the fiscal year 2019/20 Replenishment Assessment and instruct staff to file an appropriate Notice of Exemption for the action.	Staff Progress: Complete Approved the 2019/20 Replenishment Assessment at $365.00 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: 05/07/19 Approve the 2019/20 Budget reflecting an increase of $26.00 to the Replenishment Assessment from $339.00 to $365.00 per acre-foot, or a 7.7% increase, and total expenditures of $84,579,000.	Staff Progress: Complete The 2019/20 Budget was approved and filed with the related Replenishment Assessment.	Provide public transparency and accountability and comply with California State Water Code	3	ADMIN
Date of Board Action: 06/06/19 Approve Resolution 19-1106.	Staff Progress: Complete WRD invested in several Banks and Resolution 19-1106 was approved to update all authorized signatures for signing checks.	Promote organization efficiencies & provide transparency and accountability	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 Internal Services 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.

2018/19 Performance Metrics – Administrative Committee

Board Action	Staff Performance Measure	Board Objective	District Goal*	Project
Date of Board Action: 07/03/18 Approve and authorize the release of the Request for Proposal (RFP) for an Electronic Procurement (E-Procurement) Software System.	Staff Progress: Complete (E-Procurement) would provide the District automation on many areas of the current process into a more organized, time-efficient, and streamlined manner.	To provide the District with better management system	3	ADMIN
Date of Board Action:10/3/18 Authorize staff to pay ADOCS for FY 18-19 budgeted items.	Staff Progress: Complete OnBase is the District's software solution for storing and cataloging important digital documents. The software, maintenance, and support for the OnBase system is provided by Advanced Document Solutions, Inc. (ADOCS).	To improve District's electronic filing system	3	ADMIN
Date of Board Action:11/7/18 Approve Amendment No. 1, subject to approval as to form by District Counsel, with NorthSouth GIS LLC for ongoing support services for an additional amount not to exceed $10,000.	Staff Progress: On-going NSGIS provided professional services to build a replacement for the old WRD Interactive Well Search Tool using Latitude Geographics Geocortex software. Additional changes and updates is required for a flexible on-call support services from NSGIS.	To provide support services for water quality	3	010
Date of Board Action: 11/7/18 Renew the Maintenance License Agreement for ArcGIS Software with ESRI, Inc. for the term 2/1/2019 to 6/30/2020 at a cost of $15,083.	Staff Progress: Complete Annual maintenance agreement for Esri ArcGIS was renewed in order to maintain the District's current GIS program, and developed a new online application.	To improve the District's GIS system	3	010
Date of Board Action: 11/7/18 Authorize staff to purchase the proposed system for the Albert Robles Center.	Staff Progress: Complete A new compatible phone VoIP system was installed for the Albert Robles Center.	Retain high quality equipment	3	ADMIN
Date of Board Action: 11/7/18 Authorize staff to purchase the Microsoft Office 365 software licenses.	Staff Progress: Complete The District upgraded its Microsoft Office Software to Office 365 that benefited the District with advantages of the cloud.	Improve high quality compute software	3	ADMIN
Date of Board Action: 11/7/18 Issue a purchase order to CDWG in the amount $158,000.	Staff Progress: On-going Issued a purchase order to CDWG for the District's computer equipment and supplies.	Improve high quality compute software	3	ADMIN

Date of Board Action: 12/5/18 Complete the application process to allow specific District employees to elect coverage under the California State Disability Insurance program.	Staff Progress: Complete California State Disability Insurance (SDI) is a partial wage-replacement insurance plan for California workers. The SDI program is state-mandated and funded through employee payroll deductions. The District has employees that would like to opt out of the District's voluntary plan and elect coverage under the California State Disability program.	Retain High Quality Staff	3	ADMIN
Date of Board Action: 12/5/18 Approve the terms of the new Letter of Engagement between Leal and Trejo and the District.	Staff Progress: Complete The Administrative Committee renewed a contract with its District Counsel, Leal and Trejo.	Promote organization efficiencies & provide transparency and account-ability	3	ADMIN
Date of Board Action: 12/5/18 1. Authorize a budget transfer of $20,000 from G/L Code: 5681 (Materials and Equipment - SCADA Software Annual Maintenance) to G/L Code: 5634 (Other Consultants – E-Procurement Software System) within the Administrative Budget. 2. Approve the award of contract to Bonfire Interactive Ltd., subject to approval as to form by District Counsel, to provide a web-based E-Procurement software system in the amount not to exceed $29,985.00, plus a 10% contingency for any unforeseen conditions, for a total cost not to exceed $32,984.00 (rounded) and with a contract term that ends on December 31, 2021.	Staff Progress: On-going Bonfire provided an "off the shelf" web-based software platform with an intuitive product interface and functionality that will allow the District the ability to easily manage vendors, bids, the evaluation process, contracts, and insurances in a centralized manner.	To improve the District's contract procurement system	3	ADMIN
Date of Board Action: 12/5/18 Execute Amendment No. 2 with Advanced Document Solutions, Inc. as part of the District's planned Asset Management Program in an amount not to exceed $49,500.	Staff Progress: Complete Continue working with ADOCS to streamline several of the District's manual processes, including agenda management and invoice processing through the OnBase system.	To improve the District's contract procurement system	3	ADMIN
Date of Board Action: 12/5/18 Lease the proposed copier for an amount of $34,920 over five years.	Staff Progress: Complete The District added a new copier lease from ODoxs for the Albert Robles Center.	Improve printing equipment	3	ADMIN
Date of Board Action:01/17/19 Adopt the organizational structure depicted in the attached draft organizational chart.	Staff Progress: Complete The Board of Directors adopted a new organization chart to improve service levels and perform a higher and more efficient capacities.	Retain High Quality Staff	3	ADMIN
Date of Board Action: 01/17/19 Adopt the attached salary schedule as the 2019 WRD Salary Schedule and make it publicly available on the District's website.	Staff Progress: Complete For the purposes of transparency and also to assure compliance with CalPERS guidelines and requirements, WRD have made all of its job classifications and associated pay range schedules available publicly.	Promote organization efficiencies & provide transparency and account-ability	3	ADMIN
Date of Board Action:02/21/19 Authorize execution of Amendment No. 1 to the professional services agreement with Segal Waters Consulting for the Class and Compensation Study not to exceed $12,000.	Staff Progress: Complete Segal Waters Consulting Group conducted a Classification and Compensation Study to determine if WRD staff are adequately compensated.	Promote organization efficiencies & provide transparency and account-ability	3	ADMIN
Date of Board Action: 06/20/19 Adopt the attached Job Classification and Salary Schedule.	Staff Progress: Complete After reviewing job classification and compensations study performed by Segal Waters Consulting, WRD modified its salary schedule in order to remain competitive with the market.	Promote organization efficiencies & provide transparency and account-ability	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

EXTERNAL AFFAIRS COMMITTEE

Supported by: The External Affairs 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.

2018/19 Performance Metrics – External Affairs Committee

Board Action	Staff Performance Measure	Board Objective	District Goal*	Project
Date of Board Action:07/18/18 Approve an additional $5,000 sponsorship participation level with the California League of Cities' Women's Caucus.	Staff Progress: Complete **The District** sponsored Legislative Reception for the Women's Caucus of the California League of Cities. This event will provide WRD an opportunity to highlight its work on WIN and educate officials about the progress of ARC.	Provide groundwater education to the general public	4	EAE
Date of Board Action:07/18/18 Approve WRD's sponsorship participation to Water Environment Federation (WEFTEC) for an amount not to exceed $5,000.	Staff Progress: Complete The Water Environment Federation (WEF) is a not-for-profit technical and educational organization of 34,000 individual members and 75 affiliated Member Associations representing water quality professionals around the world. WRD's sponsorship of this event will increase the public awareness of the impact and the value of water, and to provide a platform for water sector innovation.	Provide groundwater education to the general public	4	EAE
Date of Board Action: 09/19/18 Recommends the Board of Directors to approve WRD's sponsorship participation to the Long Beach Chamber of Commerce State of the County event at the non-profit level for an amount not to exceed $1,095.	Staff Progress: Complete The event offers WRD the opportunity to communicate the important work by the District, including the Albert Robles Center (ARC) and Leo J. Vander Lans Advanced Water Treatment Facility in Long Beach.	To advance the mission of the District	4	EAE
Date of Board Action: 09/19/18 Approve WRD's sponsorship participation to the Ladies TKO Water for Fire Fighters for an amount not to exceed $1,000.	Staff Progress: Complete The sponsorship will provide Ladies TKO financial resources to equip our regional firefighters with the water they need to remain hydrated and healthy.	To advance the mission of the District	4	EAE
Date of Board Action: 09/19/18 Approve WRD's sponsorship participation to the Annual Labor Breakfast & Working People Awards for an amount not to exceed $2,500.	Staff Progress: Complete This event celebrates the work, commitment, and voluntary service of workers in California's 33rd Senate District. A Silver Sponsorship includes WRD's name and logo on the program, and public recognition.	To advance the mission of the District	4	EAE
Date of Board Action: 09/19/18 Support Measure W to allow for local, dedicated funding to increase our local water supply, improve water quality, and protect public health.	Staff Progress: Complete The L.A. County Board of Supervisors approved the Safe Clean Water Program and funding measure at a public hearing on Tuesday, July 17, 2018.	To advance the mission of the District	4	EAE

Date of Board Action: 09/19/18 Approve Amendment No. 1, subject to approval as to form by District Counsel, with Kidane & Associates, and Lang, Hansen, O'Malley & Miller for an additional amount not to exceed $144,000.00 and extend the term of the agreement to September 30, 2019.	Staff Progress: Complete Kidane & Associates, and Lang, Hansen, O'Malley & Miller assisted the District's primary state legislative advocate in executing an effective state advocacy strategic plan.	To advance the mission of the District	4	EAE
Date of Board Action:11/7/18 Approve WRD's development of an educational WRD service area map to accompany the Albert Robles Center (ARC) School Program for an amount not to exceed $6,000.	Staff Progress: On-going As a supplement to WRD's ongoing education program, staff has begun to develop curriculum, tours, and interactive programs that will coordinate with the future ARC exhibitory. In addition, WRD staff is developing an educational service area map that will be provided as a printed poster to classrooms located within the District's service area, that will enable teachers and students to better connect with WRD as a management entity and truly understand "where they fall" in our world of water.	Provide groundwater education to the general public	4	EAE
Date of Board Action:11/7/18 Approve sponsorship of the Daily Breeze Newspapers in Education program for the 2018-19 school year in an amount not to exceed $1,200.	Staff Progress: Complete The Daily Breeze established the Newspapers in Education Program as a tool to assist schools, teachers and students in classroom learning. This important program benefits our students by providing an innovative and interesting way of learning.	Provide groundwater education to the general public	4	EAE
Date of Board Action:12/20/18 Approve WRD's FY 2019-20 Chamber Dues budget for an amount not to exceed $65,350 and WRD's FY 2019-20 Regional Sponsorships budget, which will now cover 2 divisions or more, for an amount not to exceed $110,000.	Staff Progress: Complete WRD maintains annual memberships with local and regional chambers of commerce which provide WRD with a platform to educate businesses about WRD projects and programs as well as important regional groundwater planning matters.	To advance the mission of the District	4	EAE
Date of Board Action: 12/20/18 Approve WRD's conference sponsorship participation to the Los Angeles Business Council for an amount not to exceed $5,000.	Staff Progress: Complete WRD participated in the 2019 Sustainability Summit as an event sponsor. District staffs provided WRD water related materials, and a page ad in Summit program.	To advance the mission of the District	4	EAE
Date of Board Action: 12/20/18 Approve Amendment No. 1, subject to approval as to form by District Counsel, with Pacific Atlantic Partners for federal legislative advocacy support services for an amount not to exceed $360,000 through December 31, 2020.	Staff Progress: On-going Continue working with Pacific Atlantic Partners for federal advocacy support services.	To advance the mission of the District	4	EAE
Date of Board Action: 12/20/18 Approve Amendment No. 1, subject to approval as to form by District Counsel, with Reeb Government Relations, LLC for state legislative advocacy support services for an amount not to exceed $360,000 through December 31, 2020.	Staff Progress: On-going Continue working with Reeb Government Relations for state legislative advocacy support services.	To advance the mission of the District	4	EAE
Date of Board Action: 12/20/18 Approve Amendment No. 1, subject to approval as to form by District Counsel, with Robert E. Bush Corp for county legislative advocacy support services for an amount not to exceed $72,000 through December 31, 2020.	Staff Progress: On-going Continue working with Robert E. Bush Corp for county legislative advocacy support services.	To advance the mission of the District	4	EAE
Date of Board Action: 01/02/18 Authorize the General Manager to execute Amendment No. 3 to the Professional Services Agreement with Kindel Gagan, Inc., subject to approval as to form by District Counsel, for an amount not to exceed $192,000 with a contract term time extension through December 31, 2020	Staff Progress: On-going Continue working with Kindel Gagan as a policy advisor to the District, providing assistance in developing and implementing District plans, programs and policy initiatives, which include but are not limited to the Strategic Plan, Basin Master Plan, Water Independence Now (WIN) program, the Albert Robles Center for Water Recycling and Environmental Learning (ARC), storm water capture, and groundwater storage related projects.	To advance the mission of the District	4	EAE

Date of Board Action: 01/02/18 Execute Amendment No. 3 with Dakota Communications, subject to approval as to form by District Counsel, for an additional amount not to exceed $335,000 and extend the term of the agreement to December 31, 2020.	Staff Progress: On-going Continue working with Dakota Communication with a broad array of professional services including branding, collateral development, and project specific community outreach and continued public outreach and education about WRD's projects throughout neighborhoods and communities within the District's service area.	To advance the mission of the District	1 & 2	033
Date of Board Action:02/21/19 Sponsor the Climate Resolve event in an amount not to exceed $1,000.	Staff Progress: Complete Climate Resolve is a Los Angeles based organization that focuses on local solutions to global climate change and works to achieve outcomes that bestow multiple benefits.	To advance the mission of the District	4	EAE
Date of Board Action: 02/21/19 Approve the District's participation in the Long Beach College Promise 2.0 Partnership Program.	Staff Progress: Complete The Long Beach College Promise (Promise 2.0) was formed to solidify a seamless pathway to college and career for students. By partnering with Promise 2.0, WRD will be a part of a community that will provide access to internships, scholarships, and career opportunities for the next generation of innovators.	Provide education programs to college students	4	EAE
Date of Board Action: 02/21/19 Pursue introduction of legislation for which WRD would sponsor and seek State funding to implement Phases 1 and 2 of the needs assessment proposal.	Staff Progress: On-going WRD staff and consultants have been working over the past several months to develop a 3-phase Needs Assessment Proposal that would be conducted for water systems within WRD territory and funded by the State of California. Staff recommend the board pursue Legislation for the first two phases of this proposal. The first phase is an assessment of the infrastructure, technical, managerial and financial capabilities of systems that serve disadvantaged communities within WRD territory. The second phase is the development of a plan to address water system needs, including improvements to infrastructure, TMF improvements and governance.	Provide the District's proposal for the projects	4	EAE
Date of Board Action: 02/21/19 (a) Direct staff to pursue legislation to amend statutory provisions relating to the UST Cleanup Fund in the California Health and Safety Code to expand the definition of "local agency" for purposes of grant funding to also include a water replenishment district. (b) The External Affairs Committee further recommends that the Board of Directors choose a legislator to author and introduce the legislation.	Staff Progress: Complete State Water Board staff would like to work with WRD in remediating groundwater contamination in the Central and West Coast basins, but is unable to do so utilizing the Fund because WRD does not meet the eligibility definition. Changing this definition via legislation will enable WRD to become eligible for additional funds for this purpose.	Provide better health and safety policy	4	EAE
Date of Board Action:03/06/19 Approve WRD's participation to the California Environmental Education Foundation (CEEF) Alliance for an amount not to exceed $2,500.	Staff Progress: Complete The California Environmental Education Foundation (CEEF) is launching the formation of a Southern California Water, Energy, and Education Alliance (WEEA). Joining the Alliance, WRD will have direct access to school administrators within the WRD service area who can act as an invaluable resource while we craft the WRD ARC education programming and curriculum.	Provide environmental education for school resource	4	EAE
Date of Board Action:03/21/19 Approve a sponsorship for the California Latino Leadership Institute for an amount not to exceed $5,000.	Staff Progress: Complete Participated in the CLLI sponsored event to cover the hard costs for Southeast Fellow's internship program as a way for students to learn about WRD's projects and programs.	Provide environmental education for school resource	4	EAE
Date of Board Action: 03/21/19 Approve WRD's partnership with Coro Southern California for an amount not to exceed $1,500.	Staff Progress: Complete WRD's investment in Coro Southern California will allow access to Coro's wide network of leaders from diverse sectors, and support our commitment to creating a deep impact on the people and institutions in the region.	To advance the mission of the District	4	EAE
Date of Board Action: 03/21/19 Direct staff to purchase social media archiving services from Archive Social and join the Government Social Media Organization.	Staff Progress: Complete Social media archiving services has helped the District educating the public on water issues by promoting district projects and events.	Provide social media services for the organization	4	EAE

Date of Board Action: 04/18/19 Approve a partnership with LARAEC in an amount not to exceed $5,000.	Staff Progress: Complete Los Angeles Regional Adult Education Consortium's (LARAEC) mission is to sustain, expand, and improve adult education. By partnering with LAREAC, the Water Replenishment District will be able to disseminate important information regarding groundwater and upcoming projects.	To advance the mission of the District	4	EAE
Date of Board Action: 04/18/19 Approve a sponsorship for the Annual American Red Cross Hometown Heroes Luncheon for an amount not to exceed $2,500.	Staff Progress: Complete Each year, the American Red Cross honors community members who have demonstrated heroism through extraordinary acts of courage and humanitarian service. A sponsorship includes a recognition at the event as well as opportunities for hosting an emergency preparedness class at the WRD Headquarters and Employee Engagement opportunities with the American Red Cross.	To advance the mission of the District	4	EAE
Date of Board Action: 04/18/19 Approve WRD's additional regional sponsorships for an amount not to exceed $24,500.	Staff Progress: Complete WRD has already allocated $90,000, but it is recommended that an additional $24,500 would be beneficial to the Districts Outreach Programs.	To advance the mission of the District	4	EAE
Date of Board Action: 04/18/19 Approve Amendment 2 subject to approval as to form by District Counsel, with CCE Consulting Group for Community Outreach Support Services for an additional 18 months and an additional amount not to exceed $200,000.	Staff Progress: On-going Continue working with CCE Consulting in assisting the District with outreach and public advocacy services relating to the Albert Robles Center.	To advance the mission of the District	4	EAE
Date of Board Action: 06/06/19 Approve the no-cost time extension as Amendment No. 2 to Contract No. 935, subject to approval as to form by District Counsel, with Green Media Creations and extend the contract term through Dec 31, 2019.	Staff Progress: On-going Continue working with Green Media providing educational outreach activities for the District's Eco-Gardener Program to proactively educate the public and make water conservation a lifestyle.	To meet the State mandate of 20% water savings	4	EAE

*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

CAPITAL IMPROVEMENT PROJECTS (CIP) COMMITTEE

Supported by: Engineering, Hydrogeology, Finance, Internal Services and External Affairs 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)

2018/19 Performance Metrics – Capital Improvement Projects (CIP) Committee

Board Action	Staff Performance Measure	Board Objective	District Goal*	Project
Date of Board Action: 07/03/18 Approve and authorize execution of the Cost-Share Agreement with the USBR for the Title XVI funding for GRIP	Staff Progress: Complete The United States Bureau of Reclamation (USBR) awarded the District $4.3 million in Title XVI grant funding under the Water Infrastructure Improvements for the Nation Act (WIIN Act) for the Groundwater Reliability Improvement Program (GRIP) Recycled Water Project. The USBR will provide up to 25% of the total project costs for construction that will be conducted prior to September 30, 2019.	To provide funds for groundwater improvement	1 & 2	033
Date of Board Action: 07/03/18 Adopt the Resolution and approve an application for, and execution of, a cooperative agreement with the USBR for the 2018 WaterSmart Title XVI grant program for the GRIP Recycled Water Project	Staff Progress: Complete The United States Bureau of Reclamation (USBR) has released a new funding opportunity under the 2018 WaterSmart Title XVI Grant Program for water recycling projects under the Water Infrastructure Improvements for the Nation Act (WIIN Act). Staff submitted an application for the USBR's 2018 Title XVI Water Reclamation and Reuse Program for the GRIP Recycled Water Project.	To provide funds for groundwater improvement	1 & 2	033
Date of Board Action:07/18/18 Execute an amendment with BrightView Landscape Services for additional landscape services for a total amount not to exceed $50,000 through February 28, 2019.	Staff Progress: Complete Continue working with BrightView Landscape, for landscape maintenance services. Extending the contract to provide additional landscape maintenance scope of work for the newly constructed Albert Robles Center.	To extend the landscape services for all District facilities	1 & 2	033
Date of Board Action:07/18/18 Name the rooftop garden at the Albert Robles Center for Water Recycling & Environmental Learning the "Lillian Kawasaki Rooftop Garden" in honor of former WRD Division 3 Board of Directors Lillian Kawasaki.	Staff Progress: Complete In honor of Director Lillian Kawasaki's tireless and passionate advocacy for water conservation and her dedication to the development of WRD's successful Eco Gardener Program, naming the rooftop garden at the Albert Robles Center for Water Recycling & Environmental Learning after former Director Kawasaki will be an appropriate and well deserved recognition.	To recognize the former Director's dedication to the development of WRD's Eco Gardener Program	3, 4, & 5	033
Date of Board Action: 08/15/18 Award the construction contract to Carbon Activated Corporation for an amount not to exceed $820,000 plus a 15% contingency, for a total of $943,000 for the SDW Lynwood Well 11 Treatment Project	Staff Progress: Complete Awarded a contract to Carbon Activated Corporation for construction services to the City of Lynwood Well 11 who requested financial assistance from the District through the District's Safe Drinking Water Program (SDWP) for a Granular Activated Carbon (GAC) treatment system to remove the PCE & TCE.	Maximize use of groundwater basins to eliminate demands for imported water	1 & 2	012

Date of Board Action: 08/15/18 Recommends the Board of Directors execute an agreement, subject to approval as to form by District Counsel, with Hunt Ortmann Palffy Nieves Darling & Mah, Inc. for legal services related to the construction of the District's new field operations and storage annex on an as-needed basis (time and material) for a total not-to-exceed amount of $100,000.	Staff Progress: Complete Work with Hunt Ortmann Palffy Nieves Darling & Mah, Inc. (Hunt Ortmann) for legal services in public construction contracts related to the District's new field operations and storage annex.	Retain the District's new field operations	1	025
Date of Board Action: 08/15/18 Recommends that the Board of Directors adopt a Resolution approving and accepting the negotiated exchange of property tax revenues resulting from annexation of L 091-2017 to County Lighting Maintenance District 1697.	Staff Progress: Complete A request has been received from the County of Los Angeles Department of Public Works regarding participation in the exchange of ad valorem property tax. If a taxing agency involved in the negotiation does not adopt a resolution providing for the exchange of property tax, the Board of Supervisors can determine the exchange of property tax revenue for that taxing agency.	To manage the District's assets for property tax	1	041
Date of Board Action: 08/15/18 Execute Amendment No. 2 to Contract No. 917, subject to approval as to form by District Counsel, with AKD Consulting for the evaluation of Change Order No. 4 that is currently being proposed by J.F. Shea Construction, Inc., a review of the documentation for GHD's recently executed Contract Amendment No. 3, and continued assessments of the overall project schedule and budget, for an amount not to exceed $50,000 on a time and materials basis, and with a contract term that ends on June 30, 2019.	Staff Progress: On-going AKD is providing on an as-needed legal services basis in support of the design/construction project and to safe guard the District's interest for construction of the new annex building.	Provide funding sources for groundwater management and water supplies	1 & 2	033
Date of Board Action: 09/19/18 Approve WRD's sponsorship participation to the San Pedro Chamber of Commerce State of the County event for an amount not to exceed $750.	Staff Progress: Complete The event offers WRD the opportunity to communicate the important work by the District, including the Albert Robles Center (ARC) and the Regional Brackish Water Reclamation Program in the West Coast Basin.	Provide funding sources to San Pedro Chamber	1	033
Date of Board Action: 09/19/18 Approve release of a Request for Proposal to procure chemical vendors for all of the WRD treatment plants.	Staff Progress: Complete In order to standardize procurement of chemicals, staff is requesting release of a Request for Proposal to procure chemical vendors for all of WRD's facilities, including the future ARC. Having the same supplier(s) for chemicals at all WRD facilities will result in cost savings since we will be procuring larger volumes and can negotiate desired services such as response and delivery times.	Effectively manage groundwater conditions within its service area	1	ADMIN
Date of Board Action: 09/19/18 Approve the execution of Change Order No. 4 with JF Shea Construction, Inc. for the Albert Robles Center Project, subject to approval as to form by District Counsel in the amount of $1,652,122.33, and increase the project budget contingency by an additional 3% ($3,215,000, rounded), for a total project budget amount of $113,518,455.	Staff Progress: On-going Continue working with J.F. Shea for the construction of the ARC-AWTF. As a design-build agreement, budget appropriations were executed along the way. Change Order #4 was approved for costs related to unforeseen construction-related issues.	To eliminate the need of imported water	1 & 2	033
Date of Board Action:10/3/18 Approve the Amendment to the Grant Agreement for a time extension to June 30, 2019.	Staff Progress: Complete San Gabriel and Lower Los Angeles (SGLA) Rivers and Mountains Conservancy (RMC) awarded the District $1 million for the Recycled Water Campus San Gabriel River Parkway Project for the Albert Robles Center for Water Recycling and Environmental Learning (ARC).	To eliminate the need of imported water	1	033
Date of Board Action:10/17/18 Adopt the Updated Five-Year Capital Improvement Program for Fiscal Years 2018-19, through Fiscal Years 2022-2023 as submitted; and authorize staff to file a Notice of Exemption from CEQA.	Staff Progress: On-going As part of the annual budget process, the Board approved the District's Five-Year Capital Improvement (CIP) Program for Fiscal Years 2018/19 through 2022-23.	Advance the District's Capital Improvement Projects	ALL	All Capital Projects

Date of Board Action: 10/17/18 Approve execution of Amendment No. 1 to the license agreement with the City of Whittier and Central Basin Municipal Water District, subject to approval of form by District Counsel.	Staff Progress: Complete The District executed a license agreement with City of Whittier and Central Basin Municipal Water District (CBMWD) to utilize a portion of the property immediately north of the site as a temporary construction laydown area. WRD extended the existing license agreement with the City of Whittier and CBMWD.	To eliminate the need of imported water	1	033
Date of Board Action: 10/17/18 Approve a payment of $1,586,316.69 to County Sanitation Districts of Los Angeles County (LACSD) for the 6-month temporary wastewater discharge permit for the Albert Robles Center Advanced Water Treatment Facility.	Staff Progress: Complete Wastewater generated by the AWTF will be discharged to the existing sewer system, which is owned and operated by the County Sanitation Districts of Los Angeles County (LACSD). Based on the projected brine flows and water quality anticipated from the ARC AWTF, the District paid the discharge fee.	Effectively manage groundwater conditions within its service area	1	006
Date of Board Action: 11/7/18 Approve release of the Request for Proposals for Fabrication of Directional and Inspirational Signage for the Lillian Kawasaki Demonstration Garden.	Staff Progress: Complete The Lillian Kawasaki Demonstration Garden is constructed at the Albert Robles Center (ARC) designed to educate visitors about water conservation and international drought-tolerant or California native species.	Promote the educational proposal for the former director's garden	3	033
Date of Board Action: 11/7/18 Approve execution of Amendment No. 1 to Contract No. 912, subject to approval of form by District Counsel, with Angelview LLC dba Multivista to continue specialized photo documentation services for the Albert Robles Center (ARC) construction project for an amount of $15,150, plus a 10% contingency of $1,515, for a total cost not to exceed $16,665, and with a contract term that ends on June 30, 2019.	Staff Progress: Complete Angelview LLC dba Multivista has been providing specialized photo documentation services during the construction of the Albert Robles Center (ARC). Continue working with such vendor until the completion of the ARC.	To eliminate the need of imported water	1	033
Date of Board Action: 11/7/18 Approve the continuation of service under the existing contract with Liftech Elevator Services through November 30, 2019 for an amount not to exceed $15,000.	Staff Progress: On-going Continue working with Liftech Elevator Services to provide maintenance and repair services for WRD elevators..	Provide more safety for the District's facilities	1	ADM
Date of Board Action: 11/7/18 Approve execution of Amendment No. 1 to Contract No. 881, subject to approval of form by District Counsel, with Earthcam, Inc. to continue construction camera services for the Albert Robles Center (ARC) construction project for an amount of $15,295.21, plus a 10% contingency of $1,530 (rounded), for a total cost not to exceed $16,825.21, and with a contract term that ends on June 30, 2019.	Staff Progress: Complete Earthcam, Inc. currently provides video surveillance at the Albert Robles Center (ARC). The contract was extended by which time ARC construction should be completed.	Provide more safety for the District's facilities	1	033
Date of Board Action:11/21/18 Approve execution of Amendment No. 1 to Contract No. 829, subject to approval of form by District Counsel, with Pacific Resources Services to extend the contract term through June 30, 2020 and amend the scope of work to include labor compliance monitoring services for the Safe Drinking Water Program Maywood Avenue Well Treatment Project.	Staff Progress: Complete Contracted with Pacific Resources Services to ensure compliance to the Project Labor Agreement established for the Maywood Avenue Well Treatment Project relating to the District's Safe Drinking Water Program	Promote the Safe Drinking Water Program and staff labor	1	012
Date of Board Action: 11/21/18 Execute Amendment No. 3 to Agreement No. 915, subject to approval as to form by District Counsel, with Partners in Control, Inc., dba Enterprise Automation to increase the budget by an amount of $1,711,891, plus a 10% contingency of $171,189, for a total cost not to exceed $1,883,080 to maintain WRD's SCADA systems and implement the projects and recommendations specified in the SCADA System Master Plan.	Staff Progress: Complete Enterprise Automations is contracted to provide Supervisory Control And Data Acquisition services. After several amendments, Staff extended the contract to perform routine maintenance of the SCADA systems at all WRD facilities.	Perform engineering services for the District's facilities	4	039

Date of Board Action: 11/21/18 Approve award of contract to Corporate Business Interiors, subject to approval of form by District Counsel, to provide system furniture and walls, freestanding furniture, and other related accessories for the Albert Robles Center (ARC) for an amount of $191,315.19, plus a 10% contingency, for a total amount not to exceed $210,450 (rounded), and with a contract term that ends on June 30, 2019. In addition, CIP Committee recommends that the Board of Directors approve procurement of the five laboratory storage cabinets and associated locks from Harris American.	Staff Progress: Complete WRD needs to purchase office furniture for the on-site buildings for the Albert Robles Center. Staff awarded a contract to Corporate Business Interiors for system furniture and walls, freestanding furniture, and other related accessories for the ARC facility.	Advance the District's facilities with office furniture	1	033
Date of Board Action: 12/20/18 Approve the execution of Amendment No. 2 to Contract No. 877, subject to approval of form by District Counsel, with J.F. Shea Construction, Inc. to rectify Contract discrepancies and memorialize recent items negotiated with J.F. Shea Construction, Inc. regarding the previously completed treatment plant pilot study, plant acceptance testing, and transitional operations related to the Albert Robles Center (ARC) Advanced Water Treatment Facility (AWTF) project.	Staff Progress: Complete J.F. Shea Construction has been constructing the Albert Robles Center (ARC) since 2016. Amendment No. 2 will rectify discrepancies, and memorialize recently negotiated items.	To manage improvement to District's treatment plants	1, 2, & 3	033
Date of Board Action: 12/20/18 Proceed with amending the contract with Separation Processes, Inc. to include a no-cost, time extension to December 31, 2020.	Staff Progress: Complete Separation Processes, Inc. (SPI) is a firm specializing in the application of membrane technology and other advanced processes for water and wastewater treatment, which has assisted WRD on a variety of issues in the past. Time extension will ensure this resource is available if needed by either the recently expanded Leo J. Vander Lans facility or the Torrance Desalter, or the soon to be completed Albert Robles Center.	To expand the Torrance Desalter and complete ARC	1 & 2	001, 002, 033
Date of Board Action: 12/20/18 Approve the following for the Albert Robles Center (ARC): • Purchase of furniture from Allsteel Inc. for an amount not to exceed $106,639.60; • Purchase of furniture from The Gunlocke Company LLC for an amount not to exceed $18,663.26; • Purchase of furniture from Mity-Lite, Inc. for an amount not to exceed $18,818.34; • Award of contract to Corporate Business Interiors, subject to approval of form by District Counsel, to design and order the furniture from Allsteel Inc., The Gunlocke Company LLC, and Mity-Lite, Inc., and deliver and install the furniture for an amount not to exceed $48,588.28, with a contract term that ends June 30, 2019; • Purchase the five laboratory storage cabinets and associated locks from Harris American for an amount not to exceed $2,462.68; and · A total budget not to exceed $214,690 (rounded), which is the total cost of $195,172.16 for all furniture and associated costs for design, delivery, and installation, plus 10% contingency.	Staff Progress: Complete With Construction on the Albert Robles Center nearing completion, interior furniture were purchased for the facility.	Advance the District's Groundwater Reliability Improvement Program (ARC)	4	033
Date of Board Action: 12/20/18 Approve the release of a Request for Bids for the ARC Supplemental Recharge Well Equipment Installation Project.	Staff Progress: The final design and specifications for the Albert Robles Center (ARC) Supplemental Recharge Well Equipment Installation Project are almost completed. To facilitate this process, a construction contractor must be retained to assist the District and the ARC Design Build Entity with equipping the existing supplemental recharge wells.	Advance the District's Groundwater Reliability Improvement Program (ARC)	4	033

Date of Board Action: 12/20/18 Approve and authorize the release of a Request for Qualifications for Owner's Engineer/Owner's Agent services relating to WRD's Cerritos Interconnection Pipeline Project.	Staff Progress: The Cerritos Interconnection Pipeline is being proposed as a strategy to convey supplemental tertiary recycled water into the LBWD system, which in turn supplies LVL, which has been historically difficult to supply. In order to develop the bridging documents necessary to hire a design-build entity (DBE), an Owner's Engineer/Owner's Agent (OE/OA) is necessary.	To develop supply and recycled water sources in the system	1 & 2	044 & 001
Date of Board Action: 12/20/18 Proceed with amending the contract with GHD to include a time extension to December 31, 2020.	Staff Progress: Complete GHD is a recognized global leader in asset management and has been instrumental in assisting the District in developing an enterprise asset management program.	Instrumental to the District's Strategic Plan	4	033 & 040
Date of Board Action:02/21/19 Execute an amendment with BrightView Landscape Services, subject to approval as to form by District Counsel, for additional landscape services extended December 31, 2020.	Staff Progress: On-going Continue working with BrightView Landscape for landscaping services for all the District's facilities including a new scope of work for the Albert Robles Center (ARC).	To extend the landscape services for ARC	1	Adm, 001 & 033
Date of Board Action: 02/21/19 Execute the memorandum of agreement with Los Angeles Department of Water and Power to establish a cost sharing agreement for the development of the Joint Los Angeles Basin Replenishment and Extraction Master Plan.	Staff Progress: Complete The Water Replenishment District (WRD) and Los Angeles Department of Water and Power (LADWP) have been working collaboratively to establish a partnership on several projects and programs with overlapping objectives. Specifically, LADWP is initiating a Groundwater Development and Augmentation Plan (GDAP) and would like WRD's participation and partnership in this effort	To manage collaborations with LADWP for projects and programs	1, 2, & 3	ADMIN
Date of Board Action: 02/21/19 Approve the professional services agreement, subject to approval as to form by District Counsel, with Jacobs Engineering, with a term that begins on February 21, 2019 and ends on December 21, 2020, for an initial contract value of $1,499,976, with a 10% contingency of $150,024, for a total not to exceed amount of $1,650,000.	Staff Progress: Complete Jacob Engineering provided professional services for the development of the WRD and LADWP Joint Los Angeles Basin Replenishment and extraction Master Plan.	Develop a sustainable groundwater strategy	1 & 2	045
Date of Board Action: 02/21/19 Approve the execution of Change Order No. 5 with JF Shea Construction, Inc. for the Albert Robles Center Project, subject to approval as to form by District Counsel, in the amount of $653,301.	Staff Progress: On-going JF Shea is a design build contractor for the construction of the ARC AWTF. A Change Order No. 5 is associated with the SCE design modifications for the undergrounding of the power poles and sandy soil conditions when installing the utilities along San Gabriel River Parkway and other additional scope of work.	Effectively manage groundwater conditions within its services area	1	033
Date of Board Action:03/06/19 Approve execution of Amendment No. 3 to Contract No. 884, with Environmental Science Associates (ESA) to extend the contract term through December 31, 2019, subject to approval as to form by District Counsel.	Staff Progress: On-going Contracted with Environmental Science Associates for environmental monitoring services during the construction of the Albert Robles Center. Additional environmental monitoring services for the Brine-line Disposal Project and the installation of the on-site supplemental recharge wells.	To manage and monitor environmental services for ARC	3	033
Date of Board Action:03/21/19 Approve the Amendment to the Grant Agreement for a time extension to December 31, 2019.	Staff Progress: Complete San Gabriel and Lower Los Angeles (SGLA) Rivers and Mountains Conservancy (RMC) awarded the District $1 million for the Recycled Water Campus San Gabriel River Parkway Project.	To develop local and sustainable sources of water for use in groundwater activities	1 & 2	033
Date of Board Action: 03/21/19 Award a contract to Digital Networks Group, subject to approval as to form by District Counsel, for a total not to exceed amount of $274,868 (rounded), which includes the bid of $249,879.56 (cost of all A/V equipment, and labor and installation) plus 10% contingency, with a contract term that ends on December 31, 2019.	Staff Progress: Complete Awarded a contract to Digital Networks Group for the Audio/Video systems for the Albert Robles Center.	To manage the lifecycle of the District's business network	3	033

Date of Board Action: 03/21/19 Approve the award of contracts with terms that end on June 30, 2021 to the four specialty chemical vendors, including Professional Water Technologies, King Lee Technologies, Avista Technologies, Inc., and American Water Chemicals, Inc., to supply proprietary RO antiscalants and cleaning chemicals to the WRD facilities at the Guaranteed Maximum Pricing indicated in their respective proposals.	Staff Progress: Complete WRD treatment plants require specialty chemicals for normal operations. Staff consolidated the procurement of these chemicals in house, and awarded contracts to the following vendors.	To manage improvement to District's treatment plants	1, 2, & 3	001,002 & 033
Date of Board Action: 04/18/19 Approve execution of Amendment No. 3 to Contract No. 917, subject to approval of form by District Counsel, with AKD Consulting to extend the contract term through December 31, 2019.	Staff Progress: Complete AKD Consulting provides the District with support for the Albert Robles Center Construction Project. Since the construction schedule is expected to extend beyond initially anticipated, WRD amended the AKD agreement.	Provide consulting services and support for ARC	1	033
Date of Board Action: 04/18/19 Approve the purchase of the upgrade license from Wonderware California at a cost of $83,263.	Staff Progress: On-going The District used Wonderware System Platform as the central repository for operational data from all treatment facilities. The District upgraded the software.	Advance District facilities with software technologies	3	039
Date of Board Action: 04/18/19 Approve execution of Amendment No. 2 to Contract No. 912, subject to approval of form by District Counsel, with Multivista to extend the contract term through December 31, 2019.	Staff Progress: Complete Multivista provided specialized photo documentation services for the District to capture the detailed progression of construction at crucial intervals from non-fixed locations at the Albert Robles Center.	Advance the District's Groundwater Reliability Improvement Program (ARC)	1	033
Date of Board Action: 04/18/19 Approve execution of Amendment No. 2 to Contract No. 881, subject to approval of form by District Counsel, with Earthcam, Inc. to extend the contract term through December 31, 2019.	Staff Progress: On-going Earthcam was contracted to install and maintain two construction cameras to provide a live video feed of site activities and archived photo documentation services at the Albert Robles Center site. Since the construction schedule is expected to extend beyond initially anticipated, the contract was amend the Earthcam, Inc.	Advance the District's Groundwater Reliability Improvement Program (ARC)	1	033
Date of Board Action: 05/02/19 Authorize the release of a Request for Proposal (RFP) to retain a firm that can provide full-time, 24-hour security personnel for the Albert Robles Center (ARC) and security patrol services for the Field Operations and Storage Annex Facility.	Staff Progress: Complete RFP was issued for security services for the District's ARC and Annex facilities.	Promote the advanced water treatment facility for ARC	4	033 & 041
Date of Board Action: 05/02/19 Approve an agreement with the County Sanitation Districts of Los Angeles County (LACSD) to enter into a 10-year annual payment schedule for the wastewater connection fee for the Albert Robles Center (ARC).	Staff Progress: Complete Approved a 10-year annual installment payment of connection fees for the ARC for wastewater generated by the ARC AWTF that will be discharged to the existing sewer system owned by LACSD.	Advance the District's Groundwater Reliability Improvement Program	1 & 2	033
Date of Board Action: 05/02/19 Authorize payment in the amount of $325,193 to the City of Whittier for the lease of the southern portion of the City of Whittier property for the period of January 1, 2019 through December 31, 2019.	Staff Progress: Complete WRD leased a property from the City of Whittier for the temporary storage of construction materials and equipment, construction office trailers, and field personnel parking during the construction of the Albert Robles Center Advanced Water Treatment Facility.	To obtain the temporary storage for management use	1	033
Date of Board Action: 05/16/19 Approve Hach Company service contract subject to approval as to form not to exceed $33,154	Staff Progress: Complete Hach Company provided services in the plant includes site visits, instrument calibrations, replacement of parts and consumables, factory technical support, firmware upgrades, etc. WRD is establishing the on-board of service contracts and obligations to oversee the operations of the treatment plants.	To provide technical support services for the treatment plants	1 & 2	033
Date of Board Action: 05/16/19 Award a one-year contract, subject to approval as to form by District Counsel, to Ingersoll Rand to provide preventative maintenance services for the Leo J. Vander Lans air compressors with a term that ends on May 16, 2020, for an initial contract value of $16,189 plus a contingency of $8,811, for a total not-to-exceed $25,000.	Staff Progress: Complete LVL has maintained eight air systems via service contracts, reimbursed by WRD through LBWD that are comprised of multiple air compressors, air receivers and controls. WRD is starting the on-boarding of service contracts and obligations to oversee the operation of the treatment plants.	To provide technical support services for the treatment plants	1 & 2	001

Date of Board Action: 05/16/19 Award a contract, subject to approval as to form by District Counsel, with Univar to provide chemicals to all WRD treatment plants for a total budget not to exceed $946,000 with a contract term that ends on June 30, 2020.	Staff Progress: Complete WRD awarded a contract to Univar for bulk generic chemicals for all WRD treatment facilities.	To provide chemical sources for District's treatment plants	1, 2, & 3	011
Date of Board Action: 05/16/19 Award a contract, subject to approval as to form by District Counsel, with Air Gas Specialty Products to provide chemicals to all WRD treatment plants for a total budget not to exceed $145,000 with a contract term that ends on June 30, 2020.	Staff Progress: Complete Air Gas Specialty Products is a chemical provider for bulk generic chemical for all WRD treatment.	To provide chemical sources for District's treatment plants	1, 2, & 3	011
Date of Board Action: 05/16/19 Award a contract, subject to approval as to form by District Counsel, with Brenntag to provide chemicals to all WRD treatment plants for a total budget not to exceed $1,800,000 with a contract term that ends on June 30, 2020.	Staff Progress: Complete Brenntag is a chemical provider for bulk generic chemical for all WRD treatment.	To provide chemical sources for District's treatment plants	1, 2, & 3	011
Date of Board Action: 05/16/19 Award a contract, subject to approval as to form by District Counsel, with Olin Chlor Alkali Products to provide chemicals to all WRD treatment plants for a total budget not to exceed $460,000 with a contract term that ends on June 30, 2020.	Staff Progress: Complete Olin Chlor Alkali Products is a chemical provider for bulk generic chemical for all WRD treatment.	To provide chemical sources for District's treatment plants	1, 2, & 3	011
Date of Board Action: 05/16/19 Award a contract, subject to approval as to form by District Counsel, with Carus Chemical to provide chemicals to all WRD treatment plants for a total budget not to exceed $185,000 with a contract term that ends on June 30, 2020.	Staff Progress: Complete Carus is a chemical provider for bulk generic chemical for all WRD treatment.	To provide chemical sources for District's treatment plants	1, 2, & 3	011
Date of Board Action: 06/20/19 Authorize the General Manager to release a Request for Proposals for professional services for the ARC Supplemental Recharge Well Rehabilitation Project	Staff Progress: Complete The District attempts to determine a varied, stepped approach that can be redeveloped to a level where they can achieve the minimum total capacity needed and that minimum injection capacities can be obtained in order to complete the Supplemental Recharge Well Equipment Installation Project. To meet the minimum capacity of the ARC AWTF, WRD is needed to select a consultant for the further assistance.	Advance the District's Groundwater Reliability Improvement Program (ARC)	1 & 2	033
Date of Board Action: 06/20/19 Authorize the General Manager to release a request for bids for the Robert W. Goldsworthy Desalter Well Rehabilitation Project	Staff Progress: Complete RFB was released for a vendor to remove any clogging materials to improve the performance of the wells in the RWGD facility.	To improve the performance of water managements	1 & 2	002
Date of Board Action: 06/20/19 Approve Amendment No. 1 to Contract No. 934 with Platt Security Systems Inc., subject to Approval of form by District Counsel, for a contract time extension through December 31, 2019 for continuation of security services at the WRD Field Operations and Storage Annex Facility using Contingency funds.	Staff Progress: Complete Platt Security, Inc. was awarded a two-year General Services Agreement to provide nightly patrol services at the property.	To provide the safety to the District's facilities	1	041
Date of Board Action: 06/20/19 Approve the preparation and issuance of a Request for Bids for well installations and aquifer testing associated with the Los Angeles Forebay Perchlorate and Volatile Organic Compound Clean-up Project.	Staff Progress: Complete WRD partnership with Los Angeles Forebay Groundwater Task Force to investigating a perchlorate groundwater "hot" plume with the assistance of various regulatory agencies.	To assist local and federal agencies for the water projects	1 & 2	011
Date of Board Action: 06/20/19 Extend the Contract Services Agreement, subject to approval as to form by District Counsel, with the City of Torrance for the Robert W. Goldsworthy Desalter for an additional year through June 30, 2020	Staff Progress: Complete Services agreement with the City of Torrance helped sets forth a pricing structure to purchase product water.	Maximize use of groundwater basins to eliminate demand for imported water	1 & 2	002

Date of Board Action: 06/20/19 Adopt Resolution Number 19-1104 to approve an application for, and execution of, a cooperative agreement with the U.S. Bureau of Reclamation for the 2019 WaterSMART Title XVI Grant Program for the GRIP (now ARC) Recycled Water Project, subject to approval as to form by District Counsel.	Staff Progress: Complete The District received Grant funding from the USBR for the construction the construction of the water recycling projects under the Water Infrastructure Improvements for the Nation ACT with up to $20 million	Provide funding sources for groundwater improvements and treatments	4	033
Date of Board Action: 06/20/19 Adopt Resolution 19-1107 approving and accepting the negotiated tax exchange resolution annexation of project L001-2016 to County Lighting Maintenance District 1687.	Staff Progress: Complete The County of Los Angeles Department of Public Words received a request regarding participation in the exchange of ad valorem property tax and is needed to be determined the exchange of property tax revenue.	To manage the District's assets for property tax	3	ADMIN
Date of Board Action: 06/20/19 Adopt Resolution 19-1108 approving and accepting the negotiated tax exchange resolution annexation of project map NO. 71032 to County Lighting Maintenance District 1687.	Staff Progress: Complete The County of Los Angeles Department of Public Words received a request regarding participation in the exchange of ad valorem property tax and is needed to be determined the exchange of property tax revenue.	To manage the District's assets for property tax	3	ADMIN
Date of Board Action: 06/20/19 Adopt Resolution 19-1109 approving and accepting the negotiated tax exchange resolution annexation of project L092-2018 to County Lighting Maintenance District 1687.	Staff Progress: Complete The County of Los Angeles Department of Public Words received a request regarding participation in the exchange of ad valorem property tax and is needed to be determined the exchange of property tax revenue.	To manage the District's assets for property tax	3	ADMIN
Date of Board Action: 06/20/19 Adopt Resolution 19-1110 approving and accepting the negotiated tax exchange resolution annexation of project No. 32-416 (TRACT NO. 73406) to County Lighting Maintenance District 10066.	Staff Progress: Complete The County of Los Angeles Department of Public Words received a request regarding participation in the exchange of ad valorem property tax and is needed to be determined the exchange of property tax revenue.	To manage the District's assets for property tax	3	ADMIN
Date of Board Action: 06/20/19 Adopt Resolution 19-1111 approving and accepting the negotiated exchanged of property tax revenues resulting from annexation of project L042-2018 to County Light Maintenance District 1697.	Staff Progress: Complete The County of Los Angeles Department of Public Works received a request regarding participation in the exchange of ad valorem property tax and is needed to be determined the exchange of property tax revenue.	To manage the District's assets for property tax	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, and project. 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 2019/20 Budgeted Summary of Personnel by Department and by Program along with the District's 2019/20 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.

2019/20 FTE by Program

Table 53 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 note of change is due to reallocation of staff time to capital projects and changes relating to 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.

2019/20 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.

2019/20 Labor Allocation Worksheet

The annual labor allocation worksheet (Table 91A and B) is designed to provide an accurate cost allocation of labor and overhead to each individual project, program, and administrative departments.

Table 56

Full Time Equivalents (FTE) by Program

Program Name	2015/16 Actual	2016/17 Actual	2017/18 Budget	2018/19 Budget	2019/20 Budget
Operations and Maintenance					
Leo J Vander Lans	0.49	1.01	1.63	1.43	1.48
Water Conservation	0.51	0.04	1.13	1.13	1.13
Robert Goldsworthy Desalter	0.01	0.07	1.04	0.43	0.58
Montebello Forebay Reclaimed Water	1.08	0.40	1.36	2.46	2.21
Groundwater Resources Planning	1.67	0.94	1.47	0.85	0.35
Water Quality Program	1.53	1.12	1.55	1.35	0.50
Title 22 Program	0.26	0.00	0.20	0.20	0.30
Geographic Information System	1.48	1.57	0.51	0.95	1.05
Regional GW Monitoring Program	1.41	2.30	2.44	2.09	1.79
Dominguez Barrier Recycled Wtr	0.52	0.55	0.41	1.75	1.55
Replenishment Program	0.66	0.71	0.70	1.30	2.20
Hydrogeology	0.68	0.88	1.10	0.70	1.00
Water Education	3.75	6.66	1.36	1.31	1.39
Safe Drinking Water	0.30	0.15	0.42	0.92	0.92
GRIP	0.00	0.10	2.10	2.00	2.70
West Basin Barrier	0.04	0.00	0.20	0.00	0.00
Engineering Program	0.00	0.00	0.00	0.75	0.70
Total	**14.39**	**16.50**	**17.62**	**19.62**	**19.85**
Capital Projects					
Leo J Vander Lans	0.25	0.30	0.20	0.50	0.00
Robert Goldsworthy Desalter	0.71	0.57	0.40	0.50	0.00
WRD Building	0.00	0.00	0.10	0.00	0.00
Groundwater Monitoring - New Wells	0.00	0.00	0.00	0.00	0.00
GRIP	3.05	2.54	2.93	2.53	2.33
Safe Drinking Water	0.00	0.00	0.20	0.30	0.50
Watermaster Services	0.53	0.47	2.80	4.00	2.20
LADWP Well Construction Program	0.05	0.00	0.00	0.00	0.00
Engineering Program	0.00	0.00	0.00	1.20	2.00
Total	**4.59**	**3.88**	**6.63**	**9.03**	**7.03**
Finance/Admin/EA					
Finance/Admin/EA	14.76	13.05	12.70	25.12	22.12
General Manager					
General Manager	1.00	1.00	1.00	1.00	0.00
Grand Total	**34.74**	**34.45**	**37.95**	**54.77**	**49.00**

Table 57A

19/20 Labor Allocation Worksheet

	Finance/ Admin/EA	GM	Board of Directors	Operating Projects	Capital Projects	Watermaster Projects	Grand Total
1010- Board of Directors							
Director			100%				100%
Director			100%				100%
Director			100%				100%
Director			100%				100%
Director			100%				100%
1005- General Manager (1 Staff)							
General Manager					100%		100%
1000- Internal Services (6 Staff)							
Assistant GM/CAO	60%			15%	25%		100%
Mgr of Admin & HR	100%						100%
Project Administrator	100%						100%
Project Administrator	100%						100%
Sr Administrator	100%						100%
Admin Specialist	100%						100%
Office Assistant	100%						100%
1040 - Finance (6 staff)							
Chief Financial Officer	100%						100%
Mgr of Financial Services	100%						100%
Sr Accountant	75%					25%	100%
Sr. Accountant	100%						100%
Sr. Accounting	100%						100%
Purchasing Agent	100%						100%
1020 - CES (6 Staff)							
Manager of External Affairs	10%			72%	18%		100%
Sr Government Affairs Rep	6%			86%	8%		100%
Sr Public Affairs Rep	3%			87%	10%		100%
Public Affairs Rep	16%			80%	4%		100%
Public Affairs Rep	26%			72%	2%		100%
Public Affairs Rep	26%			73%	1%		100%
1060- Hydrogeology (10 Staff)							
Manager of Hydrogeology				80%	20%		100%
Sr Hydrogeologist				100%	0%		100%
Sr. Hydrogeologist				100%	0%		100%
Hydrogeologist				100%	0%		100%
Associate Hydrogeologist				100%	0%		100%
Associate Hydrogeologist				100%	0%		100%
Associate Engineer				100%	0%		100%
Assistant Hydrogeologist				100%	0%	75%	175%

Table 57B

19/20 Labor Allocation Worksheet

	Finance/ Admin/EA	GM	Board of Directors	Operating Projects	Capital Projects	Watermaster Projects	Grand Total
1030 - Engineering (7) Staff)							
Assistant GM/COO	10%			60%	30%		100%
Manager of Engineering				30%	70%		100%
Senior Engineer				100%	0%		100%
Engineer				100%	0%		100%
Engineer				45%	55%		100%
Associate Engineer				100%	0%		100%
Water Operation Manager				100%	0%		100%
1070 - Enterprise Resource Planning Watermaster (6) Staff							
Water Resource Planner				30%	0%	70%	100%
Office Assistant					0%	100%	100%
1080 - Data and Technology (5) Staff							
Technical Specialist				50%	0%	50%	100%
Network Administrator	90%			0%	0%	10%	100%
Document Imaging Specialist				0%	0%	0%	0%
GIS Analyst	0%			100%			100%
Technical Specialist	100%						100%
1090 - Water Resources (2) Staff							#REF!
Manager of Water Resources	0%			25%	75%		100%
Sr Analyst	0%			50%	50%		100%
1050 - Retirees - (11)							
Retiree	100%						100%
Retiree	100%						100%
Retiree	100%						100%
Retiree	100%						100%
Retiree	100%						100%
Retiree	100%						100%
Retiree	100%						100%
Retiree	100%						100%
Retiree	100%						100%
Retiree	100%						100%
Retiree	100%						100%
Retiree	100%						100%
Whelan (Surviving Spouse Only)	100%						100%

Resolution Adopting Replenishment Assessment

RESOLUTION NO. 19-1102

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, 2019 AND ENDING ON JUNE 30, 2020 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 21, 2019, 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. 19-1096, has declared that funds shall be raised to purchase water for replenishment of groundwater supplies within the District during the ensuing fiscal year, 2019/20, 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. 19-1096, 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 3, 2019, which has been made available to the public, describing the services the District anticipates performing in Fiscal Year 2019/20, 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 3, 2019, as required by California Water Code § 60307, the Board held 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 3, 2019 hearing was published as required by law; and

WHEREAS, in addition to the public hearing, the District also held budget workshops that were open to the public, where the District provided the public with information concerning its Fiscal Year 2019/20 budget, which is directly related to the Replenishment Assessment; and

WHEREAS, the District's Budget Advisory Committee has met and the Board has received and considered recommendations from the Budget Advisory Committee; 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 the public hearing; 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 desires to move forward with the levy of a Replenishment Assessment for the upcoming year.

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, 2017/18, was 171,482 acre-feet as provided in the 2019 ESR and any updates.

    b) The estimated annual overdraft for the current water year, 2018/19, is 67,800 acre-feet as provided in the 2019 ESR and any updates.

    c) The estimated annual overdraft for the ensuing water year, 2019/20, is also 67,800 acre-feet as provided in the 2019 ESR and any updates.

d) The accumulated overdraft as of the last day of the preceding water year was 828,665 acre-feet as provided in the 2019 ESR and any updates.

e) The estimated accumulated overdraft as of the last day of the current water year is 802,600 acre-feet as provided in the 2019 ESR and any updates.

f) The total production of groundwater from the groundwater supplies within the District during the preceding water year was 220,697 acre-feet as provided in the 2019 ESR and any updates.

g) The estimated total production of groundwater from groundwater supplies within the District for the current water year is 213,000 acre-feet as provided in the 2019 ESR and any updates.

h) The estimated total production of groundwater from the groundwater supplies within the District for the ensuing water year is also 213,000 acre-feet as provided in the 2019 ESR and any updates.

i) In the preceding water year there was below normal precipitation resulting in an overall water level decline in the WRD service area. Although WRD continued artificial replenishment activities with recycled and imported water, there was insufficient rainfall to makeup the overdraft. Therefore, groundwater levels fell Districtwide 4.0 feet on average, although in some areas groundwater fell over 30 feet. As a result, an estimated 80,243 AF of groundwater was removed from storage. The 2019 ESR and any updates provide details of water levels and basin conditions.

j) In the current water year the District has received approximately 30% above normal rainfall and water levels have risen as a result. Water levels in the Montebello Forebay rose nearly 40 feet during the peak of the winter season, but are presently about 12 feet higher than the previous water year. Basin conditions are much improved over the previous water year, but still below pre-drought conditions. The 2019 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 90,400 acre-feet, which includes 61,400 acre-feet at the spreading grounds and 29,000 acre-feet at the seawater barrier wells. Details of the calculations for these amounts are presented in the 2019 Engineering Survey and Report and any updates, and on budget discussions with the Board of Directors and Budget Advisory Committee.

l) The source and estimated cost of the water available for the replenishment described in Section (k) is presented in the 2019 ESR and any updates.

m) The estimated net costs of replenishing the groundwater supplies with the water so purchased are $34,533,522. The derivation of this amount is described in the 2019 ESR, the 2019 Cost of Service Report, and any updates to these documents, and on Board and Budget Advisory Committee decisions at various public meetings. 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 $162 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 $41,462,280. 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 $195 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 2019 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 $357 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 2019 ESR 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 2019/20 fiscal year are estimated at $8,582,720. 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 $40 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 2019/20 will not exceed the applicable limitations provided in Water Code Sections 60290.

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, 2019/20, for the purpose of accomplishing such replenishment and water quality programs by the District is $365 per acre-foot of yearly groundwater production. After accounting for the use of an estimated $6,742,000 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: $345 per acre-foot for the cost of purchasing water, financing capital improvement projects and other costs relating to accomplishing groundwater replenishment, and $20 per acre-foot for clean water programs. Of the $345 per acre-foot allocated to accomplishing groundwater replenishment, $70 per acre-foot is allocated to capital projects. Of the $20 per acre-foot allocated to clean water programs, $4 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, 2019 and ending June 30, 2020, a replenishment assessment in the amount of $365 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 2019/20 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 2019 Cost of Service Report, the proposed 2019/20 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 this resolution 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 2019/20 fiscal year to determine whether an additional environmental document must be prepared. Based on this examination, the 2019 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 2019/20 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 2019/20 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 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.

The water basin management 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.

Pursuant to the recent California Supreme Court decision in *City of San Buenaventura v. United Water Conservation District*, 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 (Proposition 218). 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 May 2, 2019 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) On May 2, 2019 the Board opened the Public Hearing, provided an opportunity for oral and written comment, and then continued to the Public Hearing to May 7, 2019.

(d) On May 7, 2019 the Board considered all written testimony and protests and heard oral comments from all who wished to speak regarding the proposed Replenishment Assessment.

(e) From the date the hearing notice was mailed through the close of the public testimony portion of the Public Hearing on May 7, 2019, 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) The Board determines that it has not received written protests from a majority of active pumpers.

(g) 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.

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

(i) 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.

(j) 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.

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

(l) The Board notes that, in addition to replenishment assessment proceeds, the District receives an allocation of ad valorem property tax revenues. 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.

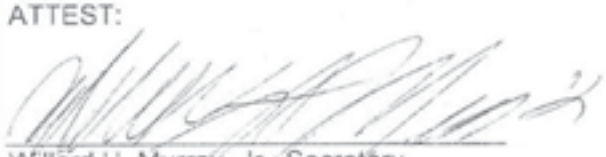
PASSED, APPROVED AND ADOPTED THIS 7th day of May 2019 by the following vote:

AYES: 4
NOES: 0
ABSENT: 1
ABSTAIN: 0

WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA

John D. S. Allen, President

ATTEST:



Willard H. Murray, Jr., Secretary

5/7/2019

DATE

APPROVED AS TO FORM:

Leal Trejo APC District Counsel

Capital Improvement Program

WATER REPLENISHMENT DISTRICT
OF SOUTHERN CALIFORNIA

Updated Five Year Capital Improvement Program Fiscal Years 2018/19 – 2022/23

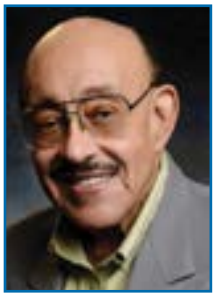
Approved by WRD Board of Directors

October 2018

UPDATED FIVE-YEAR CAPITAL IMPROVEMENT PROGRAM, 2018

Approved by Board of Directors on October 17, 2018

BOARD OF DIRECTORS



Willard H. Murray, Jr.
Division 1

Rob Katherman
Division 2

John D.S. Allen
Division 3

Sergio Calderon
Division 4

Vera Robles DeWitt
Division 5

GENERAL MANAGER

Robb Whitaker; P.E.

Prepared by:

Diane Gatza; P.E.

Scott Ota; CPA, CFF, CGMA, CIRA
Chief Financial Officer

Memorandum

DATE: October 17, 2018
TO: INTERESTED STAKEHOLDERS

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: UPDATED CAPITAL IMPROVEMENT PROGRAM 2018/19 THROUGH 2022/23

The Water Replenishment District of Southern California (WRD) is pleased to submit a copy of the proposed Updated Five-Year Capital Improvement Program (CIP) 2018/19 through 2022/23. As part of the annual budget process, staff reviewed and updated WRD's CIP. The Updated CIP is a short-range plan, which summarizes capital projects and equipment purchases and provides a planning schedule. Essentially, the plan provides a link between proposed capital improvement projects, master plans, strategic plans and WRD's annual budget. The Updated CIP reflects WRD's dedication to continued fiscal responsibility, stakeholder sensitivity and organizational efficiency.

A CIP provides many benefits including:

- A systematic evaluation of all potential projects
- Identify the most economical means of financing capital improvements
- A communication tool for public relations and stakeholder

The CIP is also an effective tool to ensure planning and implementation of capital improvements are tied to realistic, predictable sources of income. Furthermore, the CIP is used to define desired projects and follow an adequate timeline for the review of preliminary planning and design by the WRD Board of Directors prior to establishing a construction schedule. The Updated Five-Year CIP also includes projects from prior years that are ongoing.

This update to WRD's previous five-year plan provides information to the public regarding the upcoming capital priorities and allows for multi-year financial planning to support these priorities. The District's capital improvements focus on completing projects identified under the Water Independence Now (WIN) initiative, such as the Albert Robles Center (ARC) for Water Recycling & Environmental Learning (formerly known as the Groundwater Reliability Improvement Project (GRIP)) and water infrastructure management projects, such as the Asset Management Program.

Our needs for future five-year capital funding will peak over the next capital improvement planning horizon as WRD's ARC-related projects transition from advanced planning, design and construction into project expansion and in-house operations. The CIP includes a total of $218.5 million in capital improvement projects.

The CIP reflects grant funding in excess of $16.2 million and a $35 million one-percent loan from the Clean Water State Revolving Fund (CWSRF) Water Recycling Program for the construction of the GRIP Advanced Water Treatment Facility (AWTF). In November of 2018 WRD will be going out to bond $73.1M in projects for a two year bond issuance. In addition, the CIP describes "other" and "new funding" categories, which may be fulfilled via partnerships, grants, and/or low-interest loans.

For ease of use and review, the CIP was re-organized into six general project categories:

- Water Independence Now (WIN)
- Regional Water Independence Program
- Basin Management Projects
- WRD Water Infrastructure Management Projects
- Groundwater Quality Protection and Remediation
- Facilities Management, Maintenance, and Repair

There is one new category, in-lieu of the former "Groundwater Management Projects" category that is the "Regional Water Independence Program." This new category includes initiatives that will provide a sustainable water future for the region. In addition, there are various new projects:

- New Water Development in lieu of a Connection Fee at the Albert Robles Center
- Additional Injection & Spreading for the Albert Robles Center
- Direct connection to Los Coyotes Water Reclamation Plant and the Leo J. Vander Lans AWTF
- Dominguez Gap Seawater Intrusion Barrier – Inland Injection Well Field
- Hyperion Replenishment Master Plan
- Regional Replenishment Resource Development
- Well Construction and Loan Program
- Recycled Water Compliance Monitoring Wells at Montebello Forebay Spreading Grounds
- An Energy Management Plan Study & Implementation for WRD's Facilities
- SCADA Implementation
- Contaminated Site Investigations, Cleanup and Monitoring Wells

- Upgrades to existing Robert W. Goldsworthy Desalter & Leo J. Vander Lans AWTF
- Improvements to the Rio Hondo and San Gabriel Spreading Grounds

The draft CIP was presented and reviewed at the Technical Advisory Committee (TAC) on Wednesday, October 10, 2018. Following a detailed review and discussion of the Updated CIP, the TAC made the following recommendation to the Capital Improvement Projects Committee and subsequently the Board of Directors:

Adopt the Updated Five-Year Capital Improvement Program for Fiscal Years 2018-19 through Fiscal Years 2022-2023 as submitted and authorize staff to file a Notice of Exemption from CEQA.

The Updated CIP was introduced to the Capital Improvement Projects Committee on October 10, 2018 and subsequently submitted to the Board of Directors on October 17, 2018 for review, approval and formal adoption.

ABOUT WRD

The Water Replenishment District of Southern California (WRD) was established by a vote of the people in 1959 pursuant to the Water Replenishment District Act of 1955 to counteract the effects of over-pumping in the Central and West Coast Groundwater Basins (collectively, the "Basins"). Prior to the formation of WRD, over-pumping caused wells to go dry and seawater to intrude into potable water aquifers. The WRD is responsible for protecting the Basins, which are two of the most utilized urban groundwater basins in the nation, and serves as the groundwater manager in accordance with the adjudications of the Basins. The WRD protects and manages the Basins through groundwater replenishment, sea water intrusion deterrence and the removal of contaminants from the groundwater. Since its inception, WRD has worked to seek new water resources for groundwater replenishment, manage existing water resources, develop regional infrastructure to improve groundwater management and promote conservation.

The WRD continues to respond to the ongoing drought with the implementation of its Water Independence Now (WIN) Program to completely eliminate the demand for imported water to replenish the Basins. The WIN program is a series of capital improvement projects that fully utilize stormwater and recycled water sources to replenish the groundwater, resulting in a locally sustainable groundwater supply for WRD's stakeholders.

OVERVIEW

The Updated Capital Improvement Program (CIP) plan serves as a comprehensive planning document which identifies capital project expenditures in conjunction with anticipated revenue sources, such as grant funding. The Updated CIP is a working document and should be reviewed and updated annually to reflect stakeholder needs, priorities and funding opportunities.

For ease of use, the CIP is organized into six (6) general project categories. The project categories are as follows:

- Water Independence Now (WIN)
- Regional Water Independence Program
- Basin Management Projects
- WRD Water Infrastructure Management Projects
- Groundwater Quality Protection and Remediation
- Facilities Management, Maintenance, and Repair

Each proposed capital improvement project was assigned to a specific category. The capital improvement program projects are shown by category in Table 1. In addition, each project is exclusively summarized in a dedicated worksheet within the CIP. The project worksheets include a project description, operating impacts discussion, prior year project highlights, projected five-year capital improvement project cost information (separated by project phase) and estimated project schedule.

The CIP accounts for all capital projects that generally meet one or more of the following criteria:

- Typically non-recurring, one-time expenditures
- Expenditures spanning over two fiscal years or longer
- Total project cost exceeding $10,000

Table 58A

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

The Updated CIP budget includes a total of $218.5 million in capital improvement projects. The CIP reflects approximately $16.2 million in grant funding. In addition, funding sources include an $35 million in Loans for ARC, $73.1 million from the 2018 bonds, and $5.6 million of other funding through partnerships and $ 30.2 million in additional funding, which may include funding from another line item in the CIP, general reserves and capital reserve accounts. This is summarized below:

Water Independence Now (WIN)	All Previous Expenses Start of Project through 6/30/2018	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	FY 23/23 Projected Budget	Total CIP Budget	Grants	Loans	Other (Multi-party/ Partnerships)	Additional Funding	2018 Bond Issuance
ARC: Advanced Water Treatment Facility (AWTF)	$ 115,640,875	$73,250,000	$ -	$ -	$ -	$ -	$73,250,000	$9,000,000	$35,000,000	$4,100,000		**$25,150,000**
ARC: New Water Development in lieu of Connection Fee	$-		$15,000,000				$15,000,000				$15,000,000	**$ -**
ARC: Advanced Water Treatment Facility (AWTF) Expansion	$-	$ -	$ -				$ -			$ -		**$ -**
ARC: Advanced Water Treatment Facility (AWTF) Injection Well Expansion	$ -	$ -	$ -				$ -					**$ -**
ARC: Whittier Parcel (Additional Injection, Spreading and/or Energy Management)	$ -	$ -	$200,000				$200,000					**$200,000**
Leo J. Vander Lans Facility: Cerritos Interconnect Pipeline (includes preliminary design)	$653,882	$2,700,000	$9,000,000	$ -	$ -	$ -	$11,700,000			$ -	$ -	**$11,700,000**
Leo J Vander Lans Facility: Los Coyotes Direct Connect	$ -	$700,000	$1,000,000	$900,000	$15,800,000	$ 15,200,000	$33,600,000					**$1,700,000**
Leo J. Vander Lans Facility: Onsite injection Well Storage/ Replenishment	$ -	$600,000	$5,400,000				$6,000,000			$ -		**$6,000,000**
Leo J. Vander Lans Facility: Offsite injection Well Storage/ Replenishment	$ -						$ -					**$ -**
Total	$116,294,757	$ 77,250,000	$ 30,600,000	$900,000	$ 15,800,000	$ 15,200,00	$ 139,750,000	$9,000,000	$ 35,000,000	$ 4,100,000	$ 15,000,000	$ 44,750,000

Regional Water Independence Program	All Previous Expenses Start of Project through 6/30/2018	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	FY 23/23 Projected Budget	Total CIP Budget	Grants	Loans	Other (Multi-party/ Partnerships)	Additional Funding	2018 Bond Issuance
Regional Brackish Water Reclamation Program	$ -	$1,500,000	$1,300,000				$2,800,000	$700,000		$ -		**$ 2,100,000**
Dominguez Gap Seawater Intrusion Barrier- Inland Injection Well Field	$ -	$ -	$500,000	$1,900,000	$10,000,000	$ -	$12,400,000					**$500,000**
Hyperion Replenishment Master Plan	$ -	$1,500,000	$1,500,000	$ -	$ -	$ -	$3,000,000			$1,500,000	$1,500,000	**$ -**
Regional Replenishment Resource Development	$ -	$ -	$1,000,000				$1,000,000				$1,000,000	**$ -**
Well Construction and Loan Program	$ -	$5,200,000	$5,000,000	$1,000,000	$1,000,000	$ 1,000,000	$ 13,200,000				$10,200,000	**$ -**
Total	$ -	$6,700,000	$ 8000,000	$ 2,900,000	$11,000,000	$1,000,000	$29,600,000	$-	$-	1,500,000	$12,700,000	$ 2,600,000

Table 58B

CAPITAL IMPROVEMENT PROGRAM BUDGET OVERVIEW

Basin Management Projects	All Previous Expenses Start of Project through 6/30/2018	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	FY 23/23 Projected Budget Total CIP Budget	Other Total CIP Budget Partnerships	Secured Grants)	Secured Loans (Multi-party)	Additional Funding
Regional Groundwater Monitoring Program - Wells	$10,591,337	$900,000	$900,000	$900,000	$900,000	$ -	$3,600,000	$-	$-	$-
Regional Groundwater Monitoring Program - Telemetry	$ -			$400,000	$400,000	$300,000	$1,100,000	$-	$-	$-
Montebello Forebay Recharge Enhancement Study Phase 2	$719,182			$200,000	$200,000	$200,000	$600,000	$-	$-	$-
Recycled Water Compliance Monitoring Wells at MFSG	$ -	$100,000	$400,000				$500,000			
Total	**$11,310,519**	**$1,000,000**	**$$ 1,300,000**	**$1,500,000**	**$1,500,000**	**$500,000**	**5,800,000**	**$-**	**$-**	**$-**

WRD Infrastructure Management Projects	All Previous Expenses Start of Project through 6/30/2018	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	FY 23/23 Projected Budget	Total CIP Budget	Grants	Loans	Other (Multi-party/ Partnerships)	Additional Funding	2018 Bond Issuance
Asset Management Program	$1,425,748	$600,000	$300,000				$900,000			$-		$900,000
Energy Management Plan Study and Implementation	$ -	$300,000	$2,000,000				$2,300,000					$2,300,000
Monitoring Wells: SCADA Implementation	$2,548,149				$1,000,000	$1,000,000	$2,000,000					$ -
Leo J. Vander Lans: SCADA Upgrades	$ -	$1,700,000	$900,000				$2,600,000					$2,600,000
Goldsworthy : SCADA Upgrades	$ -	$800,000	$500,000				$1,300,000					$1,300,000
Total	**$3,973,897**	**$3,400,000**	**$3,700,000**	**$ -**	**$1,000,000**	**$1,000,000**	**$9,100,000**	**$-**	**$-**	**$ -**	**$ -**	**$7,100,000**

Table 58C

CAPITAL IMPROVEMENT PROGRAM BUDGET OVERVIEW

Groundwater Quality Protection & Remediation	All Previous Expenditures Start of project through 6/30/2018 Prior Year Expenses	FY17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	Projected Budget	Total 5-Year Party/CIP Budget	Secured Grants	Secured Loans (Multi-party/ partnerships	Additional Funding	2018 Bond Issuance
Perchlorate Remediation Project	$ -	$300,000	$ 5,100,000	$ 1,500,000	$2,000,000	$200,000	$9,100,000	$7,200,000		$ -		$ -
Contaminated Site Investigations, Cleanup and Monitoring Wells	$ -	$500,000	$500,000				$1,000,000					$1,000,000
SDWP (DAC only)	$ -						$ -					$ -
SDWP Program - Primary Contaminants (Grants)	$4,153,860	$3,200,000	$1,600,000				$ 4,800,000	$ -	$ -	$ -		$4,800,000
SDWP Program - Secondary Contaminants (Loans)	$ -			$1,500,000	$1,500,000	$1,500,000	$4,500,000					$ -
Total	**$4,153,860**	**$4,000,000**	**$7,200,000**	**$1,500,000**	**$3,490,707**	**$2,000,000**	**$200,000**	**$14,900,000**	**$24,315,170**	**$-**	**$-**	**$5,800,000**

Groundwater Quality Protection & Remediation	All Previous Expenditures Start of project through 6/30/2018 Prior Year Expenses	FY17/18 Projected Budget	FY 18/19 Projected Budget	FY 19/20 Projected Budget	FY 20/21 Projected Budget	FY 21/22 Projected Budget	FY 22/23 Projected Budge	Total 5-Year Party/ CIP Budget	Secured Grants	Other (Multi-party/ partnerships	Additional Funding	2018 Bond Issuance
WRD Office Building- Roof Replacement	$ -	$50,000	$50,000		$ -	$200,000	$ -	$100,000		$ -	$100,000	$ -
WRD Office Building- HVAC Improvements Project	$ -		$2,350,000					$2,350,000		$ -	$ 2,350,000	$1,000,000
Operations and Storage Annex Facility Project	$4,079,373	$1,000,000	$2,000,000					$3,000,000		$ -		$ -
Goldsworthy Desalter Upgrades	$ -	$250,000	$250,000					$500,000			$500,000	
Leo J Vander Lans Upgrades	$ -	$1,000,000	$750,000					$1,750,000			$1,750,000	
Rio Hondo and San Gabriel Spreading Grounds Improvements	$ -	$250,000	$1,250,000					$1,500,000	$ -	$ -		**$1,500,000**
General Engineering (Labor, overhead, legislative, legal)	$ -	$3,000,000	$3,090,000	$3,182,700	$3,182,700	$3,278,181	$3,376,526	$15,927,407				**$6,090,000**
Total	**$4,079,3730**	**$5,550,000**	**$9,740,000**	**$3,182,700**	**$3,278,181**	**$3,376,526**	**$25,127,407**	**$-**		**$-**	**$-**	**$ 10,590,000**

Total	**$ 128,500,000**	**$ 97,900,000**	**$ 60,500,000**	**$ 10,000,000**	**$ 34,600,000**	**$ 21,300,000**	**$ 218,500,000**	**$ 16,200,000**	**$ 35,000,000**	**$ 5,600,000**	**$ 30,150,000**	**$ 73,100,000**

CAPITAL IMPROVEMENT PROGRAM ACCOMPLISHMENTS

Robert W. Goldsworthy Expansion

The Water Replenishment District (WRD) of Southern California began operating the Goldsworthy facility in 2002 as a pilot project to cleanup billions of gallons of brackish groundwater that remains from past seawater intrusion into groundwater-bearing aquifers that underlie the coastal areas of south Los Angeles County. The Silverado aquifer, and other primary aquifers historically used for local water supply, were affected by this seawater intrusion. In total, about 650,000 acre feet of groundwater (1 acre foot equals 325,851 gallons) is brackish in the coastal aquifers managed by WRD. Without the Goldsworthy facility, this water would not be drinkable. In an effort to expand use of this local resource, the WRD Board of Directors several years ago approved the plan to double Goldsworthy's capacity, from 2.5 million to 5 million gallons per day. State drought funding of $7 million has paid for more than a third of the facility's

$18 million cost for expansion. The success of the Goldsworthy Groundwater Desalter has spurred plans for additional local area partnerships to expand brackish water remediation in the West Coast Basin. The Goldsworthy expansion project and future remediation projects will increase local sustainability and overall resiliency to counter the impacts of drought and assist local public agencies in meeting long-term water supply needs.

Initiating the Regional Brackish Water Reclamation Program

Within the West Coast Basin a significant plume (approx. 600,000 acre feet) of high Total Dissolved Solids (TDS) has been trapped due to seawater intrusion and the implementation of the West Coast Seawater Intrusion Barrier. WRD began the Regional Brackish Water Reclamation Program (Program) through the Groundwater Basin's Master Plan to evaluate ways to remediate the basin.

WRD has now initiated a regional planning effort to evaluate the feasibility of remediating the high TDS plume with seven additional stakeholders (Stakeholder Group) who pump and wholesale potable water within the basin. A Feasibility Study has been identified and initiated as the first step to determining how to remediate this plume to allow for future groundwater use within the basin.

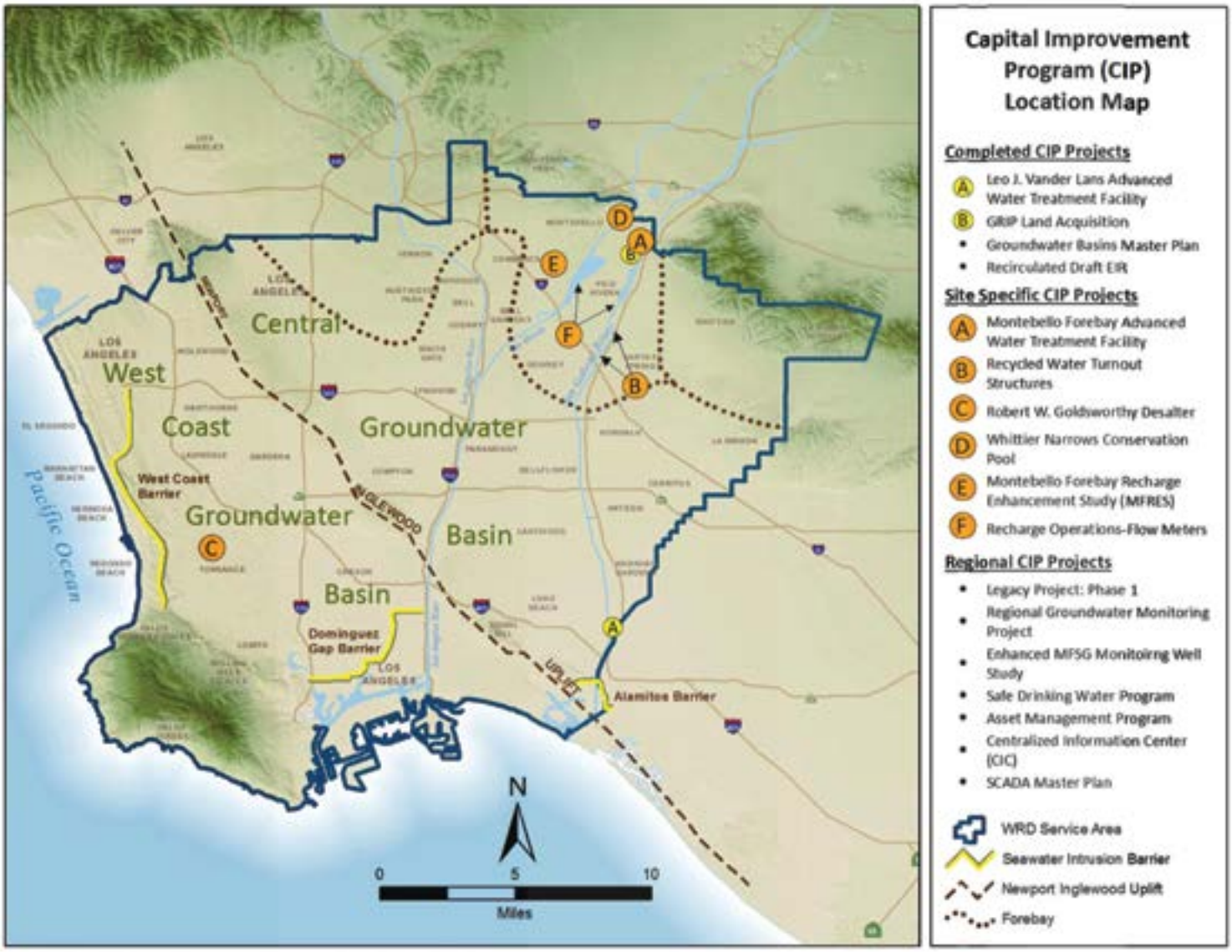


Figure 21 – Capital Improvement Program (CIP)

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.

ALBERT ROBLES CENTER (ARC): ADVANCED WATER TREATMENT FACILITY (AWTF)

Project Description

The Albert Robles Center (ARC), formerly referred to as 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 pipeline, and Recycled Water Turnout Structures. Approximately 11,000 AFY of additional tertiary-treated recycled water will be purchased from the Sanitation Districts of Los Angeles County (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 project 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 nested groundwater monitoring wells were constructed at and near the AWTF site. The three on-site supplemental recharge wells are able to store up to 4.5 million gallons per day (mgd) of fully advanced-treated recycled water in the underlying aquifers for groundwater replenishment. Under normal operating conditions for the 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 advanced-treated 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 advanced-treated recycled water. The construction of the wells was completed in June 2017.

Brine Pipeline & Off-Site Improvements – Completed

Off-site improvements were required as part of the AWTF project, 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 LACSD 63-inch diameter sewer pipeline that is located approximately 1,600 feet from the ARC 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 – Completed

Two reinforced concrete turnout structures were constructed on the existing recycled water outfall pipeline that extends from the LACSD San Jose Creek Water Reclamation Plant (SJCWRP) to the Montebello Forebay Spreading Grounds. These Turnout Structures will facilitate the delivery of 11,000 AFY of recycled water. The construction of the Turnout Structures were completed in June 2016.

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $73,250,000.

Operating Impacts

There are no operating impacts at this time. Operation of the proposed AWTF is expected to commence in early 2019.

Prior Year Highlights

In 2017, the on-site temporary pilot treatment system completed its study to determine the final design of the advanced water treatment process. In addition, construction of the on-site, underground 3-million gallon equalization basin was completed, as well as the erection of the on-site Process Building and the Administration and Learning Center. Construction of the on-site diversion structure, product water tank, brine tank discharge system, and chemical storage area has begun and is expected to be completed by the end of 2018.

Table 59

ALBERT ROBLES CENTER (ARC) ADVANCED WATER TREATMENT FACILITY
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning		$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 73,250,000	$ -	$ -	$ -	$ -	$73,250,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ 73,250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$73,250,000**
Grants	$9,000,000	$ -	$ -	$ -	$ -	$9,000,000
Loans	$ 35,000,000					$35,000,000
Additional Funding	$ -					$ -
Other (Partnerships)	$4,100,000	$ -	$ -	$ -	$ -	$4,100,000
2018 Bonds	$25,150,000	$ -	$ -	$ -	$ -	$25,150,000
Total	**$73,250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$73,250,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

ALBERT ROBLES CENTER (ARC): NEW WATER DEVELOPMENT IN LIEU OF CONNECTION FEE

Project Description

Brine concentrate that will be generated by the Albert Robles Center (ARC) Advanced Water Treatment Facility (AWTF) will be disposed via a 16-inch diameter pipeline that was constructed in 2017 to connect to the Sanitation Districts of Los Angeles County's (LACSD) 63-inch diameter sewer pipeline that is located approximately 1,600 feet from the ARC site. In lieu of the sewer connection fee that was required by LACSD, the District currently is negotiating with LACSD to partner on future mutually beneficial new water development projects in the region.

Funding

Planning and expenditures will begin in Fiscal Year 2019-20. The funding for this item is included in 2018 bond for the ARC: Albert Robles Center: Advanced Water Treatment Facility (AWTF) but is broken out here to show the money is being put to a beneficial use.

Operating Impacts

There are no operating impacts at this time.

Prior Year Highlights

The District is in the process of negotiating with LACSD to partner on future mutually beneficial new water development projects in the region.

Table 60

ALBERT ROBLES CENTER (ARC): NEW WATER DEVELOPMENT IN LIEU OF CONNECTION FEE Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ 15,000,000	$ -	$ -	$ -	$15,000,000
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ -	$ -	$ -	$ -	$ -
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$15,000,000**	**$ -**	**$ -**	**$ -**	**$15,000,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -					$ -
Additional Funding	$ -	$15,000,000				$15,000,000
Other (Partnerships)	$ -		$ -	$ -	$ -	$ -
2018 Bonds	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$15,000,000**	**$ -**	**$ -**	**$ -**	**$ 15,000,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

ALBERT ROBLES CENTER (ARC): ADVANCED WATER TREATMENT FACILITY (AWTF) EXPANSION

Project Description

The Albert Robles Center (ARC) Advanced Water Treatment Facility (AWTF) currently is under construction and is expected to be completed by the end of 2018. Planning for the plant expansion will is an option for WRD's consideration and will be revaluated upon completion of the AWTF construction for consideration in next year's CIP budget.

Funding

No funding is accounted for in the Fiscal Year 2018-19 CIP budget.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time.

Prior Year Highlights

The District is in the process of constructing the ARC AWTF.

Table 61

ALBERT ROBLES CENTER (ARC): ADVANCED WATER TREATMENT FACILITY (AWTF) EXPANSION
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ -	$ -	$ -	$ -	$ -
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Project Schedule						
Planning						
Design						
Design						
Post Construction						

ALBERT ROBLES CENTER (ARC): ADVANCED WATER TREATMENT FACILITY (AWTF) INJECTION WELL EXPANSION

Project Description

Three on-site supplemental recharge wells are currently located at the Albert Robles Center (ARC) Advanced Water Treatment Facility (AWTF) and have the ability to store up to 4.5 million gallons per day (mgd) of fully advanced-treated recycled water in the underlying aquifers for groundwater replenishment. Planning for the injection well expansion will is an option for WRD's consideration and will be revaluated upon completion of the AWTF construction for consideration in next year's CIP budget.

Funding

No funding is accounted for in the Fiscal Year 2018-19 CIP budget.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time.

Prior Year Highlights

The District is in the process of constructing the ARC Advanced Water Treatment Facility (AWTF).

Table 62

ALBERT ROBLES CENTER (ARC): ADVANCED WATER TREATMENT FACILITY (AWTF) INJECTION WELL EXPANSION
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ -	$ -	$ -	$ -	$ -
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

ALBERT ROBLES CENTER (ARC): WHITTIER PARCEL (ADDITIONAL INJECTION, SPREADING, AND/OR ENERGY MANAGEMENT)

Project Description

The property directly north of the Albert Robles Center (ARC) is owned by the City of Whittier. The District is currently evaluating options to establish a long-term lease with the City Whittier to use their property to implement projects for additional injection, spreading grounds, and/or energy management. Once these plans are finalize, the District will begin negotiations with the City of Whittier to establish a long-term lease for these projects.

Funding

Planning and expenditures will begin in Fiscal Year 2019-20.

Impact of Capital Investment on Operating Budget

There are no operating impacts at this time.

Prior Year Highlights

The District is in the process of constructing the ARC Advanced Water Treatment Facility (AWTF).

Table 63

ALBERT ROBLES CENTER (ARC): WHITTIER PARCEL (ADDITIONAL INJECTION, SPREADING, AND/OR ENERGY MANAGEMENT Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning		$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction		$ -	$ -	$ -	$ -	$ -
Post Construction	$ -	$200,000	$ -	$ -	$ -	$200,000
Total	**$ -**	**$200,000**	**$ -**	**$ -**	**$ -**	**$200,000**
Grants		$ -	$ -	$ -	$ -	$ -
Loans						$ -
Additional Funding						$ -
Other (Partnerships)		$ -	$ -	$ -	$ -	$ -
2018 Bonds		$200,000	$ -	$ -	$ -	$200,000
Total	**$ -**	**$200,000**	**$ -**	**$ -**	**$ -**	**$200,000**
Project Schedule						
Planning						
Design						
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

Cerritos Interconnect Pipeline (includes preliminary design)

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 year, LVL will not receive any source water due to a lack of backup supply.

Direct Connection to Los Coyotes Water Reclamation Plant

This project would analyze a potential connection between the Los Coyotes Water Reclamation Plant to the influent of the Leo J Vander Lans Facility via the Cerritos interconnection pipe. As LBWRP will be shut down for extended periods during the next year, LVL will not receive any source water due to a lack of backup supply.

Injection Wells (Onsite injection Well Storage/Replenishment)

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 2018-19 for each project is as follows: Cerritos Interconnect Pipeline: $2,700,000 Los Coyotes Direct Connection: $700,000 Injection Wells (Onsite): $600,000

OPERATING IMPACTS

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

Preliminary design will be completed for the Cerritos Interconnect Pipeline project in October 2018. A study was completed in 2017 for the Injection Wells project.

Table 64

LEO J. VANDER LANS (LVL) /FACILITY PROJECTS
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$450,000	$250,000	$ -	$ -	$ -	$700,000
Design	$1,000,000	$500,000	$ -	$ -	$ -	$1,500,000
Construction	$1,250,000	$8,250,000	$ -	$ -	$ -	$9,500,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$2,700,000**	**$9,000,000**	**$ -**	**$ -**	**$ -**	**$11,700,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding			$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$2,700,000	$9,000,000	$ -	$ -	$ -	$11,700,000
Total	**$2,700,000**	**$9,000,000**	**$ -**	**$ -**	**$ -**	**$11,700,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

Table 65

LVL AWTF: CERRITOS INTERCONNECT PIPELINE
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$450,000	$250,000	$ -	$ -	$ -	$700,000
Design	$1,000,000	$500,000	$ -	$ -	$ -	$1,500,000
Construction	$1,250,000	$8,250,000	$ -	$ -	$ -	$9,500,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$2,700,000**	**$9,000,000**	**$ -**	**$ -**	**$ -**	**$11,700,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding			$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$2,700,000	$9,000,000	$ -	$ -	$ -	$11,700,000
Total	**$2,700,000**	**$9,000,000**	**$ -**	**$ -**	**$ -**	**$11,700,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

Table 66

LVL AWTF: LOS COYOTES DIRECT CONNECT
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$700,000	$1,000,000	$ -	$ -	$ -	$1,700,000
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ -	$ -	$ -	$ -	$ -
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$700,000**	**$1,000,000**	**$ -**	**$ -**	**$ -**	**$1,700,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$700,000	$1,000,000	$ -	$ -	$ -	$1,700,000
Total	**$700,000**	**$1,000,000**	**$ -**	**$ -**	**$ -**	**$1,700,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

Table 67

LVL AWTF: ONSITE INJECTION WELL STORAGE/REPLENISHMENT
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$200,000	$200,000	$ -	$ -	$ -	$400,000
Design	$400,000	$200,000	$ -	$ -	$ -	$600,000
Construction	$ -	$5,000,000	$ -	$ -	$ -	$5,000,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$600,000**	**$5,400,000**	**$ -**	**$ -**	**$ -**	**$6,000,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$600,000	$5,400,000	$ -	$ -	$ -	$6,000,000
Total	**$600,000**	**$5,400,000**	**$ -**	**$ -**	**$ -**	**$6,000,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

Regional Water Independence Program Projects

REGIONAL BRACKISH WATER RECLAMATION PROGRAM

Project Description

Within the West Coast Basin a significant plume (approx. 600,000 acre feet) of high Total Dissolved Solids (TDS) has been trapped due to seawater intrusion and the implementation of the West Coast Seawater Intrusion Barrier. WRD began the Regional Brackish Water Reclamation Program (Program) through the Groundwater Basin's Master Plan to evaluate ways to remediate the basin.

WRD has now initiated a regional planning effort to evaluate the feasibility of remediating the high TDS plume with six additional stakeholders (Stakeholder Group) who pump and wholesale potable water within the basin. A Feasibility Study has been identified as the first step to determining how to remediate this plume to allow for future groundwater use within the basin.

The Feasibility Study will evaluate potential siting and technologies for brackish water reclamation facilities within the plume with maximum remediation benefit and the most efficient life cycle cost. At the end of this Feasibility Study WRD and the Stakeholder Group anticipate proceeding forward with partnership agreements determining project specific responsibility followed by CEQA and permitting for the recommended project(s).

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $1,500,000.

Operating Impacts

There are no operating impacts at this time.

Prior Year Highlights

WRD began the Feasibility Study for this project

Table 68

REGIONAL BRACKISH WATER RECLAMATION PROGRAM
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$1,500,000	$1,300,000	$ -	$ -	$ -	$2,800,000
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ -	$ -	$ -	$ -	$ -
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$1,500,000**	**$1,300,000**	**$ -**	**$ -**	**$ -**	**$2,800,000**
Grants	$700,000	$ -	$ -	$ -	$ -	$700,000
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$800,000	$1,300,000	$ -	$ -	$ -	$2,100,000
Total	**$1,500,000**	**$1,300,000**	**$ -**	**$ -**	**$ -**	**$2,800,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

DOMINGUEZ GAP SEAWATER BARRIER INLAND INJECTION WELL FIELD

Project Description

This project increases water replenishment within the West Coast Basin through the installation of a new injection well system inland from the existing Dominguez Gap Seawater Barrier. The system will be supplied with local recycled water produced at the Terminal Island Advanced Water Treatment Plant (TIAWTP), which can produce up to 12 MGD of advanced-treated water. WRD's recent agreement with City of Los Angeles Department of Water and Power (LADWP) to provide advanced treated recycled water and the right to capacity ensures sufficient supply to the Dominguez Gap Seawater Barrier of 7.5 MGD, which is expandable to a maximum of 9.5 MGD. Recent Dominguez Gap Seawater Barrier demands have fluctuated between 4,000 and 9,500 AFY or approximately 4 to 9.5 MGD and therefore surplus advanced treated recycled water may be available for replenishment. The proposed project will require construction of up to 4 new injection wells and new pipelines in order to replenish advanced-treated water in excess of the Dominguez Gap Seawater Barrier demands.

Funding

Planning and expenditures will begin in Fiscal Year 2019-20.

Operating Impacts

Increased advanced-treated water capacity at the TIAWTP and WRD's new agreement guaranteeing the right to capacity of up to 9.5 MGD decreases WRD's dependence on expensive and unreliable imported water. This project allows for an alternative location for the replenishment of the advanced-treated water during barrier maintenance and other barrier outages thus securing the WRD's ability to purchase advanced-treated water at the most cost-effective rate available.

Prior Year Highlights

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

Table 69

DOMINGUEZ GAP SEAWATER BARRIER INLAND INJECTION WELL FIELD
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$1,500,000	$1,300,000	$ -	$ -	$ -	$2,800,000
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ -	$ -	$ -	$ -	$ -
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$1,500,000**	**$1,300,000**	**$ -**	**$ -**	**$ -**	**$2,800,000**
Grants	$700,000	$ -	$ -	$ -	$ -	$700,000
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$800,000	$1,300,000	$ -	$ -	$ -	$2,100,000
Total	**$1,500,000**	**$1,300,000**	**$ -**	**$ -**	**$ -**	**$2,800,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

HYPERION REPLENISHMENT MASTER PLAN

Project Description

WRD and LADWP are investigating the potential to collaborate on ways to replenish and pump both the West and Central Groundwater Basins. LADWP has access to the Hyperion Water Reclamation Plant (WRP) as a potential source of replenishment water and is looking to partner with WRD to find reasonable locations to get this water into the Basins.

By utilizing the recycled water supply at the Hyperion WRP, which are currently reaching upwards of 200 million gallons per day (MGD), this could be a key component to developing a sustainable groundwater strategy. In order to develop the specific strategy LADWP and WRD must develop and evaluate a comprehensive list of potential project opportunities to meet these sustainable goals.

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $1,500,000.

Operating Impacts

There are no operating impacts at this time.

Prior Year Highlights

This is a new project

Table 70
HYPERION REPLENISHMENT MASTER PLAN
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$1,500,000	$1,500,000	$ -	$ -	$ -	$3,000,000
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ -	$ -	$ -	$ -	$ -
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$1,500,000**	**$1,500,000**	**$ -**	**$ -**	**$ -**	**$3,000,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$750,000	$750,000	$ -	$ -	$ -	$1,500,000
Other (Partnerships)	$750,000	$750,000	$ -	$ -	$ -	$1,500,000
2018 Bonds			$ -	$ -	$ -	$ -
Total	**$1,500,000**	**$1,500,000**	**$ -**	**$ -**	**$ -**	**$3,000,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

REGIONAL REPLENISHMENT RESOURCE DEVELOPMENT

Project Description

As WRD continues to develop a partnership with LADWP and investigates new ways to get replenishment water into the ground additional analysis may be needed to further refine or vet the feasibility of certain potential projects and options. Additional work to be done for replenishment development could be, but is not limited to: groundwater modeling, additional design analysis, permit preparation, CEQA analysis, etc. These details and analysis will help WRD to identify and secure additional replenishment to develop more sustainable groundwater basins.

Funding

Planning and expenditures will begin in Fiscal Year 2019-20.

Operating Impacts

There are no operating impacts at this time.

Prior Year Highlights

This is a new project.

Table 71

REGIONAL REPLENISHMENT RESOURCE DEVELOPMENT
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$1,000,000	$ -	$ -	$ -	$1,000,000
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ -	$ -	$ -	$ -	$ -
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$1,000,000**	**$ -**	**$ -**	**$ -**	**$1,000,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$1,000,000	$ -	$ -	$ -	$1,000,000
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$ -		$ -	$ -	$ -	$ -
Total	**$ -**	**$1,000,000**	**$ -**	**$ -**	**$ -**	**$1,000,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

WELL CONSTRUCTION AND LOAN PROGRAM

Project Description

The Water Replenishment District of Southern California ("WRD" or "District") has developed a Well Construction and Rehabilitation Loan Program (Program) to assist groundwater producers within its service area maintain or increase their groundwater pumping capabilities. This Program can improve the producers' ability to optimize their groundwater rights and reduce their reliance on any imported water that they may purchase instead of producing groundwater.

Nearly a half million acre feet of allowable extraction has not been produced over the last 10 years, partially due to problems with wells, well capacity, and water quality. The District currently administers the Safe Drinking Water Program (SDWP) to assist groundwater producers resolve water quality problems, but to date a program has not existed to assist them with drilling and installing new wells, or repairing or rehabilitating existing wells. The purpose of this Program is to assist groundwater producers to reach their total extraction rights, to reduce the need for imported water, and to ensure system reliability, and to better utilize the storage capability of the basins.

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $5,200,000.

Operating Impacts

There are no operating impacts at this time.

Prior Year Highlights

This is a new program.

Table 72

WELL CONSTRUCTION AND LOAN PROGRAM
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$5,200,000	$5,000,000	$ -	$ -	$ -	$10,200,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$5,200,000**	**$ 5,000,000**	**$ -**	**$ -**	**$ -**	**$10,200,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$5,200,000	$5,000,000	$ -	$ -	$ -	$10,200,000
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds			$ -	$ -	$ -	$ -
Future Funding Sources	$ -	$ -	$1,000,000	$1,000,000	$1,000,000	$3,000,000
Total	**$5,200,000**	**$5,000,000**	**$ -**	**$ -**	**$ -**	**$13,200,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

Basin Management Projects

REGIONAL GROUNDWATER MONITORING PROGRAM - WELLS

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. To fill in data gap areas, four additional wells are planned over the 5 year CIP with the first two wells in FY18-19 and/or FY19-20.

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $900,000.

Operating Impacts

Wells are monitored by WRD staff. The new wells will be folded into the current operations plan which consists of deployment of data loggers, quarterly visits to download the data loggers and collect water levels, and semi-annual visits to collect groundwater samples. In addition, equipment maintenance, repairs, and calibrations are performed.

Prior Year Highlights

The annual 2016-17 Regional Groundwater Monitoring Report was completed, and the 6-week long sampling programs were completed in fall 2017 and spring 2018.

Table 73

REGIONAL GROUNDWATER MONITORING PROGRAM - WELLS
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$900,000	$900,000	$900,000	$900,000	$ -	$3,600,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$900,000**	**$900,000**	**$900,000**	**$900,000**	**$ -**	**$3,600,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$900,000	$900,000	$ -	$ -	$ -	$1,800,000
Total	**$900,000**	**$900,000**	**$ -**	**$ -**	**$ -**	**$1,800,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

REGIONAL GROUNDWATER MONITORING PROGRAM - TELEMETRY

Project Description

The Regional Groundwater Monitoring Program (RGWMP) deploys automated data loggers in each of its 324 monitoring wells to collect, record, and store water levels in the wells every 6 hours so that the District can have accurate information on long-term and short-term water level trends. Water quality data are also collected in many of the data loggers. Obtaining the information is currently laborious, involving field staff to visit each well quarterly, connect the data loggers to hand held devices to download the information, bring the hand held devices back to the office to connect to desktop computers to view and check the information, and then uploaded to the District's sequel server databases. This is a time consuming task which only provides the data to managers once per quarter although the data are collected 4 times daily. The process also jeopardizes data integrity with all the various handlings by staff and devices. This work will be optimized by connecting the data loggers to a telemetry system so that the recorded data are automatically transmitted to the District daily (versus quarterly) and in one step directly to the sequel servers for rapid access by managers and staff. A feasibility study will be performed to evaluate the most appropriate system for the District, followed by purchase, deployment, and implementation of the system.

Funding

Planning and expenditures will begin in Fiscal Year 2020-21.

Operating Impacts

Installation of the telemetry system will significantly reduce manual labor efforts by automating the data downloading, processing, and incorporating into sequel servers freeing up staff for other duties. It will allow access to the data much more frequently (daily vs. quarterly) proving WRD with near real-time groundwater levels and quality throughout the District for better basin management.

Prior Year Highlights

This is a new program.

Table 74

REGIONAL GROUNDWATER MONITORING PROGRAM - TELEMETRY
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$80,000	$ -	$ -	$80,000
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ -	$320,000	$400,000	$300,000	$1,020,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$400,000**	**$400,000**	**$300,000**	**$1,100,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
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). The Project will update and enhance the previously developed Montebello Forebay Spreading Grounds Operation Model (MFSGOM) that will help the District plan and optimize its operations by reflecting recent changes in operations, additional data collected, water reclamation production uncertainties, and various operational scenarios.

Funding

Planning and expenditures will begin in Fiscal Year 2020-21.

Operating Impacts

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 75

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

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$200,000	$200,000	$200,000	$600,000
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ -	$ -	$ -	$ -	$ -
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$200,000**	**$200,000**	**$200,000**	**$600,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

RECYCLED WATER COMPLIANCE MONITORING WELLS AT THE MONTEBELLO FOREBAY SPREADING GROUNDS

Project Description

The Montebello Forebay Spreading Grounds (MFSG) are a County of Los Angeles owned and operated facility in the City of Pico Rivera which the WRD has used since 1959 as a major groundwater recharge facility. Beginning in 1962, the WRD initiated groundwater recharge using treated wastewater, today known as tertiary treated water or simply recycled water. Recycled water has proven to be a reliable, safe, and cost effective groundwater recharge source.

However, because it originated as waste water prior to extensive treatment to make it usable again, regulatory agencies including the State Water Resources Control Board – Division of Drinking Water (DDW) and the Los Angeles Regional Water Quality Control Board (RWQCB) require strict permit requirements to ensure its safety. Part of these requirements include monitoring of the groundwater by collecting samples from wells. Due to upcoming new permit requirements, it is anticipated that additional monitoring wells will be needed to comply with modern regulations. Also, 2 of the 6 monitoring wells that WRD currently utilizes have proven to be too shallow in the sense that due to continuing drought conditions, the water table has dropped below the bottom of the wells and they are now dry and cannot be sampled as required. Therefore deeper replacement wells will be necessary. The planning, design, and construction of the new monitoring wells are included in this CIP.

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $100,000.

Operating Impacts

Installation of the new wells will require monitoring and sampling by WRD staff in addition to analyzing and reporting on the data collected from the wells.

Prior Year Highlights

This is a new program.

Table 76

RECYCLED WATER COMPLIANCE MONITORING WELLS AT THE MONTEBELLO FOREBAY SPREADING GROUNDS
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$50,000	$ -	$ -	$ -	$ -	$50,000
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$50,000	$400,000	$ -	$ -	$ -	$450,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$100,000**	**$400,000**	**$ -**	**$ -**	**$ -**	**$500,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$100,000	$400,000	$ -	$ -	$ -	$500,000
Total	**$100,000**	**$400,000**	**$ -**	**$ -**	**$ -**	**$500,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

WRD Infrastructure Management Projects

ASSET MANAGEMENT PROGRAM

Project Description

As the District continues to grow and amass assets through its capital improvement projects, it is critical that they be managed and maintained to ensure optimal usage over their life. Recognizing this, the Board of Directors initiated the development of an Asset Management (AM) Program. The AM plan was completed in FY 15-16 and outlines a priority list of recommended actions and projects using factors such as level of effort, business drivers, cost, staff involvement and alignment to the District's strategic direction. Initiatives that support the AM program are categorized into the following elements:

- **Planning:** Develop an AM strategy and framework
- **Core Service Delivery:** Implementation of a enterprise AM program
- **Performance Management:** Develop levels of service framework
  - **Support Services**: Implementation of tools that support the enterprise AM program, such as the Computerized Maintenance Management System (CMMS) software, Assetic asset predictor software, Geographic Information System (GIS) software updates, OnBase electronic agenda process, etc.

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $600,000.

Operating Impacts

There are no operating impacts at this time.

Prior Year Highlights

- **Planning:**
  - AM strategy and framework was developed and includes the core Governance model that encompasses all District assets – infrastructure and staff. This comprehensive model consists of five teams: Asset Management, People, Digital, Communications, Quality Assurance/Quality Control and Executive Management and are all staffed by WRD employees

- **Core Service Delivery**
  - Enterprise AM Governance teams have assembled and have developed their respective charters, mission statements and program measures of success

- **Performance Management**
  - CMMS implementation has been completed at the Leo J. Vander Lans (LVL) facility
  - Efforts have begun toward implementation of the Assetic predictor software at LVL
  - Centralized Information System (CIS) has been completed at the District headquarters in Lakewood, and serves as the master SCADA system control center as well as the repository of all treatment plant data
    - SCADA standards have been developed to provide uniformity and consistency across all District facilities
  - OnBase automated agenda process has been developed and is in operation
  - WRD Portal framework has been developed and continues to evolve. The push toward centralized information will facilitate the development of reports that simplify administrative tasks, improve security, make data management more efficient and maintain the integrity of all District data

Table 77
ASSET MANAGEMENT PROGRAM
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$600,000	$300,000	$ -	$ -	$ -	$900,000-
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ -	$ -	$ -	$ -	$ -
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$600,000**	**$300,000**	**$ -**	**$ -**	**$ -**	**$900,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$600,000	$300,000	$ -	$ -	$ -	$900,000
Total	**$600,000**	**$300,000**	**$ -**	**$ -**	**$ -**	**$900,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

ENERGY MANAGEMENT PLAN STUDY AND IMPLEMENTATION

Project Description

WRD has taken the initiative to develop a strategic approach to identifying and minimizing the District's Green House Gas (GHG) footprint. This effort will entail identifying all of WRD's existing electrical demands and potential optimization efforts. New projects to implement are going to be identified and then implemented starting in 2019-2020.

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $300,000.

Operating Impacts

None at this time.

Prior Year Highlights

This is a new project.

SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM: GROUNDWATER MONITORING WELLS

Project Description

WRD completed a Supervisory Control and Data Acquisition (SCADA) System Master Plan in May 2016. This Master Plan specified projects and estimated costs for establishing a standardized master SCADA system that will integrate all of the District's operating facilities, including the District's nested groundwater monitoring well sites that are located throughout the Central Basin and West Coast Basin. In 2017, WRD established a Central Information System (CIS) at the WRD Headquarters building in Lakewood, California, where all the SCADA screens at the District's operating facilities are displayed and have the ability to be controlled remotely. Ultimately, all the nested groundwater monitoring well sites (currently, 58 total) will be integrated to the CIS. A pilot study with six of the well sites must be completed prior to finalizing the integration/communications method required for all the well sites.

Funding

Planning and expenditures will begin in Fiscal Year 2011-22.

Operating Impacts

There are no operating impacts at this time.

Prior Year Highlights

Integration of the SCADA system for the Robert W. Goldsworthy Desalter Expansion Project was completed in 2017. Integration of the Albert Robles Center (ARC) SCADA system is expected to be completed by the end of 2018.

Table 78

SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM: GROUNDWATER MONITORING WELLS
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ -	$ -	$1,000,000	$1,000,000	$2,000,000-
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$ -**	**1,000,000**	**$1,000,000**	**$2,000,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$ -**	**$1,000,000**	**$1,000,000**	**$2,000,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM: LEO J. VANDER LANS ADVANCED WATER TREATMENT FACILITY UPGRADES

Project Description

WRD completed a Supervisory Control and Data Acquisition (SCADA) System Master Plan in May 2016. This Master Plan specified projects and estimated costs for establishing a standardized master SCADA system that will integrate all of the District's operating facilities. As part of the Master Planning efforts, SCADA standards were created in 2017, including screen templates, a graphics library, programming codes and functional descriptions, alarms and trends displays, etc.

The SCADA system at the Leo J. Vander Lans Advanced Water Treatment Facility (LVL AWTF) was installed prior to the completion of these new WRD SCADA standards. Hence, the entire SCADA system at the LVL AWTF must be replaced with one that meets all the new SCADA standards.

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $1,700,000.

Operating Impacts

There are no operating impacts at this time.

Prior Year Highlights

The scope of work for the upgrades of the SCADA system at the Leo J. Vander Lans Advanced Water Treatment Facility is being developed and work is expected to commence in early 2019.

Table 79

SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM: LEO J. VANDER LANS ADVANCED WATER TREATMENT FACILITY UPGRADES
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$1,700,000	$900,000	$ -	$ -	$ -	$2,600,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$1,700,000**	**$900,000**	**$ -**	**$ -**	**$ -**	**$2,600,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$1,700.000	$900,000	$ -	$ -	$ -	$2,600,000
Total	**$1,700,000**	**$900,000**	**$ -**	**$ -**	**$ -**	**$2,600,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM: ROBERT W. GOLDSWORTHY DESALTER UPGRADES

Project Description

WRD completed a Supervisory Control and Data Acquisition (SCADA) System Master Plan in May 2016. This Master Plan specified projects and estimated costs for establishing a standardized master SCADA system that will integrate all of the District's operating facilities. As part of the Master Planning efforts, SCADA standards were created in 2017, including screen templates, a graphics library, programming codes and functional descriptions, alarms and trends displays,etc.

The SCADA system at the Robert W. Goldsworthy Desalter (Goldsworthy Desalter) was installed prior to the completion of these new WRD SCADA standards, in particular the functional descriptions. Hence, upgrades are required for the SCADA system at the Goldsworthy Desalter to meet the new SCADA standards.

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $800,000.

Operating Impacts

There are no operating impacts at this time.

Prior Year Highlights

The scope of work for the upgrades of the SCADA system at the Robert W. Goldsworthy Desalter is being developed and work is expected to commence in early 2019.

Table 80

SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM: ROBERT W. GOLDSWORTHY DESALTER UPGRADES
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$800,000	$500,000	$ -	$ -	$ -	$1,300,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$800,000**	**$500,000**	**$ -**	**$ -**	**$ -**	**$1,300,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$800.000	$500,000	$ -	$ -	$ -	$1,300,000
Total	**$800,000**	**$500,000**	**$ -**	**$ -**	**$ -**	**$1,300,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

Groundwater Quality Protection & Remediation

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" that 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 either the Department of Toxic Substances Control (DTSC) or the Los Angeles Regional Water Quality Control Board (LARWQCB).

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $300,000.

In March 2017, WRD was successful in securing a preliminary grant award in the amount of $7,275,675 from the Proposition 1 Groundwater Grant being administered by the State Water Resources Control Board (SWRCB). The anticipated budget is projected for five years through FY 22-23. The current award includes treatment system design, construction, and two years of functional testing with the state paying up to 80% (WRD's portion will be approximately 20%). WRD's 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 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.

Operating Impacts

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 81

GROUNDWATER PROTECTION & REMEDIATION
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$300,000	$500,000	$ -	$ -	$ -	$800,000-
Design	$ -	$750,000	$ -	$ -	$ -	$750,000
Construction	$ -	$3,850,000	$1,500,000	$2,000,000	$ -	$7,350,000
Post Construction	$ -	$ -	$ -	$ -	$200,000	$200,000
Total	**$300,000**	**$5,100,000**	**$5,100,000**	**$2,000,000**	**$200,000**	**$9,100,000**
Grants	$300,000	$5,100,000-	$1,500,000	$ 100,000	$200,000	$7,200,000
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$ -	$ -	$ -	$1,900,000	$ -	$1,900,000
Total	**$300,000**	**$5,100,000**	**$1,500,000**	**$2,000,000**	**$200,000**	**$7,200,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

CONTAMINATED SITE INVESTIGATIONS, CLEANUP AND MONITORING WELLS

Project Description

WRD's service area contains a large and diverse industrial and commercial base. Consequently, many potential groundwater contamination sources exist within District boundaries. Examples of potential contamination sources include leaking underground storage tanks, petroleum pipeline leaks at refineries and petrochemical plants, and discharges from dry cleaning facilities, auto repair shops, metal works facilities, and others. Such contamination sources already pose or may pose a threat to the drinking water aquifers. Accordingly, WRD established its Groundwater Contamination Prevention Program in an effort to minimize or eliminate threats to groundwater supplies.

Over the past few years, WRD has installed groundwater monitoring wells in areas of suspected or known contamination to collect more data to provide regulatory agencies to assist them in targeting responsible parties and develop remediation action plans. Many of these areas do not have funding available for investigations which is why WRD, under its jurisdiction and responsibilities for water quality projection, installs these wells. Three well locations in Vernon related to perchlorate in groundwater lead to the state granting WRD over $7 million to investigate and cleanup this contamination (see previous CIP project on Perchlorate Remediate Project). Similar wells in Santa Fe Springs have assisted the U.S. Environmental Protection Agency in their oversight of the Omega Superfund Site. For the current CIP, the WRD has identified other areas in the basin that need additional monitoring wells to evaluate the nature and extent of threatening contaminants, including solvents in groundwater related to the Anadite site in South Gate, deep hexavalent chromium in Los Angeles, and other areas. Funding for this program will allow installation of wells in key locations with the intent of eventually finding the responsible parties to clean up their contamination,

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $500,000.

Operating Impacts

Installation of the wells will require routine sampling, laboratory analysis, evaluation of the data, and reporting.

Prior Year Highlights

The installation of wells related to the Vernon perchlorate contamination led to the winning of a $7 million grant from the State to further investigate and eventually remediate the pollution from deep groundwater.

Table 82

SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM: GROUNDWATER MONITORING WELLS
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ -	$ -	$1,000,000	$1,000,000	$2,000,000-
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$ -**	**1,000,000**	**$1,000,000**	**$2,000,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$ -**	**$1,000,000**	**$1,000,000**	**$2,000,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM: LEO J. VANDER LANS ADVANCED WATER TREATMENT FACILITY UPGRADES

Project Description

WRD completed a Supervisory Control and Data Acquisition (SCADA) System Master Plan in May 2016. This Master Plan specified projects and estimated costs for establishing a standardized master SCADA system that will integrate all of the District's operating facilities. As part of the Master Planning efforts, SCADA standards were created in 2017, including screen templates, a graphics library, programming codes and functional descriptions, alarms and trends displays,etc.

The SCADA system at the Robert W. Goldsworthy Desalter (Goldsworthy Desalter) was installed prior to the completion of these new WRD SCADA standards, in particular the functional descriptions. Hence, upgrades are required for the SCADA system at the Goldsworthy Desalter to meet the new SCADA standards.

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $800,000.

Operating Impacts

There are no operating impacts at this time.

Prior Year Highlights

The scope of work for the upgrades of the SCADA system at the Robert W. Goldsworthy Desalter is being developed and work is expected to commence in early 2019.

Table 83

SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM: LEO J. VANDER LANS ADVANCED WATER TREATMENT FACILITY UPGRADES
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$800,000	$500,000	$ -	$ -	$ -	$1,300,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$800,000**	**$500,000**	**$ -**	**$ -**	**$ -**	**$1,300,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$800.000	$500,000	$ -	$ -	$ -	$1,300,000
Total	**$800,000**	**$500,000**	**$ -**	**$ -**	**$ -**	**$1,300,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

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" that 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 either the Department of Toxic Substances Control (DTSC) or the Los Angeles Regional Water Quality Control Board (LARWQCB).

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $300,000.

In March 2017, WRD was successful in securing a preliminary grant award in the amount of $7,275,675 from the Proposition 1 Groundwater Grant being administered by the State Water Resources Control Board (SWRCB). The anticipated budget is projected for five years through FY 22-23. The current award includes treatment system design, construction, and two years of functional testing with the state paying up to 80% (WRD's portion will be approximately 20%). WRD's 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 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.

Operating Impacts

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.

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 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 Mutual Water Company No. 2 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

The Capital Improvement Program budget for Fiscal Year 2018-19 is $3,200,000 for the Grant Assistance Projects.

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.

For the Disadvantages Communities (DAC) program, WRD recuperates 100% of the expenditures from State funding.

Operating Impacts

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. As an extension of the Safe Drinking Water Program, the District approved the creation of the Safe Drinking Water Disadvantaged Communities (DAC) Program. The goal of the program is to provide technical assistance and outreach to water systems located in disadvantage communities within the District's service area with applying for state and federal funding to address issues related to their drinking water wells. Currently there are eight water systems participating in the program and receiving assistance and three systems have already received state funding. The District is reimburse for its assistance from the water systems through the funding awarded.

Table 84

DISADVANTAGED COMMUNITIES (DAC) PROGRAM
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ -	$ -	$ -	$ -	$ -
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

Table 85

PROGRAM (GRANTS) PRIMARY CONTAMINANTS
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$3,200,000	$1,600,000	$ -	$ -	$ -	$4,800,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$3,200,000**	**$1,600,000**	**$ -**	**$ -**	**$ -**	**$4,800,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$3,200,000	$1,600,000	$ -	$ -	$ -	$4,800,000
Total	**$3,200,000**	**$1,600,000**	**$ -**	**$ -**	**$ -**	**$4,800,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

Table 86

PROGRAM (LOANS) SECONDARY CONTAMINANTS
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ -	$1,500,000	$1,500,000	$1,500,000	$4,500,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$1,500,000**	**$1,500,000**	**$1,500,000**	**$4,500,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$ -	$ -	$ -	$ -	$ -	$ -
Future Funding Sources	$ -	$ -	$1,500,000	$1,500,000	$1,500,000	$4,500,000
Total	**$ -**	**$ -**	**$1,500,000**	**$1,500,000**	**$1,500,000**	**$4,500,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

Facilities Management, Maintenance & Repair

HEADQUARTERS BUILDING IMPROVEMENTS PROJECTS

Project Description

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

- 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
- The Roof Replacement Project
- The HVAC Improvements Project: includes HVAC units replacements and automation upgrades
- Drought Tolerant Landscape Demonstration Garden Improvement

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $50,000 for the Roof Replacement Project. Planning and expenditures will begin in Fiscal Year 2019-20 for HVAC Improvements.

Operating Impacts

There are no operating impacts at this time.

Prior Year Highlights

Construction for Phase 1 and Phase 2 of Tenant Improvement Repair was completed.

Table 87
HEADQUARTERS BUILDING IMPROVEMENTS PROJECTS
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$50,000	$50,000	$ -	$ -	$ -	$100,000-
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$50,000**	**$50,000**	**$ -**	**$ -**	**$ -**	**$100,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$50,000	$50,000	$ -	$ -	$ -	$100,000
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$50,000**	**$50,000**	**$ -**	**$ -**	**$ -**	**$100,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

Table 88
HVAC IMPROVEMENTS PROJECT
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$250,000	$ -	$ -	$ -	$250,000
Construction	$ -	$2,100,000	$ -	$ -	$ -	$2,100,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$2,350,000**	**$ -**	**$ -**	**$ -**	**$2,350,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$2,350,000	$ -	$ -	$ -	$2,350,000
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$ -	$ 0	$ -	$ -	$ -	$ 0
Total	**$ -**	**$2,350,000**	**$ -**	**$ -**	**$ -**	**$2,350,000**
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 for varying uses, including office space, storage of testing and sampling equipment, miscellaneous supplies and fleet parking. The District has previously leased off-site space for these uses since moving into 4040 Paramount Boulevard, Lakewood, CA. 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 District's existing facilities, the District purchased the property.

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $1,000,000.

Operating Impacts

This project is an important piece of the District's transitional operational plan.

Prior Year Highlights

Preliminary architectural renderings were prepared in 2017/2018.

Table 89

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

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$350,000	$ -	$ -	$ -	$ -	$350,000
Construction	$650,000	$2,00,000	$ -	$ -	$ -	$2,650,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$1,000,000**	**$2,000,000**	**$ -**	**$ -**	**$ -**	**$3,000,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$1,000,000	$2,000,000	$ -	$ -	$ -	$3,000,000
Total	**$1,000,000**	**$2,000,000**	**$ -**	**$ -**	**$ -**	**$3,000,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

ROBERT W. GOLDSWORTHY DESALTER UPGRADES

Project Description

The expansion project was completed in 2018. While a majority of system components were replaced and/or upgraded, assets from the initial plant remained. Examples include critical infrastructure such as the reverse osmosis (RO) system high pressure pump, finish product water pumps and manifold piping, fiberglass FRP grating, etc. As many of these assets have a high consequence of failure, conducting a condition assessment and planning asset replacement will ensure the facility remains operational and not subject to shutdown associated with asset infrastructure failure.

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $250,000.

Operating Impacts

The City of Torrance will continue to operate the Desalter and work closely with WRD to monitor existing asset condition, performance and operations.

Prior Year Highlights

Expansion of the Torrance Desalter was completed and the facility commissioned in early 2018. The Permit Amendment was approved by the Regional Water Quality Control Board in August 2018.

Table 90
ROBERT W. GOLDSWORTHY DESALTER UPGRADES
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$250,000	$250,000	$ -	$ -	$ -	$500,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$250,000**	**$250,000**	**$ -**	**$ -**	**$ -**	**$500,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding (WRD Capital Fund)	$250,000	$250,000	$ -	$ -	$ -	$500,000
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$250,000**	**$250,000**	**$ -**	**$ -**	**$ -**	**$500,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

LEO J. VANDER LANS AWTF UPGRADES

Project Description

This project will address improvements associated with aging infrastructure at the treatment facility. Since the initial project completion in 2003, assets have begun to age through normal operational use over time. Through the use of the District's on-call Engineering Services, projects will be identified and corrective action taken in an effort to ensure consistent plant operations.

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $1,000,000.

Operating Impacts

LVL will be offline in the coming year due to lack of source water from the Long Beach Water Reclamation Plant for an estimated period of six months. This will be the third and final program shutdown scheduled by the Los Angeles County Sanitation District. During this shutdown, focus will center on making identified repairs and upgrades.

Prior Year Highlights

Previous year's operations were hampered by the second extended shutdown. However, this provided an opportunity for staff to identify critical action items for repair. This also provided an opportunity to continue efforts toward implementing a Computerized Maintenance Management System (CMMS) – an asset management tool that provides an electronic means of tracking and monitoring maintenance activities. This program was fully implemented in June 2018.

Table 91

LEO J. VANDER LANS AWTF UPGRADES
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Planning	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$1,000,000	$750,000	$ -	$ -	$ -	$1,750,000
Post Construction	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$1,000,000**	**$750,000**	**$ -**	**$ -**	**$ -**	**$1,750,000**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding (WRD Capital Fund)	$1,000,000	$750,000	$ -	$ -	$ -	$1,750,000
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$1,000,000**	**$750,000**	**$ -**	**$ -**	**$ -**	**$1,750,000**
Project Schedule						
Planning						
Design						
Construction						
Post Construction						

RIO HONDO AND SAN GABRIEL SPREADING GROUNDS IMPROVEMENTS

Project Description
This project evaluates various improvements at the interconnection pipeline and pump station located at the San Gabriel Spreading Grounds. The interconnection pipeline and pump station are utilized to send flow from the San Gabriel spreading grounds to the Rio Hondo spreading grounds.

Funding
The Capital Improvement Program budget for Fiscal Year 2018-19 is $250,000.

Operating Impacts
Project could lead to improved control to send flow through the various recharge basins.

Prior Year Highlights
This is a new project.

GENERAL ENGINEERING (LABOR, OVERHEAD, LEGISLATIVE, LEGAL)

Project Description

The General Engineering "project" is a way to capture all of the overhead/soft costs associated with completing projects within the CIP. Previously WRD has budgeted these expenses within the CIP projects themselves, but has now decided to make sure all time working on projects is being accurately accounted for within this line item. This CIP line item also accounts for specialty consultants that help WRD with grant reporting, legislative analysis and general support services that support numerous projects within the CIP.

Funding

The Capital Improvement Program budget for Fiscal Year 2018-19 is $3,000,000.

Operating Impacts

There are no operating impacts at this time.

Prior Year Highlights

This is a new project.

Table 92

GENERAL ENGINEERING (LABOR, OVERHEAD, LEGISLATIVE, LEGAL)
Projected 5-year CIP

Project Budget	FY 18-19 Projected Budget	FY 19-20 Projected Budget	FY 20-21 Projected Budget	FY 21-22 Projected Budget	FY 22-23 Projected Budget	Total CIP Budget
Labor (includes over-head, benefits)	$2,175,000	$2,240,250	$ -	$ -	$ -	$4,415,250
Legislative	$175,000	$180,250	$ -	$ -	$ -	$355,250
Legal	$250,000	$257,500	$ -	$ -	$ -	$507,500
Public Notification	$150,000	$154,500	$ -	$ -	$ -	$304,500
Support Services	$250,00	$257,000	$ -	$ -	$ -	$507,500
Total	**$3,200,000**	**$1,600,000**	**$3,182,700**	**$3,278,526**	**$3,76,526**	**$15,927,407**
Grants	$ -	$ -	$ -	$ -	$ -	$ -
Loans	$ -	$ -	$ -	$ -	$ -	$ -
Additional Funding	$ -	$ -	$ -	$ -	$ -	$ -
Other (Partnerships)	$ -	$ -	$ -	$ -	$ -	$ -
2018 Bonds	$3,000,000	$3,090,000	$ -	$ -	$ -	$6,090,000
Total	**$3,200,000**	**$1,600,000**	**$ -**	**$ -**	**$ -**	**$6,090,000**

Glossary of Terms

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

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

AICPA American Institute of Certified Public Accountants

AM Asset Management

AMS Art's Manufacturing and Supply

AOP Advanced oxidation using hydrogen peroxide

ARC Albert Robles Center for Water Recycling and Environmental Learning

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

CCC California Coastal Commission

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

CLLI California Latino Leadership Institute

CMFA California Municipal Finance Authority

CMMS Computerized Maintenance Management System

COE Corp. of Engineers

COP Certificates of Participation

CPR Common Pool Resource

CPRA California Public Records Act

CSDLAC County Sanitation Districts of Los Angeles County

CSM Colorado School of Mines

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

EAMS Electronic Adjudication Management System

EIR Environmental Impact Report

EPA U.S. Environmental Protection Agency

ESA Environmental Science Associates

ESR Engineering Survey and Report

ESRI Environmental Systems Research Institute

FAT	Fully Advanced Treated
FCD	Flood Control District
FDIC	Federal Deposit Insurance Corporation
FOLAR	Friends Of the LA River
FTE	Full -Time Equivalent
GAAS	Generally Accepted Auditing Standards
GASB	Government Accounting Standards Board
GBMP	Groundwater Basin Master Plan
GBOP	Groundwater Basin Optimization Pipeline
GDP	Gross Domestic Product
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
GWMA	Groundwater Management Area
HTB	Heal the Bay
HMI	Human Machine Interface
HVAC	Heating, Ventilation and Air Conditioning
ICA	Independent Cities Association
ICP	Interconnection Pipeline Improvements
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
LASAN	Los Angeles Sanitation
LAX	Los Angeles International Airport
LBWD	City of Long Beach Water Department
LBWRP	Long Beach Water Reclamation Plant
LBWTP	Long Beach Waste Treatment Plant
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
MSGBWM	Main San Gabriel Basin Watermaster
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
NGWN	National Groundwater Monitoring Network
NPV	Net Present Value
NSGIS	NorthSouth Geographic Information System
O & M	Operation and Maintenance
OA	Owner's Agent
OCWD	Orange County Water District
OE	Owner's Engineers
OPEB	Other Post-Employment Benefits

PCE	Perchloroethylene Pollution
PEIR	Programmatic Environmental Impact Report
PEPRA	Public Employees' Pension Reform Act
PFAS	Polyfluoroalkyl Substances
PLA	Project Labor Agreement
PLC	Programmable Logic Center
PMP	Project Management Plan
PPA	Projects, Programs, Administration
PS&E's	Plans, Specification, & Engineer's estimates
QA	Quality Assurance
QC	Quality Control
RA	Replenishment Assessment
R&M	Repairs & Maintenance
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
SBCCOG	South Bay Cities Council of Governments
SBPAT	Structural Best Management Practices Prioritization and Analysis Tool
SCADA	Supervisory Control and Data Acquisition
SCE	Southern California Edison
SCWC	Southern California Water Committee
SDE	Spatial Database Engine
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
SGRWM	San Gabriel River Watermaster
SJC	San Jose Creek
SJCWRP	San Jose Creek Water Reclamation Plant
SMBGSA	Santa Monica Basin Groundwater Sustainability Agency
SQL	Structured Query Language
SRF	State Revolving Fund
SWP	State Water Project
SWRCB	State Water Resources Control Board
TAC	Technical Advisory Committee
TBD	To be determined
TCE	Trichloroethylene
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
WCS	Water Compliance Solutions
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
WNOU	Whittier Narrows Operable Unit
WPRSF	Water Purchase and Rate Stabilization Fund
WRD	Water Replenishment District of Southern California
WRDSC	Water Replenishment District of Southern California
WRP	Water Reclamation Plant
WRR	Water Reclamation Requirements

Figures & Tables

Figures

Tables