



FIVE YEAR CAPITAL IMPROVEMENT PROGRAM



Fiscal Years 2022 – 2026

Approved by WRD Board of Directors
November 2021





FIVE-YEAR CAPITAL IMPROVEMENT PROJECTS PROGRAM

APPROVED BY BOARD OF DIRECTORS
ON NOVEMBER 4, 2021

BOARD OF DIRECTORS



General Manager
Stephan Tucker, P.E.

Prepared by:
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MEMORANDUM

DATE: **DECEMBER 1, 2021**

TO: **INTERESTED STAKEHOLDERS**

FROM: **STEPHAN TUCKER, GENERAL MANAGER**

SUBJECT: **CAPITAL IMPROVEMENT PROJECTS PROGRAM 2022 THROUGH 2026**

The Water Replenishment District of Southern California (WRD) is pleased to submit a copy of the five-year Capital Improvement Program (CIP) FY 2022 through FY 2026. The CIP is a short-range plan, which summarizes capital projects and equipment purchases, provides a funding schedule, and identifies sources of funding. The CIP reflects WRD's dedication to continued fiscal responsibility, stakeholder sensitivity and organizational efficiency.

The five-year CIP includes new and ongoing projects and is an effective tool to ensure planning and implementation of capital improvements are tied to predictable and reliable sources of income that produce successful results. Furthermore, the CIP is used to describe 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.

WRD's 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) and WIN4ALL initiatives, as well as continued investment in WRD's existing infrastructure to optimize performance and maximize production.

The CIP includes a total of \$178.8 million in capital improvement projects. The Program reflects grant funding of \$39.5 million that has been awarded or pursued, and partnerships that will contribute \$15.2 million toward the listed projects. In FY 2023, WRD is planning to issue \$45.5 million in revenue bonds to fund the balance of the capital plan. In addition, the CIP describes funding from previous debt issuances (Series 2015 and Series 2018), unrestricted reserve funds, and PayGo financing.

The CIP was presented and reviewed at the Technical Advisory Committee (TAC) on Wednesday, September 15, 2021, and Wednesday, October 13, 2021. Following a detailed review and discussion of the CIP, the TAC recommended the five-year CIP Program to the Capital Improvement Projects Committee. The five-year CIP was introduced to the Capital Improvement Projects Committee on October 28, 2021 and subsequently approved and adopted by the Board of Directors on November 4, 2021 as shown below:

Adopt the five-year Capital Improvement Projects Program for Fiscal Year 2022 through Fiscal Year 2026 as submitted and authorize staff to file a Notice of Exemption from CEQA.

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.



OVERVIEW

To perform its mission and implement the Board of Director's strategic goals, WRD prepares a five-year Capital Improvement Program (CIP) plan which includes a five-year outlook and funding outlay for all the District's capital projects. Capital improvement projects are permanent structural changes or restorations to the District's infrastructure that enhance value, increase useful life, or allow for increased groundwater capacity. The CIP five-year outlook identifies capital projects and equipment purchases, provides a funding schedule, and identifies funding sources for financing the projects.

There are five objectives of WRD's CIP Program. First is the identification of capital improvement projects needed to achieve WRD's Strategic Goals. Next is the development of project budgets for the individual capital improvement projects. Third is the preparation of a schedule associated with each project. Comparing the project budgets and schedules with the availability of human resources and other considerations, a five-year CIP schedule and budget outlay is revealed. Finally, the sources of funding for each capital improvement project are identified and an annual CIP budget is developed for each of the next 5 years.

The five-year 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 CIP plan is a working document and will be reviewed and updated every two years to reflect stakeholder needs, priorities, and funding opportunities.

PROGRAM CATEGORIES

For ease of use, the CIP plan is organized into five (5) general program categories. The program categories are as follows:

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

Each program category is discussed within this document and includes a specific list of capital improvement projects that are needed to complete the objectives of the program and the strategic goals of the organization. Every capital improvement project is summarized in a dedicated worksheet within this document. The project worksheets include a project description, operating impacts discussion, prior year project highlights, projected five-year capital improvement project cost information and estimated funding schedule.

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

- Total project cost exceeding \$10,000.
- Creates a new asset.
- Significantly increases the physical output or service capacity of an existing asset.
- Significantly lowers associated operating costs for an existing asset.
- Significantly extends the useful life of an existing asset.
- Improves the quality of the output of an existing asset.

SOURCES OF FUNDING

WRD has a variety of funding sources available for capital improvement projects: Existing Unspent Debt, Outside Funding, PayGo, Reserves, or Future Debt / Future Grants. The tables within this document not only identify the annual CIP budget for each project or program, but also identify the sources of funding for each capital project. The sources of funding include:

- Appropriation of Series 2018 Bond Funds: Funds in this column are already secured through a bond issuance performed in 2018.
- Outside Funding: Funds in this column have already been secured through outside sources, including state grants and loans or project partnership agreements.
- PayGo / Reserves: Funding in this column will come from WRD's PayGo or various reserve funds.
- Future Debt / Grants: Funding in this column will come from future grant pursuits or additional borrowing.

WRD STRATEGIC GOALS

The WRD Board of Directors has adopted four strategic goals in order to accomplish the District's mission providing, protecting, and preserving safe and sustainable high-quality groundwater. The strategic goals include the following:

- Expand Replenishment Opportunities: WRD will identify and secure new replenishment sources and locations to ensure reliable recharge water for adjudicated pumping allocations and to utilize available storage space for increased local water supply.
- Expand Extraction Capacity: WRD will expand groundwater extraction capacity through remediation, identification of new extraction sites and through incentives for groundwater pumpers.
- Maximize Innovation and Environmental Resiliency: WRD will strive for continued increased efficiency in all treatment and recharge operations and will plan adaptability into new and existing projects.
- Promote Organizational Excellence: WRD will optimize internal operations, continue outreach and engagement with the public, regulators, and elected officials, and will maintain strong financial standing through accurate budgeting and obtainment of funding sources.

The non-financial impacts of each project can be characterized by their achievement of WRD's Strategic Goals. Each of the program categories below include a tabulation of the strategic goals achieved by each project.

CAPITAL IMPROVEMENT PROGRAM

Budget Overview

CAPITAL IMPROVEMENT PROGRAM BUDGET

The five-year CIP budget includes a total of \$178.8 million in capital improvement projects. The table below summarizes the projected CIP budget for each of the years between Fiscal Years 2022 and 2026.

Program / Project	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Water Independence Now (WIN)	\$ 11,353,249	\$ 13,778,249	\$ 3,593,249	\$ 1,593,249	\$ 1,593,249	\$ 31,911,243
Regional Water Independence Program (WIN4ALL)	3,603,004	4,675,000	2,000,000	5,000,000	3,000,000	18,278,004
Basin Management Projects	4,820,794	1,453,309	505,000	-	-	6,779,103
Groundwater Quality Protection & Remediation	41,434,103	39,920,725	19,871,667	1,100,000	-	102,326,495
Facilities Management, Maintenance, and Rehabilitation	5,516,562	6,033,072	6,716,124	777,815	426,000	19,469,573
TOTAL	\$ 66,727,711	\$ 65,860,354	\$ 32,686,040	\$ 8,471,063	\$ 5,019,249	\$ 178,764,417


The CIP reflects approximately \$54.7 million in outside funding from grants and partnerships. In addition, funding sources include \$35.1 million remaining from the 2018 bond issuance, \$41.3 million from unrestricted reserve funds, and \$2.1 million from PayGo funding. It is anticipated that an additional \$45.5 million will need to be borrowed in FY 2023 if additional grant opportunities are not identified. The table below summarizes the CIP funding for the five general program categories.

Program / Project	Appropriation of 2018 Bond Funds	Outside Funds	Paygo Funds	Reserve Funds	Future Debt / Future Grants	Total Project Funding
Water Independence Now (WIN)	\$ 9,757,391	\$ 18,020,000	\$ -	\$ 4,133,852	\$ -	\$ 31,911,243
Regional Water Independence Program (WIN4ALL)	1,005,004	4,088,000	-	5,685,000	7,500,000	18,278,004
Basin Management Projects	3,144,104	135,000	-	3,500,000	-	6,779,104
Groundwater Quality Protection & Remediation	16,350,000	32,481,829	-	15,494,666	38,000,000	102,326,495
Facilities Management, Maintenance, and Rehabilitation	4,853,526	-	2,130,000	12,486,047	-	19,469,573
TOTAL	\$ 35,110,024	\$ 54,724,829	\$ 2,130,000	\$ 41,299,565	\$ 45,500,000	\$ 178,764,417



¿CÓMO ESTÁ PLANEANDO WRD PARA EL FUTURO?


WRD acaba de completar el programa de independencia del Agua Hoy (Water Independence Now) (WIN) un estudio.



El programa fue un conjunto de proyectos planificados para eliminar el uso de agua superficial para la recarga de agua subterránea.

¿CÓMO AYUDA WRD A LOS USUARIOS DE AGUA SUBTERRÁNEA?


El Programa de Asistencia a las Comunidades Desfavorecidas
Brinda asistencia adicional a los sistemas de agua en áreas de bajos recursos.



Esta planta en sí misma representa la aplicación de un programa de tratamiento de planta de agua.

¿CÓMO MANTENEMOS LA SEGURIDAD DEL AGUA SUBTERRÁNEA?

WRD recarga el agua subterránea en 50 millones.



Cada punto rojo es un sitio de monitoreo.

WHERE DOES WRD USE RECYCLED WATER?

Advanced treated water is injected into the seawater barriers to help back the coastal seawater intrusion.



¿QUIÉN USA EL AGUA SUBTERRÁNEA?

A continuación se muestran los clientes de WRD de 1,000 acres por año o más por año para usar agua subterránea.



¿QUIÉN ES WRD?

WATER REVENUE
WATER QUALITY
WATER SUPPLY
WATER TREATMENT
WATER DISTRIBUTION



WRD es una de las 100 plantas de agua de la gran industria de agua potable en América del Norte.



WATER INDEPENDENCE NOW (WIN) PROGRAM

WATER INDEPENDENCE NOW (WIN) PROJECTS

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. All of the projects within this category are considered non-recurring capital expenses. The financial and non-financial impacts for each project within this category are tabulated below.

Water Independence Now (WIN)		Projected 5-year CIP Budget				
Project	Total 5-year CIP Budget	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026
ARCAWTF: Sewer Connection Fee	\$ 7,966,243	\$ 1,593,249	\$ 1,593,249	\$ 1,593,249	\$ 1,593,249	\$ 1,593,249
Leo J. Vander Lans Facility: Source Water Supply	\$ 1,475,000	\$ 475,000	\$ 1,000,000	\$ -	\$ -	\$ -
Leo J. Vander Lans Facility: Onsite Inland injection Well	\$ 7,450,000	\$ 7,050,000	\$ 400,000	\$ -	\$ -	\$ -
Dominguez Gap Seawater Intrusion Barrier-2nd RW Connection	\$ 8,220,000	\$ 2,235,000	\$ 5,985,000	\$ -	\$ -	\$ -
Dominguez Gap Seawater Intrusion Barrier-Potable Backup Supply	\$ 6,800,000	\$ -	\$ 4,800,000	\$ 2,000,000	\$ -	\$ -
SUBTOTAL	\$ 31,911,243	\$ 11,353,249	\$ 13,778,249	\$ 3,593,249	\$ 1,593,249	\$ 1,593,249

Water Independence Now (WIN)				
Project	Expand Replenishment Opportunities	Expand Extraction Capacity	Maximize Innovation and Environmental Resiliency	Promote Organizational Excellence
ARCAWTF: Sewer Connection Fee	X		X	
Leo J Vander Lans Facility: Source Water Supply	X	X	X	
Leo J. Vander Lans Facility: Onsite Inland injection Well	X	X		
Dominguez Gap Seawater Intrusion Barrier- 2nd RW Connection	X		X	
Dominguez Gap Seawater Intrusion Barrier-Potable Backup Supply	X		X	

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

PROJECT DESCRIPTION

The Albert Robles Center (ARC) offsets the use of imported water by providing up to 10,000 acre-feet per year (AFY) of an advanced water treatment facility (AWTF) product water to the Montebello Forebay Spreading Grounds (MSGs). The high-purity AWTF product water allows more tertiary-treated recycled water to be applied to the spreading grounds. Together, a blend of 10,000 AFY of AWTF product water and as much as 61,000 AFY of tertiary-treated recycled water can be conveyed to the MSGs without exceeding permitted values of Recycled Water Concentration for the waters used to recharge the Central Basin through the spreading grounds.

Off-site improvements were required as part of the ARC 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 Sanitation Districts of Los Angeles County (LACSD) 63-inch diameter sewer pipeline that is located approximately 1,600 feet from the ARC site. The construction of the brine pipeline was completed in February 2017. An agreement for a 10-year payment schedule with the LACSD for a Connection Fee of \$15,932,475.12 was entered into in 2019. WRD has 7 annual payments of \$1,593,247.51 remaining.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$7,966,243. The funds will be drawn from the 2018 Bond Issuance.

OPERATING IMPACTS

There are no operating impacts at this time.

PRIOR YEAR HIGHLIGHTS

Construction of the facility was completed in 2019. The facility successfully delivered 10,000 AFY to the Montebello Forebay Spreading Grounds in both calendar years 2020 and 2021.

PROJECTED 5-YEAR CIP

ARC: Brineline Connection Fee	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ 1,593,249	\$ 1,593,249	\$ 1,593,249	\$ 1,593,249	\$ 1,593,249	\$ 7,966,243
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	-	-	-	-	\$ -
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 1,593,249	\$ 1,593,249	\$ 1,593,249	\$ 1,593,249	\$ 1,593,249	\$ 7,966,243

LEO J. VANDER LANS ADVANCED WATER TREATMENT FACILITY: SOURCE WATER SUPPLY

PROJECT DESCRIPTION

The Leo J. Vander Lans Advanced Water Treatment Facility (LVL) provides advanced-treated recycled water to the Alamitos Seawater Intrusion Barrier (Barrier). Originally 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 treatment capacity from 3 million gallons per day (MGD) to 8 MGD. LVL has an agreement in place with the Long Beach Water Department (LBWD) for supply of 6,500 AFY of tertiary effluent.

WRD has an allocation of 10,000 AFY of tertiary treated recycled water from the Los Coyotes Water Reclamation Plant (LCWRP), located approximately 6 miles north of the LVL AWTF. This project will analyze the most cost-effective method for increasing the source water supply to the LVL AWTF, investigating opportunities for a direct pipeline between the LCWRP and LVL AWTF, or for interconnecting the tertiary effluent distribution systems of local municipalities between LCWRP and LVL AWTF. Additional studies or preliminary designs are accommodated through the budget.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$1,475,000. This funding has been allocated from a combination of the 2018 bond funding and WRD’s Water Purchase Carryover & Rate Stabilization Reserves

OPERATING IMPACTS

There are no operating impacts at this time

PRIOR YEAR HIGHLIGHTS

Conceptual designs have been previously developed as part of the Hyperion Replenishment Master Plan project.

PROJECTED 5-YEAR CIP

Leo J Vander Lans Facility: Source Water Supply	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ 475,000	\$ 507,065	\$ -	\$ -	\$ -	\$ 982,065
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	492,935	-	-	-	\$ 492,935
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 475,000	\$ 1,000,000	\$ -	\$ -	\$ -	\$ 1,475,000

LEO J. VANDER LANS ADVANCED WATER TREATMENT FACILITY: ONSITE INLAND INJECTION WELL

PROJECT DESCRIPTION

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 treatment capacity from 3 million gallons per day (MGD) to 8 MGD. LVL has an agreement in place with the Long Beach Water Department for supply of 6,500 AFY of tertiary effluent.

Currently, LVL production is limited to the Barrier Demand. At specific times of year, there is more tertiary effluent available than demand in the barrier. This project will construct a 2 MGD injection well on site at LVL (inland of the Barrier wells), allowing for up to 2 MGD to be injected into the Central Basin when excess tertiary effluent is available.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$7,475,000. A \$1,500,000 grant was received from the Pepsi Corporation. Another \$1,500,000 grant is anticipated from the United States Bureau of Reclamation (USBR). Additional funding has been allocated from the 2018 bond funding and WRD’s reserve fund.

OPERATING IMPACTS

This project will improve LVL AWTF operations by allowing more constant operation of the plant due to not being dependent on Barrier operations for LVL AWTF production.

PRIOR YEAR HIGHLIGHTS

Design of the onsite, inland injection well was completed in FY 2021.

PROJECTED 5-YEAR CIP

Leo J. Vander Lans Facility: Onsite injection Well Storage/Replenishment	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ 809,084	\$ -	\$ -	\$ -	\$ -	\$ 809,084
Outside Funds	3,000,000	-	-	-	-	\$ 3,000,000
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	3,240,916	400,000	-	-	-	\$ 3,640,916
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 7,050,000	\$ 400,000	\$ -	\$ -	\$ -	\$ 7,450,000

DOMINGUEZ GAP SEAWATER INTRUSION BARRIER – 2ND RECYCLED WATER CONNECTION

PROJECT DESCRIPTION

This project increases the injection of advanced-treated water within the existing Dominguez Gap Seawater Barrier. The system is supplied with advanced-treated water purchased through the Los Angeles Department of Water and Power (LADWP) from the Terminal Island Advanced Water Treatment Plant (TIAWTP). WRD’s agreement with LADWP ensures sufficient supply to the Dominguez Gap Seawater Barrier of 7.5 MGD, which is expandable to a maximum of 9.5 MGD. Potable water is also purchased for injection from West Basin Municipal Water District when Barrier demand is above 7.5 MGD. In partnership with LADWP, this project will construct a pipeline from the TIAWTP to a second point of connection within the existing barrier wells in order to inject more recycled water than the existing connection can sustain. The second recycled water connection will allow more product water to be injected into the barrier and reduce reliance on potable water.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$8,220,000. Per the water purchase agreement between WRD and LADWP, LADWP will reimburse WRD for the entirety of the capital cost for this project.

OPERATING IMPACTS

Increased advanced-treated water capacity at the TIAWTP and WRD’s 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 injection of the advanced-treated water so increased quantities of advanced-treated water can be utilized in the Barrier.

PRIOR YEAR HIGHLIGHTS

A 90% design package was completed by LADWP in FY 2021. WRD completed the construction bid package in FY 2021.

PROJECTED 5-YEAR CIP

Dominguez Gap Seawater Intrusion Barrier - 2nd RW Connection	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside Funds	2,235,000	5,985,000	-	-	-	\$ 8,220,000
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	-	-	-	-	\$ -
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 2,235,000	\$ 5,985,000	\$ -	\$ -	\$ -	\$ 8,220,000

DOMINGUEZ GAP SEAWATER INTRUSION BARRIER – POTABLE BACKUP SUPPLY

PROJECT DESCRIPTION

This project increases the injection of advanced-treated water within the existing Dominguez Gap Seawater Barrier. The system is supplied with advanced-treated water purchased through the Los Angeles Department of Water and Power (LADWP) from the Terminal Island Advanced Water Treatment Plant (TIAWTP). WRD’s agreement with LADWP ensures sufficient supply to the Dominguez Gap Seawater Barrier of 7.5 MGD, which is expandable to a maximum of 9.5 MGD. Potable water is also purchased for injection from West Basin Municipal Water District when Barrier demand is above 7.5 MGD. In partnership with LADWP, this project will construct a backup supply of potable water from LADWP to the Dominguez Gap Barrier, allowing the use or supplementation of imported water from LADWP if the TIAWTP is unable to provide the agreed upon amount of advanced-treated water.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$6,800,000. Per the water purchase agreement between WRD and LADWP, LADWP will reimburse WRD for the entirety of the capital cost for this project.

OPERATING IMPACTS

This project will ensure that LADWP can always supply the agreed upon volume of water for Barrier injection, regardless of its makeup of advanced-treated water or potable water. This project allows for an alternative location to provide potable water to the barrier during maintenance or outages at TIAWTP, thus improving reliability of water delivery to the barrier at a cost-effective rate. 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.

PROJECTED 5-YEAR CIP

Dominguez Gap Seawater Intrusion Barrier-Potable Backup Supply	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside Funds	-	4,800,000	2,000,000	-	-	\$ 6,800,000
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	-	-	-	-	\$ -
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ -	\$ 4,800,000	\$ 2,000,000	\$ -	\$ -	\$ 6,800,000



*THE 2040 PLAN FOR REGIONAL
WATER INDEPENDENCE*

REGIONAL WATER INDEPENDENCE PROGRAM (WIN4ALL)

REGIONAL WATER INDEPENDENCE (WIN4ALL) PROJECTS

Building upon the sources of WRD’s Water Independence Now Program, the District initiated WIN 4 ALL to take advantage of available groundwater storage space to further increase the region’s use of sustainable groundwater supplies. WIN 4 ALL is a collection of projects that will allow the utilization of the groundwater aquifers to create a locally sustainable water supply for the Los Angeles Basin Region. The financial and non-financial impacts for each project within this category are tabulated below.

Regional Water Independence Program (WIN4ALL)		Projected 5-year CIP Budget				
Project	Total 5-year CIP Budget	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026
Hyperion Replenishment Master Plan	\$ 426,000	\$ 426,000	\$ -	\$ -	\$ -	\$ -
Leo J. Vander Lans Facility: Offsite Inland Injection Well	\$ 560,000	\$ -	\$ 560,000	\$ -	\$ -	\$ -
Regional Brackish Water Reclamation Program Feasibility Study	\$ 292,004	\$ 292,004	\$ -	\$ -	\$ -	\$ -
Regional Brackish Desalter Pilot Study & Full Scale Design	\$ 15,500,000	\$ 2,750,000	\$ 2,750,000	\$ 2,000,000	\$ 5,000,000	\$ 3,000,000
Dominguez Gap Seawater Intrusion Barrier- Inland Injection Well Field	\$ 500,000	\$ 135,000	\$ 365,000	\$ -	\$ -	\$ -
Regional Replenishment Resource Development	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -
SUBTOTAL	\$ 18,278,004	\$ 3,603,004	\$ 4,675,000	\$ 2,000,000	\$ 5,000,000	\$ 3,000,000

Regional Water Independence Program (WIN4ALL)				
Project	Expand Replenishment Opportunities	Expand Extraction Capacity	Maximize Innovation and Environmental Resiliency	Promote Organizational Excellence
Hyperion Replenishment Master Plan	X	X	X	
Leo J. Vander Lans Facility: Offsite Inland injection Well	X	X	X	
Regional Brackish Water Reclamation Program Feasibility Study		X		X
Regional Brackish Desalter Pilot Study & Full Scale Design		X		X
Dominguez Gap Seawater Intrusion Barrier- Inland Injection Well Field	X	X	X	
Regional Replenishment Resource Development	X		X	X

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 CIP budget for Fiscal Years 2022-2026 is \$426,000. WRD and LADWP have a 50/50 cost share for this project as the findings are mutually beneficial to our two agencies.

OPERATING IMPACTS

There are no operating impacts at this time.

PRIOR YEAR HIGHLIGHTS

This project is anticipated to be complete in FY 2022.

PROJECTED 5-YEAR CIP

Hyperion Replenishment Master Plan	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ 213,000	\$ -	\$ -	\$ -	\$ -	\$ 213,000
Outside Funds	213,000	-	-	-	-	\$ 213,000
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	-	-	-	-	\$ -
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 426,000	\$ -	\$ -	\$ -	\$ -	\$ 426,000

LEO J. VANDER LANS ADVANCED WATER TREATMENT FACILITY: OFFSITE INLAND INJECTION WELLS

PROJECT DESCRIPTION

This project increases water replenishment within the Central Basin through the installation of a new injection well system inland from the existing Alamitos Barrier Project (ABP) for seawater intrusion. The system will be supplied with advanced-treated water produced at the Leo J Vander Lans Advanced Water Treatment Facility (LVL), which can produce up to 8 MGD of advanced-treated water. This project will investigate the feasibility for installing additional inland injection wells for recharging the Central Basin with advanced-treated water offsite from LVL.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$560,000. This funding has been allocated from WRD’s Water Purchase Carryover & Rate Stabilization Reserves.

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.

PROJECTED 5-YEAR CIP

Leo J. Vander Lans: Offsite injection Well	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	560,000	-	-	-	\$ 560,000
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ -	\$ 560,000	\$ -	\$ -	\$ -	\$ 560,000

REGIONAL BRACKISH WATER RECLAMATION PROGRAM FEASIBILITY STUDY

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.

The Feasibility Study evaluates 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 CIP budget for Fiscal Years 2022-2026 is \$292,004. Funding has been allocated from WRD’s 2018 Bond issuance.

OPERATING IMPACTS

There are no operating impacts at this time.

PRIOR YEAR HIGHLIGHTS

A draft of the feasibility study was completed in FY 2021.

PROJECTED 5-YEAR CIP

Regional Brackish Water Reclamation Program Feasibility Study	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ 292,004	\$ -	\$ -	\$ -	\$ -	\$ 292,004
Outside Funds	-	-	-	-	-	-
Paygo Funds	-	-	-	-	-	-
Reserve Funds	-	-	-	-	-	-
Future Debt / Future Grants	-	-	-	-	-	-
Total:	\$ 292,004	\$ -	\$ -	\$ -	\$ -	\$ 292,004

REGIONAL BRACKISH WATER RECLAMATION PROGRAM PILOT STUDY AND FULL-SCALE DESIGN

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.

Following completion of the feasibility study, WRD will perform a pilot study for the characterization of feedwater quality and development of treatment plant design parameters. The full-scale plant design is anticipated to include well siting and designs, conveyance pipeline alignments, pretreatment needs, reverse osmosis treatment, post treatment needs, and brine disposal. This effort will be distributed between three phases of effort, as noted below:

- Phase 1: Pilot Testing and Water Quality Characterization
- Phase 2: Feedwater and Conveyance Design
- Phase 3: Desalter Detailed Design

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$15,500,000. Funding has been allocated from WRD’s Water Purchase Carryover & Rate Stabilization Reserves and future debt issuance. Outside funding has been awarded from the United States Bureau of Reclamation (USBR) WaterSMART Desalination Program.

OPERATING IMPACTS

There are no operating impacts at this time.

PRIOR YEAR HIGHLIGHTS

There are no prior year highlights. A scope of services and Request for Proposals for Phase 1 will be released in FY 2022.

PROJECTED 5-YEAR CIP

Regional Brackish Desalter Pilot Study & Full Scale Design	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside Funds	687,500	687,500	500,000	1,250,000	750,000	\$ 3,875,000
Paygo Funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reserve Funds	2,062,500	2,062,500	-	-	-	\$ 4,125,000
Future Debt / Future Grants	\$ -	\$ -	\$ 1,500,000	\$ 3,750,000	\$ 2,250,000	\$ 7,500,000
Total:	\$ 2,750,000	\$ 2,750,000	\$ 2,000,000	\$ 5,000,000	\$ 3,000,000	\$ 15,500,000

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

The CIP budget for Fiscal Years 2022-2026 is \$500,000. Funding has been allocated from WRD’s 2018 Bond issuance.

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 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.

PROJECTED 5-YEAR CIP

Dominguez Gap Seawater Intrusion Barrier - Inland Injection Well Field	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ 135,000	\$ 365,000	\$ -	\$ -	\$ -	\$ 500,000
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	-	-	-	-	\$ -
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 135,000	\$ 365,000	\$ -	\$ -	\$ -	\$ 500,000

REGIONAL REPLENISHMENT RESOURCE DEVELOPMENT

PROJECT DESCRIPTION

As WRD continues to develop a partnership with LADWP and investigates new ways to replenish the West Coast and Central Basins, additional analysis may be needed to further refine or assess 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

The CIP budget for Fiscal Years 2022-2026 is \$1,000,000. This funding has been allocated from WRD's Water Purchase Carryover & Rate Stabilization Reserves

OPERATING IMPACTS

There are no operating impacts at this time.

PRIOR YEAR HIGHLIGHTS

This is a new project.

PROJECTED 5-YEAR CIP

Regional Replenishment Resource Development	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	1,000,000	-	-	-	\$ 1,000,000
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ 1,000,000

BASIN MANAGEMENT PROGRAM

BASIN MANAGEMENT PROJECTS

WRD has been monitoring groundwater quality and water levels in the Basins for over 50 years. Basin Management Projects are those projects that allow for the continuation of the collection of basic information used for groundwater basin management including groundwater level data and water quality data. The financial and non-financial impacts for each project within this category are tabulated below.

Basin Management Projects		Projected 5-year CIP Budget				
Project	Total 5-year CIP Budget	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026
Regional Groundwater Monitoring Program - Wells	\$ 2,037,294	\$ 2,037,294	\$ -	\$ -	\$ -	\$ -
Regional Groundwater Monitoring Program - Telemetry/SCADA	\$ 500,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -
Deep Nested Well for National Groundwater Monitoring Network	\$ 246,000	\$ 246,000	\$ -	\$ -	\$ -	\$ -
Recycled Water Compliance Monitoring Wells at MFSG	\$ 495,809	\$ 37,500	\$ 453,309	\$ 5,000	\$ -	\$ -
Brewer Well Purchase & Connection to Goldsworthy Desalter	\$ 3,500,000	\$ 2,000,000	\$ 1,000,000	\$ 500,000	\$ -	\$ -
SUBTOTAL	\$ 6,779,103	\$ 4,820,794	\$ 1,453,309	\$ 505,000	\$ -	\$ -

Basin Management Projects				
Project	Expand Replenishment Opportunities	Expand Extraction Capacity	Maximize Innovation and Environmental Resiliency	Promote Organizational Excellence
Regional Groundwater Monitoring Program - Wells			X	X
Regional Groundwater Monitoring Program - Telemetry/SCADA			X	X
Deep Nested Well for National Groundwater Monitoring Network			X	X
Recycled Water Compliance Monitoring Wells at MFSG			X	X
Brewer Well Purchase & Connection to Goldsworthy Desalter		X	X	

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 347 specialized monitoring wells at 62 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.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$2,037,294. Funding has been allocated from WRD’s 2018 Bond issuance.

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 2020-21 Regional Groundwater Monitoring Report was completed, and the 6-week long sampling programs were completed in fall 2020 and spring 2021. Two deep nested groundwater monitoring wells were also recently installed in the Cities of Cerritos and Paramount.

PROJECTED 5-YEAR CIP

Regional Groundwater Monitoring Program - Wells (Paramount & Cerritos)	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ 2,037,294	\$ -	\$ -	\$ -	\$ -	\$ 2,037,294
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	-	-	-	-	\$ -
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 2,037,294	\$ -	\$ -	\$ -	\$ -	\$ 2,037,294

REGIONAL GROUNDWATER MONITORING PROGRAM – TELEMETRY/SCADA

PROJECT DESCRIPTION

The Regional Groundwater Monitoring Program (RGWMP) deploys automated data loggers in each of its 347 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 handheld devices to download the information, bring the handheld 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

The CIP budget for Fiscal Years 2022-2026 is \$500,000. Funding has been allocated from WRD’s 2018 Bond issuance.

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 project is in its planning stages; hence, there are no highlights currently.

PROJECTED 5-YEAR CIP

Regional Groundwater Monitoring Program - Telemetry/SCADA	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	-	-	-	-	\$ -
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000

DEEP NESTED MONITORING WELL FOR THE NATIONAL GROUNDWATER MONITORING NETWORK

PROJECT DESCRIPTION

WRD was awarded a grant for various groundwater monitoring related activities associated with the National Groundwater Monitoring Network (NGWMN) as administered by the United States Geological Survey (USGS). The grant funds were used to install a deep nested groundwater monitoring well in a key data gap area within the Montebello Forebay. The overall goal of the program is to develop a nationwide, long-term groundwater monitoring framework that could provide information necessary for the planning, management, and development of groundwater resources to meet current and future water needs, and ecosystem requirements with a primary focus on the nation’s principal aquifers as defined by the USGS. WRD has a very extensive groundwater monitoring network within one of the most heavily utilized aquifers in California. The data would provide beneficial information for the nationwide evaluation of groundwater resources and help fill a key data gap in the current NGWMN.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$246,000. Funding has been allocated from WRD’s 2018 Bond issuance and grant funds from the USGS NGWMN.

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 well was successfully installed in the summer of 2021.

PROJECTED 5-YEAR CIP

Deep Nested Well for NGWMN	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ 111,000	\$ -	\$ -	\$ -	\$ -	\$ 111,000
Outside Funds	135,000	-	-	-	-	\$ 135,000
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	-	-	-	-	\$ -
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 246,000	\$ -	\$ -	\$ -	\$ -	\$ 246,000

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 wastewater 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 as with 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 of the new monitoring wells is included in this CIP.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$495,809. Funding has been allocated from WRD’s 2018 Bond issuance.

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.

PROJECTED 5-YEAR CIP

Recycled Water Compliance Monitoring Wells at MFSG	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ 37,500	\$ 453,309	\$ 5,000	\$ -	\$ -	\$ 495,809
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	-	-	-	-	\$ -
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 37,500	\$ 453,309	\$ 5,000	\$ -	\$ -	\$ 495,809

BREWER WELL ADDITION TO ROBERT W. GOLDSWORTHY DESALTER FEED SUPPLY

PROJECT DESCRIPTION

The Robert W. Goldsworthy Desalter was constructed in 2005 to treat 2.5 MGD of brackish groundwater to drinking water standards. The plant was expanded in 2018 to 5.0 MGD production and 80% recovery of water. Since that time, the facility has been derated to 4.0 MGD and 76% water recovery due to significant fouling of the reverse osmosis membrane preventing operation at the original design conditions.

The West Basin Municipal Water District (West Basin) has owned and operated the Brewer Desalter in Torrance, CA since 1994. The facility has reached the end of its useful life and West Basin intends to decommission and demolish the facility. The Brewer production well was installed in 2005 and has 20-30 years of remaining useful life on the asset. The Brewer production well is located less than 250 ft. from the Goldsworthy Desalter.

This project includes purchase of the Brewer production well from West Basin for its use as an additional source of feedwater at the Goldsworthy Desalter to increase the production and water recovery of the facility. The project will include the design and construction of conveyance pipeline from the well to the Goldsworthy Desalter.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$3,500,000. This funding has been allocated from WRD’s Water Purchase Carryover & Rate Stabilization Reserves.

OPERATING IMPACTS

This project will increase the feed water supply to the Goldsworthy Desalter and result in more efficient operations costs associated with energy and chemical.

PRIOR YEAR HIGHLIGHTS

There are no prior year highlights.

PROJECTED 5-YEAR CIP

Brewer Well Purchase	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	2,000,000	1,000,000	500,000	-	-	\$ 3,500,000
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 2,000,000	\$ 1,000,000	\$ 500,000	\$ -	\$ -	\$ 3,500,000

**GROUNDWATER
QUALITY PROTECTION
& REMEDIATION PROGRAM**

GROUNDWATER QUALITY PROTECTION & REMEDIATION PROJECTS

Groundwater Quality Protection and Remediation are a collection of CIP projects focused on addressing WRD’s ongoing effort to address water quality issues that affect WRD projects and the pumpers’ facilities. The financial and non-financial impacts for each project within this category are tabulated below.

Groundwater Quality Protection & Remediation		Projected 5-year CIP Budget				
Project	Total 5-year CIP Budget	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026
Contaminated Site Investigations, Cleanup and Monitoring Wells	\$ 1,000,000	\$ 32,500	\$ 967,500	\$ -	\$ -	\$ -
Perchlorate Remediation Project	\$ 4,973,330	\$ 4,633,270	\$ 340,060	\$ -	\$ -	\$ -
PFAS Remediation Program	\$ 61,000,000	\$ 27,958,333	\$ 22,875,000	\$ 10,166,667	\$ -	\$ -
Well Construction and Rehabilitation Program	\$ 1,500,000	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -
Safe Drinking Water Program - Primary Contaminants (Grants)	\$ 2,350,000	\$ 2,350,000	\$ -	\$ -	\$ -	\$ -
Safe Drinking Water Program - Secondary Contaminants (Loans)	\$ 3,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ -	\$ -
Safe Drinking Water Program - Disadvantaged Community Projects	\$ 28,503,165	\$ 3,960,000	\$ 14,738,165	\$ 8,705,000	\$ 1,100,000	\$ -
SUBTOTAL	\$ 102,326,495	\$ 41,434,103	\$ 39,920,725	\$ 19,871,667	\$ 1,100,000	\$ -

Groundwater Quality Protection & Remediation				
Project	Expand Replenishment Opportunities	Expand Extraction Capacity	Maximize Innovation and Environmental Resiliency	Promote Organizational Excellence
Contaminated Site Investigations, Cleanup and Monitoring Wells		X	X	
Perchlorate Remediation Project		X	X	
PFAS Remediation Program		X	X	
Well Construction and Rehabilitation Program		X	X	
Safe Drinking Water Program - Primary Contaminants (Grants)		X	X	
Safe Drinking Water Program - Secondary Contaminants (Loans)		X	X	
Safe Drinking Water Program - Disadvantaged Community Projects		X	X	

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 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 protection, 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 next 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 CIP budget for Fiscal Years 2022-2026 is \$1,000,000. Funding has been allocated from WRD's 2018 Bond issuance.

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.

PROJECTED 5-YEAR CIP

Contaminated Site Investigations, Cleanup and Monitoring Wells	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ 32,500	\$ 967,500	\$ -	\$ -	\$ -	\$ 1,000,000
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	-	-	-	-	\$ -
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 32,500	\$ 967,500	\$ -	\$ -	\$ -	\$ 1,000,000

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 CIP budget for Fiscal Years 2022-2026 is \$4,973,330. Funding for 80% of this project has been obtained from the Proposition 1 Groundwater Grant being administered by the State Water Resources Control Board (SWRCB). The remainder is drawn from WRD’s Water Purchase Carryover & Rate Stabilization Reserves.

OPERATING IMPACTS

There are no operating impacts currently.

PRIOR YEAR HIGHLIGHTS

WRD completed the well installations, commenced treatment system construction, commenced groundwater modeling to identify a responsible party, and issued a request for bids to hire a field construction contractor to install conveyance piping and make final treatment system connections in FY 2022.

PROJECTED 5-YEAR CIP

Perchlorate Remediation Project	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside Funds	3,706,616	272,048	-	-	-	\$ 3,978,664
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	926,654	68,012	-	-	-	\$ 994,666
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 4,633,270	\$ 340,060	\$ -	\$ -	\$ -	\$ 4,973,330

PFAS REMEDIATION PROGRAM

PROJECT DESCRIPTION

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals, which include perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), and perfluorobutane sulfonic acid (PFBS), that have been manufactured and used in a variety of industries around the globe and the region since the 1940s. The State Water Resource Control Board’s Division of Drinking Water (DDW) established Response Levels (RLs) of 10 parts per trillion (ppt) for PFOA, 40 ppt for PFOS, and 5,000 ppt for PFBS. Assembly Bill 756, codified as Health and Safety Code Section 116378 which became effective January 1, 2020, requires that community water systems, including groundwater pumpers, either notify their customers of PFAS detections exceeding RLs or remove from service drinking water sources with PFAS exceeding RLs. In response, the WRD Board of Directors established the PFAS Remediation Program on August 20, 2020, to provide either grants for water producers (e.g., groundwater pumpers) to install their own treatment systems (referred to as Funding Support Projects), or for WRD to design and construct treatment systems for the pumpers (referred to as Turnkey Projects) to remediate impacted production wells.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$61,000,000. Funding for this program is derived from 2018 Bond issuance, various reserve funds, and future borrowing.

OPERATING IMPACTS

There are no operating impacts currently.

PRIOR YEAR HIGHLIGHTS

The WRD Board of Directors approved the PFAS Remediation Program as a new WRD Program.

PROJECTED 5-YEAR CIP

PFAS Remediation Program	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	\$ 15,000,000	\$ -	\$ -	\$ -	\$ -	\$ 15,000,000
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	8,000,000	-	-	-	-	\$ 8,000,000
Future Debt / Future Grants	4,958,333	22,875,000	10,166,667	-	-	\$ 38,000,000
Total:	\$ 27,958,333	\$ 22,875,000	\$ 10,166,667	\$ -	\$ -	\$ 61,000,000

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 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 CIP budget for Fiscal Years 2022-2026 is \$1,500,000. Funds will be drawn from Well Rehabilitation & Construction Reserve.

OPERATING IMPACTS

There are no operating impacts currently.

PRIOR YEAR HIGHLIGHTS

A 10-year, 0-percent interest loan for \$1,500,000 was made to the City of Signal Hill.

PROJECTED 5-YEAR CIP

Well Rehabilitation and Construction Program - Signal Hill	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	-	-	-	-	-	\$ -
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	1,500,000	-	-	-	-	\$ 1,500,000
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -	\$ 1,500,000

SAFE DRINKING WATER PROGRAM – PRIMARY CONTAMINANTS (GRANTS)

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). Since the Program’s inception, the District has funded 13 grants. 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 carbon (GAC) filtration system built within the boundaries of the existing well sites owned and operated by the water systems. 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.

In 2020, WRD entered into an agreement with the City of Lomita to fund \$2,000,000 towards the City’s Well 5 treatment project consisting of GAC treatment for benzene. The City is taking the lead on the design and construction of the system and WRD funding will be issued at successful completion of the construction project.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$2,350,000. Funding for completion of three construction projects has been allocated from WRD’s 2018 Bond issuance. Funding for the City of Lomita is identified from WRD’s Safe Drinking Water Reserve Funds.

OPERATING IMPACTS

There are no operating impacts currently.

PRIOR YEAR HIGHLIGHTS

The three construction projects achieved substantial completion in FY 2022. Final permit approval is pending to install the GAC media and perform system commissioning.

PROJECTED 5-YEAR CIP

Safe Drinking Water Program - Primary Contaminants (Grants)	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	350,000	-	-	-	-	\$ 350,000
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	2,000,000	-	-	-	-	\$ 2,000,000
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 2,350,000	\$ -	\$ -	\$ -	\$ -	\$ 2,350,000

SAFE DRINKING WATER PROGRAM – SECONDARY CONTAMINANTS (LOANS)

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 four loans. This CIP project is intended to fund the initial value of the loan, with repayment made over a 10-year period.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$3,000,000. Funds will be drawn from the Safe Drinking Water Reserve Funds.

OPERATING IMPACTS

There are no operating impacts currently.

PRIOR YEAR HIGHLIGHTS

There are no SDWP loan projects in place currently.

PROJECTED 5-YEAR CIP

Safe Drinking Water Program - Secondary Contaminants (Loans)	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	-	-	-	-	-	\$ -
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	1,000,000	1,000,000	1,000,000	-	-	\$ 3,000,000
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ -	\$ -	\$ 3,000,000

SAFE DRINKING WATER – DISADVANTAGED COMMUNITY PROGRAM

PROJECT DESCRIPTION

As an extension of the District’s Safe Drinking Water Program, the District approved the creation of 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 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.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$28,503,165. While WRD will advance the funds required for the delivery of these projects, no project will be performed until outside funding has been approved by the granting authority.

OPERATING IMPACTS

There are no operating impacts currently.

PRIOR YEAR HIGHLIGHTS

Currently there are 11 water systems participating in the program and receiving assistance: city of Bell Gardens, city of Compton, city of Huntington Park and city of Lynwood, Maywood Mutual Water Company No. 1, Maywood Mutual Water Company No. 2, Maywood Mutual Water Company No. 3, Sativa LA County Water District, Tract 180 Mutual Water Company, Tract 349 Mutual Water Company and Walnut Park Mutual Water.

PROJECTED 5-YEAR CIP

Safe Drinking Water Program - Disadvantaged Community Projects	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	-	-	-	-	-	\$ -
Outside Funds	3,960,000	14,738,165	8,705,000	1,100,000	-	\$ 28,503,165
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	-	-	-	-	\$ -
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 3,960,000	\$ 14,738,165	\$ 8,705,000	\$ 1,100,000	\$ -	\$ 28,503,165

FACILITIES MANAGEMENT, MAINTENANCE, AND REPAIR PROGRAM

FACILITIES MANAGEMENT, MAINTENANCE, AND REPAIR PROJECTS

Over the years, WRD has made a significant investment in facilities related to groundwater replenishment and groundwater quality improvements. Facilities Management, Maintenance, and Rehabilitation are required to ensure that the intended lifecycle of each asset is achieved, and to extend the original life expectancy of the infrastructure. The financial and non-financial impacts for each project within this category are tabulated below.

Facilities Management, Maintenance, and Rehabilitation		Projected 5-year CIP Budget				
Project	Total 5-year CIP Budget	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026
Operations and Storage Annex Facility Project	\$ 2,800,000	\$ 627,536	\$ 1,500,000	\$ 672,464	\$ -	\$ -
Energy Management Plan Study	\$ 300,000	\$ -	\$ 300,000	\$ -	\$ -	\$ -
WRD Office Building Improvements	\$ 3,600,000	\$ 50,000	\$ 50,000	\$ 3,400,000	\$ 50,000	\$ 50,000
Albert Robles Center AWTF Upgrades	\$ 871,545	\$ 371,545	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000
Leo J Vander Lans AWTF Upgrades	\$ 5,010,434	\$ 2,606,434	\$ 2,026,000	\$ 126,000	\$ 126,000	\$ 126,000
Goldsworthy Desalter Upgrades	\$ 926,545	\$ 426,545	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000
Membrane and UV Lamp Replacements	\$ 4,774,042	\$ 841,000	\$ 1,313,568	\$ 2,267,660	\$ 351,815	\$ -
General Engineering (Labor, overhead, legislative, legal)	\$ 1,187,008	\$ 593,504	\$ 593,504	\$ -	\$ -	\$ -
SUBTOTAL	\$ 19,469,573	\$ 5,516,562	\$ 6,033,072	\$ 6,716,124	\$ 777,815	\$ 426,000

Facilities Management, Maintenance, and Rehabilitation				
Project	Expand Replenishment Opportunities	Expand Extraction Capacity	Maximize Innovation and Environmental Resiliency	Promote Organizational Excellence
Operations and Storage Annex Facility Project				X
Energy Management Plan Study and Implementation			X	X
WRD Office Building Improvements				X
Albert Robles Center AWTF Upgrades			X	
Leo J Vander Lans AWTF Upgrades			X	
Goldsworthy Desalter Upgrades			X	
Membrane and UV Lamp Replacements			X	
General Engineering (Labor, overhead, legislative, legal)	X	X	X	X

OPERATIONS AND STORAGE ANNEX FACILITY PROJECT

PROJECT DESCRIPTION

The District owns a 2.3-acre parcel located at 3919 Paramount Blvd (Field Operations and Storage Annex Project) in the city of Lakewood. The District intends to erect a pre-manufactured building on the site for the purposes of 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, this location is ideal for expanding the District’s facilities.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$2,800,000. This funding has been allocated from a combination of the 2018 bond funding and WRD’s Water Purchase Carryover & Rate Stabilization Reserves

OPERATING IMPACTS

This project is an important piece of the District’s operations overseeing the health of the two basins as well operating and maintaining three distinct treatment facilities.

PRIOR YEAR HIGHLIGHTS

A conception design of the building was completed in FY 2021.

PROJECTED 5-YEAR CIP

Operations and Storage Annex Facility Project	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	627,536	-	-	-	-	\$ 627,536
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	1,500,000	672,464	-	-	\$ 2,172,464
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 627,536	\$ 1,500,000	\$ 672,464	\$ -	\$ -	\$ 2,800,000

ENERGY MANAGEMENT PLAN STUDY

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.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$300,000. This funding has been allocated from the 2018 bond issuance.

OPERATING IMPACTS

None at this time.

PRIOR YEAR HIGHLIGHTS

This is a new project.

PROJECTED 5-YEAR CIP

Energy Management Plan Study	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	-	300,000	-	-	-	\$ 300,000
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	-	-	-	-	\$ -
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total: \$	-	\$ 300,000	\$ -	\$ -	\$ -	\$ 300,000

WRD OFFICE BUILDING IMPROVEMENTS

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:

- The Roof Replacement Project
- The HVAC Improvements Project: includes replacement of two HVAC units and automation upgrades
- Four additional Electrical Vehicle (EV) charging stations

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$3,600,000. This funding has been allocated from a combination of PayGo and WRD’s Water Purchase Carryover & Rate Stabilization Reserves

OPERATING IMPACTS

There are no operating impacts currently.

PRIOR YEAR HIGHLIGHTS

Four EV Charging Stations were installed in FY 2021.

PROJECTED 5-YEAR CIP

WRD Office Building Improvements	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	-	-	-	-	-	\$ -
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	50,000	50,000	50,000	50,000	50,000	\$ 250,000
Reserve Funds	-	-	3,350,000	-	-	\$ 3,350,000
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 50,000	\$ 50,000	\$ 3,400,000	\$ 50,000	\$ 50,000	\$ 3,600,000

ALBERT ROBLES CENTER (ARC) ADVANCED WATER TREATMENT FACILITY UPGRADES

PROJECT DESCRIPTION

The Albert Robles Center (ARC) offsets the use of imported water by providing up to 10,000 acre-feet per year (AFY) of an advanced water treatment facility (AWTF) product water to the Montebello Forebay Spreading Grounds (MSGs). The high-purity AWTF product water allows more tertiary-treated recycled water to be applied to the spreading grounds. Together, a blend of 10,000 AFY of AWTF product water and as much as 61,000 AFY of tertiary-treated recycled water can be conveyed to the MSGs without exceeding permitted values of Recycled Water Concentration for the waters used to recharge the Central Basin through the spreading grounds.

The construction project was completed in 2019. While a majority of new system components were installed, projects are still anticipated that will extend the useful life of the equipment, reduce operations costs, or respond to changing regulatory requirements. Projects will be identified as needed, as well as through continued investment in WRD’s Asset Management System.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$871,545. This funding has been allocated from a combination of the 2018 bond funding and PayGo.

OPERATING IMPACTS

Continued investment in R&R of the facility will reduce unplanned shutdowns and downtime, increase plant efficiency, and optimize the performance of the treatment process.

PRIOR YEAR HIGHLIGHTS

+10,000 AFY was produced in FY 2021.

PROJECTED 5-YEAR CIP

ARC: Advanced Water Treatment Facility (AWTF)	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	246,545	-	-	-	-	\$ 246,545
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	125,000	125,000	125,000	125,000	125,000	\$ 625,000
Reserve Funds	-	-	-	-	-	\$ -
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 371,545	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 871,545

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. While a majority of new system components were installed during the expansion in 2015, assets from the initial plant construction have not all been updated. WRD is implementing an aggressive Rehabilitation and Replacement (R&R) program that will include upgrades to equipment, Supervisory Control and Data Acquisition (SCADA) hardware and software, and implementation of an asset management program for the facility. Examples of projects include the microfiltration filtrate welded steel tank which requires refurbishment to extend its useful life. 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 failure. Projects anticipated during the 5-year period include the following:

- LVLAWTF SCADA Upgrades
- MF Filtrate Welded Steel Tank Rehabilitation
- DAF System Analysis & Rehabilitation
- Replacement and Rehabilitation Condition Assessment
- LVL Asset Management Program

Additional Projects will be identified as needed, as well as through continued investment and roll-out of WRD’s Asset Management System.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$5,010,434. This funding has been allocated from a combination of PayGo, the 2018 bond issuance, and WRD’s Water Purchase Carryover & Rate Stabilization Reserves.

OPERATING IMPACTS

Continued investment in R&R of the facility will reduce unplanned shutdowns and downtime, increase plant efficiency, and optimize the performance of the treatment process.

PRIOR YEAR HIGHLIGHTS

Completed the Calcium Chloride storage tank expansion project occurred in FY 2021. Completed design and initiated the MF Filtrate Welded Steel Tank Rehabilitation construction project in FY 2021. Initiated the R&R Condition Assessment in FY 2021.

PROJECTED 5-YEAR CIP

Leo J. Vander Lans Upgrades	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	1,741,917	803,976	-	-	-	\$ 2,545,893
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	126,000	126,000	126,000	126,000	126,000	\$ 630,000
Reserve Funds	738,517	1,096,024	-	-	-	\$ 1,834,541
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 2,606,434	\$ 2,026,000	\$ 126,000	\$ 126,000	\$ 126,000	\$ 5,010,434

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, planning asset replacement will ensure the facility remains operational and not subject to shutdowns associated with asset infrastructure failure.

Projects will be identified as needed, as well as through continued investment and roll-out of WRD’s Asset Management System.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$926,545. This funding has been allocated from a combination of PayGo, the 2018 bond issuance, and WRD’s Water Purchase Carryover & Rate Stabilization Reserves.

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

A Condition Assessment of the facility was performed in FY 2021.

An in-depth foulant analysis and pre-treatment investigation was performed in FY 2021.

Rehabilitation of the City Yard Well occurred in FY 2021.

PROJECTED 5-YEAR CIP

Goldsworthy Desalter Upgrades	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	246,545	-	-	-	-	\$ 246,545
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	125,000	125,000	125,000	125,000	125,000	\$ 625,000
Reserve Funds	55,000	-	-	-	-	\$ 55,000
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 426,545	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 926,545

MEMBRANE AND UV LAMP REPLACEMENTS

PROJECT DESCRIPTION

All three of WRD’s facilities utilize advanced treatment technology. The Goldsworthy Desalter uses reverse osmosis (RO) membrane for desalting groundwater, while the LVL AWTF and ARC AWTF use microfiltration (MF), RO, and advanced oxidation (ultraviolet light (UV) and oxidant). MF membranes have a life expectance of 7-10 years in this application, RO have an expected lifecycle of 5-10 years, and UV lamps are required to be replaced by the permit every 12,000 hours (approximately 18 months). Because these replacement costs can be predicted based on performance, and are high-dollar items, WRD tracks their costs separately from the individual facilities.

FUNDING

The CIP budget for Fiscal Years 2022-2026 is \$4,774,042. Funding will draw from the Equipment Replacement Reserve Fund.

OPERATING IMPACTS

Replacing MF and RO membrane often results in improved efficiency, either through better produce water quality, less frequent cleaning requirements, or reduced energy consumption. UV lights are replaced every 12,000 hours regardless of performance as this is required by the operating permit.

PRIOR YEAR HIGHLIGHTS

UV lamps were replaced at ARC in FY 2021.

PROJECTED 5-YEAR CIP

Membranes and UV Lamp Replacements	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	-	-	-	-	-	\$ -
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	841,000	1,313,568	2,267,660	351,815	-	\$ 4,774,042
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 841,000	\$ 1,313,568	\$ 2,267,660	\$ 351,815	\$ -	\$ 4,774,042

GENERAL ENGINEERING (LABOR, OBERHEAD, 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 CIP budget for Fiscal Years 2022-2026 is \$1,187,008. Funding will draw from the 2018 Bond Issuance.

OPERATING IMPACTS

There are no operating impacts at this time.

PRIOR YEAR HIGHLIGHTS

There are no highlights from prior years.

PROJECTED 5-YEAR CIP

General Engineering (Labor, overhead, legislative, legal)	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Total 5-year CIP Budget
Appropriation of 2018 Bond Funds	593,504	593,504	-	-	-	\$ 1,187,008
Outside Funds	-	-	-	-	-	\$ -
Paygo Funds	-	-	-	-	-	\$ -
Reserve Funds	-	-	-	-	-	\$ -
Future Debt / Future Grants	-	-	-	-	-	\$ -
Total:	\$ 593,504	\$ 593,504	\$ -	\$ -	\$ -	\$ 1,187,008



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