



# ORANGE COUNTY WATER DISTRICT



## BUDGET REPORT FY 2023 - 2024



SINCE 1933

# Orange County Water District Budget Report Fiscal Year 2023-24

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General Manager

**ORANGE COUNTY WATER DISTRICT  
BUDGET REPORT  
FISCAL YEAR 2023-24**

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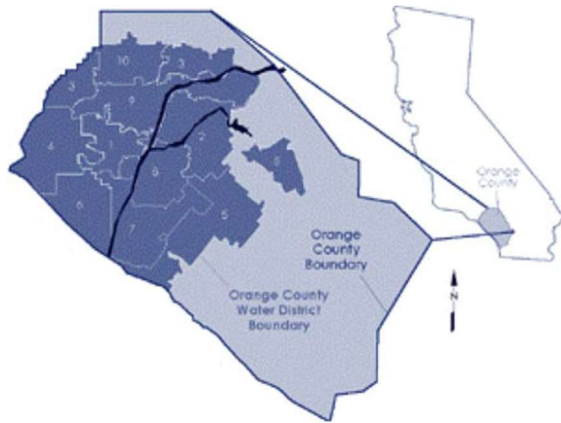
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# ORANGE COUNTY WATER DISTRICT

## HISTORY AND CHARACTER

The District receives an average of only 13 to 15 inches of rainfall annually, yet sustains a population of approximately 2.5 million people. The residents and businesses within the District have two primary sources of drinking water. One source is a natural underground reservoir, called the Orange County groundwater basin. The other source, referred to as imported water, comes from Colorado through the Colorado River Aqueduct and from the Sacramento/San Joaquin Delta in Northern California through the State Water Project.



The groundwater basin was used by early settlers to supplement flows from the Santa Ana River.

As the area developed into a thriving agricultural center, the increased demand upon the subsurface water by the county's many wells resulted in a gradual lowering of the water table. In response, the Orange County Water District was formed in 1933 by a special act of the California State Legislature. OCWD manages the groundwater basin that underlies the northwest half of the county, supplying a significant percentage of the District's total water demand. The remaining demand is obtained through the Colorado River Aqueduct and State Water Project via the Metropolitan Water District of Southern California and the Municipal Water District of Orange County.

### DISTRICT VITAL STATISTICS

Date of Enactment: 1933  
Form of Government: Special District of the State of California  
Area (square miles): 381  
Employees (full-time equivalent): 226.5

#### Major Groundwater Producing Agencies:

Anaheim, City of	Mesa Water District
Buena Park, City of	Newport Beach, City of
East Orange County Water District	Orange, City of
Fountain Valley, City of	Santa Ana, City of
Fullerton, City of	Seal Beach, City of
Garden Grove, City of	Serrano Water District
Golden State Water Company	Tustin, City of
Huntington Beach, City of	Westminster, City of
Irvine Ranch Water District	Yorba Linda Water District
La Palma, City of	



# Section 1

## General Manager's Message

DIRECTORS

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First Vice President  
DENIS BILODEAU  
  
Second Vice President  
VAN TRAN  
  
General Manager  
MICHAEL R. MARKUS, P.E., D.WRE

**ORANGE COUNTY WATER DISTRICT**  
ORANGE COUNTY'S GROUNDWATER AUTHORITY

April 19, 2023

Board of Directors  
Orange County Water District

**Subject: BUDGET FOR FISCAL YEAR 2023-24**

**OVERVIEW**

I am pleased to present to the Board of Directors the recommended budget for fiscal year (FY) 2023-24. The budget includes general fund expenditures, debt service, water purchases, refurbishment and replacement items, and capital projects for Board review and consideration. Development of the draft budget began in December 2022 with Board review of the preparation schedule.

The District's general fund budget has been subdivided into 21 cost centers to provide greater detail. During the month of January, I met with all the District's managers in preparing the budgets for these cost centers and made \$1.59 million in reductions from what they proposed.

The draft budget was reviewed at the Board meeting on March 19. Additional meetings and workshops were held on the budget through April with the Board and Groundwater Producers (Producers). The final budget presents the culmination of these meetings and workshops, along with a new review of the budget by me as General Manager, which leads to changes in expenses as shown in Table 1.

The budget describes activities and projects that are primarily a continuation of the District's existing workload. We expect the Groundwater Replenishment System (GWRS) to produce 134,000 acre-feet of water supplies. The budget is based on a Basin Production Percentage (BPP) of 85 percent, which corresponds to approximately 280,262 acre-feet of pumping in FY 2023-24.

Highlights and assumptions of the proposed budget include:

- This plan assumes average hydrology.
- Budget reflects no purchase of MWD untreated full-service water.

- This plan includes paying \$98.04 million for producers PFAS treatment facilities in FY 2023-24. The District is proposing using \$47.7 million of PAYGO funds out of the FY 2023-24 budget, draws on the proposed WIFIA/Short-term notes, and the remaining through drawdown of reserves.
- Increase in General Fund expenses by approximately \$16.6 million from the prior year.
- Includes \$3.5 million of producers' treatment O&M cost for PFAS.
- Two percent cost of living adjustment and three percent merit increase based upon employee performance have been budgeted.
- The District's full-time headcount will remain 226½.
- The groundwater basin's projected June 30, 2023 accumulated overdraft is estimated at approximately 210,000 acre-feet (af).

**Table 1**  
**PROPOSED CHANGES TO DRAFT FY 2023-24 BUDGET**

ITEM	ADDITION/(REDUCTION)	NOTES
General Fund Budget	\$44,500	Updated cost of District membership and sponsorships.

The recommended budget would require an increase in the Replenishment Assessment (RA) to \$624 per acre-foot for FY 2023-24 from the current year's RA of \$558. Table 1A provides a summary of the proposed budget:

**Table 1A**  
**2023-24 PROPOSED BUDGET**

EXPENDITURES	BUDGETED FY 22-23 (\$ MILLIONS)	PROPOSED FY 23-24 (\$ MILLIONS)
General Fund	81.2	97.8
Debt Service	42.3	44.4
Water Purchases	12.3	6.2
New Equipment	0.3	0.3
Capital Improvement Program	146.6	101.1
Refurbishment and Replacement Expenditures	19.0	15.5
Contribution to R&R fund	4.6	9.7
Retiree Health Insurance Trust	1.6	0.6
Producer's PFAS O&M	4.0	3.5
<b>Total</b>	<b>\$311.9</b>	<b>\$279.1</b>



## **BUDGET DETAILS**

The Orange County Water District strives to improve the efficiency of all aspects of its operations in its continuing efforts to increase the water quality and reliability of Orange County's local water resources at the lowest possible cost. The FY 2023-24 budget reflects the wide range of programs necessary to accomplish the District's primary mission of proactively managing the Orange County groundwater basin. The following sections provide highlights of the budget.

### **EXPENDITURES**

#### **GENERAL FUND BUDGET - \$97.8 MILLION**

The District has 21 cost centers and their proposed activities for the year are provided in detail in later sections of this document.

The District continually attempts to minimize increases to the General Fund by taking actions such as limiting administrative personnel, reviewing operations, maximizing outside funding opportunities, and reviewing all vacant positions before they are refilled. The General Fund budget contains the expenses of operating a number of facilities including:

- The GWRS Advanced Water Purification Facility
- Green Acres Project (GAP)
- Talbert seawater barrier injection facilities
- Water quality monitoring well maintenance and sampling
- Laboratory
- Recharge operations in Anaheim and Orange
- Alamitos seawater barrier injection facilities
- Prado Wetlands and water conservation programs

The District's total salary and benefit costs are projected to be \$40.3 million, which is allocated as follows: \$39.8 million to the General Fund and \$0.5 million to capital projects. As described in the Work Plans, the budget proposes a headcount of 226½.

WATER PURCHASE BUDGET - \$6.2 MILLION

The proposed FY 2023-24 water budget is \$6.2 million and calls to abstain from purchasing any untreated full-service water from the Metropolitan Water District (MWD) due to the PFAS issue. Staff expects groundwater pumping to continue to remain depressed due to the State Division of Drinking Water establishing a 10 ppt PFOA Response Level. To offset this decline in revenues, due to reduced pumping, the District will not purchase any MWD untreated water.

Debt Service Budget - \$44.4 Million

The District will have approximately \$863 million in outstanding debt at the start of the budget year. This year's total debt service budget will be \$44.4 million, comprised of \$16.6 million of fixed rate debt, \$5.2 million of variable rate debt, \$0.6 million of swap payments, \$10.3 million in SRF debt payments, \$10.7 million of commercial paper debt, which includes \$14.2 million in principal reduction and \$1.0 million for debt administration. Variable rate debt interest cost has been budgeted at 4 percent. The District will utilize \$ 44.4 million from RA/property tax revenues.

The District bonds hold very high credit ratings of AAA from Standard & Poor's and Fitch along with an Aa1 rating from Moody's. The ratings assigned by these three agencies have a direct impact on the District's ratepayers. The District's high credit ratings translate into lower annual interest payments and reduced letter of credit fees on its variable rate debt and commercial paper.

RETIREE HEALTH INSURANCE TRUST FUND - \$0.6 MILLION

The new GASB standards require the District to receive a new actuarial study in June 2022, with a measurement date as of June 30, 2021. The actuarial study determined the District's net OPEB liability and the new actuarially determined contributions (ADC) to provide the retiree medical benefit. The Board has directed funding this liability to our PARS trust per the actuarial study measured as of June 30, 2021.

The trust fund is expected to have a value of approximately \$26 million at the end of the current budget year. The recommended FY 2023-24 budget includes \$0.6 million to continue fully funding the District's ADC. This cost is also referred to as Other Post Employment Benefits (OPEB).

Replacement and Refurbishment (R&R) Fund Budget - \$25.2 Million

The District has over \$1.2 billion in existing plant and equipment. These facilities annually depreciate and require replacement and refurbishment to maintain their capabilities. In October 1998, the District formally established an R&R Fund.

In 2004 the R&R program was downsized to only include infrastructure type assets. The amount of money annually transferred into the R&R program was reduced from \$4.5 million to \$2.8 million with this change. The transfer amount has been growing by seven percent annually to provide sufficient funds to meet future expected R&R expenditures. The annual contribution also increased by \$4.5 million with the construction of the GWR System.

The total contribution in FY 2023-24 will be \$25.2 million. The R&R program and model was formally reviewed and updated in 2019 with various departments.

Actual expenditures from the fund vary significantly each year depending upon which District assets have reached the end of their useful life and need to be replaced, or which assets can extend their lives by refurbishment. In FY 2023-24, the proposed R&R expenditures are \$15.5 million.

The R&R Program Fund balance is expected to increase from an estimated \$96.2 million on June 30, 2023 to \$106.7 million on June 30, 2024.

#### Capital Projects Budget - \$101.1 Million

The District prepares a multi-year CIP budget to support its mission. The CIP budget spans five years and provides expected capital expenditures over the 5-year period. The CIP budget is comprised of nineteen projects totaling \$101.1 million in FY 2023-24. These projects are funded through long-term debt, grants, and the District will be funding \$47.7 million of the CIP budget with RA revenue or current revenue (PAYGO) rather than borrowed funds. Details of the CIP are provided in Section 8 of the budget book.

The projects for example are necessary to:

- Support basin production by increasing recharge capacity and operational flexibility.
- Protect the coastal portion of the basin.

The CIP program and the capitalization of expenditures comply with the adopted District policy in October 2000, which: (1) defines the types of expenditures that can be capitalized; and (2) uses long-term debt to fund the projects. Each project included in the CIP must be individually reviewed and approved by the Board prior to design and construction.

#### NEW CAPITAL EQUIPMENT ITEMS - \$0.3 MILLION

This budget includes small equipment items such as laboratory equipment, machines, tools, computers and software, pumps, equipment, etc. These items are funded using current revenues.

A detailed list of these items is provided in Section 9 of the budget book.



PFAS O&M EXPENDITURE - \$3.5 MILLION

This budget includes \$3.5 million towards the reimbursement of 50% Share of PFAS Treatment Operating Cost. The PFAS Treatment Facilities and Program Agreement that OCWD has executed with eleven Groundwater Producers calls for the District to pay 50% of the PFAS treatment facilities operating cost up to the current fiscal year maximum adjusted cost. This rate is automatically adjusted annually on July 1<sup>st</sup> per the agreement by the percentage differential based on the last two annual indices set forth in the Bureau of Labor Statistics Consumer Price Index for All Urban Consumers - Los Angeles-Long Beach-Anaheim. The rate is currently \$84.71 and can be expected to increase approximately 8% on July 1, 2023 to \$91.48 per acre-foot.

The staff estimated amount of PFAS treated groundwater is 73,300 acre-feet with a treatment operating cost share estimate of \$3.5 million.

REVENUES

ASSESSMENTS - \$174.3 MILLION RA; \$2,75 MILLION BASIN EQUITY ASSESSMENT

All water pumped out of the groundwater basin will be assessed by RA on a dollar per acre-foot basis of \$624. The RA is expected to generate \$174.3 million in revenue for FY 2023-24 based on 280,262 acre-feet of total anticipated basin production at an 85 percent BPP.

The Basin Equity Assessment (BEA) rate is calculated for each Producer based on the treated full service MWD water rate and each Producer's individual energy cost to pump groundwater. The BEA is assessed annually in September for all groundwater production above the BPP. For FY 2023-24, \$2.75 million of BEA revenue is expected to be received.

AD VALOREM PROPERTY TAXES – \$34.2 MILLION

The District expects to receive approximately \$34.2 million in property taxes collected within the service area.

The County of Orange assesses and collects the taxes and transfers them to the District at various times during the year. This revenue source is dedicated to the District's debt service expenditure.

INVESTMENT REVENUE – \$3.1 MILLION

The District’s cash reserves generate investment revenues. The majority of cash reserves are invested in short-term securities per the District’s Investment Policy.

Investment revenues have been estimated at \$2.3 million for the General Fund. Approximately \$0.8 million of the investment revenues are generated by and for the R&R program, \$0.10 million will be generated from water funds.

MISCELLANEOUS REVENUES – \$11.4 MILLION

MISCELLANEOUS REVENUES ARE COMPRISED OF NUMEROUS ITEMS INCLUDING:

Water sales from the Green Acres Project (GAP)	\$2.6 M
Annexation fees	\$1.7 M
Rents & leases	\$1.2 M
Other grants and misc. items	\$5.9 M
<b>Total</b>	<b>\$11.4 M</b>

RESERVES

The District maintains cash reserves to ensure its financial integrity so that the groundwater basin can be successfully managed and protected. Cash reserves ensure that:

- The District has sufficient funds for cash flow purposes.
- Funds are available for unexpected events.
- Funds are available to make necessary replacements and refurbishments to the District’s infrastructure.
- The District has access to debt programs with very low interest costs.
- A financial hedge is in place to balance the amount of outstanding variable rate debt that the District has issued in case interest rates rise.

The District has developed policies which result in the establishment of the reserve and operating fund levels shown in Table 2. The net effect of the proposed budget would be a decrease of \$6.7 million to total District reserves, an increase of \$10.5 million in the Replacement and Refurbishment fund, \$0.5 million increase in the G.W. Contamination Cleanup fund, and a combined decrease of \$17.7 million in PAYGO, the Water reserve fund, and the Operating fund.

**Table 2  
 Operating Reserves Levels**

<b>Reserve</b>	<b>Beginning FY22-23 (\$/million)</b>	<b>Projected Year-end FY 22-23 (\$/million)</b>	<b>Projected Year-end FY 23-24 (\$/million)</b>
R&R Fund	93.4	96.2	106.7
Emergency Response Fund	4.0	4.0	4.0
G.W. Contamination Cleanup	15.6	15.5	16.0
Contingencies Reserve Fund	3.0	3.0	3.0
SRF Loan Reserve Fund	2.0	2.0	2.0
Water Reserve Fund	31.4	15.0	15.0
Paygo Fund	28.6	15.0	0
Operating Reserve Fund (15% of operating budget)	20.7	20.7	20.7
<b>Sub-total</b>	<b>198.7</b>	<b>171.4</b>	<b>167.4</b>
<b>Operating Fund</b>			
Operating Fund	88.5	75.3	72.6
<b>TOTAL</b>	<b>287.2</b>	<b>246.7</b>	<b>240.0</b>

**COST CUTTING EFFORTS**

Staff has been and will continue to work to reduce District costs to minimize rate increases. Examples of current and prior cost cutting efforts include:

- Locked in low electricity cost with power supplier via Direct Access.
- The District continues negotiating payment term discounts with vendors.
- Refinancing of 2013A COPs and SRF loan for GWRSFE realizing interest savings for the District.
- Prepaying the 2019A Notes six months early.
- The GWRS RO cleaning process has been optimized to reduce citric acid costs as membranes age.
- Significantly reduced the scope and cost of the Prado Dam Sediment Management project.
- Utilize Single Use Accounts to pay vendors.
- Applied for and received low cost WIFIA loan for Producer’s PFAS Treatment Facilities.
- Utilized CP program to minimize MWD rate increase on FY 2017-18 in-lieu program.



- Worked with SWRCB to eliminate the reserve fund requirement for state revolving fund loan for GWRS Final Expansion project.
- Worked with the USEPA WIFIA management to reset the WIFIA loan interest rate from 3.06% to 1.04% for the GWRSFE Project.

### **CONCLUSION**

The proposed FY 2023-24 budget represents an expenditure plan that is fiscally sound and incorporates significant budget reductions while supporting necessary programs. As part of the District's commitment to provide local groundwater producers with a reliable, high-quality water supply at the lowest reasonable cost, the following areas will continue to be emphasized:

- Minimizing administrative and overhead type costs;
- Protect the coastal portion of the groundwater basin;
- Increase local water supplies where economical; and
- Maintain the financial health and integrity of the District.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'M. Markus', is written over the text 'Respectfully submitted,'.

Michael R. Markus, P.E., D.WRE.  
General Manager

# Section 2

# Summaries

Combined Summary  
Sources and Uses of Funds  
General Fund Budget Summary  
General Fund Budget Comparison  
District Memberships  
OCWD Headcount  
Key Financial Metrics

Orange County Water District  
Combined Summary  
Fiscal Year 2023-24

<b>Revenues</b>		
Property Taxes	\$	34,206,000
Replenishment Assessment	\$	174,310,496
Basin Equity Assessment	\$	2,750,000
Facility Revenue from Other Agencies (GAP)	\$	2,643,632
Investment Revenues	\$	3,137,091
Rent, Royalties and Others	\$	3,243,154
Grants	\$	5,500,000
Draw from Construction Fund/SRFLoans/Debt	\$	53,379,649
<b>Total Revenues/Others</b>	<b>\$</b>	<b>279,170,022</b>

<b>Appropriations</b>		
General Fund	\$	97,834,000
PFAS O&M Expenditure	\$	3,500,000
New Equipment	\$	298,600
Water Purchases	\$	6,231,500
Retiree Health Trust	\$	640,000
Debt Service	\$	44,360,189
Capital Projects (Debt & PAYGO funded)	\$	101,065,834
R&R Fund Expenditures	\$	15,504,599
Appropriation to R&R reserves	\$	9,735,300
<b>Total Appropriations</b>	<b>\$</b>	<b>279,170,022</b>

**Sources and Uses of Funds  
Fiscal Year 2023-24**

Uses		Sources								Total
	Total	Replenishment Assessment	Basin Equity Assessment	Taxes	GAP Revenues	Investment Revenue	Rent & Others	Grants	Debt Proceeds & Reserves	Total
General Fund	\$ 97,834,000	\$ 49,965,577		\$ 34,206,000	\$ 2,643,632	\$ 2,287,091	\$ 3,231,700	\$ 5,500,000		\$ 97,834,000
PFAS O&M Expenditure	\$ 3,500,000	\$ 3,500,000								\$ 3,500,000
New Equipment	\$ 298,600	\$ 298,600								\$ 298,600
Water Purchases	\$ 6,231,500	\$ 3,381,500	\$ 2,750,000			\$ 100,000				\$ 6,231,500
Debt Service	\$ 44,360,189	\$ 44,348,735					\$ 11,454			\$ 44,360,189
Retiree Health Trust	\$ 640,000	\$ 640,000								\$ 640,000
Capital Projects (Debt & PAYGO funded)	\$ 101,065,834	\$ 47,686,185							\$ 53,379,649	\$ 101,065,834
R&R Fund Expenditures	\$ 15,504,599	\$ 14,754,599				\$ 750,000				\$ 15,504,599
Appropriation to R&R reserves	\$ 9,735,300	\$ 9,735,300								\$ 9,735,300
	\$ 279,170,022	\$ 174,310,496	\$ 2,750,000	\$ 34,206,000	\$ 2,643,632	\$ 3,137,091	\$ 3,243,154	\$ 5,500,000	\$ 53,379,649	\$ 279,170,022

General Fund Budget Summary  
Fiscal Year 2023-24

Cost Center #	Cost Center	Salaries & Benefits	Services & Supplies	FY 23-24 Proposed Budget
1010	General Manager's Office	554,669	1,647,490	2,202,159
1012	Public Affairs	1,337,756	746,200	2,083,956
1016	Information Services	1,779,524	1,127,500	2,907,024
1018	Board Administration	1,388,040	338,740	1,726,780
1022	Purchasing	804,880	49,480	854,360
1024	Finance	2,185,413	157,250	2,342,663
1030	Human Resources	825,180	261,580	1,086,760
1034	Safety & Risk Management	428,800	1,284,625	1,713,425
1036	Water Quality	2,019,347	382,100	2,401,447
1038	Laboratory	5,139,170	1,717,555	6,856,725
1040	Research & Development	1,875,382	394,855	2,270,237
1044	Planning and Watershed Management	989,174	671,550	1,660,724
1045	Local Resources	340,962	3,600	344,562
1046	Regulatory Affairs	535,543	524,400	1,059,943
1050	Water Production/GWR System	11,437,642	44,220,485	55,658,127
1060	Recharge Operations	3,073,036	1,880,250	4,953,286
1062	Wetland Operations	336,604	228,950	565,554
1069	Property Management	159,043	173,263	332,306
1070	Engineering	1,191,082	74,100	1,265,182
1075	Hydrogeology	2,485,520	1,513,600	3,999,120
1080	Natural Resources	869,505	680,250	1,549,755
<b>Total (Rounded)</b>		<b>\$ 39,756,000</b>	<b>\$ 58,078,000</b>	<b>\$ 97,834,000</b>

General Fund Budget Comparison  
Fiscal Year 2023-24

Cost Center #	Cost Center	FY 2023-24 Proposed Budget	FY 2022-23 Budget	Difference Over(Under)	% Increased or (Decreased)
1010	General Manager's Office	2,202,159	2,138,452	63,707	2.98%
1012	Public Affairs	2,083,956	2,063,438	20,518	0.99%
1016	Information Services	2,907,024	2,783,001	124,023	4.46%
1018	Board Administration	1,726,780	1,701,095	25,685	1.51%
1022	Purchasing	854,360	807,409	46,951	5.82%
1024	Finance	2,342,663	2,305,485	37,178	1.61%
1030	Human Resources	1,086,760	1,044,312	42,448	4.06%
1034	Safety & Risk Management	1,713,425	1,657,921	55,504	3.35%
1036	Water Quality	2,401,447	2,266,544	134,904	5.95%
1038	Laboratory	6,856,725	6,646,036	210,689	3.17%
1040	Research & Development	2,270,237	1,902,126	368,111	19.35%
1044	Planning & Watershed Management	1,660,724	1,654,887	5,836	0.35%
1045	Local Resources	344,562	340,507	4,055	1.19%
1046	Regulatory Affairs	1,059,943	828,839	231,104	27.88%
1050	Water Production/GWR System	55,658,127	41,070,920	14,587,207	35.52%
1060	Recharge Operations	4,953,286	4,564,705	388,581	8.51%
1062	Wetland Operations	565,554	579,090	(13,536)	-2.34%
1069	Property Management	332,306	313,135	19,172	6.12%
1070	Engineering	1,265,182	875,473	389,710	44.51%
1075	Hydrogeology	3,999,120	4,074,999	(75,879)	-1.86%
1080	Natural Resources	1,549,755	1,534,817	14,938	0.97%
	<b>Total (rounded)</b>	<b>\$ 97,834,000</b>	<b>\$ 81,153,000</b>	<b>\$ 16,681,000</b>	<b>20.56%</b>

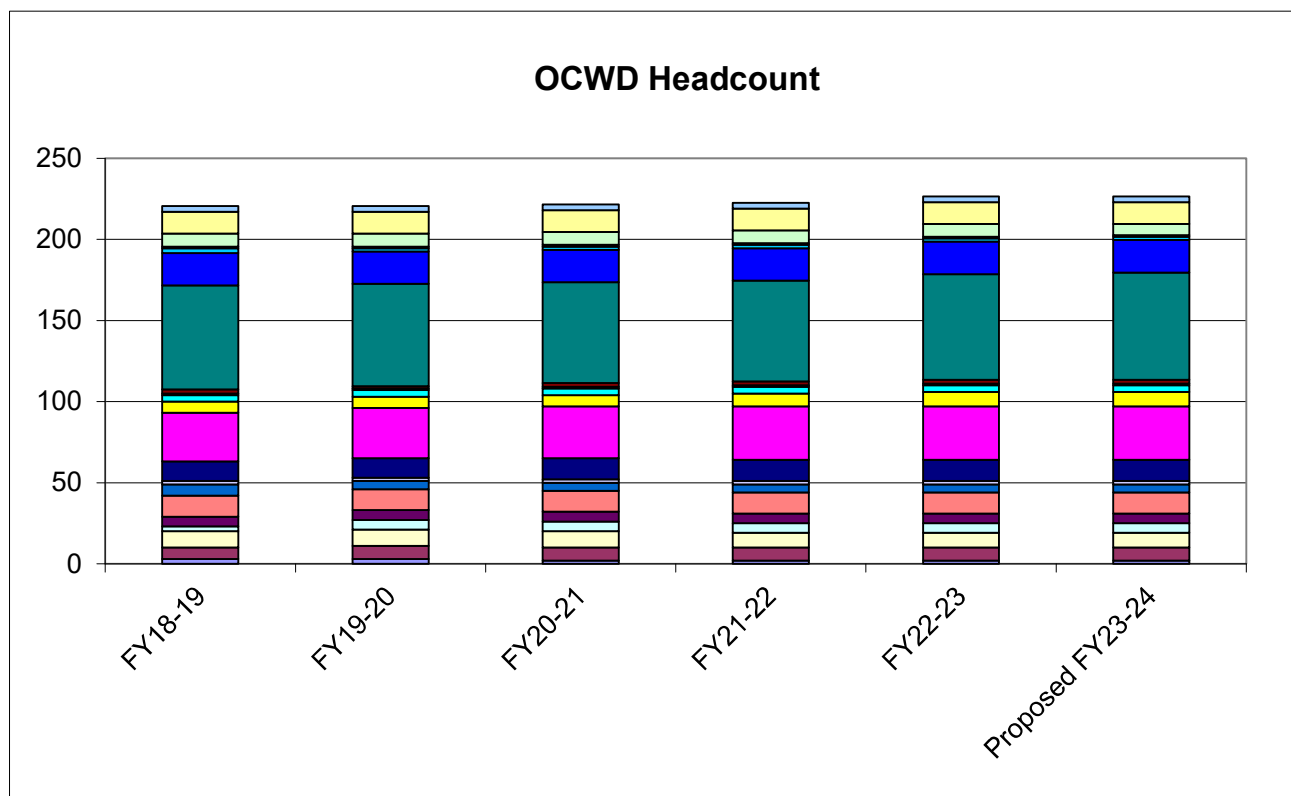


DISTRICT MEMBERSHIPS  
FISCAL YEAR 2023-24

ORGANIZATION	AMOUNT
AMERICAN MEMBRANE TECHNOLOGY ASSOCIATION	850
AMERICAN WATER WORKS ASSOCIATION (AWWA)	2,100
ASSOCIATION OF CALIFORNIA CITIES - ORANGE COUNTY (ACC-OC)	5,300
ASSOCIATION OF CALIFORNIA WATER AGENCIES (ACWA)	35,000
ASSOCIATION OF METROPOLITAN WATER AGENCIES (AMWA)	18,500
CAL DESAL	5,000
CAL STATE FULLERTON DEMOGRAPHICS	57,500
CALIFORNIA GROUNDWATER COALITION	9,500
CALIFORNIA MUNICIPAL UTILITIES ASSOCIATION (CMUA)	13,500
CALIFORNIA SPECIAL DISTRICTS ASSOCIATION (CSDA)	8,500
CALIFORNIA WATER EFFICIENCY PARTNERSHIP (SRF LOAN)	6,200
CHAMBERS OF COMMERCE	5,000
COMMUNITY WATER SYSTEMS ALLIANCE	10,000
GROUNDWATER RESOURCES FOUNDATION (GRA)	1,500
INDEPENDENT SPECIAL DISTRICTS ASSOCIATION (ISDOC)	100
ORANGE COUNTY WATER ASSOCIATION	250
PROFESSIONAL MEMBERSHIPS (ASCE & WEF)	500
SANTA ANA RIVER FLOOD PROTECTION AGENCY (SARFPA)	1,300
SCRIPPS WATER AFFILIATES GROUP	25,000
SOUTHERN CALIFORNIA SALINITY COALITION (NWRI)	10,000
SOUTHERN CALIFORNIA WATER COALITION	5,000
SOUTHWEST MEMBRANE OPERATORS ASSOCIATION	500
WATER EDUCATION FOUNDATION	8,000
WATER RESEARCH FOUNDATION	178,500
WATEREUSE ASSOCIATION	15,000
<b>DISTRICT MEMBERSHIPS TOTAL</b>	<b>422,600</b>

### OCWD Headcount

<u>Cost Center</u>	<u>FY18-19</u>	<u>FY19-20</u>	<u>FY20-21</u>	<u>FY21-22</u>	<u>FY22-23</u>	<u>Proposed FY23-24</u>
General Manager's Office	3	3	2	2	2	2
Public Affairs	7	8	8	8	8	8
Information Services	10	10	10	9	9	9
Board Administration	3	6	6	6	6	6
Purchasing	6	6	6	6	6	6
Finance	13	13	13	13	13	13
Human Resources	7	5	5	5	5	5
Safety & Risk Management	2	2	2	2	2	2
Water Quality	12	12	13	13	13	13
Laboratory	30	31	32	33	33	33
Research & Development	7	7	7	8	9	9
Planning & Watershed Management	4	4	4	4	4	4
Local Resources	1	1	1	1	1	1
Regulatory Affairs	2.5	1.5	2.5	2.5	2.5	2.5
Water Production/GWR System	64	63	62	62	65	66
Recharge Operations	20	20	20	20	20	20
Wetland Operations	3	2	2	2	2	2
Property Management	1	1	1	1	1	1
Engineering	8	8	8	8	8	7
Hydrogeology	13.5	13.5	13.5	13.5	13.5	13.5
Natural Resources	3.5	3.5	3.5	3.5	3.5	3.5
	220.5	220.5	221.5	222.5	226.5	226.5



ORANGE COUNTY WATER DISTRICT  
KEY FINANCIAL METRICS  
JUNE 30, 2022 THROUGH JUNE 30, 2024

	2022 Actual	Forecast/ 2023 Budget	2024 Budget
TOTAL CASH AND INVESTMENTS (UNRESTRICTED)	\$ 287,260,396	\$ 209,400,000	\$ 234,200,000
TOTAL OPERATING EXP. AND DEBT SVE FROM BELOW	111,956,079	119,813,845	142,089,189
<b><i>DAYS CASH RATIO</i></b>	<b><i>935</i></b>	<b><i>638</i></b>	<b><i>602</i></b>
<b>COVERAGE RATIO:</b>			
Replenishment assessments	\$ 129,244,848	\$ 164,040,451	\$ 174,310,496
CUP revenue	-	-	-
Reclaimed water revenue	3,020,902	2,566,633	2,643,632
Property tax	33,535,212	31,900,000	34,206,000
Legal settlement revenue	1,800,000	-	-
Rental income, net of expenses	1,642,856	810,789	1,243,000
Operating grants	1,242,800	-	-
Investment revenue	1,026,960	2,162,467	3,137,091
Other revenues	3,560,332	2,432,366	2,432,366
Total YTD revenues	175,073,910	203,912,705	217,972,585
Budgeted annual revenue less YTD revenue	-	-	-
Operating expenses including litigation expenses	80,081,034	82,381,304	101,974,000
Operating expenses budgeted for the rest of the FY	-	-	-
Total Expenditures	80,081,034	82,381,304	101,974,000
Net revenues	94,992,876	121,531,401	115,998,585
Annual debt service	33,150,252	42,292,256	44,360,189
<b><i>ALL-IN ADS COVERAGE RATIO</i></b>	<b><i>2.9</i></b>	<b><i>2.9</i></b>	<b><i>2.6</i></b>

# Section 3

## Operations and Cost Center Descriptions

Organizational Structure  
Cost Center Profiles

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**OPERATIONS AND COST CENTER DESCRIPTIONS**  
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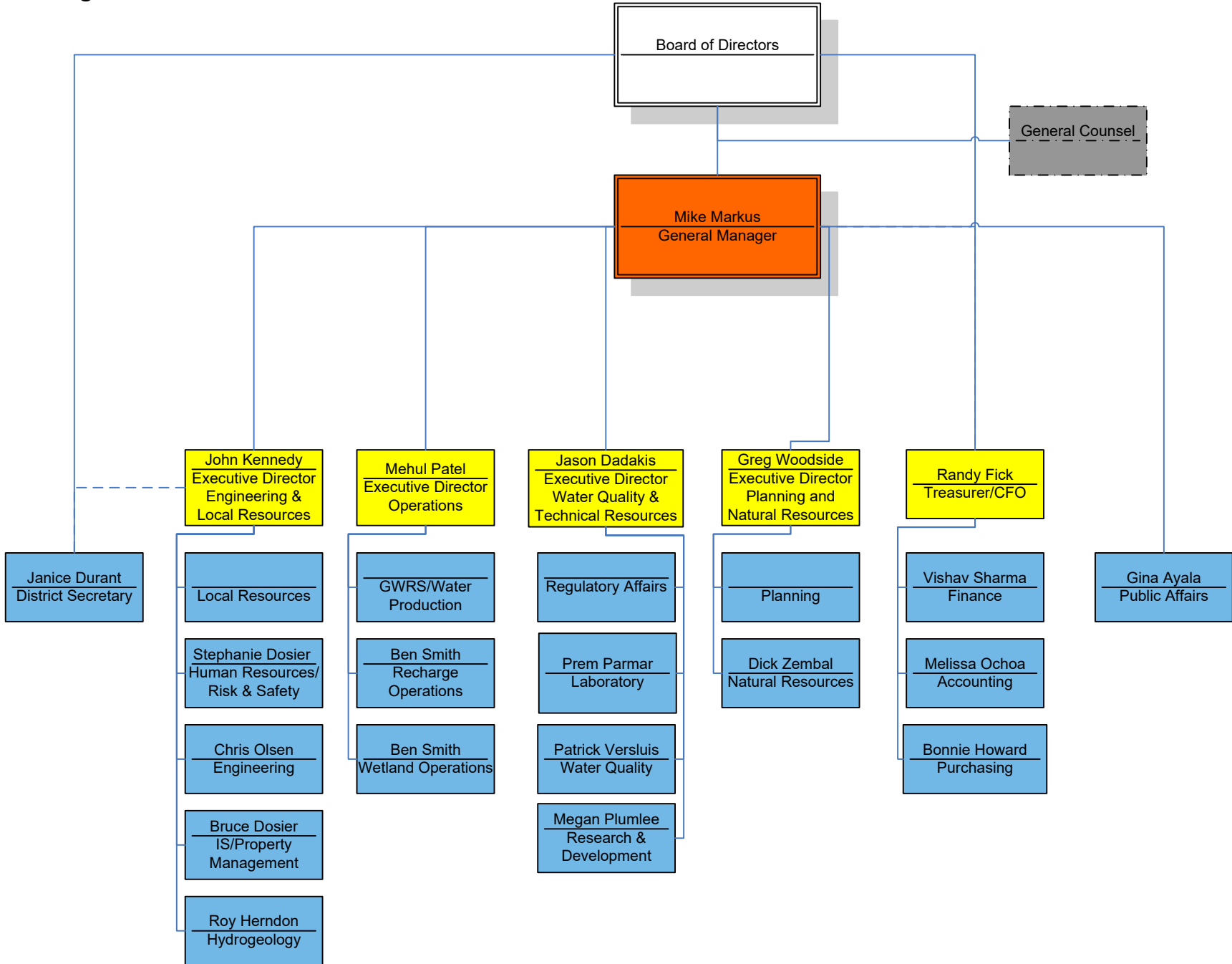
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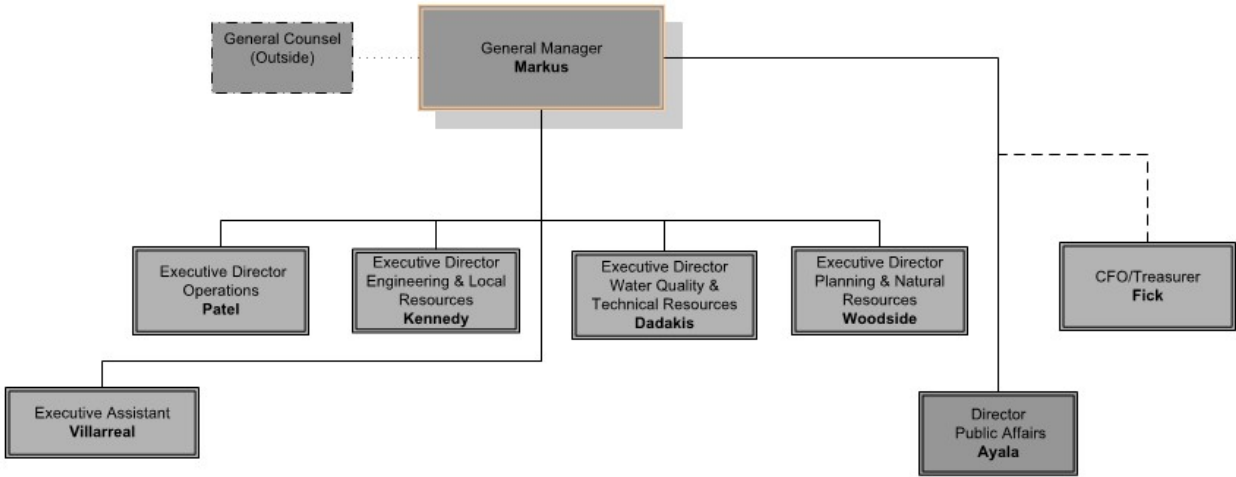
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# OCWD Organizational Structure



**OFFICE OF THE GENERAL MANAGER**



**Summary Information**

**Existing Staff – 2 FTEs**

- 1 – General Manager
- 1 – Executive Assistant

**Mission**

Implement the policies of the Board of Directors.

**Key issues for FY 2023-24**

- ◆ Continue implementation of the PFAS policy by completing the construction of wellhead treatment for 31 wells bringing a total of 57 wells back into operation for 10 affected Groundwater Producers.
- ◆ Complete a feasibility study for a seawater barrier project at the Sunset Gap.
- ◆ Support the operation of the Groundwater Replenishment System’s (GWRs) first year at its full capacity of 130 million gallons per day.
- ◆ Continue to advocate for funding at the State and Federal level for the study of Atmospheric Rivers which supports Forecast Informed Reservoir Operations (FIRO) and the pilot study conducted for the District at Prado Dam.
- ◆ Continue to support legal efforts in the North Basin, South Basin, IRWD and PFAS groundwater contamination cases.
- ◆ Continue advocacy to make sure that PFAS receives an exemption for water and wastewater agencies if listed as a hazardous substance subject to CERCLA.
- ◆ Secure grant or low-interest loan funding for all capital projects through State and Federal programs.

<b>Account Information</b>	<b>FY 2021-22 Actual</b>	<b>FY 2022-23 Budget</b>	<b>FY 2023-24 Proposed Budget</b>
Salaries and Benefits	580,387	542,127	554,669
Services and Supplies	1,565,039	1,596,325	1,647,490
<b>Total</b>	<b>\$2,145,426</b>	<b>\$2,138,452</b>	<b>\$2,202,159</b>

### **I FY 2023-24 Major New Initiatives/Programs**

With Board approval, commence strategic planning workshops with Directors and staff on major initiatives for the next five years.

### **II Core Activities**

The General Manager's Office is charged with directing the activities of 226.5 full-time employees in their efforts to manage and protect the Orange County groundwater basin, which supplies 82% of the water used by 2.5 million people living in northern Orange County.

Core activities include:

- ◆ Implementing and communicating the policies of the Board of Directors.
- ◆ Supporting and preparing for Board and Committee meetings.
- ◆ Managing organizational issues.
- ◆ Managing outside legal services.
- ◆ Coordinating legislative activities.
- ◆ Providing external communications.
- ◆ Coordinating with the Groundwater Producers.
- ◆ Participation in WaterReuse CA and the WaterReuse Association to help support District initiatives and policy development for potable reuse.
- ◆ Attend the Santa Ana Water Project Authority (SAWPA) meetings and engage the member agency's general managers in upper Santa Ana watershed activities.
- ◆ Coordinate with the Municipal Water District of Orange County (MWDOC) on Metropolitan Water District of Southern California (MWD) issues.

### **III Non-Core Activities**

- ◆ Numerous requests for presentations and tours of District facilities.

#### IV Group Goals for FY 2023-24

Lawsuits – Actively manage and pursue legal actions and settlements regarding:

- ◆ PFAS litigation
- ◆ North Basin Groundwater Protection Project
- ◆ South Basin Groundwater Protection Project
- ◆ Irvine Ranch Water District litigation

Legislation - Advocate for the District's legislative interests at the federal, state, and local levels. Actively monitor and aggressively support/oppose legislation impacting the District's operations as necessary.

- ◆ *Federal:* Work with the Army Corps of Engineers (ACOE) to pursue additional water conservation and study Forecast Informed Reservoir Operations (FIRO) as a tool for water conservation. Work with the Environmental Protection Agency (EPA) to secure additional State Revolving Funds (SRF) for California and the Water Infrastructure Finance and Innovation Act (WIFIA) loan program. Engage in any PFAS related legislation that could affect the District. Continue working with federal legislators to secure funding for District projects and visit legislators and legislators' staff in Washington, D.C.
- ◆ *State:* Work with the Association of California Water Agencies (ACWA), SAWPA, California Special Districts Association (CSDA), WaterReuse CA, and others to monitor potential legislation concerning water quality, prevention of shifting property tax revenue, and oppose legislating local issues; support good governance measures; monitor and apply for infrastructure/resource bond funding opportunities; monitor and take positions on legislation of importance to the District such as regulations concerning PFAS, and visit legislators and legislators' staff in Sacramento.
- ◆ *Local:* Work with local agencies, organizations, (including the Orange County Business Council [OCBC] Orange County Association of California Cities [ACC-OC] and Orange County Council of Government [OCCOG]), elected officials and their staff members to protect the District's interests and operations. Meet with county supervisors and local city councilmembers.

GWRS Operation – Achieve production of 134,000 acre-feet.

Organizational – Work to improve the recruitment and retention of employees.

Metropolitan Water District of Southern California (MWD) – Actively participate in the development of new policies dealing with groundwater issues, which should include the re-establishment of the discounted replenishment water program, change the policy to allow pumping of non-MWD potable supplies to be pumped into MWD pipelines, and provide technical assistance to MWD for its So Cal Pure Water Recycled Water Project.

Grant Funding – Actively pursue any source of grant funding for selected projects.

**V Pending Activities**

- ◆ Active participation in WateReuse CA, WateReuse Association, The Water Research Foundation, and ACWA.
- ◆ Actively pursue operational efficiencies and explore additional opportunities for supply to the groundwater basin.
- ◆ Continue to develop relationships with both SAWPA and non-SAWPA upper Santa Ana River watershed agencies.

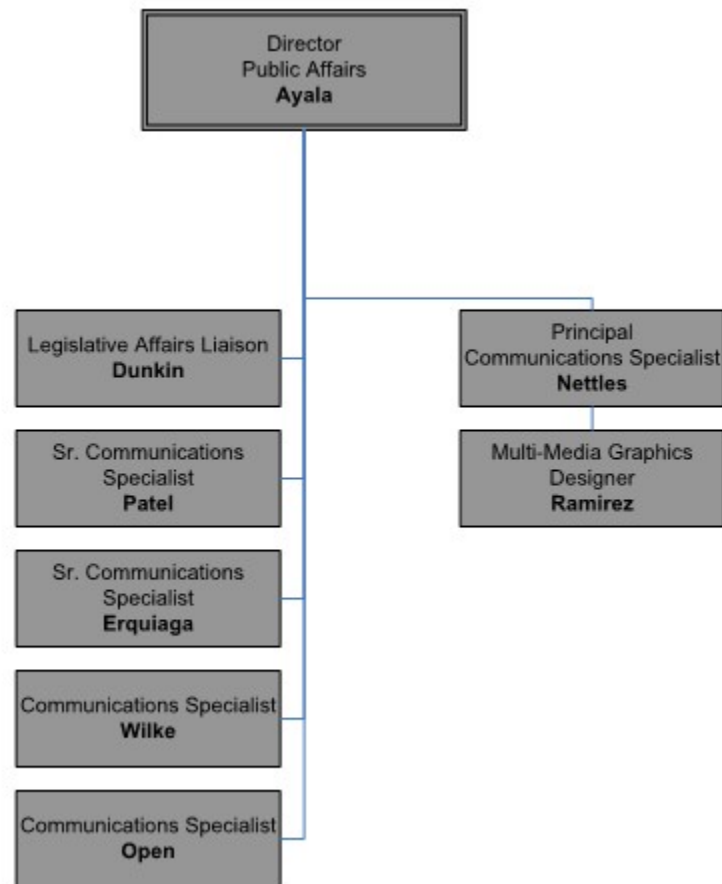
**VI Staff Addition Needed for FY 2023-24**

None

**VII Future Issues**

None

## PUBLIC AFFAIRS



### Summary Information

#### Existing Staff –8 FTEs

- 1 – Director of Public Affairs
- 1 – Legislative Affairs Liaison
- 1 – Principal Communications Specialist
- 2 – Senior Communications Specialists
- 2 – Communications Specialists
- 1 – Multi-Media Graphics Designer

#### Mission

To demonstrate OCWD's value to community stakeholders; to inform stakeholders about District projects and highlight programs, projects, and achievements that demonstrate the District's commitments to water quality, water supply and reliability, sound financial management, industry leadership and innovation, sound planning, transparency, and environmental stewardship. To provide communications support for

OCWD board, general manager, and staff; and forge and maintain relationships and partnerships with producers (water retailers), elected officials, industry associations, community organizations, media, and other stakeholders.

**Key Issues for FY 2023-24**

- ◆ PFAS.
- ◆ Forecast Informed Reservoir Operations (FIRO).
- ◆ EPA Orange County North Basin Superfund Site.
- ◆ Implementing the board-adopted legislative goals and platform.
- ◆ Solicit funding for District projects.
- ◆ Continue robust in-person and virtual outreach program.
- ◆ Education programs: Children’s Water Education Festival, Prado, Next Generation Water Leaders.
- ◆ Speakers Bureau.
- ◆ GWRS tours.
- ◆ Proactive maintenance and construction outreach.
- ◆ Positive media relations.
- ◆ Collaborations with producers, elected officials, and local organizations.
- ◆ Distinguish OCWD’s leadership role in OC and overall water industry.
- ◆ Commemorate project and District milestones.
- ◆ Increase videos and social media campaigns.
- ◆ Crisis communications.

<b>Account Information</b>	<b>FY 2021-22 Actual</b>	<b>FY 2022-23 Budget</b>	<b>FY 2023-24 Proposed Budget</b>
Salaries and Benefits	1,129,457	1,310,688	1,337,756
Services and Supplies	616,108	752,750	746,200
<b>Total</b>	<b>\$1,745,565</b>	<b>\$2,063,438</b>	<b>\$2,083,956</b>

**I FY 2023-24 MAJOR NEW INITIATIVES/PROGRAMS**

- ◆ PFAS communication and education materials and legislative outreach.
- ◆ Work with legislators, legal counsel, and legislative consultants to secure and maintain support for District projects.
- ◆ Educate newly elected officials about OCWD’s role and expertise in water and forge relationships with new members and their staff.
- ◆ Provide support to PFAS workgroup.
- ◆ Commemorate significant OCWD and GWRS milestones through events, communication campaigns, and outreach: 15<sup>th</sup> anniversary of the GWRS, the GWRS Final Expansion and OCWD’s 90<sup>th</sup> anniversary.
- ◆ Resume in-person, revamped Groundwater Adventure Tour.
- ◆ Continue OCWD virtual webinars on a bi-monthly basis.
- ◆ Enhance website using new technical platform.
- ◆ Increase social media.



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## II CORE ACTIVITIES

- ◆ Continue to build awareness and support for OCWD's programs and projects by communicating with key elected officials, community leaders, civic organizations, stakeholders, businesses, environmental groups, etc.
- ◆ Manage editorial calendars for websites, social media, newsletters, director articles, and other publications to keep information timely.
- ◆ Continue to advocate for FIRO.
- ◆ Implement the board adopted legislative platform.
- ◆ Monitor proposed new legislation or amendments to bills that may impact OCWD.
- ◆ Continue to increase social media presence by creating strategic partnerships and recognizing OCWD's staff, board, projects, and programs.
- ◆ Continue proactive media relations program, including distributing press releases, contacting, and meeting with new local reporters, coordinating media tours, and monitoring news media.
- ◆ Produce monthly Hydrospectives newsletter.
- ◆ Maintain leadership in WaterReuse Communications Collaborative Workgroup.
- ◆ Continue maintenance/construction outreach and provide support to all departments.
- ◆ Apply for grants and awards for District projects, programs, and aid other departments in their grant applications. Focus to be on GWRSFE.
- ◆ Video production and graphics for corporate digital and print collateral.
- ◆ Continue to organize the District photo, video, and graphics library with high-definition images.
- ◆ Orange County Water Summit.
- ◆ Children's Water Education Festival.
- ◆ Continue to produce monthly press releases.
- ◆ Co-lead planning and implementation of monthly WACO meetings.
- ◆ Organize events, meetings and workshops that promote District programs, milestones, and partnerships.
- ◆ Continue to edit and maintain content of OCWD, Children's Water Education Festival and OC Water Summit websites.
- ◆ Continue to participate in and lead various water associations' working groups/committees.
- ◆ Maintain and update hallway interactive displays and videos as needed.
- ◆ Conduct annual Groundwater Adventure Tour of OCWD facilities for groundwater producers, general managers, elected, and community members.

- ◆ Improve communications between OCWD Public Affairs Department and producers' public information representatives to generate a positive, mutually beneficial relationship and increase the clarity of wholesaler/retailer messages.
- ◆ Be responsive to the needs of community neighbors impacted by OCWD construction, operations, or projects, so that they understand the need for the work and so impacts are mitigated as much as possible.
- ◆ Ensure OCWD's innovations are noted in trade publications by developing relationships with key trade press.
- ◆ Keep elected officials and their staff members up-to-date and supportive of OCWD issues and needs.
- ◆ Build recognition, trust, and awareness of OCWD in leading community organizations.
- ◆ Inform stakeholders about District projects and highlight programs, projects, and achievements that demonstrate the District's commitments to water quality, water supply and reliability, sound financial management, industry leadership and innovation, and environmental stewardship.
- ◆ Provide communications support to OCWD Board, general manager, staff, and all departments.
- ◆ Communicate effectively, both internally and externally, about OCWD and its mission.
- ◆ Forge and maintain relationships and partnerships with producers, elected officials, related professional membership associations, businesses, key community organizations, environmental groups, media, and other stakeholders.
- ◆ Crisis communications.
- ◆ Other related activities.

### **III NON-CORE ACTIVITIES**

- ◆ Support outside water industry agencies such as American Water Works Association, Water Research Foundation, WateReuse (California and National), Association of California Water Agencies, National Water Research Institute, etc., for research support, collaboration, etc.

### **IV GROUP GOALS FOR FY 2023-24**

- ◆ Make enhancements to the tour program (onsite and virtual).
- ◆ Increase local speaker's bureau activities.
- ◆ Communicate regularly with producers.
- ◆ Assist with PFAS workgroup efforts.
- ◆ Proactive legislative advocacy.
- ◆ Implement new engaging social media campaigns.
- ◆ Create more videos.
- ◆ Maintain proactive, responsive, and positive media relations.

- ◆ Identify positive branding and outreach opportunities for the District and leadership.
- ◆ Forge new, meaningful relationships and partnerships for the District.

**V PENDING ACTIVITIES**

None

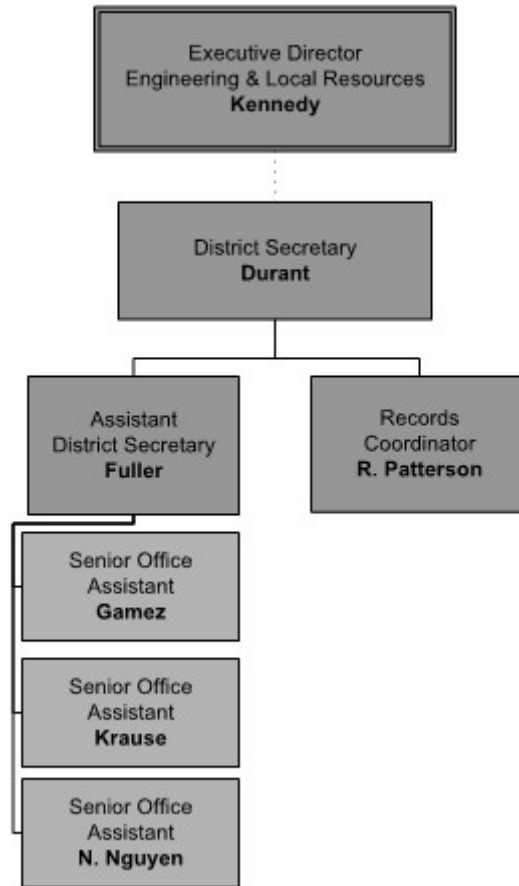
**VI STAFF ADDITION NEEDED FOR FY 2023-24**

None

**VII FUTURE ISSUES**

None

## BOARD ADMINISTRATION



### Summary Information

#### Existing Staff - 6 FTEs

- 1 – District Secretary
- 1 – Assistant District Secretary
- 1 – Records Coordinator
- 3 – Senior Office Assistants

#### Mission

Maintain and manage official District documents and records, compile, and prepare Board and Committee agendas and minutes. Perform other statutory duties as set forth in the District Act and Fair Political Practices Commission, including Conflict of Interest filings and publication of required legal notices.

**Key Issues for FY 2023-2024**

- ◆ Continue to implement the newly adopted Record Retention Policy.
- ◆ Review and replace outdated record policies.
- ◆ Include other District departments as appropriate in electronic records management system.
- ◆ Begin inventory of records held at Iron Mountain.

Account Information	FY 2021-22 Actual	FY 2022-23 Budget	FY 2023-24 Proposed Budget
Salaries and Benefits	1,342,373	1,397,155	1,388,040
Services and Supplies	150,640	303,940	338,740
<b>Total</b>	<b>\$1,493,013</b>	<b>\$1,701,095</b>	<b>\$1,726,780</b>

**I FY 2023-24 Major New Initiatives/Programs**

- ◆ Continue implementation of the District-wide records Management/ Document Imaging system.
- ◆ Implement District-wide records retention policy.
- ◆ Begin incorporation of regulatory reports held within the OCWD Library into the RMS.

**II Core Activities**

- ◆ The primary function of the Board Administration Department is to maintain all official District documents and records, to compile and prepare Board and Committee agendas and minutes to ensure compliance with all applicable state and federal laws, and to perform other statutory duties as set forth in the District Act, including Conflict of Interest filings and publication of required legal notices.
- ◆ Another prime function is Records Management, which includes recording, filing, indexing, and maintaining a database of Board records for District-wide use.
- ◆ The Copy room staff provides District-wide administrative support (mailroom, copy production and meeting setup) to all Departments.

### III Non-Core Activities

Non-core activities (secondary priority compared to core activities) conducted by Board Administration include:

- ◆ Director's support – travel, expense reporting, meeting scheduling, and mail processing.
- ◆ Management support – assist with research and preparation of submittals for Board consideration.
- ◆ Maintenance of Board Policy Manuals and District Act.

### IV Group Goals for FY 2023-24

- ◆ Continue implementation of Records Retention Policy: Meet with District staff to implement departmental records retention policies utilizing new electronic records management system, and develop procedures for key staff related to scanning, accessing, and transmitting electronic records.
- ◆ Scanning and indexing Board/Committee Agenda packets: Continue scanning Board/Committee Agenda packets and legal documents as well as other District files into the electronic records management system (RMS).
- ◆ Expanding and integrating the RCO database: The Department will continue to link the Board agenda packets and minutes databases to the legal documents database.
- ◆ Training of District personnel on the use of Records Management System: The Department will continue to train District staff in ways to access records through RMS.
- ◆ Library documents: Begin scanning government reports contained in the OCWD library into the Records Management System.

### V Staff Addition Needed for FY 2023-24

None

### VI Future Issues

- ◆ Archival of District historical records.
- ◆ Inventory of boxes held in storage at Iron Mountain.
- ◆ Scanning of OCWD Library regulatory reports.

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## LOCAL RESOURCES



### Summary Information

#### Existing Staff – 1 FTE

1 – Executive Director of Engineering and Local Resources

#### Mission

Coordinate and manage basin management programs with Groundwater Producers. Assist with managing the financial and water budgets of the District. Coordinate water purchases from other agencies. Recommend the annual Replenishment Assessment, Basin Production Percentage, Production Limitation, and the Basin Equity Assessment. Monitor and represent the District at MWD and MWDOC meetings. Coordinate MWD storage programs. Assist with the annual budget preparation. Manage grant/loan activities with appropriate funding agencies (Department of Water Resources, State Water Resources Control Board, MWD through MWDOC, and others). Assist with issues related to projects for creating new water supplies.

#### Key Issues for FY 2023-24

- ◆ Monitor imported water supplies and a possible Metropolitan Water District Water Supply Allocation Plan and its impact to OCWD.
- ◆ Continue constructing Producer PFAS treatment systems.
- ◆ Secure grant sources for construction of the PFAS treatment systems.
- ◆ Determine how new potential state regulations will impact future water demands and wastewater flows to GWRS.
- ◆ Assist with developing a plan to prevent seawater intrusion in the Sunset Gap.
- ◆ Provide analysis and reports to the Board as required regarding the possible consideration of consolidating with MWDOC and/or entering into an agreement.
- ◆ Potentially work with LAFCO if a study is performed on the issues of consolidating OCWD and MWDOC
- ◆ Closely monitor groundwater production given the impact due to PFAS and wells being taken out of service.
- ◆ Consider an emergency water supply deal with Moulton Niguel Water District and other interested South Orange County agencies.



<b>Account Information</b>	<b>FY 2021-22 Actual</b>	<b>FY 2022-23 Budget</b>	<b>FY 2023-24 Proposed Budget</b>
Salaries and Benefits	314,769	317,257	340,962
Services and Supplies	430	23,250	3,600
<b>Total</b>	<b>\$315,199</b>	<b>\$340,507</b>	<b>\$344,562</b>

**I FY 2023-24 Major New Initiatives/Programs**

None

**II Core Activities**

The Local Resources Department is primarily responsible for managing various local and imported water programs. The core activities of the group are:

- ◆ Interact, represent, and process agreements with outside agencies such as the MWD, MWDOC, the local groundwater producers (i.e., water retailers), State of California (State Water Resources Control Board and Department of Water Resources) and others.
- ◆ Administer any funding programs for current and future phases of the GWR System.
- ◆ Administer and/or develop special programs such as basin management programs with groundwater producers.
- ◆ Attend and represent the District at MWD Committee meetings.
- ◆ Administer the Coastal Pumping Transfer Program when implemented.
- ◆ Monitor available MWD water supplies for purchase and water rates.
- ◆ Establish the annual Replenishment Assessment, Basin Production Percentage, and Basin Equity Assessment collections.
- ◆ Meet with Groundwater Producers as necessary to update District activities.
- ◆ Update and track Producer water demands periodically.
- ◆ Assist in managing the BEA exemption/reduction program for groundwater treatment projects.
- ◆ Evaluate new water supply projects.
- ◆ Assist the Finance Department in preparing debt issuance documents.
- ◆ Process annexation requests.
- ◆ Process and administer Basin Equity Assessment exemption projects.
- ◆ Prepare and administer the water purchase budget and in-lieu water purchase program.
- ◆ Administer monthly groundwater producers' meetings.

- ◆ Recommend the annual RA and BPP to the Board.
- ◆ Provide long-term RA, BPP, and capital project projections.
- ◆ Manage the MWD Conjunctive Use Storage and Cyclic Storage programs with MWD and MWDOC.
- ◆ Act as a liaison with MWDOC.
- ◆ Provide presentations to various groups, cities, rating agencies and water districts.
- ◆ Assist the Finance Department in maintaining and updating the District's financial model.
- ◆ Review documents prepared by the Public Affairs staff.
- ◆ Assist with the production of monthly in-lieu invoices and annual Basin Equity Assessment reports.
- ◆ Administer MWDOC/OCWD Joint Planning Committee meetings.
- ◆ Manage and oversee the preparation of Board and Committee agendas and packets.
- ◆ Monitor the Center for Demographic Research activities.

### **III Non-Core Activities**

None

### **IV Group Goals for FY 2023-24**

- ◆ Construct a majority of the Producer PFAS treatment systems.
- ◆ Assist legal counsel with the IRWD lawsuit.
- ◆ Obtain grants to assist in funding the PFAS treatment systems.
- ◆ Aggressive pursuit of grant opportunities for all capital projects, especially funding opportunities through Proposition 1.
- ◆ Monitor the progress of the MWD Carson Indirect Potable Reuse project and determine the District's participation if the project moves forward.
- ◆ Continue to maintain close working relations with the Groundwater Producers to prevent issues from developing.
- ◆ Work with WRD to secure an understanding between both staff on the amount of water being lost to the LA groundwater basin.
- ◆ Administer the SARCCUP program.
- ◆ Determine how the new state law regarding Producer water demands will impact expected future wastewater flows to GWRS.
- ◆ Complete the FY 22-23 Engineers Report.

- ◆ Prepare all documents and resolutions necessary to set the FY 23-24 RA, BPP, BEA and Production Limitations.
- ◆ Finalize the North Basin Feasibility Study.
- ◆ Finalize the South Basin Feasibility Study.
- ◆ Review options and issues with potential MNWD pilot storage program.
- ◆ Develop a remediation plan for the Sunset GAP seawater intrusion issue.

**V Pending Activities**

None

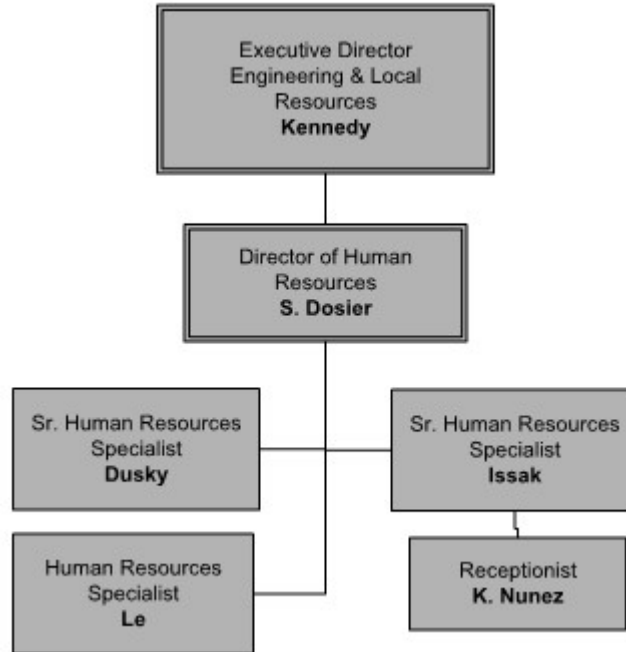
**VI Staff Addition Needed for FY 2023-24**

None

**VII Future Issues**

None

## HUMAN RESOURCES



### Summary Information

#### Existing Staff - 5 FTEs

- 1 – Director of Human Resources
- 2 – Senior Human Resources Specialists
- 1 – Human Resources Specialist
- 1 – Receptionist

#### Mission

Manage the District's Human Resources program to integrate the human value with water management objectives.

#### Key Issues for FY 2023-24

- ◆ Continued ongoing COVID-19 administration
- ◆ Update all job descriptions
- ◆ Review of new performance review software/forms
- ◆ Succession Planning
- ◆ Leadership Development
- ◆ Department Cross-Training

<b>Account Information</b>	<b>FY 2021-22 Actual</b>	<b>FY 2022-23 Budget</b>	<b>FY 2023-24 Proposed Budget</b>
Salaries and Benefits	690,831	798,082	825,180
Services and Supplies	193,066	246,230	261,580
<b>Total</b>	<b>\$883,897</b>	<b>\$1,044,312</b>	<b>\$1,086,760</b>

**I FY 2023-24 Major New Initiatives/Programs**

- ◆ Develop a succession plan
- ◆ Review of Performance Evaluation Process and online systems
- ◆ Secure Act 2.0 Provisions

**II Core Activities**

The Human Resources Department is primarily responsible for the District programs that integrate the human value with water management objectives.

Core activities include:

- ◆ Negotiations with OCEA.
- ◆ District recruitment efforts including placements, resume reviews, interviews, background investigations, and coordinating pre-employment physicals and drug testing.
- ◆ Safety and Risk Management oversight.
- ◆ Manage all District insurance programs including health, liability, property, workers compensation, fiduciary, and crime. Manage any claims submitted against the District.
- ◆ Training: safety, supervisor, and general staff training.
- ◆ Ongoing HRIS and Timekeeping System administration and implementation.
- ◆ Implement new programs to meet new mandates.
- ◆ Policy development and management - Staff, must monitor federal and state employment-related laws and regulations to ensure that business practices and policies stay current, and the District is fully compliant.
- ◆ Benefits Administration - Work with brokers to ensure competitive health insurance programs. Act as liaison for all benefit issues between employees and carriers.
- ◆ Retirement program administration.
- ◆ Compensation Administration - This includes market surveys and compensation policy development and administration.
- ◆ Mandated Programs - This includes programs mandated by federal and state guidelines. Unemployment insurance benefits program, Department of Transportation drug and alcohol program, training programs, among others.

- ◆ Employee Relations - This includes employee discipline, employee documentation, employee counseling, and representing the District at employment related hearings.
- ◆ General Personnel Administration - This includes keeping all required documentation of all employees and filing appropriate federal and state reports. Also, participate in surveys and special reports as requested by managers.
- ◆ Employee morale programs such as Employee of the Quarter/Year Program and Employee Recognition Program.

**III Non-Core Activities**

None

**IV Group Goals for FY 2023-24**

- ◆ Work to update retirement plan documents.
- ◆ Update LOA procedures and documents.
- ◆ Update Performance Evaluation System/Process.
- ◆ Develop succession plan
- ◆ Continue to expand the training program for managers and supervisors.

**V Pending Activities**

None

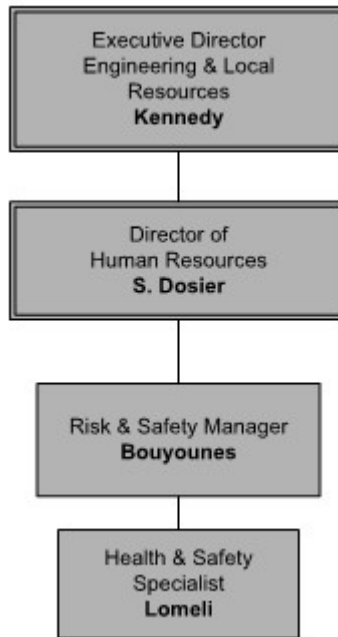
**VI Staff Addition Needed for FY 2023-24**

None

**VII Future Issues**

None

## SAFETY AND RISK MANAGEMENT



### Summary Information

#### Existing Staff - 2 FTEs

- 1 – Risk & Safety Manager
- 1 – Health & Safety Specialist

#### Mission

It is the mission of the Risk and Safety Department to support all functions of the Orange County Water District to help ensure a safe and healthful workplace. This is achieved through maintaining a safe and healthy working condition by fostering a culture focused on awareness, open communication, safety education, and management support.

A partnership with management and staff who are aware of risks and are empowered to contribute and work in a manner that protects human health and the environment.

#### Key Issues for FY 2023-24

- ◆ Security upgrade
- ◆ Emergency preparedness
- ◆ New regulations
- ◆ Training & documentation process

<b>Account Information</b>	<b>FY 2021-22 Actual</b>	<b>FY 2022-23 Budget</b>	<b>FY 2023-24 Proposed Budget</b>
Salaries and Benefits	399,212	424,796	428,800
Services and Supplies	1,038,192	1,233,125	1,284,625
<b>Total</b>	<b>\$1,437,404</b>	<b>\$1,657,921</b>	<b>\$1,713,425</b>

## **I FY 2023-24 Major New Initiatives/Programs**

- ◆ Fall competent person training
- ◆ COVID-19 new permanent regulations
- ◆ Emergency EOC tabletop drill
- ◆ Manual material handling ergonomic training
- ◆ Training & documentation software

## **II Core Activities**

- ◆ Health and Safety training for New Hires.
- ◆ Ongoing and refresher safety training.
- ◆ Confined Space Rescue Drills.
- ◆ Fall Rescue Drills.
- ◆ Complete and submit OSHA 300A online.
- ◆ Complete and post OSHA 300A log.
- ◆ Submit the annual NIMS Data Collection Report.
- ◆ Conduct inspections and audits.
- ◆ Organize and conduct Safety Review Team meetings.
- ◆ Organize and conduct Emergency Response Team (ERT) training.
- ◆ Respond to on-going environmental, health, safety, and security issues.
- ◆ Schedule, organize, and conduct annual fire drills.
- ◆ Complete and submit Business Plans for all three locations.
- ◆ Complete and submit EPA ID reports for all three EPA ID numbers.
- ◆ Conduct office ergonomic assessments and provide equipment and recommendations to reduce ergonomic related risks.
- ◆ Manage the Safety Shoe Program.
- ◆ Review contractors' safety forms and follow up as needed.
- ◆ Annual respiratory medical questionnaire, fit testing, and training.
- ◆ Manage Workers' Compensation program.
- ◆ Evaluate and procure needed safety supplies/equipment.
- ◆ Oversee security companies at Fountain Valley and Field Headquarters.
- ◆ Conduct forklift training initially and every 3 years.
- ◆ Spill Prevention and Control & Counter Measures (SPCC) annual training.



- ◆ Ongoing updates to the Risk and Safety website.
- ◆ Conduct monthly security alarm testing.
- ◆ Participate in WEROC.
- ◆ Submit Letters of Arrest.
- ◆ Update Extension 3300 Binder for the front desk and Control Room.
- ◆ Managers/supervisors safety training

**III Non-Core Activities**

Non-core activities, continuing education, and networking:

- ◆ Participate in meetings and conferences for the Public Agency Safety Management Association (PASMA).
- ◆ Participate in Industrial Environmental Coalition of Orange County (IEC/OC).
- ◆ Participate in meetings and conferences for the American Society of Safety Professionals (ASSP).
- ◆ Participate in Water Utilities Safety Managers' Association (WUSMA).

**IV Group Goals for FY 2023-24**

- ◆ Conduct inspections and audits.
- ◆ Review and update safety programs.
- ◆ Follow up on work-related incidents.
- ◆ Comply with regulatory updates.
- ◆ Provide training and communication to staff.
- ◆ Manage security program.

**V Pending Activities**

- ◆ FHQ & Prado fire & alarm system.

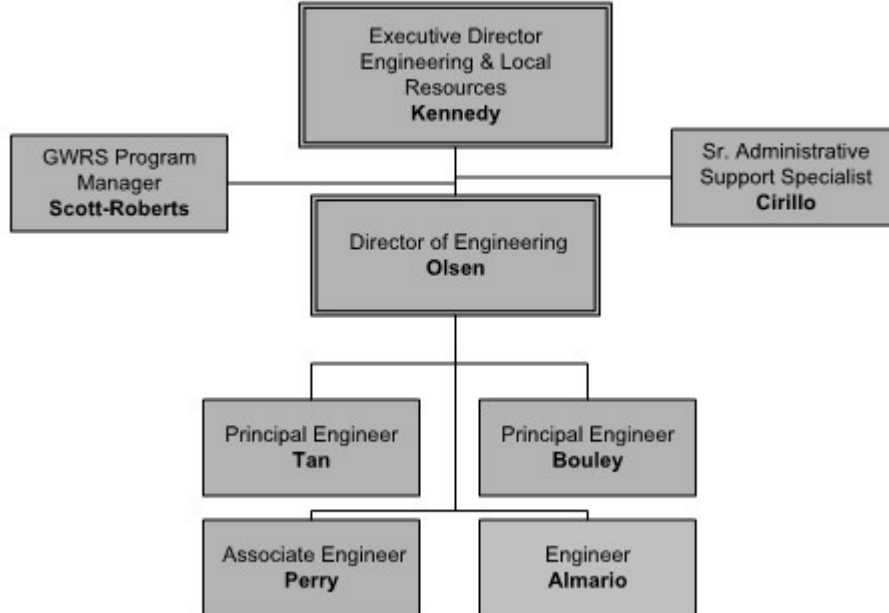
**VI Staff Addition Needed for FY 2023-24**

Temporary Administrative Assistant.

**VII Future Issues**

None

## ENGINEERING



### Summary Information

#### Existing Staff - 7 FTEs

- 1 – Director of Engineering
- 2 – Principal Engineers
- 1 – GWRS Program Manager
- 1 – Engineer
- 1 – Associate Engineer
- 1 – Senior Administrative Support Specialist

#### Mission

Plan, design, and manage the construction of the District's improvement projects.

#### Key issues for FY 2023-24

- ◆ PFAS Treatment Systems Program – This program will provide financial assistance to the Groundwater Producers to comply with new per- and polyfluoroalkyl substances (PFAS) regulations. The program calls for the District to take the lead in funding, designing, and constructing the necessary PFAS treatment systems which may include granular activated carbon or ion exchange treatment for eleven Groundwater Producers. Design work and construction activities started in 2020 and will continue for several years.

Account Information	FY 2021-22 Actual	FY 2022-23 Budget	FY 2023-24 Proposed Budget
Salaries and Benefits	855,029	832,073	1,191,082
Services and Supplies	56,617	43,400	74,100
<b>Total</b>	<b>\$911,646</b>	<b>\$875,473</b>	<b>\$1,265,182</b>

## I FY 2023-24 Major New Initiatives/Programs

- ◆ PFAS Treatment Systems Program –These treatment systems would be owned and operated by the individual Groundwater Producers. Nineteen Producer wells with treatment systems are currently in operation with the first one starting in June 2021. The remaining treatment systems are in some level of design or in the middle of construction.

## II Core Activities

The Engineering Department is responsible for planning, designing, and managing the construction of the District's improvement projects. Projects range from small in-house modifications for existing facilities to major water treatment, pumping and conveyance facilities including the GWR System. Engineering staff may perform the planning, designing and construction management or may manage outside consultants performing these functions. Departmental staff provides engineering support as needed for the daily operations of the District, including Water Production, Forebay Recharge, Prado Operations, Seawater Barrier Operations and Property Management. Engineering staff also review proposed projects of other agencies that may impact District operations or lands.

Core activities include:

- ◆ Implement the Capital Improvement Program.
- ◆ Implement the repair and replacement of District infrastructure.
- ◆ Plan new projects to increase the yield of the basin and protect water quality.
- ◆ Support operations of Forebay, Prado Wetlands, Green Acres Plant, GWRS, and Seawater Intrusion Barriers.
- ◆ Data analysis of operations.
- ◆ Permit compliance support.
- ◆ Operational improvement input.
- ◆ Facility improvement construction.
- ◆ Utility conflict analysis and research.
- ◆ Preparation of the Annual Engineer's Report.
- ◆ Manage the District's as-built drawings.
- ◆ Support for the Recharge Enhancement Working Group (REWG).

**III Non-Core Activities**

Non-core activities (secondary priority compared to core activities) conducted by the Engineering group include:

- ◆ Monitoring outside water reuse project operational activities.
- ◆ Monitoring regulations and legislative affairs activities of the WaterReuse Organization.
- ◆ Publishing operational data in journals and conference proceedings.
- ◆ Participating in technical review committees.

**IV Group Goals for FY 2023-24**

- ◆ PFAS Treatment Systems Program – Design and construction of treatment systems for per- and polyfluoroalkyl substances (PFAS). Removal will continue over the next few years for our eleven impacted Groundwater Producers.

**V Pending Activities**

None

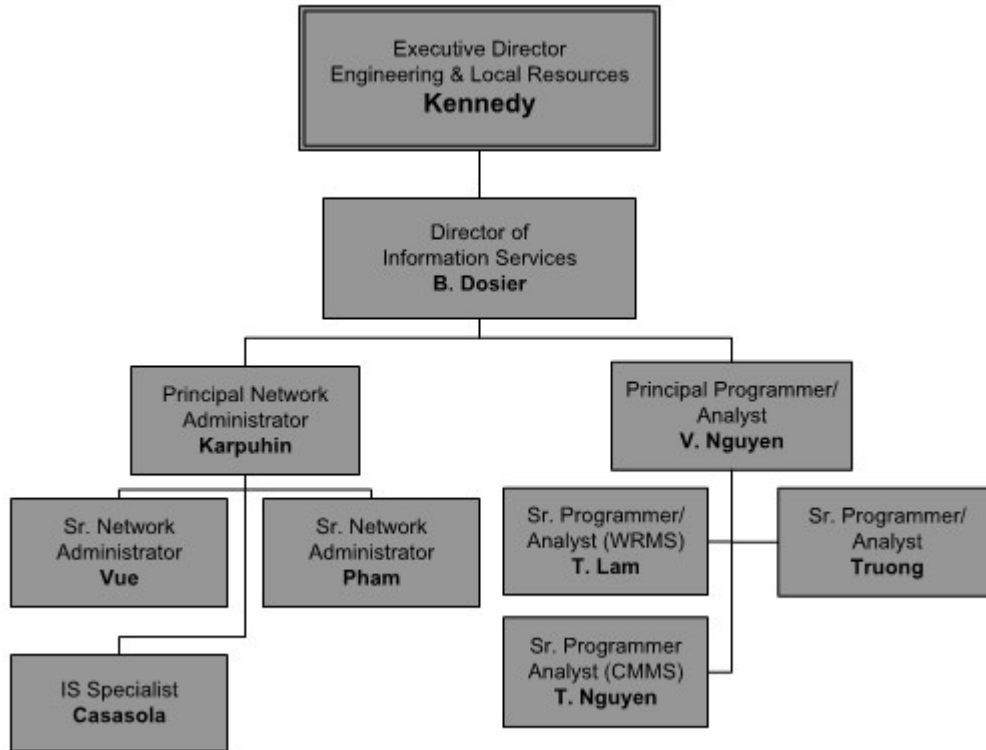
**VI Staff Addition Needed for FY 2023-24**

None

**VII Future Issues**

- ◆ Implementation of Recharge Enhancement Working Group Projects.

**Information Services**



**SUMMARY INFORMATION**

**Existing Staff - 9 FTEs**

- 1 – Director of Information Services
- 1 – Principal Programmer/Analyst
- 3 – Senior Programmers/Analysts
- 1 – Principal Network Administrator
- 2 – Senior Network Administrators
- 1 – Information Services Specialist

**Mission**

Manage and support information systems, services, and communication assets used by District staff and third parties in support of basin management goals and objectives.

**Key Issues for FY 2023-24**

- ◆ Major upgrades will be required for the JD Edwards Financial System and the Maximo Computerized Maintenance Management System.
- ◆ Audiovisual equipment in the Boardroom and conference rooms have reached end-of-life and are no longer supported by the manufacturer and require replacement.

Account Information	FY 2021-22 Actual	FY 2022-2023 Budget	FY 2023-24 Proposed Budget
Salaries and Benefits	1,795,275	1,733,151	1,779,524
Services and Supplies	873,357	1,049,850	1,127,500
<b>Total</b>	<b>\$2,668,632</b>	<b>\$2,783,001</b>	<b>\$2,907,024</b>

**I FY 2023-24 Major New Initiatives/Programs**

- ◆ Upgrade JD Edwards Financial Information System software.
- ◆ Upgrade Maximo Computerized Maintenance Management System.
- ◆ Replace end-of-life core network switches.
- ◆ Upgrade of legacy Oracle database system supporting District’s enterprise systems.

**II Core Activities**

Information Services (IS) is a staff support organization that manages and supports District information systems, services, and communication assets used by District staff and third parties in support of basin management goals and objectives.

- ◆ **Network support:** Managing and supporting the various components of the enterprise-wide network infrastructure spanning the Fountain Valley, Anaheim, and Prado facilities. These are composed of Ethernet hubs, routers, switches, wi-fi access points, Ethernet and fiber-optic cabling, and data communication services which connects all the facilities.
- ◆ **Server management:** Managing and supporting physical, virtual, cloud-based, and Microsoft Windows Server based network computer systems that support databases, core enterprise software applications, Intranet, Internet, and other information services.
- ◆ **Cloud-based systems:** Managing and supporting Microsoft cloud-based systems such as Office 365 and other office support systems as well as Microsoft Azure, which is used for various applications by District staff in the field.

- ◆ **Core enterprise systems support:** Managing, supporting and programming for the District's core enterprise software applications such as the JDE Financial Information System used by Finance and other departments for tracking and reporting the financial and purchasing transactions of the District, the Water Resources Management System (WRMS) used for tracking, analyzing and mapping data collected from the District basin, the Computerized Maintenance Management System (Maximo) used by Water Production to manage the maintenance requirements of the AWPf, and the Lab Information System (LIMS) used by the Laboratory to track water samples from the District basin and for complying with regulatory reporting.
- ◆ **Operations:** Performing routine and non-routine system operations including network and server system administration, managing user accounts, managing server disk space and load balancing, performing daily, weekly, and monthly computer system backups and restores, and telephone system administration.
- ◆ **System maintenance:** Performing system maintenance, repairs, and upgrades for network and servers, desktop and laptop computers as well as managing maintenance and license agreements for District hardware, software, and information services.
- ◆ **Programming and Technical IS Projects:** Managing, supporting, and programming for interdepartmental projects including special computer system projects for various departments. IS also provides analytical, programming, technical and training support to those who use District information systems.
- ◆ **Staff support:** Providing support to District staff for network and server issues, core enterprise software applications, email system, Microsoft Office software, desktop and laptop computers, and a variety of other digital mobile equipment including iPads and iPhones. Providing remote support for users working in distributed off-site work locations.
- ◆ **Telecommunications:** Managing and supporting voice and data communication services, including the Cisco Voice over Internet Protocol (VoIP) telephone and voicemail system, all communication equipment and lines connecting the District to various telephone system carriers, voice and data service contracts, District-issued cell phones, smartphones and videoconferencing communications. IS also manages and supports the enterprise-wide data lines connecting the Anaheim and Prado facilities with the Fountain Valley campus, various SCADA locations throughout the basin and Internet connectivity to District staff and third parties.
- ◆ **System security:** Ongoing management of system security including administration of an appropriate level of firewall protection to prevent unauthorized intrusion to the District network from the Internet and the administration and monitoring of centralized District-wide anti-malware software and services to prevent the spread of destructive and non-destructive computer viruses and "spam" email. As new forms of security

threats emerge on the Internet, IS analyzes the risk and determines the appropriate steps and actions necessary to respond.

- ◆ **Audio/Visual:** Managing and supporting the District's sophisticated network controlled multi-component audio-visual equipment composed of LED screens, amplifiers, switchers, transmitters, receivers, and control devices.
- ◆ **Websites:** Ongoing technical support for District-related websites, including resolving technical issues with websites, hosting services, Internet registration services, and reputation management services.

### III Non-Core Activities

None

### IV Group Goals for FY 2023-24

- ◆ **Improvements to WRMS:** Build the Water Resources Report (WRR) application; convert WRMS Oracle Forms to Windows/Web Forms. Work with GIS staff in upgrading ArcGIS Server, SDE, ArcGIS Portal, and GeoCortex to the latest version.
- ◆ **Upgrade District enterprise systems:** Upgrade major District systems JD Edwards and Maximo as appropriate.
- ◆ **Replace obsolete network hardware:** Core network switches have reached end-of-life and need to be replaced.
- ◆ **Replace obsolete audiovisual equipment:** Replace obsolete end-of-life audiovisual hardware and systems in the Boardroom, C2 and C3 conference rooms.
- ◆ **Replace obsolete Windows computers:** Continue Windows computer refresh program to replace Windows 10 computers with Windows 11 compatible computers in anticipation of Windows 10 end-of-life in 2025.
- ◆ **Continue improvements to systems and email security:** Audit Information Services system security and implement improvements. Develop written system and security policies.
- ◆ **Continue network improvements:** Continued network improvements, optimization, and resiliency, including improving communications at Prado field office (firewall replacement and dedicated communication line).
- ◆ **Continue disaster recovery improvements:** Implement regular testing of Disaster Recovery Capabilities; Assess disaster recovery capabilities for the Forebay Operations Supervisory Control, Data Acquisition (SCADA) system and the AWPf Delta V process control system.
- ◆ **Technical and security training:** Continued focus on training and cross-training for Information Services staff. Continuously train staff on detecting security threats that may enter through email, and by other means.



**V Pending Activities**

Major activities that are not being implemented include:

- ◆ Performing analytics to determine usage of District websites.
- ◆ Ongoing monitoring and configuring websites for Search Engine Optimization (SEO).
- ◆ Information Services provides little to no support of the Forebay SCADA system and the AWPf Delta V process control system.

**VI Staff Addition Needed for FY 2023-24**

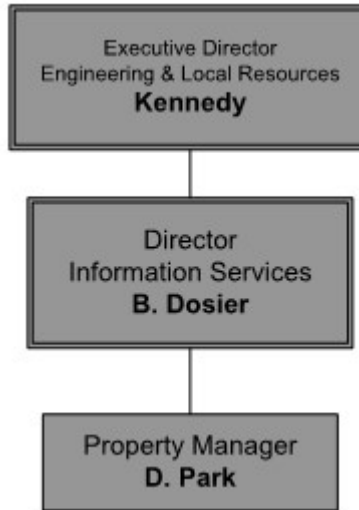
None

**VII Future Issues**

In the next two to three years, the District will need to consider:

- ◆ **Windows 10 computers:** Windows 10 computers reach end-of-life in 2025 and need to be replaced prior to end-of-life date to eliminate or reduce security threat.
- ◆ **Increased Internet security threats:** Measures to provide security against emerging Internet threats continue to increase, resulting in dedicating additional hardware, software, and staff resources to address the emerging security issues.
- ◆ **Cloud-based services:** enterprise systems are increasingly moving away from on-premises servers and toward cloud-based systems. As this develops, we will require reviewing in the future.
- ◆ **Staff Training:** Staff training to implement and support newer systems and keeping up with fast-moving Information Systems trends.

**PROPERTY MANAGEMENT**



**Summary Information**

**Existing Staff - 1 FTE**

1 – Property Manager

**Mission**

To manage the District’s real estate assets in a manner that provides revenue to the District and preserves or adds value to the assets while supporting basin management objectives.

**Key issues for FY 2023-24**

- ◆ Ten-year pollution insurance for La Palma property expires January 2024 and should be reviewed for renewal.
- ◆ Potential use of District properties in Anaheim for the Orange County River Walk.

<b>Account Information</b>	<b>FY 2021-22 Actual</b>	<b>FY 2022-23 Budget</b>	<b>FY 2023-24 Proposed Budget</b>
Salaries and Benefits	146,281	142,229	159,043
Services and Supplies	172,781	170,906	173,263
<b>Total</b>	<b>\$319,062</b>	<b>\$313,135</b>	<b>\$332,306</b>

**I FY 2023-24 Major New Initiatives/Programs**

- ◆ Negotiate property instruments with the City of Anaheim in support of the OC River Walk project.

## II Core Activities

The Property Management Department is primarily responsible for managing over 3,700 acres of the District's real estate assets, negotiating and managing licenses, leases, easements, and deeds for use of the District's real estate assets by other parties including local and state agencies. The department also protects the District's property rights, processes land use entitlements to add value to the assets, acquires real estate, property rights and rights-of-ways for use as recharge basins, well-sites, pipelines or other uses in support of basin management goals and objectives.

- ◆ **Property Management:** administrative management of the District's real estate including inspections, fire department vegetation control, and neighbor interaction.
- ◆ **Develop Property Use Agreements:** negotiating and managing licenses, leases, easements, rights-of-ways, and exclusive negotiating agreements with other parties. Monitor collected rents, fees, and agreement compliance audits.
- ◆ **Maintain Property Rights:** coordination with staff, law enforcement, local, state, and federal agencies to keep District land free of hazards and trespassers by securing the property with fencing, locks, and gates. Post "No Trespassing" signs and other signage as appropriate. Verify District property boundary lines to determine if trespassing or encroachment is occurring on District property. Monitor Land Use and zoning modifications by municipalities and assess any possible impact on District real estate.
- ◆ **Manage Real Estate Acquisitions and Sales:** managing the acquisition or sale process for real estate or property rights; negotiating purchase agreements, real estate broker agreements, agreements for new well sites and new construction projects, and other related documents; acquiring and evaluating appraisals and title reports; determining legal descriptions, property owners and rights to be acquired.
- ◆ **Manage Land Use Entitlements:** managing the Land Use Entitlement process such as Zoning and General Plan changes with appropriate cities.
- ◆ **Coordinate the Property Management Committee:** development of agendas for the monthly Property Management Committee meetings of the Board of Directors, including writing all staff reports.

## III Non-Core Activities

Non-core activities (secondary priority compared to core activities) conducted by the Property Management group include:

- ◆ Provide data and information to outside agencies and organizations.

#### IV Group Goals for FY 2023-24

- ◆ **Lease Agreements with District Lessees:** Negotiate lease renewal with Sandwood Enterprises (March 31, 2024); V. Montoya Enterprises (March 31, 2024); Raahauge Duck Hunting Lease (June 30, 2023); Prado Basin Duck Club (June 30, 2024); Raahauge Shooting Enterprises Pheasant Lease (September 30, 2023); NSM Golf, LLC (September 30, 2023).
- ◆ **Caltrans Decertification at Burris Basin:** Continued negotiation with California Department of Transportation (Caltrans) for the acquisition and/or long-term lease for Caltrans property at Burris Basin property.
- ◆ **Assistance on Property issues for new wells and new construction sites:** Assist Hydrogeology with acquiring easements for wells and facilities for existing Well SCS-6 and OCWD-OVP3 in City of Orange with new property owner, CMD Management Group LLC; and other projects with site access needs.
- ◆ **OCFCD Mid-Basin Injection lease rent adjustment:** An appraisal is due 150 days prior to, the 11<sup>th</sup> year anniversary of the lease (for rent adjustment effective July 1, 2024), on which a rent adjustment will be based.
- ◆ **SR 91 Improvement Project between La Palma Avenue and SR 55:** Negotiate potential easement with Orange County Transportation Authority on District property for the SR 91 Freeway Bridge widening over the Santa Ana River; and negotiate potential easement on District property for relocation of Southern California Gas Company pipeline due to SR 91 improvement project.
- ◆ **Support well development by other agencies:** Negotiate with Yorba Linda Water District (YLWD) for Well 23 at Warner Basin. Assist Operations groups in coordinating new well installation and maintenance for Well 22 and Well 23.
- ◆ **Potential parking and storage leases on District properties:** Explore potential leases with the adjacent property owners, current lessees, and real estate brokers for parking and storage at District properties, including Kraemer Basin, Anaheim Lake and Huckleberry Pond.
- ◆ **Prado properties:** Explore potential acquisition of leased property adjacent to District Prado properties in Riverside County.

#### V Pending Activities

Major activities that are reduced, not being implemented, or conducted include:

- ◆ Research and pursuit of creative lease opportunities to generate revenue for the District.
- ◆ Proactively monitor zoning and sphere of influence issues on District property.

**VI Staff Addition Needed for FY 2023-24**

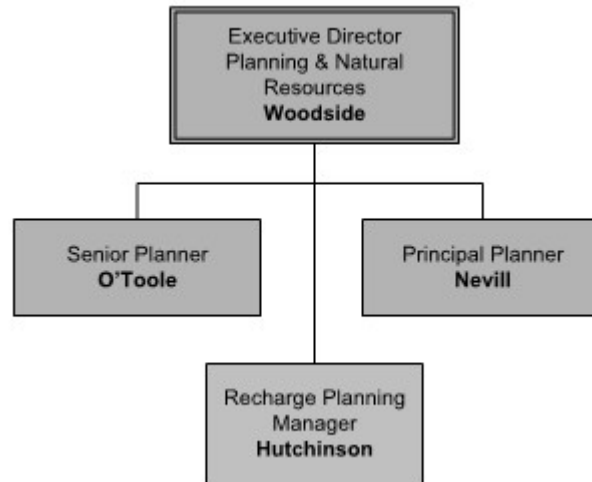
None

**VII Future Issues**

In the next one to two years, the District will need to consider the following:

- ◆ Increased requests from other agencies for the use of District land.
- ◆ Consideration of other long-term opportunities to lease District land at higher lease rates.

**PLANNING AND WATERSHED MANAGEMENT**



**Existing Staff - 4 FTEs**

- 1 – Executive Director of Planning and Natural Resources
- 1 – Principal Planner
- 1 – Senior Planner
- 1 – Recharge Planning Manager

**Mission**

Conduct long-term planning of District’s facilities and programs, prepare planning documents and environmental analyses for new projects, develop increased stormwater capture at Prado Dam, secure permits from resources agencies, implement the District’s watershed management programs, document compliance with Sustainable Groundwater Management Act.

**Key Issues for FY 2023-24**

- ◆ Working with the Army Corps to enhance stormwater capture at Prado Dam, including completing the Final Viability Assessment of Forecast Informed Reservoir Operations (FIRO) and approval of a deviation of the Prado Dam Water Control Manual to 508 feet to test FIRO.
- ◆ Complete planning and environmental documentation for remediation of former shooting areas in Prado Basin.
- ◆ Working with other OC stakeholders to implement Integrated Regional Water Management (IRWM) in Orange County.
- ◆ Implement the Santa Ana River Conservation and Conjunctive Use Project (SARCCUP), including developing 36,000 af water bank in the OC Basin and construction of five new production wells.
- ◆ Watershed Management – Interface with watershed stakeholders. Participate in Upper Santa Ana Watershed Habitat Conservation Plan, Basin Monitoring Program Task Force, and Imported Water Recharge.

- ◆ Continued engagement in development of the Upper Santa Ana Habitat Conservation Plan.

Account Information	FY 2021-22 Actual	FY 2022-23 Budget	FY 2023-24 Proposed Budget
Salaries and Benefits	939,390	946,137	989,174
Services and Supplies	830,736	708,750	671,550
<b>Total</b>	<b>\$1,770,126</b>	<b>\$1,654,887</b>	<b>\$1,660,724</b>

**I FY 2023-24 Major New Initiatives/Programs**

None

**II Core Activities**

The Planning and Watershed Management Department are primarily responsible for the District’s long-term planning, interfacing with agencies above Prado Dam, watershed management, and preparation of environmental documents.

Core activities include:

- ◆ Working with Army Corps of Engineers to increase stormwater capture at Prado Dam
- ◆ Preparing environmental documents (e.g., Environmental Impacts Reports).
- ◆ Conducting long-range planning of future activities and facilities at the District.
- ◆ Planning new projects to increase the yield of the basin and protect water quality (shared with Engineering and Hydrogeology).
- ◆ Protecting the quality of SAR flows.
- ◆ Securing environmental permits for District projects, such as the Army Corps Clean Water Act Section 404 permits, and California Department of Fish and Game 1600 permits.
- ◆ Maintaining compliance with the Sustainable Groundwater Management Act (SGMA).
- ◆ Evaluating new methods to improve the performance of the District’s surface recharge facilities in Anaheim and Orange.
- ◆ Interacting with upstream agencies such as SAWPA, water agencies, groundwater management agencies, and regulatory agencies regarding issues that affect the Santa Ana River.
- ◆ Interface with watershed stakeholders. Lead Integrated Regional Water Management activities, participate in Upper SA Watershed Habitat Conservation Plan development. Participate in SAWPA task forces on

basinwide water quality. Monitor implementation of stormwater NPDES (“MS4”) permits in Orange, Riverside, and San Bernardino Counties. Monitor cleanup of the Stringfellow hazardous waste plume in Riverside County and other contamination sites in the upper watershed that may pose a threat to the Santa Ana River.

- ◆ Maintaining permits from resource agencies for the District’s operations and maintenance activities at Prado Wetlands and recharge facilities in Anaheim and Orange.
- ◆ Managing the District’s water rights on the Santa Ana River and Santiago Creek.
- ◆ Reviewing environmental documents prepared by agencies in the watershed with respect to potential impacts on the District’s operations and the watershed.

**III Non-Core Activities**

None

**IV Group Goals for FY 2023-24**

Forecast Informed Reservoir Operations (FIRO) Viability Assessment -

Stormwater captured at Prado Dam is a key source of water used to recharge the groundwater basin. Enhanced weather and streamflow forecasting increases the efficiency of stormwater capture and provides additional water to replenish the groundwater basin. We are preparing a Final Viability Assessment of FIRO this year with the Army Corps, Scripps and other partners. Work in FY 23-24 will focus on completing the Final Viability Assessment of FIRO at Prado Dam.

Deviation to capture stormwater to elevation 508 feet at Prado Dam –

We are working with the Army Corps on processing and approval of a deviation to the Prado Dam Water Control Manual to allow stormwater capture up to elevation 508 feet. This would provide an additional 6,000 acre-feet of storage capacity above the currently approved elevation of 505 feet. We requested a 5-year term for the deviation, to allow for the occurrence of wet years to provide sufficient inflow to exceed 505 feet (in a dry year, there is insufficient inflow to reach 508 feet). We are assisting the Army Corps with preparing the environmental documentation and related technical studies. We are seeking Corps approval of the deviation by October 2023.

Prado Basin Feasibility Study – This is a joint activity with the Army Corps to implement a Feasibility Study for ecosystem restoration and increase the flood season stormwater capture elevation at Prado Dam. The Feasibility Study was completed in May 2021. The Prado Dam Water Control Manual was updated to allow flood season stormwater capture to elevation 505 feet. The Ecosystem Restoration Project in the Study received a completed Chief of Engineers report in 2021 and was authorized by Congress in WRDA 2022. The next step for the



Ecosystem Restoration Project is to receive funding from the Corps and start the Preconstruction Engineering and Design (PED) phase.

Integrated Regional Water Management (IRWM) – Staff continue working with the County of Orange, OC SAN, and other stakeholders on studies and analysis of potential projects through IRWM. We are working with the County and OC SAN on the scope of work for a study of additional diversions to the sewer system from flood control channels.

Santa Ana River Conservation and Conjunctive Use Program (SARCCUP) – This program includes the development of a water bank to store water conveyed into the watershed from surplus supplies available from the San Bernardino Valley Municipal Water District (Valley District) and other supplies that may be conveyed through the State Water Project by Valley District. Additionally, SARCCUP includes funding to remove 640 acres of *Arundo donax* and funding for five new production wells. SARCCUP is partially funded through a Proposition 84 grant. Work in FY2023-24 will focus on developing the institutional structure to manage and operate the water bank with the water bank partners, continued *Arundo* removal and maintenance, and equipping the five new production wells.

SAR Water Rights - The District currently holds rights to divert and recharge 362,000 afy of Santa Ana River water. In its water rights decision that appropriated 362,000 afy of river water to the District, the State Water Resources Control Board determined that it would hold in abeyance an additional 143,000 afy associated with potential long-term projects that the District could construct. The State Board determined that it would hold the additional 143,000 afy in abeyance until 2023. The District has requested that the State Board extend this deadline.

Recharge Facility Planning – The District focuses on maximizing the performance of our existing surface recharge basins in Anaheim and Orange. This effort includes managing the Riverbed Filtration Demonstration project, which pretreats river water prior to recharge in Olive Basin as a means to improve recharge performance. Performance testing will continue to collect water quality and recharge rate data over a range of hydrologic conditions. Staff is also evaluating options to increase the performance of various recharge facilities. This effort also includes managing the Recharge Enhancement Working Group (REWG), which is a meeting of staff from multiple District departments to brainstorm methods to enhance groundwater recharge.

Upper Santa Ana Habitat Conservation Plan (HCP) – The District has been participating in the preparation of the Upper Santa Ana River HCP to protect habitat values in Prado Basin and provide permit coverage for future projects. In FY 2023-24, it is anticipated that the HCP will be finalized and approved by the US Fish and Wildlife Service and CA Department of Fish and Wildlife.

Santa Ana River Flow Estimates – Potential projects and activities in the upper SAR Watershed can affect the amount of SAR flow that reaches Orange County. Due to water supply changes in California and the southwest United States, agencies throughout the area are proposing new projects that could impact flows

in the SAR. Staff will continue to monitor and review proposed projects in the upper watershed with respect to their impact on flow rates in the SAR. Staff will also work with agencies in the upper watershed to evaluate these issues.

Environmental Analyses and Permitting – Environmental analyses are anticipated for new projects, including PFAS treatment projects, South Basin groundwater remediation, Talbert Barrier Pipeline Replacement, Sunset Gap seawater intrusion, and sand removal near River Road bridge near Norco (upstream of Prado Dam).

Watershed Management – Participate in task forces administered by SAWPA, including:

Basin Monitoring Program Task Force.

Salinity Management and Imported Water Recharge Workgroup.

Middle Santa Ana River Bacterial Indicators TMDL.

Participate in the development and implementation of watershed plans for North and Central Orange County. Monitor activities in the Chino Groundwater Basin and the implementation of ‘hydraulic control’ in the Chino Basin.

**V Pending Activities**

None

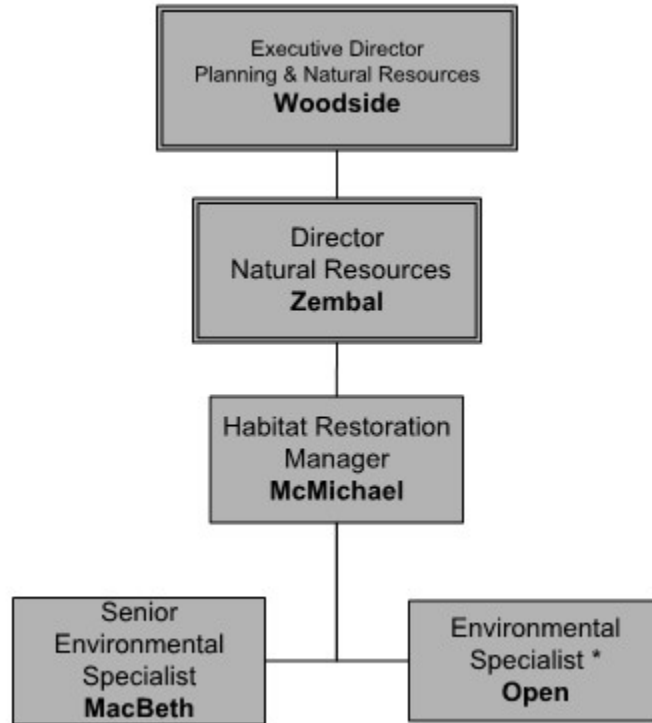
**VI Staff Addition Needed for FY 2023-24**

None

**VII Future Issues**

None

**NATURAL RESOURCES**



**Summary Information**

**Existing Staff – 3.5 FTEs**

- 1 – Director of Natural Resources
- 1 – Habitat Restoration Manager (Principal Environmental Specialist)
- 1 – Senior Environmental Specialist
- 0.5 – Environmental Specialist (\* Cost Shared 50% with SAWA)

**Mission**

Manage natural resources in the Santa Ana River Watershed, focusing on District property to maintain or improve water quality, water supply, habitat, and wildlife populations in fulfillment of OCWD environmental responsibilities; assist in environmental planning for District projects, operations, and land use; help maintain an Arundo-free minimum of 7,500 acres of former Arundo on the Santa Ana River generating a minimum of 28,125 acre-feet of water annually; monitor and report field operations and restoration of 4 acres annually in compliance with Regional General Permits and Streambed Alteration Agreements for ongoing operations in Prado Basin and the Recharge Area; manage endangered Least Bell’s Vireos in fulfillment of Regulatory requirements for Water Conservation; analyze effects of water conservation on habitat in support of FIRO and additional water conservation.

**Key issues for FY 2023-24**

- ◆ Coordinate with Army Corps and resource agencies regarding Enhanced Water Conservation in Prado Basin, including a deviation request for Forecast Informed Reservoir Operations at Prado Dam while environmental documentation and permits are pending.
- ◆ Continue partnerships for additional Arundo control on the SAR while raising public awareness of the issues and benefits. Assist with control of Prado Arundo under Proposition 84 and formulation of a plan for future Arundo management and maintenance fund.
- ◆ Gather background information and explore possible development of a fire management plan for the Prado Basin.
- ◆ Continue to develop documentation of the environmental value of the Prado Basin under current management including Water Conservation, potentially by highlighting population health of key indicator species groups, such as raptors including nesting American Bald Eagles.
- ◆ Complete restoration in Burris and Santiago Basins for 2022 and 2023 RGP 90 mitigation and Cities of Anaheim and Yorba Linda Projects therein.
- ◆ Assist in the preparation of permit applications and negotiate conditions cooperatively with other Departments and Regulators for various District projects, including sediment removal in Prado Basin, water conservation, the Corps Feasibility Study, and District operational activities including RGP implementation and monitoring.
- ◆ Represent the District on the Santa Ana Watershed Association Board and various other task forces and planning groups such as the Santa Ana Sucker Conservation Team.
- ◆ Monitor endangered birds and manage Natural Resources in the Prado Basin and on other District properties; organize watershed-wide monitoring of select endangered populations, documenting the annual population status of the largest least Bell's vireo population in existence.
- ◆ Refine data gathering and reporting on OCWD maintenance activities in the recharge area of the river and at Prado under permits with the U.S. Army Corps of Engineers, agreements with California Department of Fish and Wildlife, and California Regional Water Quality Control Board.
- ◆ Continue Sucker restoration on Sunnyslope Creek and other activities as per OCWD - California Department of Fish and Wildlife Agreement and Biological Opinion from the USFWS.
- ◆ Maintain, monitor, and report upon dozens of mitigation and other habitat restoration sites that were set aside to offset potential effects of District projects and activities.
- ◆ Monitor and assist in attempted control of Quagga Mussels and other potentially harmful invasive species.
- ◆ Maintain permits for endangered species work.

<b>Account Information</b>	<b>FY 2021-22 Actual</b>	<b>FY 2022-23 Budget</b>	<b>FY 2023-24 Proposed Budget</b>
Salaries and Benefits	903,968	886,067	869,505
Services and Supplies	1,349,717	648,750	680,250
<b>Total</b>	<b>\$2,253,685</b>	<b>\$1,534,817</b>	<b>\$1,549,755</b>

**I FY 2023-24 Major New Initiatives/Programs**

- ◆ Participate in design, operation, and monitoring of habitat enhancement parcels in Prado Basin that could be inundated under new 508' water conservation levels.
- ◆ Participate in the Upper Santa Ana Habitat Conservation Plan (HCP) led by San Bernardino Valley Municipal Water District, resulting in permits for three District covered activities.
- ◆ Map habitat in Prado Basin from aerial photos to support water conservation.
- ◆ Monitor and manage fish populations to enhance nesting seabird reproductive success in the Burris Basin.
- ◆ Adaptively create and manage habitat for threatened Santa Ana Suckers in the river above Prado in conjunction with sediment control activities.

**II Core Activities**

- ◆ Manage wildlife habitat and populations as per mitigation requirements and regulatory permit compliance.
- ◆ Implement and report Sucker conservation, restoration, and native fish establishment efforts.
- ◆ Interacting with outside agencies such as the U.S. Fish and Wildlife Service (FWS), Army Corps of Engineers (ACOE), SAWPA, and local governmental agencies, etc., in representing OCWD interests in environmental planning.
- ◆ Interacting with other departments and regulatory agencies to ensure the environmental compliance of District projects and activities.
- ◆ Administering and overseeing natural resources management efforts, removal of Arundo, and other invasives from the SAR Watershed.
- ◆ Seeking outside funding and administering expenditure of those funds.
- ◆ Interfacing with non-governmental organizations in the SAR Watershed.
- ◆ Monitor endangered birds on District lands per permit requirements, including the management of seasonal contractors.
- ◆ Santa Ana Sucker monitoring and conservation.
- ◆ Collaborate with experts in monitoring shot hole borer beetle damage to riparian trees in Prado and throughout the watershed.
- ◆ Permit maintenance.

- ◆ Oversight and cooperation with contractors, interns, and partners to maximize efficiency in the attainment of mission and goals.
- ◆ Reporting of the annual achievements of the District's Natural Resources Program to the Regulatory Agencies and public.

### III Non-Core Activities

- ◆ Production and dissemination of educational materials.
- ◆ Conduct educational tours of District wildlands.

### IV Group Goals for FY 2023-24

#### Monitor Endangered Bird Populations in the Prado Basin and Watershed –

The department leads the monitoring of endangered birds in the Prado Basin and the SAR Watershed. This activity also keeps the District in compliance with Regulatory Permits for Water Conservation and other District projects. Endangered bird populations, including Bald Eagles, will be monitored and managed in the Prado Basin and throughout most of the SAR Watershed.

Integrate Statistical Analysis into Habitat Monitoring – The FWS wants statistics integrated into the monitoring of habitat recovery following inundation due to water conservation in the Prado Basin. We are working with the ACOE and FWS to determine an appropriate methodology.

Santa Ana River Watershed Program – Staff participates as a member of the governing Board of Santa Ana Watershed Association (SAWA), which is the organization removing Arundo throughout the SAR Watershed. The Natural Resources Director or his designee will attend regular meetings, prepare, review, and edit various documents including amendments to bylaws, operational procedures, budgets, annual work plans, and reports in directing management activities in the upper watershed.

Mitigation/Habitat Restoration in Prado Basin and OC – Staff will prepare, implement, monitor, and report upon habitat restoration and wildlife populations in compliance with permit conditions for Prado Water Conservation and other District projects and activities.

Ongoing Removal of Arundo – Staff will help manage and monitor the efforts to keep Arundo out of Prado Basin and the watershed including several activities such as the removal funded by Proposition 84 and the District and working with SAWA, SAWPA and other agencies.

Monitor and Control Problematic Invasive Species – Quagga Mussels, Polyphagous Shot Hole Borers, and other non-native species that have the potential to cause great harm in the watershed will be monitored and cooperatively controlled when possible.

Prepare Permits for District Projects and Activities – Prepare permit applications and negotiate conditions cooperatively with Engineering, Planning, and staffs of other Departments for various District projects including Prado sediment removal, Enhanced Water Conservation at Prado, Burris Basin, and other facilities and operations as needed.

Participate in Project Planning and Operations – Participate with other departments in preparation of environmental documentation and other planning efforts on Santiago Creek, and on all facilities in cooperation with Engineering and Operations.

Educational Material – Natural Resources staff will continue to compile interpretive materials, including reports, tours, and presentations.

## **V Pending Activities (Not Being Addressed Due to Insufficient Resources)**

Major activities that are not being implemented include:

Clean up of Eucalyptus Groves in the Prado Basin – Eucalyptus and several other problematic non-native plants have invaded Chino Creek and are interfering with flood control, water flow, habitat restoration, and endangered bird management.

Clean up of the Riverside County portion of the Santa Ana Canyon – Orange County is implementing Arundo-control in the canyon, which will help keep the OCWD recharge area free of debris. However, they are not including the part of the canyon just upstream in Riverside County. Giant reed from this upstream section will re-infest their work areas unless it is removed.

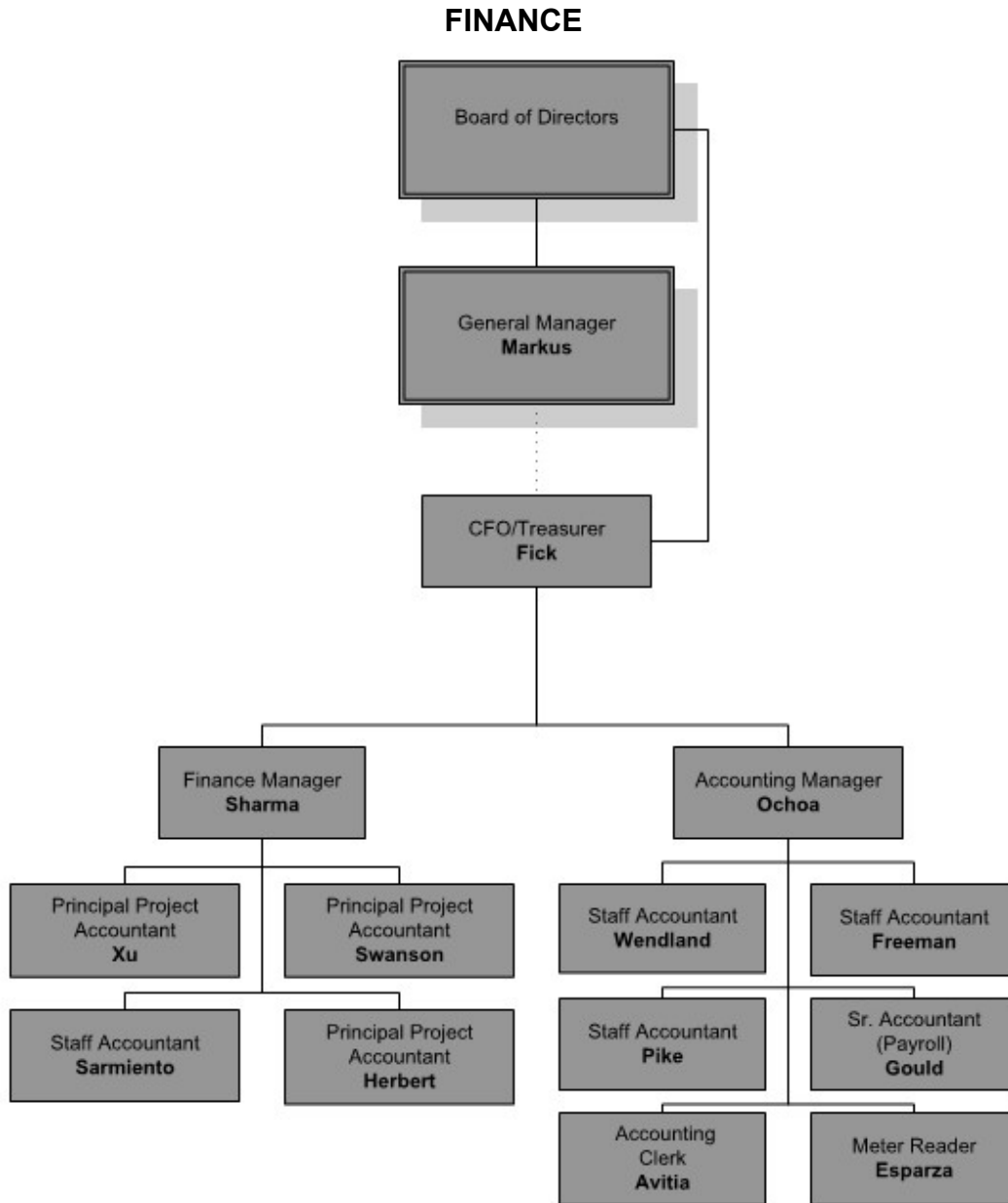
## **VI Staff Addition Needed for FY 2023-24**

None as additional workload is currently being handled by a Limited Term Contract employee.

## **VII Future Issues**

Full implementation of the SAR Watershed Program – There is a need to identify additional funding sources to maintain the watershed from regrowth of Arundo Donax. SAWA has some funds, but additional funding is needed to prevent Arundo from regrowing in the watershed.

Organize Data in Preparation for Publication – Staff are organizing and analyzing existing data in preparation for potential publication of watershed vireo information in a scientific journal.



**Summary Information**

**Existing Staff - 13 FTEs**

- 1 – CFO/Treasurer
- 1 – Accounting Manager
- 1 – Finance Manager
- 4 – Staff Accountants
- 1 – Senior Accountant (Payroll)
- 3 – Principal Project Accountants
- 1 – Accounting Clerk
- 1 – Meter Reader



## Mission

To perform the District's accounting, finance and treasury functions. To maintain the District's strong financial position, high credit ratings, reliable reporting of budgets, revenues, expenditures and investments, ensure that adequate financial controls are in place to accurately record financial transactions, communicate financial results, and protect the District's assets. In addition, to ensure the financial records are maintained in accordance with generally accepted accounting principles and guidelines as established by state and federal agencies.

## Key Issues for FY 2023-24

- ◆ Adapt District finances to fund Producer PFAS related projects.
- ◆ Issue debt to efficiently fund OCWD's CIP at the lowest possible cost and optimize debt program by refinancing debt to reduce debt service costs.
- ◆ Manage OCWD's Investment Portfolio per the Board approved Investment Policy.
- ◆ The systematic drawdown of the SWRCB SRF loan to fund the GWRS Final Expansion project.
- ◆ The systematic drawdown of short-term notes to fund 49% of WIFIA approved PFAS projects and payoff the short-term debt.
- ◆ Continue to ensure that internal controls are in place to provide assurance that assets are safeguarded, and financial information is fairly stated.
- ◆ Review and update existing procedures and establish new procedures that will help expand the group's analysis and reporting capabilities.
- ◆ Timely drawdown of SWRCB and WIFIA loan funds.
- ◆ Submit the Comprehensive Annual Financial Report (ACFR) to Government Finance Officers Association for their award program.

Account Information	FY 2021-22 Actuals	FY 2022-23 Budget	FY 2023-24 Proposed Budget
Salaries and Benefits	2,112,790	2,132,685	2,185,413
Services and Supplies	117,303	172,800	157,250
<b>Total</b>	<b>\$2,230,093</b>	<b>\$2,305,485</b>	<b>\$2,342,663</b>

## I FY 2023-24 Major New Initiatives/Programs

- ◆ Work with U.S. Environmental Protection Agency WIFIA to draw on low-cost loan to finance GWRSFE project and to pay off short term debt that the District has acquired to fund the construction.
- ◆ Continue to increase rebate earnings from wider use of the District's purchasing card/single-use account program.

- ◆ Manage short term debt proceeds to fund PFAS projects and draw on WIFIA loan to payoff short-term notes.
- ◆ Fully implement the Accounts Payable solution software to improve and streamline the workflow and approval routing process to help reduce costs associated to paper handling and manual process of vendor invoices and payments.
- ◆ Initiate continued efforts in the Accounts Payable, Accounts Receivable and Payroll departments to securitize and store documents electronically to help reduce increasing storage costs.
- ◆ Investigate various automated software systems available to account for and track all the investments and month-end reporting in the Finance department.

## II Core Activities

The Finance Department is primarily responsible for the District's accounting, finance, and treasury functions, including debt and investment management. This includes financial planning and analysis for rate setting, budgeting, financial reporting, payroll, accounts payable and accounts receivable, as well as working with various internal and external groups and agencies.

The core activities of the department are:

### **Accounts Payable:**

- ◆ Ensuring all payments and reimbursements are done timely, accurately, and in compliance with policies and procedures along with state and federal regulations.
- ◆ Maximize vendor discounts and rebates on invoice payments
- ◆ Prepare and submit quarterly sales and use tax returns and annual vendor 1099 tax forms, timely and accurately with current regulations.
- ◆ Prepare and complete all annual reporting for District travel and expense expenditures in a timely manner.

### **Accounts Receivable:**

- ◆ Process accounts receivable invoices and incoming payments timely, accurately, and in compliance with financial policies and procedures.
- ◆ Validate and process the District's Replenishment Assessment (RA) and Basin Equity Assessment (BEA) Water Production Statement completed by the Producer, including any special water program billings.
- ◆ Analyze meter read data for inconsistencies and comparability to water production statements filed by the producers.
- ◆ Track and collect all grant invoices for the District's general fund and capital projects.

**Payroll:**

- ◆ Process the District's bi-weekly and monthly payroll accurately and timely.
- ◆ Responsible for quarterly and year end federal and state payroll tax filings.
- ◆ Responsible for employee retirement and benefit payments, and other employee-related costs administered through the payroll system.
- ◆ Responsible to process and distribute employee year end W-2 forms.

**Meter Reader:**

- ◆ Routinely reads water, electric, and hour meters on Producer wells in an accurately and timely manner.

**Treasury Functions:**

- ◆ Continue to manage the treasury functions of the District, which includes ensuring all debt related payments are made timely for all debt issuances, state loans, and commercial paper. In addition, maintain compliance with all continuing disclosure requirements, review and renew all necessary debt administrative services including bank letters of credit, rating agency monitoring, trustee administration, and any other debt-related maintenance services.
- ◆ Prepare monthly cash and investment holdings report.
- ◆ Manage and invest the District's cash in-house daily in order to meet the District's cash needs. This includes an annual review of the District's investment policy with the Admin/Finance Committee.
- ◆ Maintain and update the monthly rolling cash forecast model.
- ◆ To monitor, track, and report the District's Reserve Funds.
- ◆ Monitor and analyze investment activity to ensure fiscal responsibility and superior bond ratings.
- ◆ Debt issuances – to initiate, support, analyze, and complete the execution of all necessary debt financings needed for the District's capital projects.

**Budgetary Control Functions:**

- ◆ Prepare the District's annual budget.
- ◆ Prepare and present quarterly budget versus actual variance analysis report to the board.
- ◆ Track and account for all the cost approved by the Board during the year.
- ◆ Provide account analysis to various department personnel.

**Capital Projects and Fixed Asset Accounting:**

- ◆ Account and track all Capital Projects and Fixed Assets.
- ◆ Safeguard Fixed assets.
- ◆ Continue to review and update the R&R model.

- ◆ Continue to review and work with various financial scenarios to make recommendations to seek and obtain the most economical financings to support the District's capital projects.
- ◆ Prepare reimbursement or drawdown of loans/debt for various projects.
- ◆ Monitor, track, execute, and complete Prop 1A grant billings for the District's general fund and capital projects.

#### **General Accounting Function:**

- ◆ Maintain the general ledger.
- ◆ Maintain the District's rate model with the Local Resources department.
- ◆ Account for and audit various BEA exemption programs.
- ◆ Account for and audit various PFAS O&M program payments to various producers.
- ◆ Prepare and present the ratio analysis annually to the Board.
- ◆ Provide monthly water production cost analysis to the water production department.
- ◆ Prepare and update water quality legal cost reports on a quarterly basis.
- ◆ Complete the financial information necessary for the District's annual Engineer's Report.
- ◆ Working with external independent auditors to complete the District's annual fiscal year-end audit, pension plan audits, single audits (as necessary), and work with other outside agency auditors to fulfill any additional audit requirements.
- ◆ Complete and submit a ACFR for a possible award.

### **III Non-Core Activities**

- ◆ Children's Water Festival Accounting.
- ◆ OC Water Summit Accounting and tracking.
- ◆ Contract administration and building maintenance billing operations for MWDOC occupancy expenses.

### **IV Group Goals for FY 2023-24**

- ◆ Review and update documentation of procedures for all accounting functions.
- ◆ Review the Producer meter calibration reporting program and procedures.
- ◆ Complete monthly closing of the general ledger, all account reconciliations, and accruals in a timely manner.
- ◆ Complete the annual independent audit and all necessary audit schedules more efficiently to complete the year-end audit on a timely basis.

- ◆ Review the general ledger and all ledger accounts to ensure that revenues and expenses have been posted properly. This includes analyzing and researching any discrepancies and unusual variances.
- ◆ Effectively and efficiently streamline the accounts payable workflow process with an AP automation software that electronically interfaces with JDE to include PO matching, electronic approval, and payment processing that provides visibility of the invoice life cycle and historical data for department managers timely, accurately, and in compliance with adequate internal control processes.
- ◆ Initiate efforts to securitize and store documents electronically to help reduce increasing storage costs within the Accounts Payable, Accounts Receivable and Payroll departments.
- ◆ Discover new efforts to streamline all processes and to continue to strengthen internal controls throughout the District in accordance with “Best Practices.”
- ◆ Utilize financial modeling to analyze and support the District’s annual RA/BEA rates established and approved by the Board on an annual basis. On-going forecasting and projections of revenue and expenses
- ◆ Provide project accounting analysis for all the District’s capital projects and work with all project managers to ensure that all project costs are properly accounted for and are within the project budget. This also reduces the burden currently placed with each project manager to provide financial analysis support for their projects.
- ◆ Record, monitor, and ensure proper accounting for the District’s fixed assets and inventories on a monthly basis, including the proper accounting for depreciation and transferring assets from work in progress as projects are completed.
- ◆ Look for refinancing opportunities for an economic benefit to the District.
- ◆ Complete annual filings and certification of compliance with circular OMB-133 for all grant funding sources when required.
- ◆ Manage and audit litigation settlement and expense accounting.
- ◆ Review and update all the assets in the R&R model.
- ◆ Cross-train staff to provide better coverage, and to strengthen accounting internal controls with the ability to “rotate” staff in certain functions.
- ◆ Finalize and implement an automated software system in the Finance department to account and track all Investments and month-end reporting.

**V Pending Activities**

None

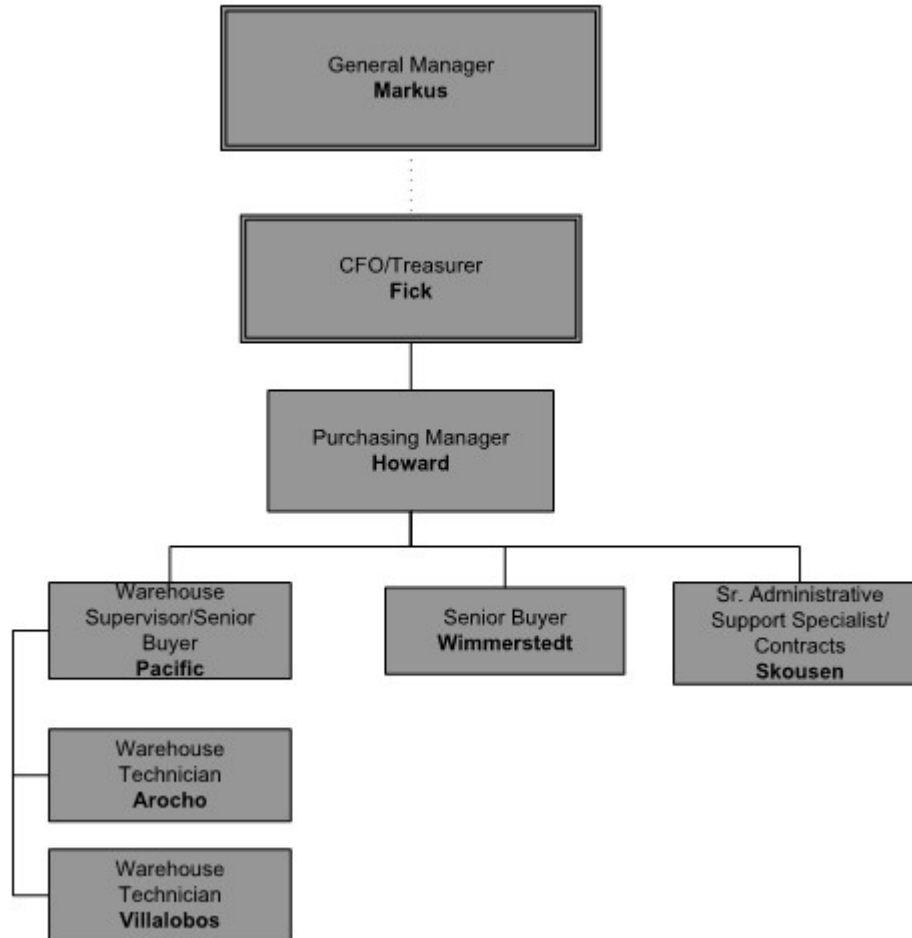
**VI Staff Addition Needed for FY 2023-24**

None

**VII Future Issues**

None

## PURCHASING



### Summary Information

#### Existing Staff - 6 FTEs

- 1 – Purchasing Manager
- 1 – Warehouse Supervisor/Senior Buyer
- 1 – Senior Buyer
- 2 – Warehouse Technicians
- 1 – Senior Administrative Support Specialist/Contracts

#### Mission

The Mission of the Purchasing Department is to procure reliable quality services and products, at the best cost in a timely manner, using ethical procurement standards, and following approved policies and procedures to achieve a high level of assistance for the District.

**Key Issues for FY 2023-24**

None

<b>Account Information</b>	<b>FY 2021-22 Actual</b>	<b>FY 2022-23 Budget</b>	<b>FY 2023-24 Proposed Budget</b>
Salaries and Benefits	747,518	756,919	804,880
Services and Supplies	52,028	50,490	49,480
<b>Total</b>	<b>\$799,546</b>	<b>\$807,409</b>	<b>\$854,360</b>

**I FY 2023-24 Major New Initiatives/Programs**

- ◆ Create a Purchasing Procedure Manual to include purchase orders, contracts, agreements, and District equipment which will be submitted for approval.
- ◆ Implement a procedure for fully electronic purchase orders including the requisition, quotes, correspondence, and backup, thereby reducing paperwork.

**II Core Activities**

The Purchasing Department is responsible for:

- ◆ Purchasing goods and services.
- ◆ Assisting all departments with the issuance of a request for proposals (RFP) and request for quotes (RFQ) for goods and services.
- ◆ Maintaining the warehouse and parts cage.
- ◆ Managing inventory.
- ◆ Preparing, processing, and administering the District's public works contracts and professional service agreements.
- ◆ Obtaining and tracking insurance certificates for contracts, agreements, and purchase orders.
- ◆ Maintaining filing system for purchase orders, contracts, and agreements.
- ◆ Identifying, obtaining Board approval, disposing of the surplus, and preparing surplus receipt report.
- ◆ Maintaining records for District vehicles and equipment; assigning District identification numbers.
- ◆ Locate new sources for procurement of materials, supplies, and services.
- ◆ Prepare and issue Requests for Proposals (RFP's) and Requests for Quotations (RFQ's) for services and products to obtain the best pricing and good quality.



- ◆ Meet with each Department Manager quarterly to discuss requests and problems to ensure quality service is being provided.
- ◆ Meet with the project managers to discuss contracts and agreements so that (1) we can process the documents expeditiously and address the agreement language issues that arise; and (2) provide an update on the status of the agreements/contracts, as needed.
- ◆ Review and update warehouse, purchase order, and agreement service procedures and improve on receiving activities.
- ◆ Administrator for purchasing card program, addressing issues that may arise, and monitoring cards.
- ◆ Administrator for fuel cards and personal identification numbers (PIN).
- ◆ Check safety procedures for warehouse receiving and storing goods, including chemicals.
- ◆ Assist Departments for procurement of Department special needs/events.
- ◆ Assist with reconfigurations of cubicles and offices.
- ◆ Complete formal procedures manual to be submitted for approval.

### **III Non-Core Activities**

Non-core activities conducted by the Purchasing Department include:

- ◆ Meet with purchasing personnel from other water agencies to share information on new vendors, pricing, procedures, etc.
- ◆ Attend seminars on procurement and warehousing for updated information to save money while still obtaining quality products.

### **IV Group Goals for FY 2023-24**

- ◆ Improve warehouse procedures and material handling; improve on warehouse storage at FHQ.
- ◆ Assessment of all District vehicles – prepare a detailed report and analysis.
- ◆ Surplus – research and implement procedure for cost-effective disposal of obsolete items and update surplus receipt report.
- ◆ Implement a procedure for fully electronic purchase orders from requisition through payment.

**V Pending Activities**

- ◆ Preparation of a formal Procedures Manual for Purchasing (In progress).

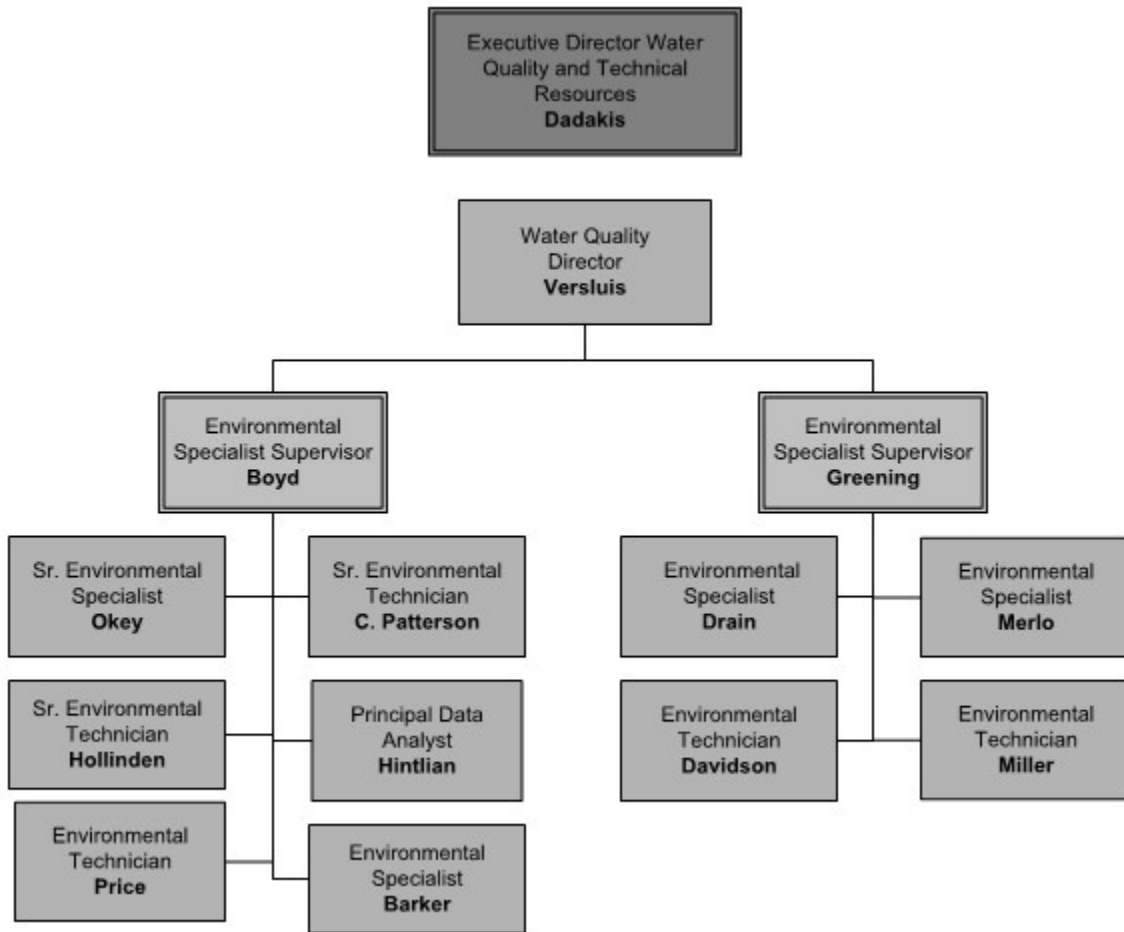
**VI Staff Addition Needed for FY 2023-24**

None

**VII Future Issues**

- ◆ Additional warehouse space/warehouse cleanup
- ◆ Entry level buyer possibly needed in future to keep up with increased activity from GWRSFE coming online.

**WATER QUALITY**



**Summary Information**

**Existing Staff - 13 FTEs**

- 1 – Director of Water Quality
- 2 – Environmental Specialist Supervisors
- 1 – Principal Data Analyst
- 1 – Senior Environmental Specialist
- 2 – Senior Environmental Technicians
- 3 – Environmental Specialists
- 3 – Environmental Technicians

## Mission

Plan, coordinate, and implement water quality monitoring programs to (1) protect and evaluate groundwater basin and groundwater recharge supply conditions and (2) comply with regulatory requirements for drinking water wells, drinking water treatment systems, water recycling, and waste discharge.

## Key Issues for FY 2023-24

- ◆ PFAS Treatment Facility Monitoring: The Department will continue to play a key role in supporting the required water quality compliance monitoring for per- and polyfluoroalkyl substances (PFAS) Treatment Facilities operated by the Groundwater Producers (GWPs). The monitoring required to comply with the Division of Drinking Water treatment regulations will include initial performance monitoring, facility start-up monitoring, routine monthly and quarterly monitoring, and additional monitoring required before and following treatment media change-outs.
- ◆ GWP PFAS Monitoring Orders: The Department will continue to provide support to GWPs for PFAS monitoring orders issued by the Division of Drinking Water (DDW). Draft public health goals (PHG's) have been established for PFOA and PFOS and additional PFAS Notification and Response Levels are expected from DDW in FY23-24.
- ◆ OCWD PFAS Pilot Testing: Water Quality staff will continue to perform monitoring of the PFAS Pilot Treatment project located at the OCWD BESS well near Forebay Headquarters. This includes the new additional Riverbed Filtration System PFAS pilot, which is currently under construction.
- ◆ PFAS Groundwater and Surface Water Monitoring: PFAS monitoring will continue to include testing of groundwater monitoring wells and surface water sites throughout Orange County and the Santa Ana Watershed in order to better understand PFAS occurrence. PFAS monitoring efforts will likely include working with partners in the upper SAR watershed on projects such as the newly reconstituted SAWPA Emerging Constituents Task Force and coordination of testing at military sites in Orange County such as the former MCAS El Toro base, former MCAS Tustin base, and the Los Alamitos Joint Forces Training Base.
- ◆ Federal Unregulated Contaminant Monitoring Rule Phase 5 (UCMR5): On behalf of basin GWPs, OCWD has successfully met the monitoring and reporting requirements for the federal EPA's UCMR1, UCMR2, UCMR3, and UCMR4 programs. The UCMR5 monitoring program will begin in 2023 and will be scheduled over three years. The UCMR5 is required to be scheduled and completed between 2023 and the end of 2025. UCMR5 close Department coordination with GWP's and the District Laboratory to ensure (1) monitoring requirements and established schedules are met, (2) all required quality assurance field samples are collected as required by the specific analytical methods, and (3) all sample results are properly reported by the

laboratory and reviewed by Water Quality staff for final reporting in the EPA CDX SDWARS5 system.

- ◆ Groundwater Replenishment System (GWRS) Monitoring: The Department will continue to implement water quality monitoring requirements for the final product water and groundwater monitoring wells in compliance with the recently issued new GWRS permit from the Regional Board. This is a high priority program for the department that includes completing and assisting with (1) reporting of water quality results to separate RWQCB and DDW databases, (2) quarterly regulatory reports, (3) the required Annual GWRS Report, and (4) the NWRI Independent Advisory Panel Meeting and Supplemental Report tech memos. Use of the GWRS water for injection at the Talbert Barrier to prevent seawater intrusion, injection of GWRS water in the Mid-Basin Injection area located in Santa Ana, and surface spreading at Forebay requires quarterly monitoring of 39 individual groundwater monitoring well zones. Meeting monitoring schedules at the Talbert Barrier, Mid-Basin, and Forebay recharge basins takes precedence and requires close coordination and scheduling with the Laboratory and other WQ programs to ensure maximum efficiency with sample loads and resources. In addition, the GWRS Final Expansion may require additional monitoring in the future to meet future NPDES discharge requirements required for discharge to waters of the U.S. such as Santiago Creek and the Santa Ana River in support of the planned future Anaheim Riverwalk project.
- ◆ North Basin, Remedial Investigation/Feasibility Study: Continue to implement monitoring activities at monitoring wells to track the volatile organics contaminant (VOC) plume and to provide information for the ongoing and planned future VOC remediation plan being carried out by the District under EPA oversight in the North Basin area of the District.
- ◆ South Basin Remedial Investigation/Feasibility Study: Continue to implement water quality monitoring activities at monitoring wells in southeastern Santa Ana to further investigate the extent of VOCs and perchlorate contamination.
- ◆ GWRS Metals Mobilization Study: Continue to implement revised voluntary water quality monitoring activities to assess metal mobilization in groundwater near the GWRS recharge facilities. A monitoring program was initiated as recommended by the NWRI GWRS Independent Advisory Panel to analyze for trace metals (arsenic is one metal of key concern) from selected wells in the vicinity and downgradient of the GWRS recharge basins.
- ◆ OCWD Storm Water Permit: Provide field and technical support for the District's GWRS Industrial Storm Water permit to comply with EPA's National Pollutant Discharge Elimination System (NPDES) permit covering storm water management, discharges, water quality monitoring, and reporting requirements. Perform monitoring, site inspection tasks, and annual refresher training as approved in the District's Storm Water Pollution Prevention Plan (SWPPP) and WQ monitoring plan. Under the newly adopted SWQCB stormwater permit, two stormwater sampling events must be conducted

- between July and December, and January and June. The permit requires preparation of an annual report and regular electronic reporting.
- ◆ Santa Ana River Monitoring Program (SARMON): Continue to implement the comprehensive surface and groundwater monitoring program recommended by the SARWQH study and SARMON Independent Advisory Panel (IAP). Monitoring activities include sites on the Santa Ana River (SAR), Santiago Basin, and selected downgradient monitoring wells to provide data on travel time and to assess water quality changes that may occur after recharge of water from the Santa Ana River. Monitoring activities are regularly updated and revised based on the ongoing review of reported sample results. One specific focus of the monitoring program is to continue to monitor and evaluate the occurrence of Contaminants of Emerging Concern (CECs). Also, Santa Ana River water flowing into and out of the District's Prado basin wetlands are monitored to evaluate changes in water quality and to evaluate the effectiveness of the wetlands for water quality treatment. Technical tasks for the SARMON program include but are not limited to assisting with the preparation of the periodic report summarizing SAR monitoring results.
  - ◆ Coastal Seawater Intrusion Program: Continue to implement water quality monitoring activities to help assess possible seawater intrusion in areas such as the Talbert Gap, Bolsa Gap, and Sunset Gap. Recent monitoring results have shown possible seawater migration landward in the Sunset Gap and impacting a nearby Huntington Beach drinking water well. The Hydrogeology Department has drilled new monitoring wells to assess seawater intrusion in Bolsa and Sunset Gaps to provide information for assessing seawater intrusion. In recent years, over 30 wells have been constructed and added to the seawater intrusion semi-annual monitoring program for the Bolsa and Sunset Gap areas alone. Additional wells have also been constructed in the East Newport Mesa Area to provide water quality information in data poor areas of the groundwater basin. These wells will help to delineate aquifer correlations and construct the annual Shallow aquifer water level (WL) contour maps. Water quality and water level data will aid in delineating seawater intrusion that could potentially impact Mesa WD and IRWD wells, assist with geologic correlations in east Newport Mesa and SW Irvine area, and help to fill data gaps for the annual Shallow aquifer WL contour map.
  - ◆ Microplastics Monitoring: Continue to follow and participate in microplastics workgroups and webinars to ensure OCWD and GWP preparedness for future microplastics monitoring and reporting requirements in California. Anticipated FY23-24 monitoring requirements in the District's service area are expected to be limited to surface water treatment sites and thus would not fall within the District's monitoring obligation to carry out the GWPs source groundwater monitoring requirements.
  - ◆ Planning and Coordinating Water Quality/Laboratory Workload: The Department manages, tracks, schedules, and coordinates the District's compliance and non-compliance monitoring activities, which are subject to (1) Laboratory resources and analytical capacity, (2) GWRS and MBI monitoring

activities, (3) GWP operations and drinking water well state/federal monitoring schedules, and (4) other on-going District projects, research, or focused studies, etc. These programs and available resources must be considered in weekly planning and assigning workload. The efficiency of the Water Quality field activities will be dependent on these factors, and resources to initiate monitoring schedules for newly constructed wells or locations for various projects (if approved; see below). Scheduling and coordinating workloads that maximize the Laboratory and Water Quality department's efficiencies are challenging (i.e., maximum samples per extraction methods, etc.) to meet the water quality data information needs for the various compliance and non-compliance monitoring programs and research investigations.

<b>Account Information</b>	<b>FY 2021-22 Actual</b>	<b>FY 2022-23 Budget</b>	<b>FY 2023-24 Proposed Budget</b>
Salaries and Benefits	1,940,041	1,952,744	2,019,347
Services and Supplies	313,605	313,800	382,100
<b>Total</b>	<b>\$2,253,646</b>	<b>\$2,266,544</b>	<b>\$2,401,447</b>

#### **I FY 2023-24 Major New Initiatives/Programs**

Field support and resources will be needed to monitor water quality from existing locations or new monitoring wells to be constructed for the projects listed below, pending Board approval. These are listed as potential programs/projects for planning projections only.

- ◆ Expanded PFAS Monitoring and Producer Support: The completion of many additional planned PFAS Treatment Facilities will continue to increase the monitoring responsibilities for the Water Quality Department. Also, new DDW PFAS Monitoring Orders issued to Groundwater Producers will require expanded testing and coordination with Division of Drinking Water regulators. Assistance with monitoring at the OCWD PFAS Pilot facility will also continue to test various PFAS treatment media options and assess pilot treatment results.
- ◆ Federal Unregulated Contaminant Monitoring Rule Phase 5 (UCMR5): The UCMR5 monitoring program is scheduled over three years to begin in 2023 and must be completed by year 2025. UCMR5 challenges the WQ Department to be in close coordination with GWP's and the Laboratory to ensure (1) monitoring schedules are met, (2) all required quality assurance field samples are collected as required by the specific analytical methods, and (3) all sample results are reported correctly and on-time into the EPA CDX SDWARS5 database.
- ◆ South Basin Remedial Investigation/Feasibility Study: The project's current groundwater monitoring program includes 21 monitoring wells on an annual or semi-annual monitoring frequency. Some work may be required to assist in preparation for the Interim Remedial Action Plan (IRAP) and project.

- ◆ Water Quality Evaluation of Storm Water Runoff and Coordination with the County of Orange: The Planning and Watershed Department continues to work with the County of Orange on storm water diversion and capture projects. The Water Quality Department has been asked to assist in field monitoring and assessment of storm water diversion sites such as the Chantilly storm channel. In addition, the County of Orange has retrofitted an existing 10-acre office space site located in the City of Orange on Glassell St. to infiltrate stormwater on-site. The retrofit will include multiple EPA low impact development (LID) features to reduce stormwater run-off/pollutants and improve water quality. Possible LID features include bio swales, modular wetlands, permeable paving, and a subsurface cistern to treat stormwater and to retain the majority of stormwater on-site. The County has discussed collaboration with OCWD and the City of Orange, which may include water quality monitoring and analysis to address groundwater quality before and after infiltration.

## II Core Activities

The Water Quality Group is primarily responsible for (1) implementing water quality monitoring programs to protect and evaluate basin conditions, including emerging contaminants; (2) providing technical and field support for compliance programs, District projects, and research investigations; (3) disseminating water quality information and assisting with expansion and update of the WRMS database (historic and new water quality data); (4) reviewing and commenting on relevant water regulatory and compliance issues (e.g., drinking water, stormwater, *de minimis* permits, etc.); and (5) providing support to ensure that the District complies with regulations pertaining to the Safe Drinking Water Act and Clean Water Act amendments.

Core activities include:

- ◆ Implementing water quality monitoring programs at groundwater, surface water, and treated water sites for (1) compliance with permits, mandated environmental and drinking water regulations, (2) District projects and research investigations, and (3) evaluating the ambient quality of the groundwater basin.
- ◆ Groundwater Producer Drinking Water Well Monitoring: Scheduling and sampling groundwater producer wells for compliance with state/federal drinking water regulations for regulated and unregulated chemicals; reviewing, approving, and reporting chemical data electronically to the state on behalf of the groundwater Producers; assisting with data compilation for the groundwater Producers' Annual Consumer Confidence Report, Public Health Goals Report, and Vulnerability Assessments.
- ◆ PFAS Treatment Facility monitoring requirements have begun with the completion and operation of 10 treatment facilities by the end of 2022. There is expected to be more than 35 total separate treatment facilities constructed to address PFAS at GWP wells. A comprehensive monitoring program will be established to ensure coordination with Producers and scheduling of



department staff to collect and submit the various required treatment compliance samples.

- ◆ Implementing basin wide monitoring to assess ambient conditions and to detect changes in occurrence of both regulated and unregulated constituents within the Orange County Groundwater Basin.
- ◆ Overseeing and performing compliance monitoring activities at groundwater monitoring wells specified in the new GWRS permit, including water used for blending/diluent, final product water, and coordinating with contract labs for selected analyses not performed by OCWD's Main Laboratory (e.g., asbestos, dioxin, radioactivity, etc.). GWRS groundwater monitoring activities include both Forebay and Talbert Barrier locations, Mid-Basin Injection, and relevant research investigations associated with tracer and intrinsic studies to (1) establish groundwater flow paths and travel time to the nearest wells (potable and monitoring), (2) assess metal mobilization issues, joint research projects, and (3) assess treatment processes and changes in water quality after time underground, etc. through joint research endeavors.
- ◆ Implementing a surface and groundwater quality monitoring program to assure the continued safety of the Santa Ana River as source water for groundwater replenishment (SARMON monitoring activities).
- ◆ Ensuring compliance with the District's NPDES general *de minimis* dewatering permit covering PFAS pilot testing and groundwater monitoring-related discharges, including weekly notification, sampling, treatment of purged and discharged groundwater (as needed), data analysis, and preparing monthly compliance reports.
- ◆ Reviewing and approving new water quality data for the District's WRMS database, compiling and analyzing data for reports and internal staff, the Board, and groundwater Producers.
- ◆ Coordinating with the Regional and State Water Quality Control Boards to provide appropriate water quality data to assess compliance with Basin Plan objectives for the SAR, TMDL issues, and other water quality river issues relevant to the protection of the OCWD groundwater basin.
- ◆ Performing semi-annual water quality monitoring of coastal wells to assess the extent of seawater intrusion; coordinating with Hydrogeology on reviewing and revising the program as new data becomes available.
- ◆ Assisting with field data collection for the semi-annual basin wide water level monitoring program to identify threats to the basin (i.e., groundwater overdraft, seawater intrusion, etc.) and provide groundwater elevations of basin aquifers measured six times annually.
- ◆ Fulfilling water quality and water resources information and data requests from the public, groundwater Producers, and regulatory agencies; responding to special data requests for external site investigations and litigations.

- ◆ Tracking, reviewing, and addressing new emerging contaminants of concern; evaluating basin water quality conditions for emerging contaminants, assessing management and response strategies, coordinating with Public Affairs and groundwater Producers with water quality information.
- ◆ Preparing reference materials and presentations on water quality issues, participating on advisory committees specific to water quality issues of concern to OCWD and Groundwater Producers.
- ◆ Reviewing proposed regulations such as federal and state maximum contaminant levels (MCLs), state Notification and Response Levels, Public Health Goals (PHGs), unregulated chemicals, NPDES permits, emergency regulations, etc. relevant to the District and groundwater drinking water source monitoring.
- ◆ Responding to and coordinating with regulatory agencies on emergencies and hazardous material spills, firefighting run-off, etc. that may affect groundwater quality. Perform WQ monitoring as needed to assess potential discharge impacts to recharge facilities or groundwater.
- ◆ Assisting with the preparation of regulatory compliance reports and other water quality reports.

### III Non-Core Activities

Non-core activities (secondary priority compared to core activities) conducted by the Water Quality Group include:

- ◆ Serving on water quality and project advisory committees for ACWA, AWWA CA/NV, etc. on emerging water quality issues relevant and beneficial to OCWD as managers of the groundwater basin, preparing for water resources emergencies (i.e., earthquakes), etc.
- ◆ Assisting other water agencies and Public Affairs in addressing water quality issues, emerging contaminants, and tracking and assist in preparing comments on proposed relevant drinking water-related regulations.
- ◆ Provide enhanced staff development (internal and external) and mentoring to take on higher-level duties and responsibilities; enhance and broaden cross-training to increase flexibility and ability to respond to changing conditions.

### IV Group Goals for FY 2023-24

- ◆ Improved Water Quality Monitoring Efficiency
  - ◆ Assess new methods and strategies to increase field productivity without compromising the quality and integrity of sample collection.
  - ◆ Research and evaluate new software and methods to improve tracking and scheduling of Water Quality monitoring programs (e.g., Klir program or similar software)

- ◆ Coordinate with Laboratory staff on the next phase of its LIMS development, especially on the potential adoption of sample bottle label barcoding that will require compatibility between LIMS and WRMS databases.
- ◆ Improve sample collection equipment and sampling procedures; review, revise, and finalize standard operating procedures and implement processes to increase efficiency and productivity. Continue with evolving department-wide cross-training programs.
- ◆ Evaluate options to streamline specific monitoring programs for broader coverage, increase efficiency, and reduce sample load to the laboratory.
- ◆ Continue to research and improve mobile carbon treatment systems and equipment decontamination procedures. Forecast optimum schedules to change-out spent carbon in mobile treatment units to avoid breakthrough and to address new contaminants (e.g., PFAS) requiring removal prior to discharge.

These systems help to address high concentrations of volatile organic compounds (VOCs) and chemicals that exceed regulatory limits or notification levels (e.g., perchlorate and 1,4-dioxane), which require treatment of purged water prior to discharge.

- ◆ Research new technologies for automating field data collection and documentation tasks.
- ◆ Conduct Field Site Inspections to observe and optimize safe practices and correct procedural drift.
- ◆ Standard Operating Procedures (SOPs): Review and update department SOPs and conduct periodic refresher training.
- ◆ Provide additional surface water and storm water monitoring including:
  - ◆ Storm water monitoring of the Santa Ana River and tributaries to OCWD's recharge facilities.
  - ◆ Non-point source water quality monitoring on the river and tributaries near OCWD's recharge facilities.
  - ◆ Quarterly or monthly water quality monitoring of upper SAR watershed wastewater discharges; investigate water quality issues originating from the upper watershed that may potentially affect the Orange County groundwater basin (e.g., PFAS, 1,4-Dioxane, chlorate, NDMA, and other emerging constituents).
- ◆ Administer Water Quality Monitoring Programs: Ensure water quality sample collection is performed with high quality and analyzed for (1) compliance with mandated drinking water quality regulations and regulatory permits, (2) District projects and investigations, and (3) evaluating the quality of the basin (e.g., seawater intrusion in coastal areas). Evaluate new emerging chemicals of concern and coordinate with the Laboratory to implement 2023-24 compliance monitoring requirements for drinking water sources, UCMR5 monitoring requirements, GWRS compliance monitoring locations, focused

- studies, and to ensure maximum use of resources for both departments. Work with Laboratory to schedule analyses effectively and efficiently for new changes to testing frequency within GWRS groundwater and SARMON programs.
- ◆ Data Management Activities: Ensure new data is reviewed with high-quality assurance and approved into the WRMS database for end-users; submit Producer compliance data electronically to the SWRCB Division of Drinking Water (DDW) CLIP database; prepare GWRS compliance data for regular electronic submission to the DDW CLIP and State/Regional Board GeoTracker databases; prepare annual water quality schedules for DDW and groundwater Producers; prepare annual data summaries for groundwater producers for the Annual Consumer Confidence and triennial Public Health Goal reports; prepare annual water quality data summary for OCWD's Engineer's Report, GWRS quarterly/annual reports, and SARMON biennial report; prepare and submit Annual Industrial Stormwater report and compliance stormwater monitoring results electronically.
  - ◆ Water Quality Regulatory Activities: Review proposed state or federal drinking water standards (MCL), state notification levels; evaluate potential impacts to groundwater basin monitoring requirements and Groundwater Producers, including regulatory compliance schedules; track and comment on proposed non-drinking water regulations relevant to OCWD's activities (e.g., state NPDES general permits, stormwater permit, etc.)
  - ◆ Implement the Santa Ana River Monitoring Program: Continue to implement the long-term Santa Ana River Monitoring (SARMON) Program in a joint effort with Regulatory Affairs. Manage and provide oversight to ensure monitoring activities are completed and adapted as needed.
  - ◆ Coastal Seawater Intrusion Monitoring (Talbert/Bolsa/Sunset Gaps): Implement the seawater intrusion monitoring program in the Talbert/Bolsa/Sunset Gaps as recommended by the Hydrogeology Group to provide water quality information to aid in assessing the extent and areal distribution of seawater within these gaps. Water level (some locations measured six times per year) and semi-annual water quality monitoring activities are conducted to provide information for Hydrogeology's assessment to evaluate the landward migration of seawater and adjust monitoring activities based on findings.
  - ◆ Water Quality Protection: Activities include tracking, reviewing and addressing new chemicals of concern, evaluating basin conditions or source waters potentially used for groundwater replenishment; monitor and review media and research reports; coordinate with regulatory agencies on upcoming new water quality issues; provide field water quality monitoring support for Board approved projects that authorize construction of new monitoring wells for District projects and investigations.
  - ◆ Aquatic Weed and Pesticide Control: When needed, assist Forebay Operations with implementation or monitoring associated with the continued use of non-chemical methods to address pests (e.g., midges at recharge

basins) and vegetative growth at the wetlands in lieu of a chemical application. Non-chemical strategies avoid (1) coverage under the SWRCB aquatic weed and pesticide NPDES permits, (2) pre- and post-water quality monitoring and analysis of the applied aquatic pesticides, (3) preparation of regulatory reports, and (4) issues of the District applying chemicals to water bodies potentially tributary to the river and/or underlying groundwater.

## **V Pending Activities**

Major activities that are reduced, not being implemented, or conducted include:

- ◆ Develop and implement a standardized, stream-lined process for providing water quality sample results and other data to Producers or other agencies. OCWD completes thousands of sampling events each year with thousands of analytical records created that must be reported to Producers and other agencies, which are typically customized and generated with little automation. It would be more efficient to develop a secure, easy-to-access on-demand portal or reporting system that allows retrieval of these water quality records by the Producers directly.
- ◆ Implement more enhanced quality assurance data review protocols for data analysis and tracking of water quality concerns to identify developing water quality issues (e.g., increase in color, seawater intrusion, volatile organics, SAR monitoring, upper watershed, etc.); provide notification to OCWD managers and stakeholders; prepare semi-annual reports, as needed.
- ◆ Develop and prepare an annual Water Quality report of the basin (deferred for several years) – strive to prepare an initial report with multi-department input in the near future.
- ◆ Active attendance and involvement with water associations and agencies on water quality issues relevant to OCWD and groundwater Producers.

## **VI Staff Addition Needed for FY 2023-24**

None

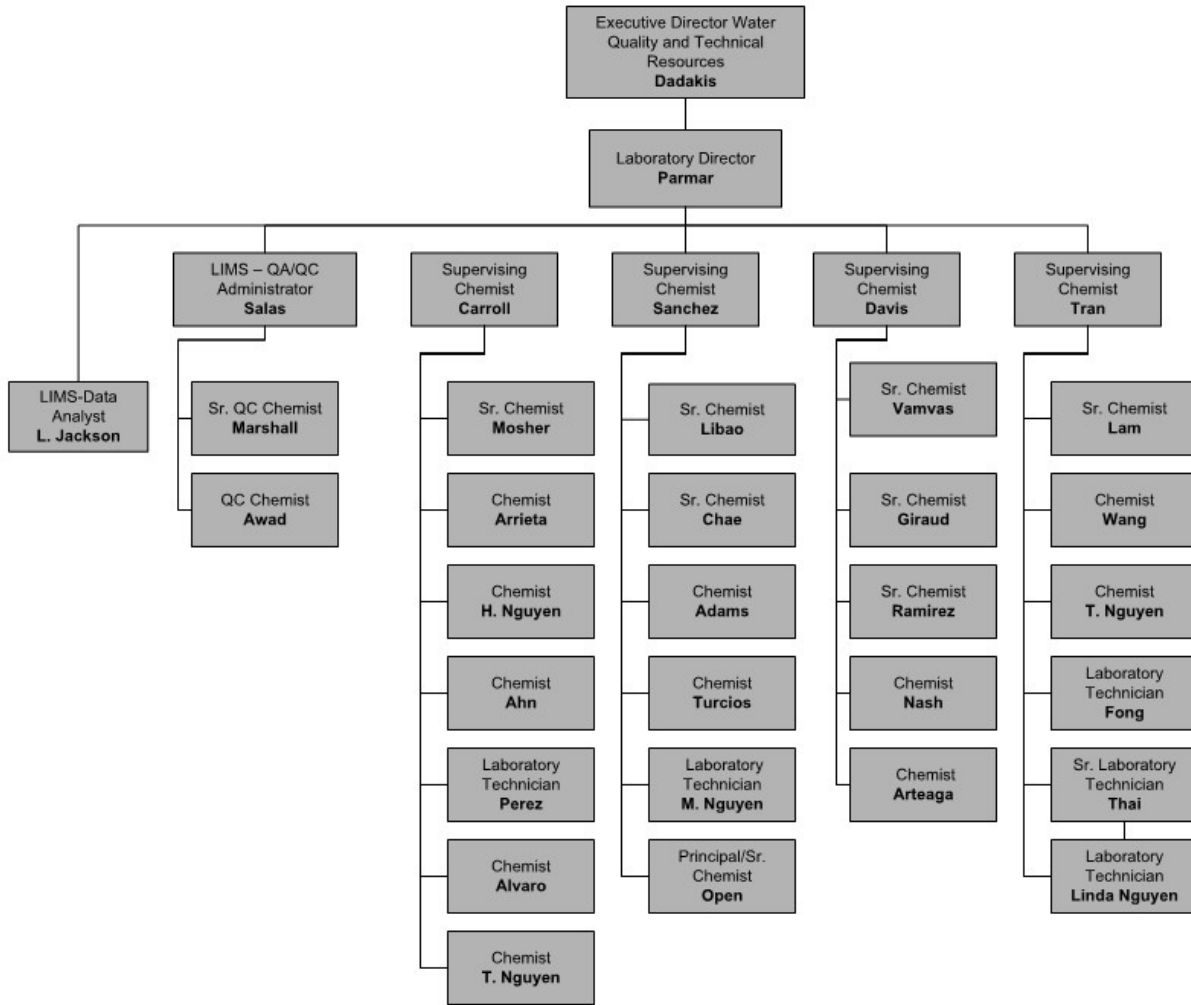
## **VII Future Issues**

In the next several years, the District will need to consider the following issues and the associated resources and costs:

- ◆ Evaluate and assess resources and monitoring requirements for PFAS Treatment Facilities. The additional responsibility of performing water quality monitoring at the expanding number of PFAS Treatment Facilities on behalf of the Producers will require increased planning, coordination, and resources to meet treatment compliance requirements.
- ◆ Evaluate and assess resources and options to meet the increasing new water quality monitoring workload generated by expanding projects, new projects, focused studies, and research partnerships (i.e., PFAS, UCMR5, GWRS

- injection or spreading, metals mobilization, tracer studies, SBGPP, NBGPP, seawater intrusion, etc.) with existing staff.
- ◆ Evaluate and purchase more efficient sampling equipment to improve productivity with field monitoring activities, treatment of purged groundwater, and replace aging vehicles, as needed.
  - ◆ Adapt to (1) increasing new regulations requiring new monitoring activities, (2) implementing new and relevant research investigations, (3) researching enhanced protocols for equipment decontamination, and (4) assuring high-quality assurance with all field tasks and activities.
  - ◆ Continue to provide field support for the GWRS project that includes enhanced monitoring activities at select downgradient wells for new areas in the basin, receiving GWRS water to (1) establish baseline conditions, (2) monitor metals mobilization, and (3) evaluate/assess changes in water quality.
  - ◆ Microplastics: Continue to follow and participate in microplastics workgroups and webinars to ensure OCWD and Producer preparedness for potential microplastics monitoring and reporting requirements that could be established over the next few years in California.

PHILIP L. ANTHONY WATER QUALITY LABORATORY



**Summary Information**

**Existing Staff – 33 FTEs**

- 1 – Laboratory Director
- 1 – LIMS - QA/QC Administrator
- 4 – Supervising Chemists
- 1 – LIMS Data Analyst
- 7 – Senior Chemists
- 1 – Principal/Senior Chemist
- 11 – Chemists
- 1 – Senior QC Chemist
- 1 – QC Chemist
- 1 – Senior Laboratory Technician
- 4 – Laboratory Technicians

## Mission

Provide high quality, timely, and efficient analytical services to support the Groundwater Producers' groundwater source water quality monitoring and unregulated contaminant monitoring requirements, as well as the District's water quality testing needs for groundwater quality assessment, operational support monitoring, permit-required water quality monitoring, and applied research in support of Basin management activities.

## Key Issues for FY 2023-24

- ◆ Laboratory Information Management System (LIMS) – Continue working with IS Department staff on ongoing development of internally building Citrus LIMS software. Citrus has been designed to be fully customizable based on the needs of the laboratory and is a significant improvement upon the outdated Aspen LIMS that has been utilized for the last 20+ years. Completion of the initial development of Citrus has been completed during FY 22-23 and utilization of Aspen LIMS has been discontinued, allowing lab and IS staff to focus solely on operating and optimizing Citrus without needing to support both systems in tandem as has been done the past few years. During FY 23-24, lab and IS staff will continue to evaluate the efficacy of continuing to build out and enhance Citrus with internal resources or whether it would be more efficient purchase a new third-party LIMS software to meet labs long-term LIMS requirements. Major LIMS functionality improvements that need to be implemented include:
  - ◆ Development of a Citrus LIMS +WRMS cross-database barcode scanning tool to improve timeliness of sample data availability to lab staff and improve overall sample log-in efficiency from current manual data entry procedures.
  - ◆ Develop ability to report lab data between the required Reporting Limit and Method Detection Limit as is increasingly required by state regulations. Within existing Citrus LIMS, this will require a significant overhaul of the current structure of the data tables.
  - ◆ Creation of new data structures to more efficiently organize samples based on status (received, prepped, analyzed, re-checked, reported, reviewed, approved). Current structures utilized in Citrus LIMS have been built based on rudimentary Aspen configurations and are significantly outdated; needed enhancements will require writing of significant new code to identify and track the various sample status conditions.
  - ◆ Improve upon the existing quality control naming system to standardize nomenclature throughout the lab in Citrus.
  - ◆ The addition of new analytical standards and reagent tracking workflows within the LIMS software to reliably link all chemicals and consumables to each batch of samples as required by TNI lab regulations. These current lab traceability practices are completed manually and are labor intensive.
  - ◆ Improve reporting tools and forms for improved exporting of preliminary lab data in readable format that is more comprehensive and understandable for non-lab users.



- ◆ Continue improvements to the Manual Entry Tool (MET), which utilizes tablet data entry at the bench to upload data directly into LIMS to avoid traditional multi-step data recording and entry practices.
- ◆ Ensure any changes to the lab's analytical methods from internal and external audits can be effectively implemented in Citrus (new RDLs, new blank limits, new QC Type codes for MDL tool).
- ◆ Implementation of TNI 2016 Standards – In May 2020, the State Water Board adopted a new set of laboratory regulations known as the TNI 2016 Standards. The lab has until 2024 to comply with this new set of regulations designed to be the basis for accreditation for all environmental and water testing laboratories in California. As part of these new regulations, lab staff will need to continue its development of new quality systems for the management of document control, traceability of analyses, verification of method and analyst capabilities, purchasing, and more.
  - ◆ Finalize revisions to the lab's Quality Assurance Manual to comply with TNI regulations and to document current lab practices.
  - ◆ Continue to develop a coherent architecture of subfolders for the lab's dedicated LabDrive, locking them to avoid unauthorized editing, and migrating the files from existing NLab drive.
  - ◆ Continue annual review for all lab technical and non-technical SOPs.
  - ◆ Develop improved system of documentation for staff training.
  - ◆ Continue to improve upon existing internal audit schedules and checklists.
  - ◆ Continue to utilize Qualtrax software to assist on document control and tracking of the many new documents required for TNI compliance.
  - ◆ Respond to any corrective actions recommended by the third-party assessor following the lab's scheduled June 2023 audit.
- ◆ Federal Unregulated Contaminant Monitoring Rule – UCMR – All Groundwater producers with > 10,000 service connections must complete the EPA UCMR 5 monitoring requirements from 2023-2025. EPA Methods 533 and 537.1 for PFAS analysis have been included in the final UCMR 5 (2023-2025), as well as lithium analysis by EPA 200.7. Monitoring for the UCMR 5 program is set to begin March 2023 and continue monthly until the end of 2025.
- ◆ GWRS Permit & Operational Support – The Lab continues to generate operational and permit compliance data in support of the GWRS project. While adoption of a new Regional Board permit associated with the GWRS Final Expansion in December 2022 has resulted in a net reduction of GWRS-related monitoring (e.g., quarterly monitoring well sites reduced from 53 to 39) regular operational and compliance monitoring still represents a significant workload for the lab. Laboratory staff members continue to coordinate sample loads, emerging chemical compounds and investigations with the Water Production and Water Quality departments, as well as other departments and OC San.
- ◆ Per and Polyfluoroalkyl Substances (PFAS) Monitoring for Drinking Water Samples - In response to DDW-issued 4th round monitoring orders, effective in the first quarter of 2023, many Producers well sites have and will continue to be tested for PFAS compounds. The lab has also been tasked with providing monitoring data for the

extensive Producer PFAS wellhead treatment facilities that began to come online since 2021 and are continuing to be constructed within the District’s service. In addition, the lab is continuing to provide analytical data to support the District’s base wide PFAS monitoring efforts, as well as piloting new treatment techniques for the remediation of PFAS. In response to the expected increase in PFAS analytical workload, the Lab has validated a third LC-MS/MS system procured during FY 22-23 dedicated to PFAS analysis.

- ◆ GWRS Optimization Research & Development – The Lab continues to support GWRS–related applied research led by the Research & Development (R&D) Department. Ongoing support includes water quality testing of potential replacement RO membrane during their 6-12-month trial periods and testing in support of periodic UV-AOP pilot reactor experiments investigating process optimization and disinfection byproduct (DBP) formation. Ongoing grant-funded research projects requiring lab support include those supported by the Water Research Foundation (WRF) and the US Bureau of Reclamation (USBR).
- ◆ Santa Ana River Monitoring (SARMON) Program – The SARMON program requires monthly, quarterly, and annual testing at surface water and groundwater monitoring sites for a wide range of inorganic, organic, and microbiological contaminants. Related to SARMON, OCWD has embarked on an effort to better characterize sources of PFAS in Santa Ana River water, particularly storm flow, and these efforts are likely to continue in 2023-24.
- ◆ Upgrade Laboratory Washroom – The laboratory washroom cabinetry and fixtures primarily made of stainless steel has become severely rusted over due to usage since the opening of the lab building in 2009. During FY 21-22 staff budgeted \$300,000 to address the damaged areas of the room. Following multiple evaluations of the space, through the RFP process staff hired an outside consultant to help redesign the washroom to ensure all updates to the fixtures and new equipment installed comply with necessary OSHA guidelines. It is expected during FY 23-24 that the design will be completed, and staff will issue an RFP to begin construction of the washroom space.

<b>Account Information</b>	<b>FY 2021-22 Actual</b>	<b>FY 2022-23 Budget</b>	<b>FY 2023-24 Proposed Budget</b>
Salaries and Benefits	4,506,815	5,072,836	5,139,170
Services and Supplies	1,553,993	1,573,200	1,717,555
<b>Total</b>	<b>\$6,060,808</b>	<b>\$6,646,036</b>	<b>\$6,856,725</b>

**I FY 2023-24 Major New Initiatives/Programs**

- ◆ Continue development of Citrus LIMS software, while evaluating its mid- to long-term viability for the lab.
- ◆ Continue utilization of Qualtrax software to comply with all TNI-related document controls requirements. Investigate the possibility of incorporating Qualtrax into LIMS.

- ◆ Investigate the ability to automate the EPA 522 and EEA 521.1 methods extraction using the Promochrom SPE-03 system (already used for PFAS methods) to increase efficiency and reduce staff labor time and solvent usage. Consider the possibility of combining both methods into one for purposes of discretionary monitoring of NDMA and 1,4-dioxane together.
- ◆ Investigate the possibility of a direct injection method for analysis of pharmaceutical and personal care products (PPCPs) to reduce effort and cost applied towards sample extraction.
- ◆ Present lab developments at AWWA, NEMC, and WQTC conferences in the areas of QA/QC and analytical advancements related to PFAS or other methodologies.
- ◆ Bring online newly developed method for analysis of 1,2,3-trichloropropane issued by DDW. The lab has until early 2024 to convert from the existing method being utilized for analysis of this compound to the new method.

## **II Core Activities**

The Philip L. Anthony Water Quality Laboratory provides cost-effective analytical services in support of all monitoring programs and projects required by the District. Water quality data generated by the laboratory provides critical analytical information needed to make timely, accurate decisions for regulatory requirements as well as the direction and support of District policies. Our facility is certified with the State of California and US EPA.

Basic core laboratory activities include:

- ◆ Support Groundwater Producer's required drinking water quality compliance testing and source assessments.
- ◆ Support for GWRS, Green Acres Project (GAP), and North Basin EW-1 facilities with monitoring for both permit compliance and operational support.
- ◆ Support the District's basin-wide groundwater and surface water monitoring programs to provide information supporting basin management. Ensure proper method compliance for state and federal drinking water requirements. Protection of the Basin and the SAR through analytical monitoring.
- ◆ Method development using existing methods for emerging contaminants and water quality issues for both GWRS plant and basin-wide concerns.
- ◆ Procurement of needed analytical State Certifications with the SWRCB, as well as the development of any needed EPA methodology. Support federal monitoring programs as requested by the Groundwater Producers approved by District management – UCMR.
- ◆ Support investigations in both treatment research and in-house analytical methodologies. Provide solutions to improve cost-effectiveness both within plant processes as well as with laboratory procedures.

### III Non-Core Activities

The Laboratory's support has always been focused on core activity department without many non-required duties. This has been based on years of natural growth in workload, which has caused non-essential tasks to be minimized. Non-core activities (secondary priority compared to core activities) conducted by the Laboratory group include:

- ◆ Applied research activities to develop new uncertified research analytical methods.
- ◆ Support for public relations tours.

### IV Group Goals for FY 2023-24

#### New Instrumentation –

- ◆ A new HPLC instrument will be required to replace the existing one that will be 15 years old and nearing its end of useful life. This instrument will be utilized for glyphosate, diquat, paraquat, and carbamate analyses in support of Producer compliance monitoring requirements, GWRS monitoring requirements, and many other District monitoring programs.
- ◆ A new GC/MS instrument will be required to replace an existing 12-year-old unit nearing its end of useful life. The new instrument will be utilized for the lab's in-house 1,4-dioxane purge and trap method, as well as for trace level 1,2,3-TCP analyses in support of the Producer's required Title 22 monitoring program.
- ◆ A new TOC analyzer will be required to replace one of the two existing units that is 16 years old and no longer supported by the manufacturer. This instrument will be utilized for TOC analyses in support of GWRS compliance monitoring and many other District monitoring programs.
- ◆ A new, simplified spectrophotometer for the analysis of Total Kjeldahl Nitrogen (TKN) and ammonia nitrogen species will be needed to replace the lab's existing segmented flow analyzer and provide expedited analyses in support of GWRS permit requirements mandating a 72-hour turnaround time for reporting of these compounds. The lab would be required to also apply for certification for this alternative method and instrumentation through CA ELAP.
- ◆ A new high-temperature muffle furnace will be required to replace one of two existing units that is no longer operable due to electrical issues. Despite best efforts of District maintenance staff to revive the failing furnace installed in 2013, the unit cannot be repaired and must be replaced to efficiently conduct regular lab operations. Currently lab staff utilize a single furnace installed in 2021 for both organic and inorganic section usage, but this creates potential contamination issues for the chemicals and apparatuses being baked in these ovens, while also requiring frequent coordination to ensure enough time for all necessary uses.
- ◆ A new double-door scientific refrigerator will be required to replace the oldest of 19 fridges in the lab used to store field samples. The refrigerator to be replaced is over 20 years old and has reached the end of its useful life.

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### Building Upgrades –

- ◆ Continue with in-progress redesign and refurbishment of the laboratory washroom stainless steel fixtures. Once design plans are completed, an RFP will be issued for construction on the workspace in FY 23-24.

### GWRS Operational, Research, and Compliance Support –

- ◆ The Division of Drinking Water may require the lab to regularly use more labor-intensive methods such as EPA 522 for the analysis of 1,4-dioxane at the part-per-trillion level and EEA 521.1 for the analysis of nitrosamines such as NDMA and NMOR. The laboratory will investigate the capabilities of existing automated extraction units for their viability to complete the required sample preparation more efficiently for this method.
- ◆ The R&D Department's GWRS research on RO membrane product testing for satellite vessels, long-term monitoring of RO Unit EO2, FR-RO pilot testing, and UV/AOP pilot studies will require laboratory support during FY 23-24.

### SWRCB-ELAP's TNI 2016 Quality Standard –

- ◆ As previously referenced, the SWRCB has adopted the TNI 2016 standards and full compliance will be required 2024. The lab will have received its most recent ELAP audit in June 2023 and will be assessed to TNI standards at that point. During FY 23-24 the lab will continue implementation of the findings identified during this audit. Lab staff will continue to use Qualtrax software to help with the document control and management required to comply with the new TNI standards.

## **V Pending Activities**

Major activities not being fully supported include:

### Outsourced monitoring –

- ◆ EPA 548.1 (endothall), EPA 508 (organochlorine pesticides), EPA 515.4 (chlorinated phenoxy acid herbicides), and EPA 556 (formaldehyde), bacteriophage, radioactivity, asbestos, and dioxin monitoring needs are sent out to contract laboratories. This is currently a cost-efficient approach by reducing chemical cost, and staff overtime as many of these tests are required infrequently, especially after recent monitoring program reviews and careful reductions. Based on current sample loads, phenoxy acid herbicides, endothall, formaldehyde, phage testing does not appear to have an increased focus within District monitoring programs, which would require in-house monitoring.

Research Activities and Agency Meetings –

- ◆ The Laboratory continues to provide limited support of District research activities. However, it is critical that these support requirements be properly coordinated with laboratory resources. This budget cycle may provide some additional support windows for investigations, especially if compliance requirements can be reduced. Issues concerning CEC monitoring and analysis of new targets move quickly. Thus, it is critical for laboratory staff members to attend meetings with other agencies and researchers that are providing similar support. The information gained from such meetings has helped shape our support and target lists. Attending these informative meetings is based on workload requirements and compliance duties.

Emerging Contaminant Method Development and Improvement – The laboratory seeks the following improvements and enhancements to its current emerging contaminant methods using the proposed new LC-MS/MS system:

- ◆ Lowering the detection limit for sucralose from 100 ppt to 10 ppt or lower, in support of RO removal efficiency demonstration.
- ◆ Assessing the possibility of using direct injection for the CEC method to enhance throughput by avoiding sample extraction prior to analysis. Typically, the direct injection does not permit the same level of accuracy and sensitivity at very low concentrations yet may be suitable for many District samples. However, newly installed instrumentation during FY 22-23 may have increased sensitivity to maintain the lab's current reporting limits even without sample extraction/concentration.

**VI Staff Additions Needed for FY 2023-24**

None

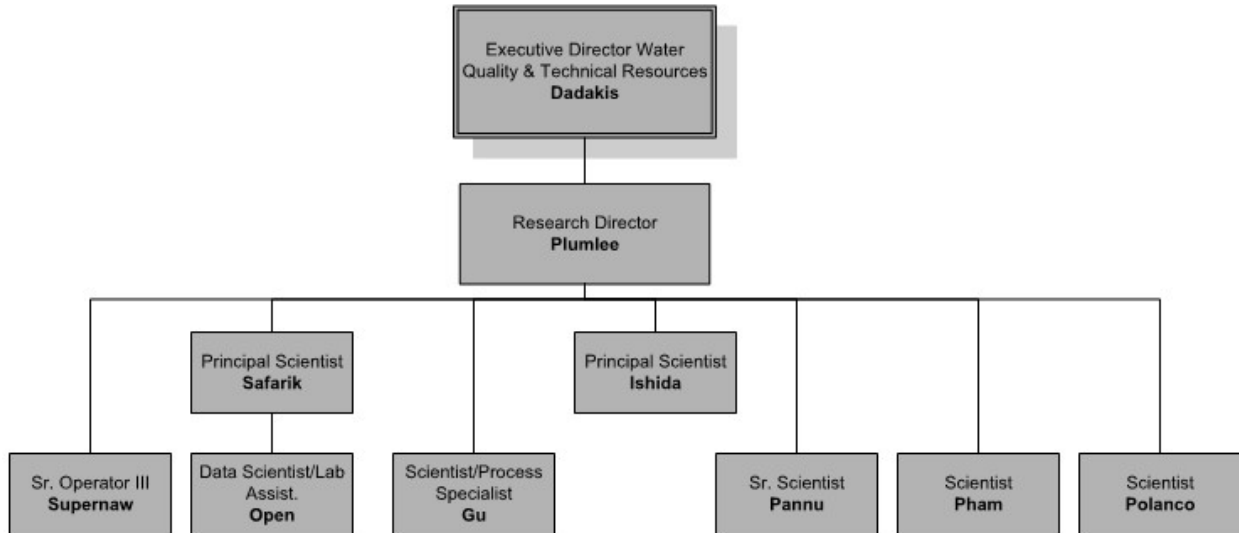
**VII Future Issues**

In the next two to three years, issues the District will need to consider include:

- ◆ The current lab building is approaching 14 years old, having opened for operation in 2009. Lab management is continuing to assess and more formally determine a replacement schedule for the building's large array of operational equipment. This will include items such as refurbishing existing corroded plumbing throughout the building, ventilation and vacuum systems, the small-scale reverse osmosis system used to generate lab-grade deionized water for use throughout the lab, and other equipment that is now approaching end of usable life.
- ◆ Continued laboratory support of the Unregulated Contaminant Monitoring Rule (UCMR). UCMR 5 monitoring will run from 2023 until 2025; an annual program audit by EPA and the method compliance will be required within the next several budget cycles. The lab has begun monitoring for this program in March 2023.
- ◆ Conditions may arise where we need to develop a more sensitive analytical method for 1,4-dioxane, PFAS, sucralose, pharmaceuticals, and other synthetic chemical compounds. LC-MS/MS or GC-MS/MS systems could be utilized to achieve these lower reporting levels.

- ◆ UV/AOP treatment within the GWRS continues to warrant further investigation and research. Disinfection By-Products (DBPs) specific to this treatment technology have not been fully studied or investigated. This is an area that should be developed as an “investigative” monitoring program in coordination with the R&D Department.
- ◆ The District continues to strengthen our interactions and communications with Orange County Sanitation District’s laboratory and source control programs. This relationship has benefited many of the water quality monitoring and characterization projects that have impacted our processes: NDMA formation study, 1,4-dioxane source control, chemicals of emerging concern (CECs), PFAS, etc. We continue to see potential benefits in collaboration and regulatory alignment with OC San divisions, as we further investigate new targets, GWRS performance, and phase II final expansion project.
- ◆ Constituents of Emerging Concern (CECs) continue to receive political attention as a significant water quality issue. As our laboratory supports the monitoring of this issue, it is important to develop a proper priority setting process by which targets are brought on-line within our analytical monitoring programs. CEC monitoring requires significant analytical support and technical expertise using highly sensitive analytical systems such as LC-MS/MS, IC/MS, and GC/MS/MS, and an enhanced target selection process is needed to effectively keep analytical resources properly addressed.
- ◆ Microplastics analysis may be required in drinking water and more widely required by the Producers in the coming years, with the California State Waterboard currently investigating the health effects of microplastics in drinking water. In September 2021, SWRCB adopted two standardized methods for microplastics analyses by Raman and infrared spectroscopy. The lab may need to evaluate the ability to perform these analyses or outsource to a commercial laboratory.
- ◆ Ultra-inert helium gas utilized for nearly all the lab’s GC and GC/MS instrumentation continues to be in short supply. The lab will need to consider the possibility of transitioning all analyses to hydrogen gas, whether through compressed air tanks or via purchased gas generators. Currently, the lab utilizes one small-scale hydrogen generator to operate one GC-ECD for DBP analysis. A much larger scale generator would be required to power the other 11 instruments needing this type of carrier gas.
- ◆ The lab currently analyzes for halo acetic acids via EPA Method 552.2, which combines a liquid-liquid extraction technique with a GC-ECD instrument to produce results down to the single part per billion range. EPA Method 557 offers an alternative to allow for direct injection of the sample, eliminating the need to timely and costly sample extraction. However, this method would require investment into a more expensive IC/MS triple quadrupole instrument. The lab could offset costs by utilizing this new instrument for both halo acetic acids and perchlorate by EPA Method 332.0. The lab currently operates an IC/MS instrument that will be nearing its useful life in the next two years and would present an opportunity to replace this instrument with one capable of analyzing both methods.

## RESEARCH AND DEVELOPMENT



## Summary Information

## Existing Staff – 9 FTEs

- 1 – Research Director
- 2 – Principal Scientists
- 1 – Senior Operator III
- 1 – Senior Scientist
- 1 – Scientist/Process Specialist
- 2 – Scientists
- 1 – Data Scientist/Lab Assistant

## Mission

Conduct applied research that supports the District's operational, regulatory, and water quality objectives through innovation, technology evaluation, development of new or improved processes and methods, and collaboration with universities and topic experts.

## Key Issues for FY 2023-24

- ◆ Ongoing evaluation of treatment technologies for removal of per-and polyfluorinated alkyl substances (PFAS) from groundwater and other related PFAS research studies. This will include continuing the ongoing PFAS adsorbent media pilot testing for groundwater as well as newer efforts in treating surface water for managed aquifer recharge (MAR) applications. Other alternative technologies will continue to be reviewed for potential piloting by R&D.
- ◆ In cooperation with Water Production staff, continue research in microfiltration/ultrafiltration (MF/UF), reverse osmosis (RO), and ultraviolet



(UV)/advanced oxidation process (AOP) issues at the Advanced Water Purification Facility (AWPF) that affect the Groundwater Replenishment System’s (GWRS) efficiency to help manage GWRS operation and maintenance (O&M) costs and enhance water quality.

- ◆ Conduct new or continuing grant-support studies to determine if additional GWRS pathogen (e.g., virus) log removal value (LRV) credits can be documented, namely for the soil aquifer treatment process, as well as ongoing support to regulatory and plant staff related to R&D’s prior studies on LRV for the RO and OC San wastewater treatment process.
- ◆ Continue to address focus areas presented to, and supported by, the GWRS Independent Advisory Panel (IAP). This will include high throughput sequencing (metagenomics) for water quality assessment, and log removal credits for soil aquifer treatment.
- ◆ Continue to seek collaborative partnerships with other research groups (academic and industry) and funding agencies capable of expanding the scope of groundwater recharge, PFAS treatment, and advanced water treatment research at OCWD.

<b>Account Information</b>	<b>FY 2021-22 Actual</b>	<b>FY 2022-23 Budget</b>	<b>FY 2023-24 Proposed Budget</b>
Salaries and Benefits	1,412,325	1,597,211	1,875,382
Services and Supplies	248,569	304,915	394,855
<b>Total</b>	<b>\$1,660,894</b>	<b>\$1,902,126</b>	<b>\$2,270,237</b>

**I FY 2023-24 Major New Initiatives/Programs**

- ◆ R&D will initiate a research study to evaluate removal of PFAS from RO concentrate using IX and other adsorbents via pilot testing and subsequent treatment of spent adsorbents by electrochemical oxidation (EO) for PFAS destruction. Potential grant funding is pending United States Bureau of Reclamation (USBR) review of District 2022 research proposal; the proposed project is not contingent on this funding.
- ◆ R&D will evaluate potential application of supercritical water oxidation (SCWO) for destruction of spent IX waste from PFAS treatment, via collaboration with a technology vendor, OC San, and one of the groundwater Producers with an existing IX PFAS treatment system such as the City of Fullerton.
- ◆ R&D will execute a new USBR grant-funded study to support ongoing work to evaluate passive treatment (i.e., during recharge/infiltration) to remove PFAS.

**II Core Activities**

- ◆ Solve problems and research promising technologies to improve GWRS treatment processes, water quality, groundwater recharge, and injection. This includes piloting new technologies and evaluating new analytical methods for detecting contaminants and pathogens.

- ◆ Provide support and implementation of strategies to improve percolation for groundwater recharge for both GWRS and Santa Ana River (SAR) flows and increase capture and recharge of SAR flows via more efficient recharge practices.
- ◆ Report research progress internally via inter-departmental communications, reports, and via participation in the Recharge Enhancement Working Group (REWG).
- ◆ Report research progress externally via publishing and presenting of research findings. R&D will continue outreach and publication of R&D work for the public, as suggested by the Board of Directors, in collaboration with Public Affairs. This will include presentations via the OCWD webinar series.
- ◆ Seek external funding.
- ◆ Continue Postdoctoral Research Program, which began in FY 2016-17, to conduct research that supports the District's core objectives.

### III Non-Core Activities

- ◆ Participate in scientific advisory panels, research advisory boards, and research project advisory committees (PACs).
- ◆ Provide consulting information to other water agencies, utilities, and regulatory agencies.

### IV Group Goals for FY 2023-24

#### GRANT FUNDED RESEARCH:

R&D continually seeks external research funding from various organizations, often partnering with universities, engineering consulting firms, other utilities, or technology providers to develop proposals.

For FY 2023-24, the following projects have already been funded wholly or partially through external grants, including funding for OCWD labor and/or equipment/supplies:

- ◆ ***Evaluation of Bench-Scale Methods to Predict Drinking Water PFAS Removal Performance of Ion Exchange and Novel Adsorbents at Pilot- and Full-Scale [2022 to 2023]*** – This project is funded by WRF's Tailored Collaboration program for 1.5 years with the contract's official start date in early 2022. The project lead is OCWD in collaboration with WQTS (Water Quality and Treatment Solutions) and Jacobs Engineering. This research evaluates a newly available and rapid laboratory method known as Recirculating Column Isotherm (RCI) to assess IX and novel (alternative) adsorbent performance. This research compares RCI and other laboratory-scale methods, rapid small-scale column testing (RSSCT) and Bottle Point Isotherm (BPI), with pilot-scale data or where available, and full-scale performance data, for IX, and alternative adsorbents. In FY 23-24, additional waters beyond District groundwater will be tested and a WRF final project report developed.

- ◆ **Assessment of Multi-Metals Continuous Water Analyzer Based on ED-XRF to Monitor Reverse Osmosis Performance in Potable Water Reuse [2022 to 2023]** – This project is funded by USBR’s Desalination and Water Purification Research Program Pitch to Pilot for 1.5 years with a contract official start of June 1, 2022. The project lead is OCWD in collaboration with Sailbri Cooper Inc. This project evaluates the benefits and limitations of using a novel online continuous multi-metals water analyzer, Xact 920 to (1) measure strontium to determine RO integrity, and (2) continuously measure mineral scale-forming analytes such as Fe, Si, Ca, S, and P in RO feed water. This novel technology has the potential to increase monitoring efficiency, since water utilities such OCWD will not have to rely on manual grab samples. In FY23-24, data analysis will be conducted and the USBR project report will be finalized.
- ◆ **Use of Colloidal Particle Monitoring for Microfiltration/Ultrafiltration (MF/UF) Optimization in Water Reuse Facilities [2023 to 2025]** – This project is funded by USBR’s Desalination and Water Purification Research Program for two years with a contract official start date expected in early 2023. The project lead is Kennedy Jenks in collaboration with OCWD. This project will demonstrate a novel colloidal particle measurement technology to improve water recovery and energy efficiency in membrane treatment processes during water reclamation. In FY23-24, on-site testing at OCWD will be conducted including laboratory and field demonstrations using the instrumental method refined in FY 22-23.
- ◆ **Data-Driven Fault Detection and Process Control for Potable Reuse with Reverse Osmosis [2022 to 2025]** – This project is funded by the National Alliance for Water Innovation (NAWI), a Department of Energy (DOE)-funded Research Hub. The project lead is Carollo Engineers in collaboration with OCWD, Yokogawa, West Point, NWRI, Baylor University, and other partners to develop artificial intelligence (AI)-based optimization methods applicable to potable reuse treatment facilities. The cloud or edge-based, semi-autonomous machine learning (ML) technology will be implemented at pilot-scale in FY 23-24 as Phase/Year 2 of the project at the District’s ERC.
- ◆ **Evaluation of Passive Treatment to Remove PFAS During Groundwater Recharge [2023 to 2024]** – This project is funded by USBR’s Desalination and Water Purification Research Program Pitch to Pilot for 1.5 years with a contract official start date expected in March 2023. This project is led by OCWD in partnership with Colorado School of Mines and Jacobs Engineering. The study assesses the ability for adsorbent technologies to remove PFAS in situ in recharge ponds and related infiltration systems (e.g., OCWD’s existing pilot riverbed filtration system) during managed aquifer recharge (MAR) of groundwater at pilot and demonstration scale. In FY 2023-24, a column system will be operated as a pilot test to evaluate adsorbent media, differentiated from the ongoing, separate OCWD PFAS wellhead treatment pilot by using surface water as the influent, incorporating native

sand as pre-treatment, and employing lower flow rates representative of environmental percolation (i.e., longer adsorbent contact time).

- ◆ ***Real-Time Detection of Volatile Organic Compounds in RO-Based Potable Reuse WRF UP 22-65 [2023 to 2025]*** – This project is funded by The Water Research Foundation for a two-year contract expected to initiate in early 2023. This project is led by Entanglement Technologies and Southern Nevada Water Authority. OCWD will serve as the test site to demonstrate a novel online analyzer developed by Entanglement Technologies for measuring VOCs in the advanced purification treatment train for potable reuse.

#### **OTHER RESEARCH:**

The projects below are funded/supported internally by OCWD without external grant funding. For some projects consisting of collaboration between OCWD R&D Department staff and a university or technology partner, the project partner may have grant funding that does not include the District, or OCWD may provide funding to the partner to support the research. This is indicated in the summaries below, where applicable.

#### **AWPF PROCESS OPTIMIZATION:**

- ◆ **AWPF Support** – R&D will continue to engage in short-term research activities on an ad-hoc basis to assist the Water Production and Engineering Departments in testing new approaches and solving problems arising during operation of the AWPF. Examples of applied research under this activity have included:
  - ◆ Assisting Engineering and Water Production staff to determine mechanisms and solutions for GWRS Pipeline and Barrier Pipeline lining erosion.
  - ◆ Assisting Water Production staff to determine mechanisms and source(s) of MBI well fouling.
  - ◆ Autopsy (microbial and chemical analysis) of fouled MF and RO membranes from the AWPF and Engineering Research Center (ERC).
  - ◆ Advisory support and equipment for controls and sampling apparatus for ongoing AWPF RO phage monitoring.
  - ◆ Annual reports and presentations to the NWRI Independent Advisory Panel (IAP) regarding GWRS performance.
- ◆ **MF/UF Performance/Fouling Research** – R&D will continue to investigate methods to understand and address MF/UF fouling and performance issues. Beyond the MF/UF colloidal particle research noted previously under grant funded studies, in FY 23-24 this will include:
  - ◆ Investigation of the use of alternative (non-chloramine) biocides such as hydrogen peroxide based on findings from grant-funded work completed in FY 22-23 as well as evaluation of alternative regimes of chloramine dosing for UF, MF and RO. Grant funding may be sought.

- ◆ Investigation of MF feedwater fouling potential using online and laboratory analysis tools such as total organic carbon (TOC), Peak C (humics), excitation emission matrix (EEM) and liquid chromatography-organic carbon detection (LC-OCD).
- ◆ **RO Performance/Fouling Research** – In addition to grant funded studies related to RO (see previous section) and plant- or pilot-scale (ERC) RO studies (see next section), R&D will continue other investigations of RO performance and fouling. For FY 23-24, this includes:
  - ◆ **Process Control and Optimization of RO Plants Enabled by Direct RO Membrane Monitoring [2018 to 2024]** – The Noria Water Technologies RO Spotlight™ uses online, direct membrane surface imaging to track surface coverage and permeate flux changes. OCWD R&D has collaborated with Noria Water for several phases of testing. The goal of the ongoing phase is to demonstrate RO Spotlight™ use in the GWRS AWPf RO facility (full-scale test) for real-time membrane surface scale monitoring with installation at RO unit E01 concentrate line. In FY 23-24, Noria Water will lead development of a manuscript on this work in collaboration with District R&D. Additionally, a new phase of testing is planned via USBR funding awarded to Noria Water with OCWD as the host test site.
  - ◆ **Artificial Intelligence (AI) and Machine Learning (ML) in Water Reuse: Pani Energy Pilot Trial of “AI Coach™” for GWRS RO Plant [2022 to 2023]** – In FY 22-23, R&D staff coordinated with Pani Energy, the technology provider, and the Water Production Department to plan a 6-to-12-month trial (pilot) of the AI Coach™ software service tailored to the GWRS RO plant. The AI Coach™ collects, analyzes, and interprets operational data, with the aim of providing timely decision support and actionable intelligence to operations and maintenance (O&M) professionals. In FY 23-24, ongoing work will include development/utilization of Pani Energy’s cloud-based data dashboard for selected units of the GWRS RO plant and a digital twin to be built for the RO units to enable predictive analytics of the membrane performance and life-cycle optimization.
  - ◆ **Pilot Evaluation of High Recovery Flow-Reversal Reverse Osmosis for Municipal Potable Reuse (USBR and SCSC) [2021 to 2024]** – This project was previously funded by a USBR Desalination and Water Purification Pitch to Pilot grant awarded to AdEdge Water Technology LLC (now Chart Industries) and a supplemental grant from Southern California Salinity Coalition (SCSC) awarded to OCWD. Grant funds are likely to be exhausted by the start of FY 23-24, but work will be ongoing to complete the last phase of the project as well as the final report and manuscript preparation. The study is evaluating the feasibility of flow-reversal reverse osmosis (FR-RO) to increase the RO process recovery at GWRS AWPf. In FY 2023-24, the FR-RO pilot will treat RO concentrate to determine the maximum recovery as

a 1st stage brine concentrator with flow reversal and permeate flushing. Once this phase is completed, the pilot will be operated to treat GWRS RO feed water to assess FR-RO technology retrofit to the current GWRS RO system with the new addition of OC San Plant 2 effluent as part of the GWRS Final Expansion.

- ◆ **Advanced Oxidation Process (AOP) Studies** – On an ongoing basis, R&D completes research aimed at characterizing the chemical dynamics of the GWRS UV/H<sub>2</sub>O<sub>2</sub> process and optimizing the performance of the Trojan Technologies UVPhox reactor train through UV pilot reactor studies.
- ◆ **Water Quality Characterization at AWPf** – Planned studies related to water quality characterization include:
  - ◆ **Characterization of Microbial Communities at AWPf Using Metagenomics [2022 to 2024]** – R&D staff will utilize instrumentation acquired in 2020 to perform DNA sequencing and evaluate new methods for characterizing and quantifying the occurrence of different microbial targets (e.g., bacteria, viruses, and protozoa) that make up the microbial community of GWRS through different treatment stages. This effort will build on prior grant-funded studies and address NWRI IAP encouragement to sequence and evaluate metagenomes (DNA of the microbial population) taken from GWRS water samples.
- ◆ **Pilot-Scale Evaluation of RO Concentrate (ROC) PFAS Treatment by Adsorption and Electrochemical Oxidation [2023 to 2025]** – Although RO is highly effective for removing PFAS from water, RO is ultimately a separation and not a destruction technology. RO extracts purified water from the source water and leaves behind the separated salts, organics, and microbes in a byproduct waste stream known as RO concentrate (ROC). These residual organics will include PFAS if it occurs in the source water. R&D staff will evaluate the effectiveness of treatment of ROC for PFAS removal by adsorbent media such as granular activated carbon (GAC), ion exchange (IX) resins and novel alternative adsorbents (first step) followed by destruction of the PFAS on/in the spent (exhausted) media (a solid waste) via an electrochemical oxidation approach (second step). Grant funding will also be pursued pending outcome of a pending award application; however, completion of this project is not contingent on obtaining grant funding.

**PILOT- AND FULL-SCALE TESTING AT AWPf AND ENGINEERING RESEARCH CENTER:**

Pilot- or full-scale testing conducted by R&D Department staff at the AWPf or ERC is summarized below. These projects tend to be very applied and focused on the demonstration of a technology, operational approach, or product. Pilot/full-scale studies with grant support were noted in an earlier section.

A list of equipment and systems supporting these activities is presented in Table 1.

- ◆ **Low-Pressure Membrane (MF and UF) Pilot-Scale Product Evaluation Program for AWPf [2015 to present]** – Over FY 2015-20, this program evaluated six low-pressure membrane products (i.e., microfiltration [MF] and ultrafiltration [UF] membranes) for the GWRS to support a product selection decision for the 30-mgd GWRS Final Expansion (GWRSFE). Long-term piloting evaluations for UF products were completed at the OCWD Engineering Research Center (ERC) as well as at OC San Plant No.2 (P2). UF testing at the ERC will be necessary again in FY 23-24 to optimize operations because the AWPf feed water source as part of the GWRSFE now includes water blended from OC San P2. A new MF/UF pilot from Memcor/Evoqua will be commissioned to test UF performance and optimize module cleaning regime.
- ◆ **Antiscalant Testing Program and 3<sup>rd</sup> Stage RO Monitoring [2008 to present]** – The GWRS RO system requires specialty chemicals, including antiscalant and acid, to prevent the precipitation of sparingly soluble minerals which scale the membranes. R&D will continue pilot-scale testing of selected antiscalant products after commissioning a new RO pilot and upgrading existing RO pilot systems in FY 23-24 at the ERC, as well as monitor performance using four systems (B01, B02, D01 and A01 3<sup>rd</sup> Stage Monitoring Vessels) currently operating within the GWRS AWPf RO facility.
- ◆ **RO Membrane Procurement Program and Satellite Vessel Testing [2009 to present]** – Commercial RO membrane products continue to be developed which pose the potential for benefits in enhanced permeability and rejection. R&D evaluates these products through 6-12 month testing using eight “satellite” full-scale RO vessels located in the GWRS RO facility and dedicated to this program. Seven satellite vessels receive RO feed water and one vessel was reconfigured in FY 2019-20 to receive third stage RO feed. Products deemed successful are short-listed for future membrane procurements. In FY 23-24, R&D will complete testing for new, commercially available RO products ahead of potential procurements. Beyond RO membrane procurement, the satellite vessels provide opportunity to test new RO performance enhancement technologies at full-scale if the technology is available for full-scale elements. In FY 23-24, R&D anticipates evaluating such new technologies such as novel spacers developed by start-up companies based on prior years planning.

**Table 1.** Summary of Pilot-/Full-Scale UF and RO Related Testing at ERC or AWP

Pilot Equipment	FY 2022-23	FY 2023-24
UF pilot #1	Alternative Disinfectants Research Study (USBR)	Collaborator projects
UF pilot #2	Alternative Disinfectants	Collaborator projects
UF pilot #3 <i>(new pilot received FY22-23)</i>	Pilot received, commissioning ongoing	UF performance and cleaning regime optimization
RO pilot #1	Antiscalant evaluations/ pilot to be phased out	NA (decommissioned)
RO pilot #2	Antiscalant evaluations/ pilot to be phased out	NA (decommissioned)
RO pilot #3	Alternative Disinfectants Research Study (USBR)/ Antiscalant evaluations	Antiscalant evaluations
RO pilot #4 <i>(new pilot received FY22-23)</i>	Pilot received, commissioning ongoing; Antiscalant evaluations	Antiscalant evaluations/ Collaborator projects
GWRS 3rd-stage RO monitoring vessels (A01, B01, B02 & D01)	Ongoing monitoring	Ongoing monitoring
GWRS RO satellite vessels (A01, A02, B01, B02, C01, C02, D01, D02)	1 <sup>st</sup> and 3 <sup>rd</sup> stage position RO products or improvement technology performance tests	1 <sup>st</sup> and 3 <sup>rd</sup> stage position RO products or improvement technology performance tests

For FY 2023-24, several upgrades and maintenance activities are planned for the ERC pilots and other facilities in order to modernize equipment, improve staff efficiency, increase data security, and maintain good functionality, as well as to accommodate and treat the new GWRS Final Expansion source water (e.g., greater salinity) related to the new addition of OC San Plant 2 effluent. In early 2023 extending into FY 2023-24, R&D ERC improvement activities will include:

- ◆ Commission two new pilots: RO pilot #4 which was acquired in FY 2022-23 and UF pilot #3 which was provided by Memcor/Dupont in FY 2022-23 as part of GWRS Final Expansion. Relatedly, RO pilots #1 and #2 will be decommissioned.
- ◆ Planned upgrade activities include adding an interstage booster pump to RO pilot #3 and replacing the main high-pressure pump for RO pilot #4.
- ◆ R&D will work with outside contractors to update various pilots’ control and data management capabilities.
- ◆ Select satellite pressure vessel systems in the GWRS RO plant will be upgraded to have flow rate signal output capability and record this via data loggers.



- ◆ R&D will also explore options to construct an online data dashboard for various pilots and monitoring stations at the ERC and RO AWPB building.

#### **FOREBAY O&M:**

- ◆ **Desilting Demonstration Project Phase III Support [2013 to present]** – Led by the Planning Department, this project assesses the field-scale performance of a subsurface passive collection unit (riverbed filtration system) placed below the off-river facilities to desilt Santa Ana River (SAR) water and provide this as recharge water to Olive Basin. In FY 2018-19, a pilot collector unit was installed below the live river system to assess performance in high-flow conditions with higher suspended solids loading. Field Research Laboratory (FRL) staff provides support to this project in the form of water sample collection and analyses (total suspended solids [TSS], turbidity, and temperature). Staff also conducts hydraulic testing to compare performance by changing experiment configurations (opening and closing of lateral valves to watch performance comparison). Efforts by the Planning Department and R&D to demonstrate performance of the live river system will be ongoing in FY 2023-24.
- ◆ **Fate and Transport of EarthTec QZ across OCWD Open Channel Recharge Conveyance Structures [2022 to present]** – Building off the prior work funded by the Metropolitan Water District of Southern California (MWD) Future Supply Actions Program (2019-2021), this meso-scale study is led by the Planning Department to test EarthTec QZ, an EPA-registered molluscicide developed by Earth Science Laboratories, Inc., for prevention and control of quagga and zebra mussels in stormwater recharge basins and across recharge conveyance structures. The goal of the study is to determine the fate and transport of EarthTec QZ when applied in an open-channel conveyance structure at various concentrations. The discharge into the open-channel (Carbon Creek) leading into the Santa Ana River and respective recharge basins will be studied to quantify the decay rate of EarthTec QZ within that area. Data collected from this study will inform full scale chemical dosing treatment system design and operation. Efforts by the Planning Department and R&D to demonstrate performance of the live river system will be ongoing in FY 2023-24.

#### **PFAS:**

- ◆ **PFAS Adsorbent Treatment Technology Pilot [2019 to present]** – Per- and polyfluoroalkyl substances (PFAS) have been found in many Producer drinking water wells within the Orange County Basin. In FY 2019-20, the District initiated a pilot testing program to evaluate granular activated carbon (GAC), ion exchange resins (IX), and novel alternative adsorbents as a treatment remedy for Groundwater Producers. An Evoqua pilot system was installed to treat water from the District's Bessie non-potable well located immediately adjacent to Warner Basin ("Phase I" testing). In FY 2023-24, R&D FRL staff will continue operating the pilot in Phase III to evaluate additional IX and alternative adsorbent media. Sampling support will continue

to be provided by the Water Quality Department with analysis by the Laboratory Department. Continued advisory support will be provided by consulting engineering firm Jacobs. Data from the pilot will also be utilized as part of the WRF-funded RCI/RSSCT project described earlier under grant-funded projects.

- ◆ **Evaluation of Bench-Scale Methods to Predict Drinking Water PFAS Removal Performance of Ion Exchange and Novel Adsorbents at Pilot- and Full-Scale [2022 to 2023]** – This project is funded by WRF and noted previously under the section “Grant Funded Projects”.
- ◆ **Evaluation of Passive Treatment to Remove PFAS During Groundwater Recharge [2023 to 2024]** – This project is funded by USBR and was noted previously under the section “Grant Funded Projects”.
- ◆ **Particle-Induced Gamma Ray Emission (PIGE) as a Novel Method to Measure PFAS in Water (WRF) [2021 to 2023]** – This project was funded by WRF (project lead was University of Notre Dame) for a one-year study and will continue into 2023 to complete the final report and develop a journal publication. The project demonstrates the Particle-Induced Gamma Ray Emission (PIGE) method as a practical tool to investigate extent of PFAS presence in water samples such as surface water and groundwater in Orange County. This research will also validate the PIGE method by comparing the total F concentration obtained from PIGE with PFAS in samples measured using conventional LC-MS/MS methods including from the OCWD PFAS GAC/IX treatment pilot.
- ◆ **Pilot-Scale Evaluation of RO Concentrate (ROC) PFAS Treatment by Adsorption and Electrochemical Oxidation [2023 to 2025]** – This project was described above under RO related projects.

#### **GWRS O&M:**

- ◆ **Injection Well Fouling and Pipeline Integrity Issues [2013 to present]** – R&D staff will continue to provide ad hoc support for Barrier Operations, including microscopic, biological, and biochemical analysis, as well as analysis of field or operational performance data as necessary. This includes assisting Water Production/Barrier staff in evaluating and monitoring particle sloughing in the GWRS Pipeline and Barrier Pipeline and assisting Water Production/Barrier staff in evaluating the effect of Mid Basin Injection Well (MBI) fouling as the function of particle sloughing from the GWRS Pipeline. This includes research such as published in FY 22-23 in the journal *Water Environment Research* entitled “Epoxy Lining Influence on Recycled Water Quality During Pipeline Transit for Potable Reuse”.
- ◆ **Removal of Microbial Indicators by Soil Aquifer Treatment During GWRS Recharge [2021 to 2024]** – This study evaluates target pathogen removal during groundwater recharge, i.e., removal via soil aquifer treatment. Work includes laboratory benchtop and in-situ diffusion chamber measurements of virus inactivation and decay. Planning began in FY 2021-22. The overall objective is to determine virus log removal values (LRVs) during soil aquifer

treatment to potentially be applied toward AWWP regulatory requirements for virus removal (a minimum of 12 log of virus removal required from raw OC San influent to potable well extraction).

#### **PRADO WETLANDS SUPPORT:**

- ◆ **Prado Wetland Research on Biobarriers [2017 to present]** – In this study, initially funded by the National Institutes for Water Resources/United States Geological Survey (NIWR/USGS), OCWD is collaborating with Colorado School of Mines (Mines) to investigate the enhancement of nitrate attenuation in seven parallel shallow open water treatment wetlands. The NIWR/USGS grant was extended to Fall 2022 related to the pandemic. This effort follows upon the Prado Open Water Unit Process (POWUP) Wetlands project carried out with collaborators from CSM and the larger ReNUWIt National Science Foundation ERC. The objectives are to reduce the design footprint and increase the reliability of the engineered wetland by enhancing biological contaminant transformation via passive hydrologic manipulation utilizing microbially active treatment “biobarriers.” Field-scale system construction is completed, and assessment of nitrogen fate and transport and quantification of microbial processes is ongoing. OCWD has provided in-kind support for construction costs, operation and maintenance, and limited data coordination and analyses. R&D will continue providing support for planning and field monitoring as needed in FY 2023-24.

#### **COLLABORATIVE STUDIES AS PARTICIPATING UTILITY:**

OCWD regularly participates in collaborative research with universities and other partners, often facilitated by R&D staff, in which OCWD provides water samples, data, operating history, serves on the Project Advisory Committee (PAC) or related technical committee, and/or other support as an in-kind contribution to a partner-led study. Planned projects of this nature in FY 2023-24 include the following, with the prime OCWD point of contact listed. For completeness, the below list includes all projects that OCWD is or will be a participating utility for in FY 2023-24 irrespective of whether the primary contact is an R&D staff member.

##### The Water Research Foundation (WRF):

- ◆ WRF Research Advisory Committee (Megan Plumlee)
- ◆ WRF Advisory Committee for Research Area *Water Reuse and Beyond – Water Quality Monitoring Methods, Data, and Interpretation* (Megan Plumlee)
- ◆ WRF Research & Innovation Strategy Committee (RISC) (Megan Plumlee)
- ◆ Considerations and Blending Strategies for Drinking Water System Integration with Alternative Water Supplies, WRF 4953 (Mehul Patel)
- ◆ Understanding the Impacts of Wastewater Treatment Performance on Advanced Water treatment Processes and Finished Water Quality, WRF 4833 (Mehul Patel)
- ◆ Considerations and Blending Strategies for Drinking Water System Integration with Alternative Water Supplies, WRF 4953 (Mehul Patel)

- ◆ Integration of High-Frequency Performance Data for Microbial and Chemical Compounds Control in Potable Reuse Treatment Systems, WRF 4954 (Mehul Patel)
- ◆ Occurrence of PFAS Compounds in US Wastewater Treatment Plants, WRF 5031 (Megan Plumlee)
- ◆ Carlsbad Desalinated Seawater Integration (Phase II) and Regional Salinity Reduction, WRF 5061 (Greg Woodside)
- ◆ Demonstration of Pathogen Removal Credits in Wastewater Reuse: 21st Century Guidance Materials for Study Plans and Reporting, WRF 5047 (Julio Polanco)
- ◆ Give Membranes the Virus Removal Credit They Deserve, Using Rapid In-Field Molecular Based Methods (Julio Polanco)

Department of Energy (DOE) National Alliance for Water Innovation (NAWI)  
(Energy-Water Desalination Hub led by Lawrence Berkeley National Laboratory)

- ◆ NAWI Industry Advisory Council (IAC). (Megan Plumlee, Chair)
- ◆ *Electrocoagulation/Electrooxidation to Accelerate Cost-Effective Potable Water Reuse* led by Professor Shankar Chellam at Texas A&M University (Ken Ishida, Jana Safarik)
- ◆ *Selective Electrocatalytic Destruction of PFAS using a Reactive Electrochemical Membrane System* led by Professor Brian Chaplin at the University of Illinois at Chicago (Han Gu)
- ◆ *Digital Twins for Decision-Support and Dynamic Energy/Cost Prediction in Water Reuse* led by Professor Diego Rosso at UC Irvine regarding dynamic energy analysis of water reuse using Artificial intelligence (AI). District will host a physical scale model of a water reuse process “physical twin” to validate the digital twin architecture. (Han Gu)
- ◆ *Development of an Omics Platform and a Testbed for Dynamic Characterization of Biofouling* led by Professor Pedro Alvarez of Rice University and Professor Manesh Kumar of the University of Texas at Austin. OCWD is serving as the test site for this study which seeks to characterize RO biofilm maturation dynamics. A membrane fouling simulator (MFS) is installed on the District’s full-scale RO system feed line. (Han Gu)

U.S. Centers for Disease Control and Prevention (CDC)

- ◆ District participation in the Water Quality Panel (WQP) advising the UC Irvine-led study regarding PFAS in drinking water in Orange County, ‘*Multi-Site Study of the Health Implications of Exposure to PFAS-Contaminated Drinking Water Department of Health and Human Services*’ (Jason Dadakis)

U.S. Environmental Protection Agency (EPA)

- ◆ Novel Quantitative Methods for Indigenous Viruses in Wastewater: Improving the Assessment of Water Reuse Treatment Performance (Julio Polanco)

Water UCI (UC Irvine) Industry-University Cooperative Research Center (IUCRC)

- ◆ District serves as a member of the Water UCI IUCRC Industrial Advisory Board (Megan Plumlee)
- ◆ District participation in UCI-led research study coordinated by Water UCI on PFAS occurrence in OC San wastewater collection system (Megan Plumlee, Meeta Pannu)

National Science Foundation (NSF)

- ◆ *Tools to Assess the Mechanisms and Full Potential of UV-ARPs for the Treatment of PFAS in Water* grant led by Professor Garrett McKay at Texas A&M University in collaboration with Professor Stephen Mezyk at California State University, Long Beach (Meeta Pannu)
- ◆ *Highly Polarized Redox Environment for Treatment of Per-and Polyfluoroalkyl Substances* grant led by Professor Haizhou Liu at University of California, Riverside (Ken Ishida)

California Breast Cancer Research Program

- ◆ “Nontarget Chemical Analysis of California Drinking Water” led by Professor Thomas M. Young at University of California, Davis. Project Advisory Committee (Megan Plumlee)

United States Department of the Interior / Bureau of Reclamation (USBR)

- ◆ Desalination and Water Purification Research (DWPR) Pitch to Pilot – *“Development of Multiparameter Direct Water Quality Monitoring System to Achieve the Circular Society for Water”* led by Professor Keisuke Ikehata at Texas State University. (Ken Ishida)
- ◆ Desalination and Water Purification Research (DWPR) Pitch to Pilot – *“Real-time Non-destructive Microbial Monitoring for Water Treatment”* led by Orb XYZ, Inc. OCWD will serve as a test site. (Jana Safarik)
- ◆ Desalination and Water Purification Research (DWPR) Pitch to Pilot – *“Improving RO Recovery through Optimization of Flux and Pump Usage with Real-Time Sensor Connectivity, Data-driven Modeling, and Automation”* led by Hazen and Sawyer. OCWD will serve as a test site. (Han Gu)

Groundwater Resources Association (GRA)

- ◆ GRA Technical Committee (Meeta Pannu)
- ◆ 2023 Western Groundwater Congress (WGC) themed “The Future of Groundwater is YOU” to be held in Burbank, CA, Planning Committee (Meeta Pannu)

Isle Utilities

- ◆ ISLE Utility PFAS Partnership: ISLE facilitates this utility group to provide a platform to share nationwide developments on PFAS which may include news on PFAS regulations, novel PFAS treatment and destruction technologies. Utility members provide updates on their PFAS challenges and collaboratively

review emerging technologies on PFAS. A quarterly meeting is attended by various R&D staff (Megan Plumlee, Meeta Pannu, Han Gu).

- ◆ Isle SSOs-CSOs and Smart Sewers Partnership: Isle facilitates this utility group on preventing sanitary sewer overflows (SSOs) and combined sewer overflows (CSOs) to exchange information and encourage innovation and best practices related to enhanced source control and monitoring for potable reuse applications. Utility members and Isle meet periodically. OCWD and OC San are members (Jason Dadakis, Claire Johnson).

#### The Water Tower

- ◆ “Leveraging Utility Innovation Performance Measures for Program Management and Organizational Transformation” (TWTI-21-01) led by Arcadis. (Megan Plumlee)

#### **V Pending Activities**

None

#### **VI Staff Addition Needed for FY 2023-24**

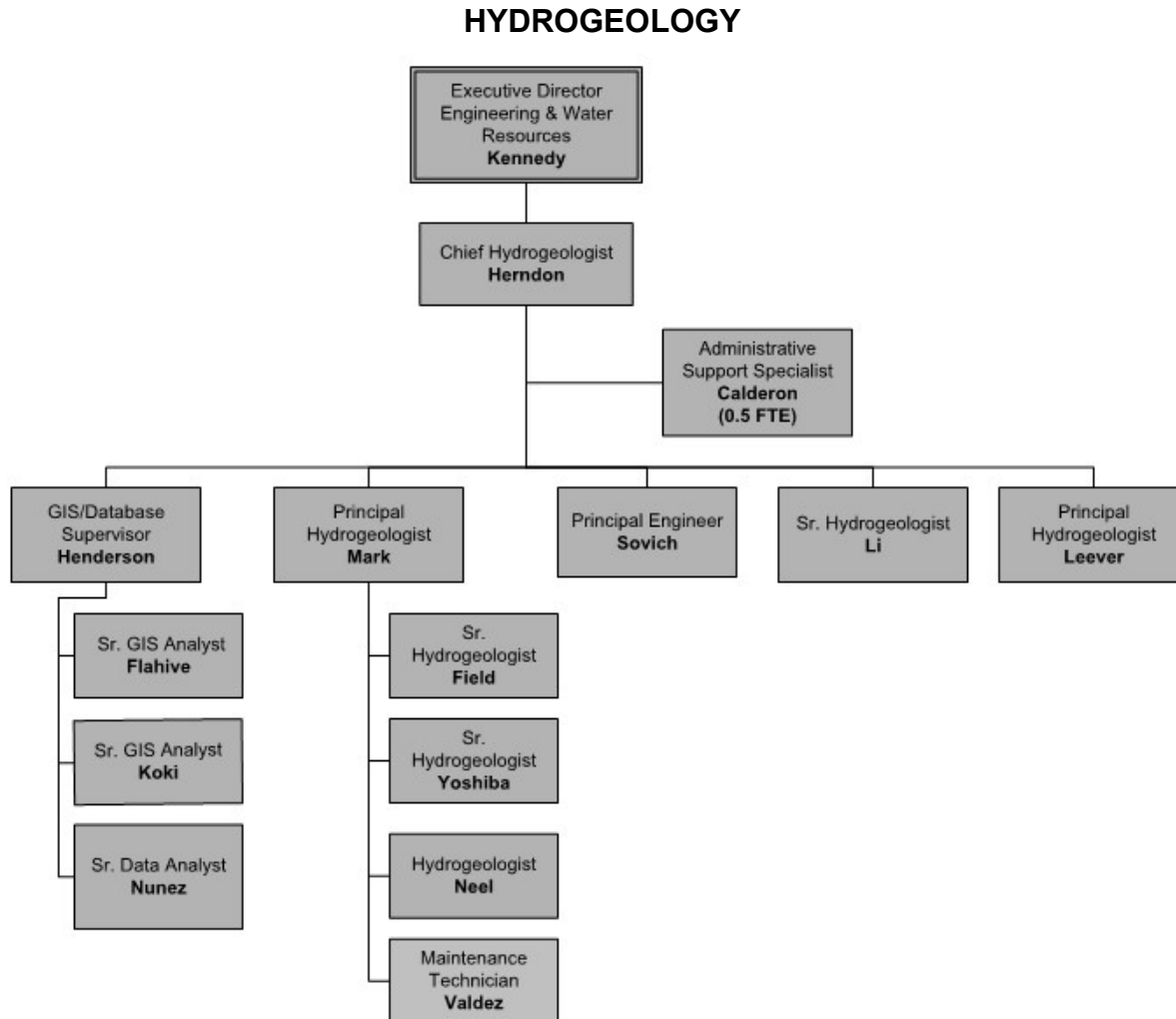
None

#### **VII Future Issues**

The purpose of this section is to list future issues, developments, and opportunities related to the District’s objectives that may affect R&D or where R&D may contribute.

- ◆ Opportunities for future pilot testing, whether located at the Engineering Research Center or elsewhere on-site, to identify new technologies and operational strategies for the AWPf include:
  - ◆ Next-generation MF, UF, and RO membranes for the AWPf.
  - ◆ New chemical treatment techniques capable of enhancing MF and RO effectiveness and reducing operating costs.
  - ◆ Technologies for enhancing water recovery.
  - ◆ Membrane performance optimization through machine learning and Artificial intelligence (AI) analytics of process data.
  - ◆ New or improved AOP methodologies (e.g., chlorine AOP, catalytic AOPs).
  - ◆ Treatment of RO concentrate for the destruction of trace organics or improved performance of concentrate water recovery technologies.
- ◆ Evaluation of new methodologies capable of enhancing recharge efficiency, or studies of recharge impacts, such as:
  - ◆ Strategies for improved basin management.
  - ◆ Column studies or related experimentation, building on previous findings, to understand and minimize clogging in recharge systems that are fed AWPf FPW or other water supplies.

- ◆ Evaluation of new and novel methods of measuring water quality, including:
  - ◆ Sensing methodologies capable of real-time or near-real-time assessment of the RO and AOP barriers to chemical contaminants of public health concern.
  - ◆ Molecular biological methodologies for virus and bacterial pathogen detection and identification, such as Droplet Digital PCR for organisms of interest related to AWPf or of public health concern.
  - ◆ Bioassays to assess toxicity and other specific biological responses.
- ◆ Identification of novel treatment technologies or analytical methods for per- and polyfluoroalkyl substances (PFAS), including perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). This may include pilot testing new technologies applicable to groundwater.



### Summary Information

#### Existing Staff - 13.5 FTEs

- 1 – Chief Hydrogeologist
- 1 – Principal Engineer
- 2 – Principal Hydrogeologists
- 3 – Senior Hydrogeologists
- 1 – Hydrogeologist
- 1 – GIS/Database Supervisor
- 2 – Senior GIS Analysts
- 1 – Senior Data Analyst
- 1 – Maintenance Technician
- 0.5 – Administrative Support Specialist (shared with Regulatory Affairs)



## Mission

Define the physical characteristics of basin aquifers, determine groundwater flow pathways, and provide analyses and recommendations necessary to manage groundwater production, recharge, groundwater quality protection and remediation, seawater intrusion, and water levels within the basin.

## Key issues for FY 2023-24

- ◆ Conduct a feasibility study on seawater intrusion control options for the Sunset Gap, including injection water supply alternatives, extraction, and injection well and pipeline location accessibility, and estimated costs.
- ◆ Prepare an interim remedial action plan (IRAP) to address groundwater contamination in the South Basin area. The draft IRAP will be circulated for public comment prior to being brought to the OCWD Board for consideration of approval.
- ◆ Staff anticipates receiving and providing comments on a proposed plan prepared by the USEPA for an interim remedy to address groundwater contamination in the North Basin area.

Account Information	FY 2021-22 Actual	FY 2022-23 Budget	FY 2023-24 Proposed Budget
Salaries and Benefits	2,314,029	2,417,599	2,485,520
Services and Supplies	1,821,488	1,657,400	1,513,600
<b>Total</b>	<b>\$4,135,517</b>	<b>\$4,074,999</b>	<b>\$3,999,120</b>

## I FY 2023-24 Major New Initiatives/Programs

- ◆ Conduct a feasibility study to evaluate options to control seawater intrusion in the Sunset Gap, including developing estimated costs for different options, and injection water supply.

## II Core Activities

The objectives of the Hydrogeology group are to define the physical and chemical characteristics of basin aquifers, determine groundwater flow pathways, and provide analyses and recommendations necessary to manage groundwater production, recharge, quality, and water levels within the basin.

Core functions include:

- ◆ Basin-wide water level monitoring program of over 300 wells and trend analysis. This data is used for numerous applications, including the annual calculation of basin storage in support of the Annual Engineer's Report and compliance with the state Sustainable Groundwater Management Act (SGMA).

- ◆ Refinement and operation of the basin groundwater flow model used to evaluate the effects of basin management alternatives, proposed well fields, recharge projects, and pumping variations.
- ◆ Evaluation of the Talbert and Alamitos seawater barriers' performance.
- ◆ Evaluation of seawater intrusion in the Bolsa and Sunset gaps.
- ◆ Enhancement and maintenance of the Water Resources Management System (WRMS) database and geographic information system (GIS).
- ◆ GIS analysis, map production, and database support for projects, planning, reports, and presentations.
- ◆ Technical support and assistance for the groundwater producers.
- ◆ Preparation of the monthly Water Resources and annual Santa Ana River Watermaster reports. Funds for contracting with the U.S. Geological Survey to collect SAR flow measurements are budgeted annually. These measurements are essential for the preparation of the Watermaster reports, storage operations at Prado Dam, and calculation of recharge volumes.
- ◆ Participate in Santa Ana River Watermaster meetings, including determination of annual Santa Ana River base flow and storm flow.
- ◆ Review and evaluation of site-specific groundwater contamination investigations and cleanups overseen by regulatory agencies.
- ◆ Hydrogeologic analysis of recharge project feasibility studies.
- ◆ Evaluation of RA/BEA exemption requests.

### III **Non-Core Activities**

Give presentations on groundwater management practices and processes to industry professionals, schools, universities, and other organizations.

### IV **Group Goals for FY 2023-24**

The following programs are highlighted as major activities encompassed within or in addition to the core group activities listed above:

Sunset Gap Seawater Intrusion – Conduct a feasibility study to evaluate injection water supply options, extracted groundwater use/disposal options, facilities siting, and estimate costs for the purpose of controlling seawater intrusion in the Sunset Gap.

South Basin Groundwater Protection Project – Prepare an interim remedial action plan to address VOC contamination in shallow groundwater.

North Basin Groundwater Protection Project – Under USEPA oversight, OCWD will complete the feasibility study of interim remedial alternatives to address VOC contamination. Staff anticipates receiving and reviewing a proposed interim remedial action plan prepared by USEPA. The performance of OCWD extraction well EW-1 will continue to be monitored as it reduces the spread of VOCs.

East Newport Mesa Hydrogeologic Investigation – Incorporate the data from newly-installed monitoring wells into updated geologic cross-sections, including revising the aquifer depths in the southeastern portion of the Talbert groundwater model.

Water Resources Management System (WRMS) – Continue streamlining water level, water quality, and groundwater production data management processes. Develop additional user tools for data display and retrieval, e.g., data and graphs from the Water Resources and Watermaster reports.

Talbert Model Calibration – Improve calibration of the Talbert groundwater flow model such that it can be used to evaluate future Talbert barrier injection well location and replacement scenarios.

Litigation Support – Provide support as needed for the PFAS and South Basin cost recovery actions.

Alamitos Gap Seawater Intrusion – Participate in the Alamitos Barrier Joint Management Committee, including evaluation of barrier O&M activities and performance.

## **V Pending Activities**

None

## **VI Staff Additions for FY 2023-24**

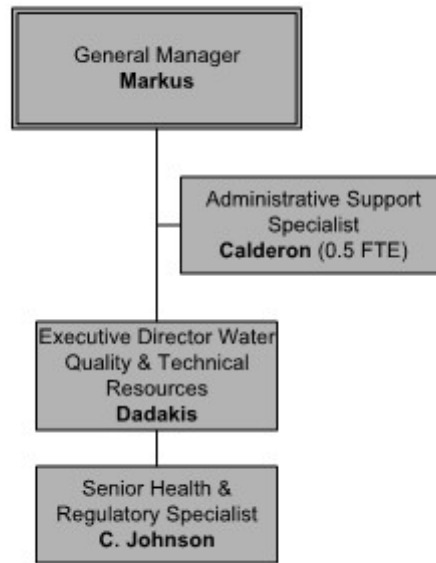
None

## **VII Future Issues**

In the next two to three years, issues involving the Hydrogeology group that the District will need to consider include:

- ◆ Implementation of a seawater intrusion control project in Sunset Gap will require coordination with the Naval Weapons Station, Regional Water Quality Control Board, and other entities involved with nearby groundwater remediation activities.
- ◆ Informed from the aforementioned groundwater modeling scenarios, develop and implement a phased multi-year plan to replace Talbert Barrier injection wells that have exceeded their useful life.
- ◆ Coordination with state regulatory agencies and stakeholders on a proposed interim remedial action plan for the South Basin groundwater contamination.
- ◆ Coordination with USEPA and stakeholders in support of developing interim remedial measures for the North Basin groundwater contamination.
- ◆ Continued maintenance and evaluation of the District's aging monitoring well network, including well refurbishment and replacement as necessary.

## REGULATORY AFFAIRS



### Summary Information

#### Existing Staff – 2.5 FTEs

- 1 – Executive Director of Water Quality and Technical Resources
- 1 – Senior Health and Regulatory Specialist
- 0.5 – Administrative Support Specialist (shared with Hydrogeology)

#### Mission

Assure reasonable regulation of District projects and programs through the interface with regulatory agencies, acquisition of necessary permits, and implementation of water quality monitoring and research programs to support district goals and compliance with current and anticipated future water quality regulations. In addition, manage and oversee the Water Quality, Laboratory, and Research & Development Departments.

#### Key issues for FY 2023-24

- ◆ Per- and polyfluoroalkyl substances (PFAS) - Assist Groundwater Producers with impacted wells/sources, monitoring orders, required governing body, public notifications, and the permitting of wellhead treatment systems. This will include ongoing facilitation of monthly Producer PFAS Workgroup meetings; review of state Public Health Goals (PHGs), Notification Levels (NLs), and Response Levels (RLs); working with Hydrogeology, Water Quality and Laboratory departments to characterize the occurrence of PFAS in local groundwater; working to assess PFAS occurrence in the Upper Watershed; interacting with state and federal regulators as needed; and supporting cost recovery litigation.
- ◆ Coordinate implementation of new GWRS Final Expansion permit issued by the Regional Board in 2022.

- ◆ Coordinate the preparation and submittal of the calendar year 2022 Groundwater Replenishment System (GWRS) Annual Report and the next Santa Ana River (SAR) Water Quality Report.
- ◆ Lead preparations for the 2022 annual meetings of the GWRS NWRI Independent Advisory Panel.

<b>Account Information</b>	<b>FY 2021-22 Actual</b>	<b>FY 2022-23 Budget</b>	<b>FY 2023-24 Proposed Budget</b>
Salaries and Benefits	556,316	506,939	535,543
Services and Supplies	145,467	321,900	524,400
<b>Total</b>	<b>\$701,783</b>	<b>\$828,839</b>	<b>\$1,059,943</b>

### **I FY 2023-24 Major New Initiatives/Programs**

- ◆ Coordinate implementation of new permit for GWRS Final Expansion, including facilitating one to two required state Division of Drinking Water (DDW) inspections of the GWRS AWPf, submitting supplemental one-time reports (e.g., Final Operations Optimization Plan, Spill Preventive and Contingency Plan, RO and AOP Optimization Summary), and ensuring implementation of new UV/AOP setpoints.
- ◆ Support the Operations and Water Quality Departments in updating the format of the quarterly and/or annual GWRS report as required in the future permit for the GWRS Final Expansion (e.g., likely transition from paper to digital reporting).
- ◆ Support the Laboratory and Water Quality Departments initial implementation of Unregulated Contaminant Monitoring Rule 5 (UCMR5) through data reporting and quality assurance activities.
- ◆ Lead new WaterReuse California Potable Reuse Permitting and Compliance Committee.
- ◆ Assist with WaterReuse California planned guidance document for treatment process regulatory validations.
- ◆ Review and implement new requirements resulting from state adoption of Cross Connection Control Policy Handbook as applicable to GAP and GWRS.
- ◆ Review and prepare for ramifications of EPA CERCLA designation for PFAS as hazardous substances and other pending EPA actions.
- ◆ Monitor state development of state Public Health Goals, Notification/Response Levels, and enforceable standards for PFAS and other pending emerging contaminants.
- ◆ Coordinate with the City of Anaheim on Riverwalk project design and prepare to apply for NPDES permit to allow use of GWRS water within project feature(s).

- ◆ Determine appropriate scope and begin implementation of RWQCB permit-required Climate Change Action Plan (CCAP).

## II Core Activities

The Regulatory Affairs Department is primarily responsible for the District's permits with the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Board (RWQCB), DDW, and the Orange County Health Care Agency (OCHCA) and assuring compliance with all monitoring and quality requirements.

Core activities include:

- ◆ Manage Water Quality and Technology Group, which includes the Laboratory, Water Quality, Regulatory Affairs, and Research and Development.
- ◆ Obtain permits and negotiate conditions for District projects and facilities from health and regulatory agencies such as the SWRCB, RWQCB, DDW, OCHCA, and SCAQMD.
- ◆ Assure compliance with permit conditions, including monitoring and reporting to regulatory agencies. Reporting includes monthly GWRS Pathogen LRV compliance, quarterly and annual GWRS and GAP reports, GWRS NPDES SAR Emergency Discharge Self-Monitoring, and Annual Recycled Water Production.
- ◆ Facilitate regular coordination between Water Quality and Technical Resources departments and OC San Division of Environmental Services, which includes OC San Laboratory, Ocean Monitoring, Environmental Compliance, and Resource Protection (i.e., Source Control) staff, with emphasis on identifying compounds of concern for control via the GWRS Source Control Program, including testing needs and concentration limits.
- ◆ Help manage and coordinate OCWD participation in external research projects with funding support, in-kind contributions, the provision of providing water quality samples and historical data, and the review of draft reports.
- ◆ Continue to support Planning and Engineering Departments with water quality and permitting needs for future GWRS recharge and injection facilities.
- ◆ Coordinate with the National Water Research Institute (NWRI) on the management of Independent Advisory Panel (IAP) appointed for GWRS.
- ◆ Evaluate recommendations from the NWRI GWRS IAP and prioritize implementation.
- ◆ Review sampling and analysis program results for the Santa Ana River and follow up on recommendations from the SARWQH Study and the SARMON NWRI IAP.
- ◆ Serve as the primary liaison with the SAWPA Emerging Constituents Workgroups.

- ◆ Participate in the optimization process for GWRS to improve treatment efficiency and product water quality.
- ◆ Help oversee and direct the District's post-doctoral fellow/associate researcher program.
- ◆ Coordinate with regulatory agencies and other water agencies regarding monitoring requirements for CECs.
- ◆ Provide consultation to other OCWD groups (e.g., Public Affairs), MWDOC, and the groundwater producers on water quality, health, and regulatory issues affecting District projects or programs.
- ◆ Assist in the review and development of legislation regarding water quality requirements and recycled water.
- ◆ Assist Public Affairs staff with the development and review of technical information to be included in District brochures and the enhanced hallway panels, kiosks, and displays.
- ◆ Assist Public Affairs staff with hosting and educating visitors from water agencies, regulatory agencies, and other governmental entities.

### **III Non-Core Activities**

Non-core activities (secondary priority compared to core activities) conducted by the Regulatory Affairs include:

- ◆ Serve on WaterReuse CA Board, OC Chapter of WaterReuse CA leadership, and as NWRI Treasurer.
- ◆ Participate in Expert Panels for NWRI regarding water recycling and reuse projects planned by other agencies.
- ◆ Serve on Project Advisory Committees (PACs) for Water Research Foundation (WRF) projects and coordinate the service of other staff on such PACs.
- ◆ Provide presentations to outside groups regarding water quality, health, and regulatory issues.
- ◆ Assist other water agencies in addressing water quality issues related to groundwater recharge with recycled water.

### **IV Group Goals for FY 2023-24**

- ◆ PFAS – Continued support of PFAS Treatment System Program with Producers, including regulatory permitting support, compliance monitoring, expanded laboratory testing capacity, and litigation support. Also coordinate with UC Irvine research team leading federal Centers for Disease Control (CDC) funded PFAS retrospective epidemiological study being conducted in select Orange County communities.

- ◆ Mid-Basin Injection Centennial – Gain regulatory approval for updated project retention time boundaries from DDW and RWQCB using a tracer test-calibrated groundwater transport model.
- ◆ GWRS Annual Report – Manage the preparation of the annual report to regulatory agencies on the 2022 calendar year performance of GWRS and results from the testing required by the permit.
- ◆ Supplement to GWRS Annual Report - With the assistance of the Water Production and Water Quality Departments, prepare a report containing additional detailed analysis of GWRS performance as requested by the NWRI GWRS Independent Advisory Panel.
- ◆ Santa Ana River Monitoring – Manage the water quality sampling and analysis for the SAR in follow up to the SARWQH Study and the 2018 recommendations of NWRI’s SARMON Panel and prepare the next SAR Water Quality Report.
- ◆ Enhanced GWRS Source Control – Continue to coordinate with OC San on the use of revised Response Plan to prevent contaminants from adversely affecting GWRS as a part of OC San’s commitment to enhanced source control efforts. Work with Water Production to assess impacts of higher salinity GWRS influent/source water on operations and coordinate with OC San to determine feasibility of mitigation options within Plant 2 sewer shed/collection system.
- ◆ North Basin Remedial Investigation/Feasibility Study – Provide technical support and guidance regarding regulatory alternatives for cleanup and reuse of contaminated groundwater.
- ◆ South Basin Remedial Investigation/Feasibility Study – Provide technical support and guidance regarding regulatory alternatives for cleanup and reuse of contaminated groundwater.
- ◆ Water Quality & Laboratory Groups – Since desired monitoring tends to exceed resources in Water Quality and Laboratory Groups, programs and projects must be continuously evaluated and prioritized.
- ◆ R&D for District Critical Needs – Coordinate the Research and Development Department efforts with the most critical research needs for the District, including PFAS treatment, recharge enhancement, MF/RO optimization, online RO monitoring systems for enhanced LRV credit, UV-AOP optimization, evaluation of project-site-specific underground retention characteristics that may support enhanced underground retention virus credit, and microbial characterization of SAR recharge waters.



- ◆ GWRS Regulatory Compliance – Coordinate Water Quality, Laboratory, and Operations group efforts to fulfill any changes to the Permit-required GWRS regulatory reporting format (i.e., transition from paper reporting to digital reporting via DDW CLIP database and State/Regional Board Geotracker database). Also define scope for and begin implementation of GWRS permit-required Climate Change Action Plan. CCAP must be submitted to the RWQCB by December 2025 and must consider all components of the GWRS AWP as well as the GWRS injection wells, spreading basins, and compliance monitoring wells.
- ◆ Green Acres Project – In cooperation with the Engineering Department, implement Cross Connection Control Policy Handbook, along with relevant county-wide standardized procedures, for receiving required OCHCA and DDW approval of new end-users and/or for required regular site inspections for established use sites.

## V Pending Activities

Major activities that are not being implemented include:

- ◆ Meeting of the SARMON IAP.
- ◆ Developing an annual water quality report card on the groundwater basin.
- ◆ Developing a more comprehensive water quality testing program to assure adequate data for assessment of emerging contaminants, threats to producer wells, and seawater intrusion.

## VI Staff Addition Needed for FY 2023-24

None

## VII Future Issues

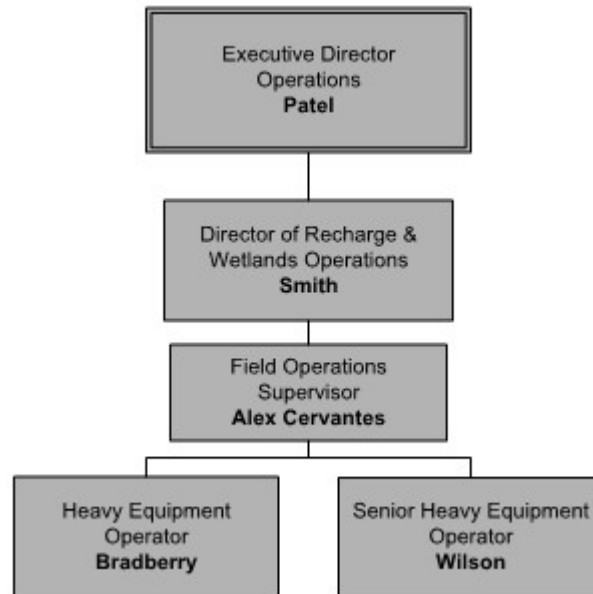
In the next one to three years, the District will need to consider the following:

- ◆ PFAS: continuous permitting of Producer treatment systems; occurrence within the Basin and SAR watershed; increased testing demand on laboratory. The establishment of a federal and state enforceable drinking water regulations for PFAS.
- ◆ Assessment and permitting of additional locations for GWRS water recharge or injection for additional operational flexibility, including completion of tracer test protocols and plans for each new recharge location. This includes the proposed Anaheim Riverwalk project which will require an NPDES from the Santa Ana Regional Board.
- ◆ Evaluation of new technologies to enhance treatment in the GWRS and to improve energy efficiency and reduce chemical costs, specifically

targeting enhanced recovery from the reverse osmosis process and/or concentrate treatment, accompanied by gaining regulatory acceptance.

- ◆ New and more stringent drinking water standards for contaminants like PFAS, nitrosamines, 1,4-dioxane, perchlorate, hexavalent chromium, arsenic, and disinfection by-products of new concern.
- ◆ Statewide requirement for testing and reporting of microplastics in drinking water.
- ◆ Enhance monitoring and possible treatment requirements for the discharge of GWRS RO concentrate on the OC San outfall.
- ◆ Expand source water assessment obligations that could include the entire SAR watershed and all potential contaminating activities in the watershed.
- ◆ Reassess the feasibility, both technical and regulatory, of recycling segregated SARI Line/IEBL sewage flow from OC San Plant No.2; may be advisable should additional GWRS production be desired.

## WETLANDS OPERATIONS



### Summary Information

#### Existing Staff – 2 FTEs

- 1 – Senior Heavy Equipment Operator
- 1 – Heavy Equipment Operator

#### Mission

- ◆ Operate and maintain Prado Wetlands to provide natural water quality treatment of Santa Ana River flows behind Prado Dam.
- ◆ Provide operational oversight and maintenance of District property within the Prado Basin.
- ◆ Provide logistical and operational support for research activities.
- ◆ Provide operational support for Natural Resources division.
- ◆ Coordinate operations with tenant recreational use.

#### Key Issues for FY 2023-24

- ◆ Implement an operational strategy to maintain optimal wetlands nitrate, and other constituents, removal.
- ◆ Provide logistical support for OCWD collaborative research project with Engineering Research Center members.
- ◆ Develop a strategy to reduce mosquito populations in wetland ponds.

- ◆ Continue to implement improvements to ponds, conveyance channels, and SAR levee infrastructure.
- ◆ Continue to support mitigation sites and Natural Resource activities.

Account Information	FY 2021-22 Actual	FY 2022-23 Budget	FY 2023-24 Proposed Budget
Salaries and Benefits	306,575	351,590	336,604
Services and Supplies	152,464	227,500	228,950
<b>Total</b>	<b>\$459,038</b>	<b>\$579,090</b>	<b>\$565,554</b>

**I FY 2023-24 Major New Initiatives/Programs**

- ◆ Adjust operational strategy by de-watering designated ponds to maintain optimal treatment retention time and vegetation.
- ◆ Provide logistical support for OCWD collaborative research project with the Engineering Research Center and UCR.
- ◆ Modify de-watering/vegetation management operations to reduce habitat for mosquito harborage.
- ◆ Removal of sediment/sand at River Road at volumes requested by Natural Resources as required for ACOE Prado storage deviation agreement.

**II Core Activities**

The Wetland Operations group is primarily responsible for the management and operation of the wetland facilities that provide natural water quality treatment of SAR flows behind Prado Dam. The group also supports the Natural Resources group by providing operational oversight and maintenance of OCWD property within the Prado Basin.

Core activities include:

- ◆ Provide natural water treatment of SAR flows through constructed wetlands in the Prado Basin.
- ◆ Evaluation of water quality parameters to optimize wetland operations for maximum nitrate, and other constituents, removal.
- ◆ Maintenance of the levees, roads, and conveyance piping within the wetlands and Prado basin.
- ◆ Reconstruction of earthen structures and conveyances following storm events to ensure 50 percent of river flows through wetlands.
- ◆ Support of District approved research projects.
- ◆ Support of District mitigation sites and Natural Resources activities.

**III Non-Core Activities**

Non-core activities conducted by the Wetlands Operations group include:

- ◆ Oversight and operational support of wetlands research projects.

- ◆ Collection and analysis of pond water quality data.
- ◆ Support of the District's education and outreach programs by providing tours of the wetland system.
- ◆ Support for volunteer functions, such as open houses and group tours.

**IV Group Goals for FY 2023-24**

Implement Operational Strategy for Optimal Water Treatment Retention Times:

- ◆ Adjust pond operations to de-water approximately 100 acres of ponds to reduce system volume, thus maintaining optimal treatment retention time due to reduced SAR baseflow.
- ◆ Adjust pond service to aid in the vegetation management activities.

Modify Vegetation Management Techniques:

- ◆ Use OCWD equipment to mow dry vegetation in de-watered ponds.
- ◆ Remove harvested vegetation from operational ponds.

Provide Logistical Support for Collaborative Research Project:

- ◆ Operate and maintain pond infrastructure per design specifications in support of the research project with the Engineering Research Center.
- ◆ Provide operational support for Wetlands research projects.
- ◆ Provide operational support for the groundwater monitoring program.

Improvements to Wetlands Infrastructure:

- ◆ Re-build access road to the central basin.
- ◆ Grade and repair levees in and around the pheasant field.
- ◆ Create new mitigation sites in compliance with District permits.

Develop and Implement Operational Strategies to Reduce Mosquito Harborage:

- ◆ Manage vegetation removal and de-watering cycles to reduce mosquito breeding habitats.

**V Pending Activities (Not Being Addressed Due to Insufficient Resources)**

Major activities that are not being conducted include:

- ◆ Establish SAR streambed gauging station at River Road Bridge.

**VI Staff Addition Needed for FY 2023-24**

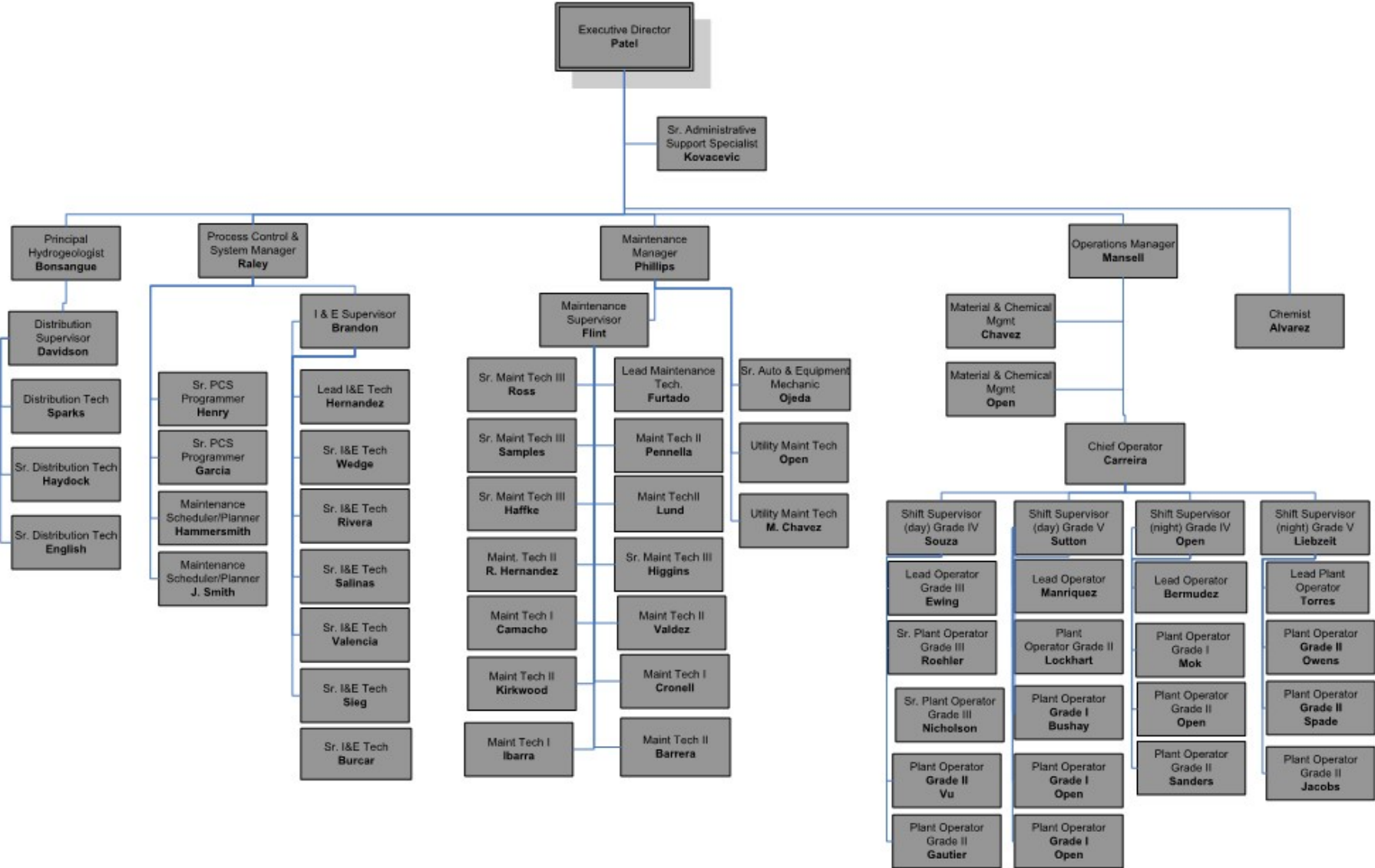
None

## VII Future Issues

In the coming years, the District will need to consider the following:

- ◆ Replacement of non-tier 3 compliant heavy equipment.
- ◆ Replacement of diversion channel control structure.
- ◆ Participate as directed by the Planning Department in mitigation activities for the former Prado shooting range areas per the final RI/FS.

WATER PRODUCTION/GROUNDWATER REPLENISHMENT SYSTEM



## Summary Information

### Existing Staff – 66 FTEs

- 1 – Executive Director of Operations
- 1 – Senior Administrative Support Specialist
- 6 – Supervisors (Operations Manager, Process Control & System Manager, Maintenance Manager, I&E Supervisor, Maintenance Supervisor, and Distribution Supervisor)
- 4 – Shift Supervisors
- 18 – Operators
- 14 – Maintenance Technicians
- 1 – Senior Auto and Equipment Mechanic
- 2 – Utility Maintenance Technicians
- 2 – Maintenance Schedulers/Planners
- 2 – Material and Chemical Management Technicians
- 7 – Instrumentation & Electrical Technicians
- 2 – Senior Process Control System Programmers
- 1 – Chemist
- 1 – Chief Operator
- 2 – Senior Distribution Technicians
- 1 – Distribution Technician
- 1 – Principal Hydrogeologist

### Mission

Operations and maintenance (O&M) of the GWRS Advanced Water Purification Facility (AWPF), Mid Basin Injection, Talbert Barrier, and Green Acres (GAP).

### Key Issues for FY 2023-24

- ◆ Maximize operation of GWRS processes:
  - ◆ Continue to work with the Orange County Sanitation District to make as much water as possible for GWRS production. This includes maximizing water quality of flow from Plant No. 2.
  - ◆ Goal for 2023-24 production is 134,000-acre-feet of water with the GWRS Final Expansion being fully online during the fiscal year.
  - ◆ Send all non-barrier production to Centennial Mid Basin Injection Wells, Canyon Power, Arctic, La Palma, Miraloma, and Kraemer/Miller basins.
  - ◆ Continue to control or reduce the water treatment unit cost by obtaining the best possible price on electricity, chemicals, and spreading the system's fixed costs over the maximum possible production.



- ◆ Reduce GWRS processing costs:
  - ◆ Continue optimization of MF backwash and cleaning regimes. This includes optimizing maintenance wash processes for the new PVDF membranes installed as part of the GWRS Final Expansion.
  - ◆ Optimization of RO cleaning regimes by improving cleaning of chemical concentrations and cleaning intervals.
  - ◆ Optimization of RO pretreatment chemical program, which includes the use of acid and antiscalant to reduce cost and prevent mineral scaling of membranes in the 3<sup>rd</sup> stage of RO units. This includes finding an existing or new antiscalant formulation that is compatible with the new water quality expected by the GWRS Final Expansion (GWRSFE) with the use of OC San Plant No. 2 trickling filter/solids contact flows.
  - ◆ Optimize the use of the new RO energy recovery device upsized motors with new GWRSFE water quality in six RO units to reduce energy cost and/or balance flux performance.
  - ◆ Optimize the use of new inter-stage booster pumps on 15 Train A-E RO units as well as six new RO units in Trains H-I to maximize energy efficiency with the new GWRSFE water quality.
  - ◆ Continue to optimize usage of new antiscalant products to help control mineral scaling at pH 6.9 and achieve the lowest possible chemical cost. At the same time, continue to engage manufacturers to develop and evaluate antiscalant formulations that would be successful with future poorer water quality associated with the GWRS Final Expansion.
  - ◆ Work with purchasing to find and procure the best chemical pricing.
  - ◆ Reduce energy use and participation in demand response programs that offset the cost of electricity.
  - ◆ Lifespan extension of both MF and RO membranes including new PVDF MF membranes all being operated under a new level of water quality associated with the GWRSFE.
  - ◆ Continue efforts to maximize UV lamp life to 12,000 hours.
  - ◆ Revise regulatory reporting documentation and operational procedures required by conditions of the new GWRS operating permit issued as part of the completion of the GWRSFE.
- ◆ Manage GWRS assets by:
  - ◆ Continue to implement a robust preventative maintenance program using the Maximo computerized maintenance management system (CMMS).

- ◆ Staff continues to update GWRS work plans in the CMMS to reflect knowledge gained with over 15 years of experience operating the treatment plant. Also, insure new assets as part of the GWRSFE are included in CMMS.
- ◆ Continue to develop staff capabilities to make both minor and major mechanical and electrical repairs on equipment and facilities. These internal capabilities assure a fast response, quality repairs and lower cost.
- ◆ Conduct facility wide electrical infrastructure preventative maintenance activities, including integration of new electrical equipment supplied as part of the GWRSFE.
- ◆ Continue yearly removal and rehabilitation of large horsepower vertical turbine pumps in the GWRS AWP.
- ◆ Resume well re-development/rehabilitation of legacy injection wells (as activity was on hold due to GWRSFE construction).
- ◆ Protection of injection wells by delivery of low particle water.
- ◆ Continue to optimize performance, operation costs, and backwash frequency of four new Centennial Park MBI wells.

<b>Account Information</b>	<b>FY 2021-22 Actual</b>	<b>FY 2022-23 Budget</b>	<b>FY 2023-24 Proposed Budget</b>
Salaries and Benefits	10,757,606	10,716,634	11,437,642
Services and Supplies	29,895,826	30,354,286	44,220,485
<b>Total</b>	<b>\$40,653,432</b>	<b>\$41,070,920</b>	<b>\$55,658,127</b>

**I FY 2023-24 Major New Initiatives/Programs**

- ◆ Continue to monitor changes in the MF membrane backwash and cleaning intervals to increase process efficiency and production, especially with new GWRSFE water quality.
- ◆ Optimize performance of Evoqua PVDF membranes in new cells installed as part of the GWRSFE.
- ◆ Investigate new antiscalant products for use on GWRSFE expected water quality.
- ◆ Develop key performance factors that help identify and predict MF and RO membrane end of life conditions under new GWRSFE water quality.
- ◆ Continue to optimize the operation of four new Centennial Park MBI wells.
- ◆ Assist Engineering with further GWRS pipeline corrosion assessments and possible further epoxy lining projects.
- ◆ Rehabilitate and re-design down hole well valve technology for I-25 and I-26.

**II Core Activities**

- ◆ O&M of the 130 mgd GWRS AWPf.
- ◆ O&M of the 102 wells that make up the Talbert Injection Barrier well system.
- ◆ O&M of Mid Basin Injection Demonstration well.
- ◆ O&M of four new Centennial Park Mid Basin Injection wells.
- ◆ O&M of EW-1 well.
- ◆ O&M of the GAP treatment plant and distribution pipeline system.
- ◆ Work with Research and Development on engineering and research aimed at maintaining and optimizing treatment plant performance, production, and the Talbert Barrier.
- ◆ Administer the joint OCWD & OC San GWRS Steering Committee meetings.
- ◆ Continue to optimize I&E assets at FHQ maintained by Water Production.
- ◆ Facilitate monthly OCWD and OC San Joint Operation Committee meetings.

**III Non-Core Activities**

- ◆ Participate in technology transfer on advanced treatment with other water districts, consultants, public agencies, and industry organizations.
- ◆ Provide in-kind support as specified by OCWD for participating Water Reuse Research Foundation and Water Research Foundation research projects.
- ◆ Provide technical support on various wellhead treatment systems throughout Santa Ana Watershed.
- ◆ Provide technical support as needed to the Water Quality, Engineering, Hydrogeology, Public Relations, and Health & Regulatory Departments.
- ◆ Provide facility maintenance support for OCWD's Fountain Valley facilities.
- ◆ Provide support to set up meetings and events.
- ◆ Provide instrumentation and electrical support to OCWD's Recharge and Prado operations.
- ◆ Provide data collection and support for the Research and Development Department.
- ◆ Provide technical updates and participate in meetings with the GWRS Independent Advisory Panel.
- ◆ Assist with GWRS tours for the Publics Affairs Department as necessary.
- ◆ Provide any required GWRS technical and operational information for outside data requests.
- ◆ Provide support to the general manager as needed for technology improvement meetings with Boockey Oren Global Water Technologies.

#### **IV Group Goals for FY 2023-24**

##### GWRS:

1. Produce up to 134,000-acre-feet of water for recharge and injection.
2. Successfully operate new facilities constructed as part of the GWRSFE construction project.
3. Continue efforts to control net production cost to less than \$750 per acre-foot.
4. Continued development of the CMMS for the GWRS and update maintenance requirements for existing equipment. Complete CMMS updates for new assets to be added as part of the GWRS Final Expansion.
5. Continued development of databases to help staff monitor the individual process performance of the MF, RO, and UV treatment systems.

##### OC San:

1. Continue with joint operation meetings with OC San plant operations and source control and OCWD staff to ensure both agencies are knowledgeable of issues with each other's operations. This includes added coordination with the use of Plant No. 2 flows for GWRS.
2. Develop operational plans for possible use of new GAP in connection to GWRS for discharge of excess IRWD tertiary flows.

##### DDW and the RWQCB:

1. Prepare an Annual Report on the GWRS operation with District staff and outside consultant.
2. Continue to work with Health and Regulatory groups to develop new GWRS regulatory reporting formats to satisfy new conditions of the GWRS permit upon completion of the GWRSFE.

##### Talbert Barrier:

1. In conjunction with the barrier, staff continues evaluating the corrosivity and injection well-fouling propensity of the GWRS finished product water.
2. Support Engineering for Talbert Barrier hydraulic improvements project.
3. Develop long term plans for rehabilitation of the legacy injection well system to maximize barrier injection flows.

**V Pending Activities**

Continue to train staff to effectively operate and maintain the GWRS and determine preventative maintenance needs for the GWRS Final Expansion facilities. This includes new facilities now located off site at the OC San Plant No. 2 facility in Huntington Beach, California.

**VI Staff Addition Needed for FY 2023-24**

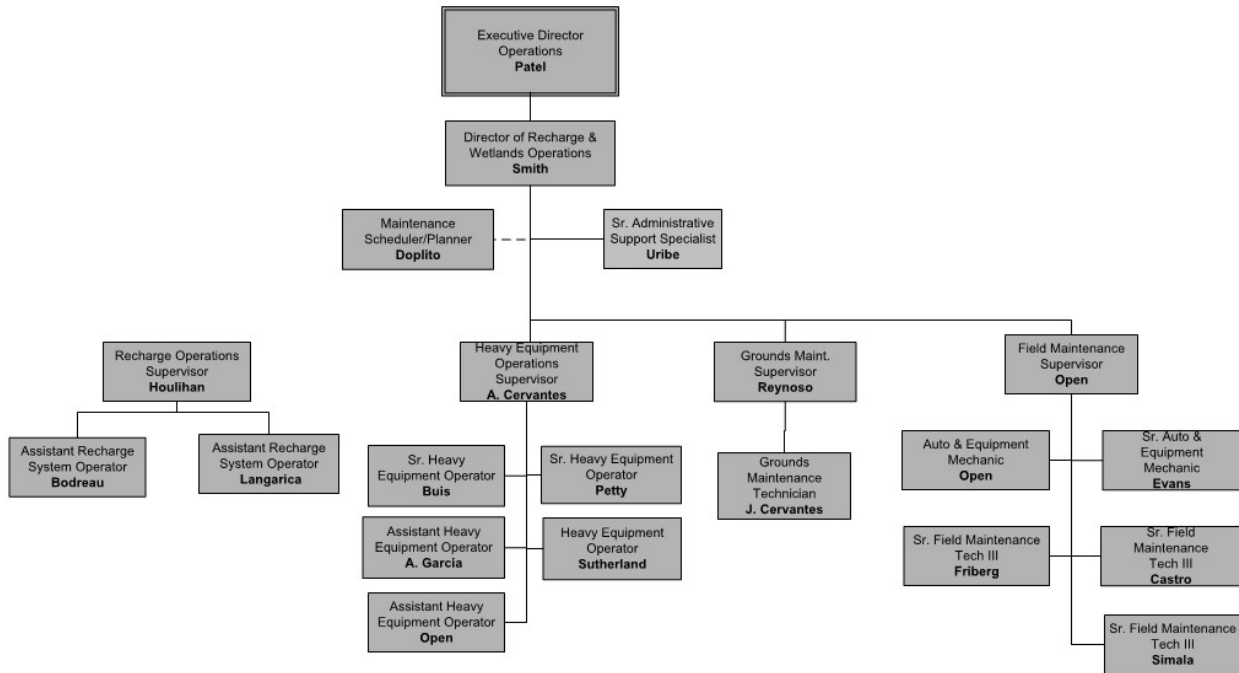
Assess possible staffing increases required by the GWRSFE as well as for dealing with new cyber-security and programming requirements for both the GWRS and recharge system SCADA platforms.

**VII Future Issues**

In the next two years, issues the District will need to consider include:

1. Optimization of the GWRS AWPf treatment process to determine new operational costs associated with the change in water quality from the GWRSFE.
2. Continue to optimize MF and RO membrane replacement strategies, including new metrics based upon expected poorer water quality associated with the GWRSFE.
3. Process optimization and adjustment of preventative maintenance requirements as necessary.
4. Continue forward-looking review of water treatment technologies and opportunities to optimize the current GWRS membrane and advanced oxidation treatment processes.
5. Continue to monitor energy issues to ensure the lowest possible power expenditures for the GWRS.
6. Support the operation and maintenance of the District's four new Centennial Park Mid-Basin Injection wells.
7. Support construction of the Talbert Barrier hydraulic improvements.
8. Support and plan for future Talbert Barrier pipeline corrosion assessment and correction project.
9. Plan for future evaluation and possible structural upgrades to the GAP Santa Ana Reservoir facility.

**RECHARGE OPERATIONS**



**Summary Information**

**Existing Staff – 20 FTEs**

- 1 – Director of Recharge & Wetlands Operations
- 1 – Recharge Operations Supervisor
- 1 – Field Maintenance Supervisor
- 1 – Grounds Maintenance Supervisor
- 1 – Heavy Equipment Operations Supervisor
- 1 – Senior Administrative Support Specialist
- 1 – Maintenance Scheduler/Planner
- 2 – Assistant Recharge System Operators
- 2 – Assistant Heavy Equipment Operators
- 1 – Heavy Equipment Operator
- 2 – Senior Heavy Equipment Operators
- 1 – Grounds Maintenance Technician
- 1 – Senior Auto & Equipment Mechanic
- 1 – Auto & Equipment Mechanic
- 3 – Senior Field Maintenance Technician III

**Mission**

Replenishment of the groundwater basin by operating and maintaining recharge basins and associated infrastructure, surface water conveyance system, storage and recharge facilities, and managing the conservation pool behind Prado Dam.

**Key issues for FY 2023-24**

- ◆ Continue to replace aging infrastructure and instrumentation.
- ◆ Continue heavy equipment replacement programs to maintain compliance with the CARB, SCAQMD, and other regulatory schedules.
- ◆ Work with engineering staff to develop District standards for installation and replacement of directly buried valves and actuators.
- ◆ Manage vegetation in a manner that accommodates both the seasonal habitat needs of nesting birds and the use of the land for groundwater recharge.
- ◆ Continue to upgrade PLC/SCADA hardware.
- ◆ Continue upgrades to infrastructure, instrumentation, and equipment.

<b>Account Information</b>	<b>FY 2021-22 Actual</b>	<b>FY 2022-23 Budget</b>	<b>FY 2023-24 Proposed Budget</b>
Salaries and Benefits	2,871,630	3,169,965	3,073,036
Services and Supplies	1,703,560	1,394,740	1,880,250
<b>Total</b>	<b>\$4,575,190</b>	<b>\$4,564,705</b>	<b>\$4,953,286</b>

**I FY 2023-24 Major New Initiatives/Programs**

- ◆ Adapt operations to allow for the recharge of up to an additional 34,000 AFY of GWRS produced water.
- ◆ Adapt operations to allow for the purchase and recharge of 65,000 AFY of imported water to help offset the decline in SAR base flow.
- ◆ Improve data acquisition and retrieval at diversion points and other critical facility infrastructure to comply with provisions of SB 88.
- ◆ Develop District standards for installation and replacement of directly buried valves and actuators.
- ◆ Collaborate with Field Research Staff to utilize data to optimize basin operation.
- ◆ Collaborate with the Hydrogeology Department to utilize WRMS data to inform recharge operations.
- ◆ Replace and maintain infrastructure such as pavements, heavy equipment, fuel storage facilities, and pumps.

**II Core Activities**

The Recharge Operations group is responsible for replenishing the groundwater basin by operating and maintaining the surface water conveyance system, storage and recharge facilities, and managing the conservation pool behind Prado Dam.

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### III Non-Core Activities

- ◆ Support District's education and outreach program by providing tours of the recharge system.
- ◆ Providing data and information to outside agencies and organizations.
- ◆ Support selected research and development efforts aimed at improving recharge efficiency and capacity.

### IV Group Goals for FY 2023-24

- ◆ Develop strategies for the capture of local inflow with Prado storage levels at 498 ft and 505 ft.
- ◆ Continue to replace aging infrastructure and instrumentation.
- ◆ Continue to maintain compliance with the CARB regulatory schedule through heavy equipment replacement programs.
- ◆ Coordinate with engineering staff to establish District standards for installation and replacement of directly buried valves and actuators.
- ◆ Manage vegetation in a manner that accommodates both the seasonal habitat needs of nesting birds and the use of the land for groundwater recharge.

### V Pending Activities

- ◆ Implementation of infrastructure repair and replacement projects.

### VI Staff Addition Needed for FY 2023-24

None

### VII Future Issues

- ◆ Continue to replace heavy equipment to maintain compliance with emissions regulations. The cost of equipment upgrades and replacements are substantial. R&R fund reserves have therefore been identified and set aside to accommodate this long term compliance program. All Tier 0 and Tier 1 engines to be replaced by 2024.
- ◆ Re-locate direct buried valves to underground vaults. Existing buried valves and actuators are 20+ years old and are beginning to fail.
- ◆ Install inflatable dam in Raymond Basin, which will allow remote operation and use of basin during rain events.
- ◆ Continue upgrades of flow and water level instrumentation, including staff to support the systems.
- ◆ Remove islands and peninsulas in Anaheim Lake to increase storage capacity. Add sand and re-grade basin bottom for improved recharge.
- ◆ Relocate 48" magnetic flowmeter at Kraemer Basin. The current installation is 30 feet above the basin low point.



- ◆ Install transfer pipe with valve between golf concession and Burris Basin to prevent golf lagoon de-watering at low water levels in Burris.
- ◆ Import sand into the SAR channel between the 5 Coves and Ball Road to increase percolation.
- ◆ Replace 48" valves at Anaheim Lake.

# Section 4

## Debt Service Fund

## DEBT SERVICE

The District often uses debt to fund capital projects approved by the Board. The purpose of the Debt Service is to budget and set aside monies necessary to make principal and interest payments on the District's debt.

Total gross debt service payments and administration costs are budgeted at \$44.4 million for FY 2023-24 as shown on Table 1. The District will utilize \$ 44.4 million from RA/property tax revenues. This amount also reflects estimated revenues and payments related to the District's swap transactions. The components of the budgeted debt service payments are as follows:

- \$16.6 million for fixed rate debt.
- \$5.2 million for variable rate debt.
- \$10.7 million for commercial paper debt.
- \$0.6 million net swap payment.
- \$10.3 million for low interest State Loans.
- \$1.0 million for debt administration.

In November 2002, the Board approved a comprehensive long-term debt program with a number of goals including:

- To provide funding for the GWR System and other capital projects.
- To provide the lowest cost of funds.
- Take advantage of low interest rates and the District's variable rate debt capacity.
- Provide the lowest predictable RA.

In FY 2007-08 the Board adopted an updated Plan of Finance, which provided for the repayment of some of the District's highest cost fixed rate debt using low interest state loan reimbursement monies and for execution of two interest rate swap transactions. The overall impact on the District's debt structure was to lower the District's overall cost of debt outstanding; reduce the District's variable rate exposure using an interest rate swap; and reduce the duration of the existing debt outstanding by approximately two years.

The District's policy of using long-term debt to fund capital projects was established in October 2000 and calls for the following:

- Preliminary project expenses related to direct research are to be paid from the General Fund and cannot be financed with long-term debt.
- Project expenses for items such as feasibility reports, pilot studies, engineer reports, compliance with CEQA, project design and construction may be capitalized and funded with long-term debt.
- Project expenses that are capitalized and funded with long-term debt and do not lead to the construction of a project will require an adjustment by the Accounting Department to pay off the long-term debt incurred using cash reserves.

TABLE 1  
DEBT SERVICE BUDGET  
FY 2023-24

	<u>Principal</u> <u>Payments</u>	<u>Interest</u> <u>Payments</u>	<u>Debt</u> <u>Administration</u> <u>Cost</u>	<u>Total</u>	<u>Outstanding Debt</u> <u>Balance as of June</u> <u>30, 2024</u>
<b><u>Certificates of Participation/Refunding Revenue</u></b>					
<b><u>Bonds/Short-Term Notes</u></b>					
2003A COP Variable Rate	\$ -	\$ 5,192,600.00 (1)	\$ -	\$ 5,192,600.00	\$ 129,815,000.00
2017A Refunding Revenue Bond Fixed Rate	460,000	3,869,492	-	4,329,491.57	87,340,000
2017B Refunding Revenue Bond Fixed Rate	-	682,851	-	682,851	16,855,000
2019B Revenue COP Fixed Rate	150,000	295,850	-	445,850	272,833
2019C Refunding Revenue Bonds Fixed Rate	4,865,000	4,040,725	-	8,905,725	81,805,000
2019D Refunding Revenue Bonds Fixed Rate	720,000	1,467,821	-	2,187,821	56,595,000
2021A Refunding Revenue Bonds Fixed Rate	-	3,776,800	-	3,776,800	94,420,000
2021A Bonds Capitalized Interest Account	-	(3,776,800)	-	(3,776,800)	-
Subtotal	\$ 6,195,000	\$ 15,549,339	\$ -	\$ 21,744,339	\$ 467,102,833
<b><u>WIFIA Loan</u></b>	\$ -	\$ 0		\$ -	\$ 136,404,000 (2)
<b><u>SWAPS - \$82.55 Million</u></b>					
OCWD Payments - fixed at 3.314%	\$ -	\$ 2,735,707	\$ -	\$ 2,735,707	
OCWD Revenues - .56 LIBOR plus .23% - Estimates	-	(2,038,985) (3)	-	(2,038,985)	
<b><u>State Loans</u></b>					
GWR System C-06-4462-110	\$ 471,615	\$ 9,466	\$ -	\$ 481,082	\$ -
GWR System C-06-4462-120	194,056	11,705	-	205,761	399,664
GWR System C-06-4462-130	171,665	10,048	-	181,713	353,251
GWR System C-06-4462-140	264,139	15,382	-	279,521	543,464
GWR System C-06-4462-150	6,255,441	584,633	-	6,840,074	26,170,138
GWR System C-06-4462-160	207,714	12,066	-	219,780	427,341
Fletcher Basin C-06-7867-110	137,539	38,128	-	175,667	1,869,194
La Palma Basin C-06-8101-110	166,387	44,880	-	211,268	4,321,650
Mid Basin C-06-8252-110	493,546	305,400	-	798,946	16,473,136
Alamitos Barrier Improvement C-06-7868-110	646,175	227,072	-	873,247	11,304,985
GWRSF E - SRF loans	-	-	-	-	148,000,000
Subtotal	\$ 9,008,276	\$ 1,258,782	\$ -	\$ 10,267,058	\$ 209,862,823
<b><u>Commercial Paper</u></b>					
Tax-Exempt	\$ -	\$ 484,238 (4)	\$ -	\$ 484,238	\$ 12,913,000
Taxable	10,000,000 (5)	213,133	-	10,213,133	4,487,000
	\$ 10,000,000	\$ 697,370	\$ -	\$ 10,697,370	\$ 17,400,000
<b><u>Debt Administration</u></b>	\$ -	\$ -	\$ 954,700	\$ 954,700	
<b>TOTAL EXPENDITURES</b>	<b>\$ 25,203,276</b>	<b>\$ 18,202,213</b>	<b>\$ 954,700</b>	<b>\$ 44,360,189</b>	<b>\$ 830,769,655</b>

(1) Assumes 4.00% interest rate.

(2) WIFIA loan will be used to pay off 2019A revenue COP Debt. WIFIA interest rate is 1.04% and will be added to the loan.

(3) Assumes LIBOR equal to variable rate of 4.00%.

(4) Assumes 4.75% interest rate for taxable and 3.75% for tax-exempt.

(5) Taxable principal of \$10 million will be paid using RA revenue.

**Debt Administration Fees  
FY 2023-24**

	<u>Fee</u>	<u>Annual Amount</u>
1	Letter of Credit Commercial Paper Fee with Sumitomo Mitsui Banking Corporation \$76.3 M x 0.32%	\$244,200
2	Quarterly 2003A Remarketing Fee - Morgan Stanley \$129.8 M x 0.035%	\$45,500
3	2003A Bank of America Letter of Credit \$131.9 M x 0.34%	\$448,500
4	Commercial Paper Remarketing JPM \$27.400M x .0325%	\$9,000
4	Annual Rating Agency Fees: Fitch, Moody's and Standard & Poor's	\$77,500
5	Bond Counsel/Financial Advisor/Arbitrage Service	\$50,000
6	US Bank Trust Commercial Paper Draw Fees and Quarterly Certificate Fees	\$10,000
7	U.S. Bank COP Trust Fees	\$30,000
8	WIFIA Fee (2 Loans)	\$40,000
	Total	<u><u>\$954,700</u></u>

# Section 5

## Other Post Employment Benefits

## OTHER POST EMPLOYMENT BENEFITS

The Government Accounting Standards Board Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and GASB 75 - *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, established accounting and financial reporting requirements for OPEB plan costs and obligations related to retiree healthcare benefits (Other Post Employment Benefits – OPEB). The statements generally require employers to account for and report the annual cost and outstanding obligations and commitments for these benefits. The GASB standards require that the long-term cost of retiree health care be determined and accrued on an actuarial basis. The results of the valuations are disclosed on the District’s financial statements.

The GASB standards required the District to receive a new actuarial study in June 2022, with a measurement date as of June 30, 2021. The actuarial study determined the District’s net OPEB liability and the new actuarially determined contributions (ADC) to provide the retiree medical benefit. The Board has directed funding this liability to our PARS trust per the actuarial study measured as of June 30, 2021.

Annual OPEB Cost for the budget year 2023-24	\$640,000
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The District’s actual cost to pay medical premiums for retired employees will be paid out of the PARS trust. This annual cost is estimated at \$760,000.



# Section 6

## Water Purchase

## WATER PURCHASE

The proposed FY 2023-24 water budget is \$6.2 million and calls for not purchasing any Metropolitan Water District (MWD) untreated full-service water. Staff expects groundwater pumping to continue to remain depressed due to the State Division of Drinking Water establishing a 10 ppt PFOA Response Level. To offset this decline in revenues to maintain a balanced budget, the District would not purchase any MWD untreated water.

This water budget will result in the accumulated overdraft, assuming an average hydrological year, to decline by approximately 40,000 acre-feet.

The groundwater basin accumulated overdraft is projected to be approximately 210,000 acre-feet on June 30, 2023. The overdraft is 35,000 acre-feet from the District's recommended target accumulated overdraft of 175,000 acre-feet (Average of 200,000 acre-feet to 150,000 acre-fee recommended range). The general maximum desired balance in the water reserve fund is to have sufficient funding available to purchase 50% of the water needed from MWD to refill the groundwater basin to the 175,000-acre-foot target. This amounts to 17,500 acre-feet (35,000 acre-feet x 50%) which is estimated to cost \$16.8 million using the MWD untreated full-service rate.

Estimated June 30, 2023 Accumulated Overdraft		210,000 af
OCWD Target Accumulated Overdraft Range (150,000 to 200,000 af)		<u>175,000 af</u>
	Difference	35,000 af
	50% of Difference	17,500 af
2023-24 Average MWD untreated full-service rate including \$80/acre-foot for RTS and Capacity Charge (\$879+\$80)		\$959/af
Necessary water fund balance to purchase 17,500 af of water (\$959/af x 17,500 af)		\$16.8 million
Estimated June 30, 2023 Water Reserve Fund Balance		\$15 Million

The accompanying table provides a detailed summary of the Water Purchase Budget for FY 2023-24. MWD's rates are assumed to increase on January 1, 2024 as shown. For budgeting purposes, the cost per acre-foot for MWD water is an average of the existing and expected calendar year 2024 rates. The specific water purchase items in the table include:

1. The District anticipates purchasing approximately 3,000 acre-feet of water from the City of Long Beach for injection into the Alamitos Barrier. The cost of this water is \$5/acre-foot above the cost of MWD Tier I water plus the

Readiness-To-Serve and Capacity Charge paid by the City of Long Beach to MWD. The total cost for this water is \$1,380.50/af.

2. The District will not purchase any untreated full service non-interruptible MWD water for recharge at the District's field headquarters in the city of Anaheim.
3. MWDOC Groundwater Charge – MWDOC charges the District a fee to fund its staff time and other expenses incurred to support OCWD's programs and purchases of imported water. The fee is currently estimated at \$380,000.
4. The District incurs a Capacity Charge fee on any purchase of MWD non-interruptible water supplies (i.e., OC-44 connection supplies or untreated non-interruptible water). The Capacity Charge is administered by MWDOC and is now billed monthly to the District as a flat fee. The Capacity Charge for FY 2023-24 will be approximately \$10,000.
5. The District also incurs a Readiness-To-Serve charge on any purchase of MWD treated non-interruptible water supplies (i.e., OC-44 connection supplies or untreated non-interruptible water). The fee is expected to be approximately \$1,700,000 in FY 2023-24.

The total Water Purchase budget expense for FY 2023-24 is \$6.2 million.

**Fiscal Year 2023-24 Budget for Water Purchase  
(July 1, 2023 to June 30, 2024)**

<u>Item #</u>		<b>Volume (AF)</b>	<b>2023-24 Unit Cost \$/af <sup>(1)</sup></b>	<b>MWDOC Surcharge \$/af</b>	<b>Total Cost Amount</b>
1	Alamitos Barrier Injection water from Long Beach Water Department <sup>(2)</sup>	3,000	1,380.50	n/a	\$4,141,500
2	Untreated Non-interruptible MWD Water <sup>(3)</sup>	0	879.00	n/a	\$0
<b>Sub-total</b>		<b>3,000</b>			<b>\$4,141,500</b>
3	MWDOC Groundwater Charge				\$380,000
4	MWD/MWDOC Capacity Charge <sup>(4)</sup>				\$10,000
5	Readiness-to-serve charge is based upon an 4-year average of previous purchases <sup>(5)</sup>				\$1,700,000
<b>Total</b>		<b>3,000</b>			<b>\$6,231,500</b>

**NOTES**

- (1) Average of 2024 and 2023 rates
- (2) Treated Non-interruptible rate assumed to increase from \$1,209/af to \$1,256/af: Average is \$1,232.5/af  
Unit cost includes \$5/af City of Long Beach fee plus \$129/af RTS and \$14/af Capacity Charge paid by Long Beach to MWD
- (3) Untreated non-interruptible rate assumed to increase from \$903/af to \$855/af: Average is \$879.00/af
- (4) MWD/MWDOC Capacity Charge is billed monthly by MWDOC as a flat fee
- (5) Readiness-to-serve (RTS) charge is calculated and provided by MWDOC

# Section 7

## Basin Equity Assessment

## BASIN EQUITY ASSESSMENT (BEA) BUDGET

The objective of the BEA program, as authorized by Section 31.5 of the Orange County Water District Act, is to make possible more effective management of the groundwater basin and to equalize water costs within the District.

BEA collections for FY 2023-24 are estimated at \$2,750,000, which applies to pumping in excess of the basin production percentage (BPP). The District sets the BEA based upon the price of Metropolitan Water District's water.

BEA revenue is used to offset the cost of MWD water purchases. Predicting BEA revenue is difficult as it is determined by: (1) groundwater producers who decide to pump above the BPP; (2) groundwater producers participating in water quality projects that receive partial BEA exemptions for pumping above the BPP; and (3) smaller private party pumping.

BEA revenues expected for pumping above the BPP	\$2,750,000
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# Section 8 Capital Improvement Program

Debt and PAYGO Funded Projects

## CAPITAL IMPROVEMENT PROGRAM

The fiscal year (FY) 2023-24 Capital Improvement Program (CIP) is provided on the following pages. The CIP projects are funded by debt proceeds, grants, state loans, and \$47.7 million from operating revenues. The assets created by the CIP projects typically have a useful life of between three to seventy years.

The total proposed CIP cost for the FY 2023-24 budget is \$101.1 million, and it includes 19 projects. The life span of various CIP projects varies from project to project and it can be three years or longer. The District will fund \$47.7 million of the \$101.1 million dollar CIP budget from the operating revenues. This District practice is very useful in keeping the debt service cost to the minimum and maintaining debt service coverage targets.

The CIP is primarily driven by the following objectives: (1) increasing the District's recharge capacity to allow for increased sustainable production out of the groundwater basin; (2) protecting water quality by removing contaminated groundwater from the basin and providing additional wetlands treatment for Santa Ana River flows; and (3) protecting the coastal portion of the groundwater basin.

Budgeting of project expenditures does not authorize staff to proceed with a project. Each budgeted project must be individually reviewed and formally approved by the Board via the preparation of an Engineer's Report. In addition, the Board would need to approve the design and the construction contracts as if the project progresses forward.

The expenditures for each project are shown in the fiscal year they are anticipated to occur in. The District has many multi-year projects that require several years to process and construct. Table 8-1 provides a broad summary of the projects in the CIP. A brief description and status of each project are provided on the attached Capital Projects Information sheet.

**TABLE 8-1  
SUMMARY OF PROJECTS IN THE CAPITAL IMPROVEMENT PROGRAM**

PROJECT TYPE	OBJECTIVE
<b>WATER SUPPLY</b>	<b>PROVIDE FOR INCREASED GROUNDWATER PRODUCTION AND CREATE SUPPLIES WHERE ECONOMICAL AS COMPARED WITH MWD RATES.</b>
	Construct facilities to increase recharge capacity and percolation rates to allow for increased groundwater pumping.
	Improve existing facilities to increase percolation rates.
	Create a new water supply.
<b>WATER QUALITY</b>	<b>PROTECT THE QUALITY OF THE GROUNDWATER BASIN SUPPLIES.</b>
	Protect groundwater in North Basin by extracting and treating wells threatened by VOC contamination in Anaheim and Fullerton.



<b>COASTAL IMPROVEMENTS</b>	<b>MITIGATE FOR EXISTING AND PROJECTED FUTURE PROBLEMS ALONG THE COAST.</b>
	Construct barrier facilities to prevent seawater intrusion.

The cost of information for multi-year debt and operating revenue funded projects is summarized in Table 8-2.

The OCWD staff works closely with the Board of Directors in processing capital projects. Formal Board approval is required at various stages of a project’s life, as shown below:

1. Inclusion in OCWD annual budget.
2. Issuance of Request for Proposals for the hiring of consultants for fees greater than \$20,000 to assist in processing project documents.
3. Awarding consultant contracts greater than \$20,000.
4. Approval of Feasibility Study Report, if so directed by the General Manager.
5. Approval of necessary CEQA documents.
6. Approval of the project Engineer’s Report.
7. Approval of any agreements (i.e. grant funding, interagency).
8. Approval of advertising construction contracts.
9. Award of construction contracts.
10. Approval of change orders greater than 5% of the construction budget.
11. Approval of Notice of Completion.

The District primarily uses long-term debt to fund capital projects. The District policy for using long-term debt was established in October 2000. The policy calls for the following:

- ◆ Preliminary project expenses related to direct research are to be paid from the General Fund.
- ◆ Project expenses for items such as feasibility reports, pilot studies, engineer reports, compliance with CEQA, and project design and construction may be capitalized and funded with long-term debt.
- ◆ Project expenses that are capitalized and funded with long-term debt and do not lead to the construction of a project will require an adjustment by the Accounting Department to pay off the long-term debt incurred using cash reserves.

**TABLE 8-2  
FISCAL YEAR 2023-24  
CAPITAL IMPROVEMENT PROGRAM SUMMARY**

		Fiscal Year	Salaries	Benefits	Salaries & Benefits	Pre-design	Design	Construction	Total			
ACCOUNT NO: COST CODE						02000	03000	40010				
		2023-24	330,606	107,228	437,834	400,000	300,000	99,928,000	101,065,834			
		2024-25	0	0	0	0	0	27,200,000	27,200,000			
		2025-26	0	0	0	0	0	0	0			
		2026-27	0	0	0	0	0	0	0			
		2027-28	0	0	0	0	0	0	0			
<b>Grand Total</b>												
JDE PROJECT ID NO.	Project Name	Project Description								Project Details	Dept.	
1	C23001	<b>R&amp;D ERC Pilot and Test Systems Upgrades</b>  Upgrades are required for the R&D Department Engineering Research Center (ERC) pilots and related approximately 15-year old test facilities in order to modernize equipment, improve staff efficiency, increase data security, and maintain good functionality. Much of this can be completed in-house after acquiring the necessary equipment. For other work, R&D will retain outside contractors as needed to update various pilots' control and data management capabilities.  Estimated Total Capital Cost: \$168K	2023-24			-			168,000	168,000	Work will include: RO pilot #4 HMI, control system and data sharing system upgrade. RO pilot #3 HMI and data sharing system upgrade. UF pilot #1 and UF pilot #2: Replace PLC and other sensor upgrades. RO building satellite vessels (SVs) upgrades such as data loggers and new pressure transducers for up to 8 of 8 SVs. R&D pilots Data Management and Reporting Platform (vendor or in-house TBD).	1040
			2024-25			-				-		
			2025-26			-				-		
			2026-27			-				-		
			2027-28			-				-		
							5-Year Project Total	168,000				
2	C18001	<b>Prado Shooting Range Interim Remediation Actions</b>  Implement Remedial Actions for former shooting areas at Pigeon Hill and Former Clay Target Range  Estimated Total Capital Cost: \$2.5M	2023-24			-		300,000	300,000	Prepare Remedial Investigation/Feasibility Study and Remedial Action Plan for Pigeon Hill and Former Clay Target Range in Prado Basin area; cost for implementing Remedial Action Plan to be budgeted after additional details are available.	1044	
			2024-25			-			2,200,000			2,200,000
			2025-26			-						-
			2026-27			-						-
			2027-28			-						-
							5-Year Project Total	2,500,000				
3	C19006	<b>Anaheim PFAS Treatment Systems</b>  PFAS Treatment Systems  Estimated Total Capital Cost: \$117M	2023-24	23,209	6,948	30,157			50,000,000	50,030,157	Design and construction of PFAS treatment vessel systems to remove the PFAS contaminant from the water prior to individual Producers serving to customers.	1070
			2024-25			-			15,000,000	15,000,000		
			2025-26			-				-		
			2026-27			-				-		
			2027-28			-				-		
							5-Year Project Total	65,030,157				
4	C19009	<b>Santa Ana PFAS Treatment System Well #40</b>  PFAS Treatment Systems  Estimated Total Capital Cost: \$5.5M	2023-24			-			750,000	750,000	Design and construction of PFAS treatment vessel systems to remove the PFAS contaminant from the water prior to individual Producers serving to customers.	1070
			2024-25			-				-		
			2025-26			-				-		
			2026-27			-				-		
			2027-28			-				-		
							5-Year Project Total	750,000				
5	C19011	<b>Tustin PFAS Treatment System</b>  PFAS Treatment Systems  Estimated Total Capital Cost: \$25.8M	2023-24	52,777	17,098	69,876			15,000,000	15,069,876	Design and construction of PFAS treatment vessel systems to remove the PFAS contaminant from the water prior to individual Producers serving to customers.	1070
			2024-25			-			5,000,000	5,000,000		
			2025-26			-				-		
			2026-27			-				-		
			2027-28			-				-		
							5-Year Project Total	20,069,876				
6	C19014	<b>IRWD PFAS Treatment System</b>  PFAS Treatment Systems  Estimated Total Capital Cost: \$6.3M	2023-24	9,234	3,003	12,237			1,000,000	1,012,237	Design and construction of PFAS treatment vessel systems to remove the PFAS contaminant from the water prior to individual Producers serving to customers.	1070
			2024-25			-				-		
			2025-26			-				-		
			2026-27			-				-		
			2027-28			-				-		
							5-Year Project Total	1,012,237				
7	C19015	<b>EOCWD PFAS Treatment System</b>  PFAS Treatment Systems  Estimated Total Capital Cost: \$5.1M	2023-24	9,234	3,003	12,237			500,000	512,237	Design and construction of PFAS treatment vessel systems to remove the PFAS contaminant from the water prior to individual Producers serving to customers.	1070
			2024-25			-				-		
			2025-26			-				-		
			2026-27			-				-		
			2027-28			-				-		
							5-Year Project Total	512,237				

**TABLE 8-2  
FISCAL YEAR 2023-24  
CAPITAL IMPROVEMENT PROGRAM SUMMARY**

		Fiscal Year	Salaries	Benefits	Salaries & Benefits	Pre-design	Design	Construction	Total				
<i>ACCOUNT NO: COST CODE</i>						02000	03000	40010					
8	C19016	<b>Orange Phase 2 PFAS Treatment Systems</b> PFAS Treatment Systems Estimated Total Capital Cost: \$8M	2023-24	34,311	11,354	45,664			6,500,000	6,545,664	Design and construction of PFAS treatment vessel systems to remove the PFAS contaminant from the water prior to individual Producers serving to customers.	1070	
			2024-25			-							-
			2025-26			-							-
			2026-27			-							-
			2027-28			-							-
								5-Year Project Total	6,545,664				
9	C19017	<b>Fullerton PFAS Treatment System</b> PFAS Treatment System Estimated Total Capital Cost: \$13.2M	2023-24	18,468	6,005	24,473			6,000,000	6,024,473	Design and construction of PFAS treatment vessel systems to remove the PFAS contaminant from the water prior to individual Producers serving to customers.	1070	
			2024-25			-							-
			2025-26			-							-
			2026-27			-							-
			2027-28			-							-
								5-Year Project Total	6,024,473				
10	C19018	<b>Orange Well 29 PFAS Treatment System</b> PFAS Treatment System Estimated Total Capital Cost: \$4M	2023-24			-			500,000	500,000	Design and construction of PFAS treatment vessel systems to remove the PFAS contaminant from the water prior to individual Producers serving to customers.	1070	
			2024-25			-			3,000,000	3,000,000			
			2025-26			-							-
			2026-27			-							-
			2027-28			-							-
								5-Year Project Total	3,500,000				
11	C19019	<b>Orange Well 28 PFAS Treatment System</b> PFAS Treatment System Estimated Total Capital Cost: \$4M	2023-24			-			3,000,000	3,000,000	Design and construction of PFAS treatment vessel systems to remove the PFAS contaminant from the water prior to individual Producers serving to customers.	1070	
			2024-25			-							-
			2025-26			-							-
			2026-27			-							-
			2027-28			-							-
								5-Year Project Total	3,000,000				
12	C19020	<b>Santa Ana Wells 27&amp;28 PFAS Treatment System</b> PFAS Treatment Systems Estimated Total Capital Cost: \$8M	2023-24	33,951	10,535	44,487			6,000,000	6,044,487	Design and construction of PFAS treatment vessel systems to remove the PFAS contaminant from the water prior to individual Producers serving to customers.	1070	
			2024-25			-							-
			2025-26			-							-
			2026-27			-							-
			2027-28			-							-
								5-Year Project Total	6,044,487				
13	C19021	<b>Santa Ana Well 31 PFAS Treatment Systems</b> PFAS Treatment System Estimated Total Capital Cost: \$4.6M	2023-24	22,347	7,061	29,408			3,000,000	3,029,408	Design and construction of PFAS treatment vessel systems to remove the PFAS contaminant from the water prior to individual Producers serving to customers.	1070	
			2024-25			-							-
			2025-26			-							-
			2026-27			-							-
			2027-28			-							-
								5-Year Project Total	3,029,408				
14	C19022	<b>Santa Ana Well 38 PFAS Treatment Systems</b> PFAS Treatment System Estimated Total Capital Cost: 4.5M	2023-24			-			4,500,000	4,500,000	Design and construction of PFAS treatment vessel systems to remove the PFAS contaminant from the water prior to individual Producers serving to customers.	1070	
			2024-25			-							-
			2025-26			-							-
			2026-27			-							-
			2027-28			-							-
								5-Year Project Total	4,500,000				
15	C23002	<b>Garden Grove Well 19 PFAS Treatment Systems</b> PFAS Treatment Systems Estimated Total Capital Cost: \$4.02M	2023-24	18,468	6,005	24,473			2,000,000	2,024,473	Design and construction of PFAS treatment vessel systems to remove the PFAS contaminant from the water prior to individual Producers serving to customers.	1070	
			2024-25			-			2,000,000	2,000,000			
			2025-26			-							-
			2026-27			-							-
			2027-28			-							-
								5-Year Project Total	4,024,473				
16	C18005	<b>Sunset Gap Seawater Intrusion Monitoring Wells</b> Investigate potential sources and downgradient extent of seawater intrusion in Seal Beach and Huntington Beach. The drilling contract was awarded, and the construction of the last well site was delayed due to site access Est. Total Capital Cost: \$1.5 M	2023-24			-			360,000	360,000	Construct the last two monitoring wells at one location in Seal Beach to investigate a potential seawater pathway coming from Alamitos Gap.	1075	
			2024-25			-							-
			2025-26			-							-
			2026-27			-							-
			2027-28			-							-
								5-Year Project Total	360,000				
17	C08007	<b>South Basin Groundwater Protection Project</b> Perform environmental evaluation (CEQA) and prepare documentation, including potential EIR for a groundwater contamination remediation project. Estimated Total Capital Cost: \$14M	2023-24	74,571	24,986	99,557	400,000			499,557	Subject to Board approval, a proposed remedial action project would address groundwater contamination in the South Basin area (Santa Ana and Irvine) and may entail the construction and operation of a series of groundwater extraction wells and treatment systems.	1075	
			2024-25			-							-
			2025-26			-							-
			2026-27			-							-
			2027-28			-							-
								5-Year Project Total	499,557				

**TABLE 8-2  
FISCAL YEAR 2023-24  
CAPITAL IMPROVEMENT PROGRAM SUMMARY**

		Fiscal Year	Salaries	Benefits	Salaries & Benefits	Pre-design	Design	Construction	Total				
<i>ACCOUNT NO: COST CODE</i>						02000	03000	40010					
18	C23003	<b>Shallow Aquifer Monitoring Wells for Basin Storage Calculation</b> Construct three shallow monitoring wells for water level measurements used for annual basin storage change calculation. Estimated Total Capital Cost: \$150K	2023-24	12,388	4,207	16,595			150,000	166,595	Construct three shallow monitoring wells (Yorba Linda, North Tustin, and Irvine) where no wells exist to improve the accuracy of the annual groundwater level contour map and basin storage calculation.	1075	
			2024-25			-				-			
			2025-26			-				-			
			2026-27			-				-			
			2027-28			-				-			
								5-Year Project Total	166,595				
19	C23004	<b>Seawater Intrusion Monitoring Well</b> Construct one multi-depth monitoring well cluster (4 casings) in the Bolsa Gap (Huntington Beach) Estimated Total Capital Cost: \$500K	2023-24	21,648	7,023	28,671			500,000	528,671	Construct a 4-well cluster of monitoring wells to a maximum depth of approximately 400 feet to investigate seawater intrusion in the Bolsa Gap.	1075	
			2024-25			-				-			
			2025-26			-				-			
			2026-27			-				-			
			2027-28			-				-			
								5-Year Project Total	528,671				

# Section 9 New Equipment (Fixed Assets) Summary

New Equipment Budget Funded by Operating Revenues

## **NEW EQUIPMENT (FIXED ASSETS) SUMMARY**

This section describes the equipment items proposed for FY 2023-24. The total budget for eight equipment items listed in Table 9-1 is \$298,600. These items will be funded using operating revenues.

**TABLE 9-1  
FY 2023-24 PROPOSED EQUIPMENT BUDGET  
FUNDED BY OPERATING REVENUES**

	Item Name	Item Description	Department	Budget Amount
	<b>Information Services (1016)</b>			
1	Windows Servers	Replacement of 3 end of maintenance, 8 year-old Dell Servers running District software, data storage and telephone system @ \$25,000 each.	Information Services (1016)	75,000
2	Network Switches	Replacement of 4, end-of-life core Cisco network switches.	Information Services (1016)	80,000
3	Firewall	Purchase 1 Palo Alto firewall for Prado Field Office.	Information Services (1016)	12,000
	<b>E21.17110.1016</b>	<b>Total</b>	<b>Information Services (1016)</b>	<b>167,000</b>
	<b>Laboratory (1038)</b>			
4	Total Organic Carbon Analyzer	TOC analyzer used for total organic carbon analysis, replacing 1 out of 2 (16 years old).	Laboratory (1038)	55,000
5	Glassware Muffle Furnace/Oven	Laboratory drying furnace used to dry glassware and chemicals for analytical use, replacing 1 out of 2 (10 years old, inoperable).	Laboratory (1038)	20,000
6	Scientific Refrigerator	Replace 1 of 19 storage units for samples, standards, and reagents (20 years old).	Laboratory (1038)	15,000
7	Spectrophotometer	New spectrophotometer coupled with reactor block digester for analysis of total Kjeldahl nitrogen and ammonia.	Laboratory (1038)	10,000
	<b>E21.17110.1038</b>	<b>Total</b>	<b>Laboratory (1038)</b>	<b>100,000</b>
	<b>Hydrogeology (1075)</b>			
8	Water Level Data Loggers	Purchase 5 water level sensors/dataloggers for Alamitos Barrier shallow piezometers.	Hydrogeology (1075)	6,600
	<b>E21.17110.1075</b>	<b>Total</b>	<b>Hydrogeology (1075)</b>	<b>6,600</b>
	<b>Natural Resources (1080)</b>			
9	Wildlife Camera System	Purchase wildlife camera system and software to track various species.	Natural Resources (1080)	25,000
	<b>E21.17110.1080</b>	<b>Total</b>	<b>Natural Resources (1080)</b>	<b>25,000</b>
<b>Grand Total for Equipment Funded by Operating Revenues</b>				<b>298,600</b>

**Section 10**  
**Replacement and**  
**Refurbishment Fund**



## REPLACEMENT AND REFURBISHMENT BUDGET

The District has over \$1.2 billion in assets, excluding construction in progress, that will need to be replaced or refurbished at some point in the future. To prevent additional pressure on the Replenishment Assessment, a replacement and refurbishment model was developed in 1998, which included all District assets and used engineer's estimates for the useful life of each asset. This model is capable of forecasting future costs and required revenue streams and is updated annually.

The Replacement and Refurbishment (R&R) fund was originally funded in FY 1998-99 with \$15 million from the District Replacement Reserves and \$20 million from the Orange County bankruptcy proceeds.

In 2004 the R&R program was downsized to only include infrastructure type assets. The amount of money annually transferred into the R&R program was reduced from \$4.5 million annually to \$2.8 million. The annual transfer amount for the budget year 2023-24 has grown by \$1.6 million to provide sufficient funds to meet future expected R&R expenses. The fiscal year 2023-24 contribution is \$25.2 million.

An update to the R&R Model was made in 2007 and the changes included:

1. All infrastructure replacement cost have been updated.
2. The R&R Fund balance was set at the current amount of \$61.8 million with an expected interest earnings rate of 5% over the next 30 years.
3. The inflation rate was increased from 3% to 3.5% to reflect recent increases in construction material.
4. The cost of repairing and refurbishing the Talbert barrier injection wells has been moved out of the R&R program and into the District's general fund.
5. The cost of major lab equipment costing greater than \$100,000 has been moved into the R&R program.

Another update to the Model was conducted in 2011 and the changes include the following:

1. Eliminated the replacement of the Green Acres Project's conventional filtration technology as it will be replaced by an expansion of the microfiltration treatment of GWRS.
2. The Basin Cleaning Vehicles (BCV) was removed from the R&R Model as the BCV Program was discontinued.
3. Pump stations electrical and pumps were separated from buildings as they were previously treated as a single unit in the R&R Model.
4. Transferred \$10 million in reserves from the R&R Fund to the Operating Fund.

Actual expenditures from the fund vary significantly each year depending on which District assets have reached the end of their useful life and need to be replaced or which assets

can have their lives extended by refurbishing them. The proposed FY2023-24 R&R budget expenditure is \$15.5 million and includes 41 projects. All projects over \$500,000 are listed below:

- Santiago Floating Pump Station Refurbishment (\$3,524,473).
- Replacement of RO Membranes in 3 RO units Train E (\$1,750,000).
- Replacement of RO Membranes in 3 RO units Train F (\$1,750,000).
- Replacement of RO Membranes in 3 RO units Train G (\$1,750,000).
- Replacement of RO CIP PVC piping system with SS in area A520 (\$1,500,000).
- Replacement MF PVDF Membranes in Cell E03 (\$700,000).

FISCAL YEAR 2023-24  
PROPOSED REPLACEMENT & REFURBISHMENT FUND REQUESTS

#	Project ID	Item	Description	Department	Salaries & Benefits	Project Cost	Total Project Cost	Asset Class	Refurbishment or Replacement	Asset Age
<b>Lab (1038)</b>										
1	R23001	Gas Chromatography Mass Spectrometer	GC/MS instrument for 1,2,3-TCP and 1,4-dioxane analysis, replacing 1 out of 3 (14 years old).	Laboratory (1038)		175,000	175,000	Lab Equipment > \$100,000	Replacement	14yrs
2	R23002	High Pressure Liquid Chromatograph	HPLC instrument coupled with post-column reaction module, fluorescence detector, and photodiode array detector, replacing current 14 year old instrument.	Laboratory (1038)		160,000	160,000	Lab Equipment > \$100,000	Replacement	14yrs
<b>Total</b>				<b>Laboratory (1038)</b>	<b>\$ -</b>	<b>\$ 335,000</b>	<b>\$ 335,000</b>			
<b>R&amp;D (1040)</b>										
3	R23003	Office carpeting and Lab flooring	Replace approximately 20-year old carpet (R&D offices, landing) and lab flooring (30+ years old) in the R&D Department (second floor Annex Building). Vendor also needs to move then return the office furniture. Consider continuing into first floor NWRI that has same carpet.	R&D (1040)		40,000	40,000	Buildings	Replacement	20 - 30+ yrs
<b>Total</b>				<b>R&amp;D (1040)</b>	<b>\$ -</b>	<b>\$ 40,000</b>	<b>\$ 40,000</b>			
<b>Water Production (1050)</b>										
4	R23004	Replacement of RO membranes in 3 RO units of the E train	Replace 3,150 RO membranes in units E01, E02 and E03 that are experiencing irreversible fouling and loss of rejection. Price includes tax and freight.	Water Production (1050)		1,750,000	1,750,000	RO, MF units	Replace	
5	R23005	Replacement of RO membranes in 3 RO units of the F train	Replace 3,150 RO membranes in units F01, F02 and F03 that are experiencing irreversible fouling and loss of rejection. Price includes tax and freight.	Water Production (1050)		1,750,000	1,750,000	RO, MF units	Replace	
6	R23006	Replacement of RO membranes in 3 RO units of the G train	Replace 3,150 RO membranes in units G01, G02 and G03 that are experiencing irreversible fouling and loss of rejection. Price includes tax and freight.	Water Production (1050)		1,750,000	1,750,000	RO, MF units	Replace	
7	R22011	Replacement of RO CIP PVC Piping System with Stainless Steel in A520	Replace failing PVC piping system in RO Clean in Place system with 316 SS in Process Area 520	Water Production (1050)		1,500,000	1,500,000	Pipe/Pipeline	Replacement	15yrs
8	R23007	Replacement MF PVDF membranes in Cell E03	Replace 684 PVDF microfiltration membranes in MF Cell E03.	Water Production (1050)		700,000	700,000	RO, MF units	Replace	
9	R23008	Refurbish or Replace Mechanical and Electrical Equipment or Structural Items	These funds are to refurbish or replace GWRS, GAP, and Fountain Valley campus building mechanical, electrical, and structural items that unexpectedly fail.	Water Production (1050)		500,000	500,000	RO, MF units	Replacement or Refurbishment	
10	R23009	GAP Process Building Stairs - Install and Purchase of replacement staircase	Actual stairs installation costs obtained from design engineer. Existing stairs are deteriorating and unsafe to use.	Water Production (1050)		400,000	400,000	Buildings	Replace	20yrs
11	R23010	I-24 and I-25 Well Pump and Down Hole Valve Replacement	Replace pumps and down hole control valves that have failed and re-design well controls to restore full functionality.	Water Production (1050)		200,000	200,000	Wells (all types)	Refurbishment	23yrs
12	R22006	GAP Robican VFD Replacement HPEP3	Green Acres Project replacement of HPEP 3 motor variable frequency drive. This is a 480 volt 800 hp unit.	Water Production (1050)		200,000	200,000	Pumps	Replacement	33yrs
13	R23011	Green Acres and GWRS Distribution Emergency Pipeline Repairs	These funds allow for refurbishment or replacement of Green Acres or GWRS distribution pipeline assets that unexpectedly fail or damaged.	Water Production (1050)		150,000	150,000	Pipe/Pipeline	Replacement or Refurbishment	
14	R21010	RO Transfer Pump and Motor Refurbishment	Inspect, remove (using external crane service) and machine a 1,250hp RO Transfer Pump Station pump as well as replace seals and bearings. Also clean, dip, and bake motor.	Water Production (1050)		120,000	120,000	Pumps	Refurbish	13yrs
15	R23012	Replacement of Pipeline Phoenix subnet	Replace the valve vault controllers with native Delta V	Water Production (1050)		100,000	100,000	SCADA	Replace	17yrs
16	R21011	Replace Access Ladders on Chemical Process Tanks	Replace ladders on chemical tanks either with FRP or SS depending upon chemical area and tank condition. Also reglaze ladder mounts for tanks as needed.	Water Production (1050)		100,000	100,000	Buildings	Replacement	13yrs
17	R21012	RO Feed Pump and Motor Refurbishment	Inspect, remove and machine a 1,000hp RO feed pump as well and replace seals and bearings. Also clean, dip, and bake motor.	Water Production (1050)		95,000	95,000	Pumps	Refurbish	13yrs
18	R21013	GAP Process Building Stairs Replacement	Replace existing deteriorating concrete staircase on east side of process building with metal or FRP staircase that meets current building code requirements.	Water Production (1050)		80,000	80,000	Buildings	Replacement	32yrs
19	R23013	Gap Influent Mag Meter	Replace Gap Influent flow meter anubar and transmitter with Rosemount 8750 magnetic flow meter	Water Production (1050)		60,000	60,000	SCADA	Replace	19yrs
20	R19008	Replace Analog Plant Radio System with Digital Based System	Replace existing plant radio system from analog to digital based. Work includes replacement of all hand held radios, installation of a new repeater, and new licensing. New system needed before FCC changes may require digital based frequency. New system would also match FHQ radio system and allow direct radio communication with FHQ personnel.	Water Production (1050)		49,000	49,000	Other	Replacement	13 yrs
21	R23014	825P motor protection relay replacement	Replace 3 825P MPRs with Schweitzer SEL 710 relays	Water Production (1050)		30,000	30,000	Pumps	Replace	17yrs
22	R23015	Power Conduit Bender	Replace Greenlee 855 with Greenlee 555C	Water Production (1050)		10,000	10,000	Substations	Replace	20yrs
<b>Total</b>				<b>Water Productions (1050)</b>	<b>\$ -</b>	<b>\$ 9,544,000</b>	<b>\$ 9,544,000</b>			
<b>Recharge Opeations (1060)</b>										
23	R23016	Excavator 325	Replace existing TL-34, a 2005 Tier 2 Excavator.	Recharge Operations (1060)		500,000	500,000	Heavy Equipment > \$50,000	Replacement	18yrs

FISCAL YEAR 2023-24  
PROPOSED REPLACEMENT & REFURBISHMENT FUND REQUESTS

#	Project ID	Item	Description	Department	Salaries & Benefits	Project Cost	Total Project Cost	Asset Class	Refurbishment or Replacement	Asset Age
24	R23017	Above Ground Gasoline Storage Tank and Delivery System	The Forebay's underground gasoline storage tank and delivery system was removed. An above ground tank and system is proposed for its replacement.	Recharge Operations (1060)		120,000	120,000	Pumps	Replacement	36yrs
25	R23018	Infrastructure & Equipment Repair	Funds to replace or refurbish infrastructure or equipment that unexpectedly fail.	Recharge Operations (1060)		100,000	100,000	Recharge Basins	Refurbishment or Replacement	Varies
26	R23019	Heavy Equipment Repair	Funds to repair heavy equipment that unexpectedly fails.	Recharge Operations (1060)		100,000	100,000	Heavy Equipment > \$50,000	Refurbishment or Replacement	Varies
27	R23020	Inspect / Refurbish Anaheim Lake Vertical Turbine Pump and Motor	Remove, disassemble, inspect, replace worn parts, reinstall and commission the vertical turbine pump and motor at Anaheim Lake.	Recharge Operations (1060)		75,000	75,000	Pumps	Refurbishment	34yrs
28	R23021	Undercarriage for D-7E Bulldozer	Replace worn track links, idlers, segments and all hardware.	Recharge Operations (1060)		75,000	75,000	Heavy Equipment > \$50,000	Replacement	4yrs
29	R23022	Pick-Up Truck F-250	Replace existing T-134, a 2008 F-250 Pick-Up Truck; or T-80, a 1995 1/2 Ton Pick-Up Truck.	Recharge Operations (1060)		61,000	61,000	Vehicles > \$50,000	Replacement	14 or 27yrs
30	R23023	Pavement Maintenance	Among the 1,600 acres in the forebay, there are many paved surfaces including concrete and asphalt. A condition assessment of the pavements is required, in addition to refurbishment of them to elongate their lifespans.	Recharge Operations (1060)		50,000	50,000	Parking Lots/Roads	Refurbishment	Varies
31	R23024	Repair Kraemer and Miller Discharge Pipeline Coatings	The pipelines that enter the sumps in the Kraemer and Miller Basins have shed their protective coatings and are corroding. This project will replace the coatings to elongate the pipeline service lives.	Recharge Operations (1060)		40,000	40,000	Pipe/Pipeline	Refurbishment	15yrs
32	R23025	Replace Maintenance Shop Air Conditioning Unit	The Maintenance Shop's air conditioning unit has required several repairs over the past year and utilizes an outdated refrigerant. The system needs to be upgraded to currently available refrigerant and mechanical components.	Recharge Operations (1060)		25,000	25,000	Buildings	Replacement	10yrs
33	R23026	Replace Maintenance Shop Scanners	The Maintenance Shop needs to replace its scanners that that help staff analyze the error code of failed sensors on the vehicle. Current scanners are very old and does not support new vehicles.	Recharge Operations (1060)		20,000	20,000	Replacement Equipment	Replacement	15yrs
				<b>Total</b>	<b>Recharge Operations (1060)</b>	<b>\$ -</b>	<b>\$ 1,166,000</b>			
				<b>Wetland Operations (1062)</b>						
34	R23027	Pick-Up Truck F-150	Replace existing T-115, a 2002 F-250 Pick-Up Truck.	Wetlands Opearations (1062)		56,000	56,000	Vehicles > \$50,000	Replacement	21yrs
				<b>Total</b>	<b>Wetlands Opearations (1062)</b>	<b>\$ -</b>	<b>\$ 56,000</b>			
				<b>Engineering (1070)</b>						
35	R22014	Santiago Floating Pump Station Refurbishment	Repair cables and conduits to floating pump station and modify discharge to allow pumping above water el. 240'.	Engineering (1070)	24,473	3,500,000	3,524,473	Pumps	Refurbishment	12yrs
36	R22028	Orange Storm Drain at Bond	Repair and Refurbish Orange storm drain at the Bond basin.	Engineering (1070)		360,000	360,000	Pipe/Pipeline	Refurbishment	50yrs
37	R23029	I-8 Vault Lid	Refurbish Barrier Injection Well I-8 vault with a heavy duty traffic rated vault lid.	Engineering (1070)		125,000	125,000	Pipe/Pipeline	Refurbishment	50yrs
38	R23030	Bond Basin Mitigation	Re-plant vegetation/re-establish habitat at Bond Basin from emergency slope and storm drain repairs.	Engineering (1070)		60,000	60,000	Recharge Basins	NA	21yrs
				<b>Total</b>	<b>Engineering (1070)</b>	<b>\$ 24,473</b>	<b>\$ 4,045,000</b>			
				<b>Hydrogeology (1075)</b>						
39	R23031	Monitoring Well Decommissioning	Properly destroy and seal obsolete monitoring wells MCAS-10 (Irvine) and AM-29A (Anaheim)	Hydrogeology (1075)	9,126	45,000	54,126	Wells (all types)	Refurbishment	34yrs
				<b>Total</b>	<b>Hydrogeology (1075)</b>	<b>\$ 9,126</b>	<b>\$ 45,000</b>			
				<b>Natural Resources (1080)</b>						
40	R23032	Skid-steer	Tractor for mowing, keeping Prado roads and trails open, edges cleared; old tractor in shop for weeks, replace to comply with air quality standards; quote attached. existing skid steer has a Tier 0 engine and it to be removed from service in order for OCWD to be in compliance with CARB	Natural Resouces (1080)		180,000	180,000	Heavy Equipment > \$50,000	Replacement	
41	R23033	Ford F-150	Replace Prado truck T-126 required for vireo contractor, 4WD; 2004 vintage, 142,000 miles.	Natural Resouces (1080)		60,000	60,000	Heavy Equipment > \$50,000	Replacement	
				<b>Total</b>	<b>Natural Resources (1080)</b>	<b>\$ -</b>	<b>\$ 240,000</b>			
				<b>R&amp;R Grand Total</b>						
						<b>\$ 33,599</b>	<b>\$ 15,471,000</b>			

Section 11  
OCWD Share of  
PFAS Treatment  
Cost

OCWD FY 23-24 50% Share of PFAS Treatment Operating Cost

The PFAS Treatment Facilities and Program Agreement that OCWD has executed with eleven Groundwater Producers calls for the District to pay 50% of the PFAS treatment facilities operating cost up to the current fiscal year maximum adjusted cost. This rate is automatically adjusted annually on July 1<sup>st</sup> per the agreement by the percentage differential based on the last two annual indices set forth in the Bureau of Labor Statistics Consumer Price Index for All Urban Consumers - Los Angeles-Long Beach-Anaheim. The rate is currently \$84.71 and can be expected to increase approximately 8% on July 1, 2023 to \$91.48/acre-foot.

OCWD currently expects all eleven Producers to have the majority of the new PFAS treatment systems operational during FY23-24. Reimbursement assumptions have been made based on expected resin media changeouts. The systems forecasted for resin changeouts were conservatively calculated with the maximum reimbursement amount and those not expecting changeouts were calculated with half the cost based on previous year reimbursement requests. The estimated amount of PFAS treated groundwater is 73,300 acre-feet with a treatment operating cost share estimate of \$3.5 million.

# Section 12

# Cost Center Details

Detail Cost Center General Fund Budget  
Acronyms and Abbreviations

**GENERAL FUND BUDGET  
COST CENTER DETAILS**

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GENERAL FUND OPERATING BUDGET FY 23-24  
GENERAL MANAGER'S OFFICE (1010)

JDE Account Number	Description	General	GWRS	Total
	ACTIVITY CODE	9900	9922	
	<b>SALARIES &amp; BENEFITS</b>			
1010.50104	REGULAR SALARIES	402,410	33,183	435,593
1010.50210	PAYROLL TAXES	8,623	791	9,414
1010.50202	RETIREMENT	67,001	5,525	72,526
1010.50204	HEALTH INSURANCE	32,680	2,190	34,870
1010.50206	WORKERS' COMPENSATION	2,093	173	2,266
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>512,807</b>	<b>41,862</b>	<b>554,669</b>
1010.51102	<b>DISTRICT MEMBERSHIPS</b>			
	AMERICAN MEMBRANE TECHNOLOGY ASSOCIATION	850		850
	AMERICAN WATER WORKS ASSOCIATION (AWWA)	2,100		2,100
	ASSOCIATION OF CALIFORNIA CITIES - ORANGE COUNTY (ACC-OC)	5,300		5,300
	ASSOCIATION OF CALIFORNIA WATER AGENCIES (ACWA)	35,000		35,000
	ASSOCIATION OF METROPOLITAN WATER AGENCIES (AMWA)	18,500		18,500
	CAL DESAL	5,000		5,000
	CAL STATE FULLERTON DEMOGRAPHICS	57,500		57,500
	CALIFORNIA GROUNDWATER COALITION	9,500		9,500
	CALIFORNIA MUNICIPAL UTILITIES ASSOCIATION (CMUA)	13,500		13,500
	CALIFORNIA SPECIAL DISTRICTS ASSOCIATION (CSDA)	8,500		8,500
	CALIFORNIA WATER EFFICIENCY PARTNERSHIP (SRF LOAN)	6,200		6,200
	CHAMBERS OF COMMERCE	5,000		5,000
	COMMUNITY WATER SYSTEMS ALLIANCE	10,000		10,000
	GROUNDWATER RESOURCES FOUNDATION (GRA)	1,500		1,500
	INDEPENDENT SPECIAL DISTRICTS ASSOCIATION (ISDOC)	100		100
	ORANGE COUNTY WATER ASSOCIATION	250		250
	PROFESSIONAL MEMBERSHIPS (ASCE & WEF)	500		500
	SANTA ANA RIVER FLOOD PROTECTION AGENCY (SARFPA)	1,300		1,300
	SCRIPPS WATER AFFILIATES GROUP	25,000		25,000
	SOUTHERN CALIFORNIA SALINITY COALITION (NWRI)	10,000		10,000
	SOUTHERN CALIFORNIA WATER COALITION	5,000		5,000
	SOUTHWEST MEMBRANE OPERATORS ASSOCIATION	500		500
	WATER EDUCATION FOUNDATION	8,000		8,000
	WATER RESEARCH FOUNDATION	178,500		178,500
	WATEREUSE ASSOCIATION	15,000		15,000
	<b>DISTRICT MEMBERSHIPS TOTAL</b>	<b>422,600</b>	<b>-</b>	<b>422,600</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
GENERAL MANAGER'S OFFICE (1010)

JDE Account Number	Description	General	GWRS	Total
	ACTIVITY CODE	9900	9922	
1010.51104	<b>SUBSCRIPTIONS</b>			
	ADMINISTRATIVE PROFESSIONAL, NEWSPAPERS	800		800
	<b>SUBSCRIPTIONS TOTAL</b>	<b>800</b>	<b>-</b>	<b>800</b>
1010.51112	<b>SPECIAL DISTRICT EXPENSES (SPONSORSHIPS)</b>			
	ACWA CONFERENCES (2)	6,500		6,500
	CALIFORNIA WATEREUSE CONFERENCE	5,500		5,500
	MISC. SPONSORSHIPS	15,000		15,000
	ORANGE COUNTY SCIENCE FAIR	3,000		3,000
	SOUTHERN CALIFORNIA WATER CONFERENCE	2,500		2,500
	TET FESTIVAL	5,000		5,000
	WATER EDUCATION FOR LATINO LEADERS CONFERENCE	7,500		7,500
	<b>SPECIAL DISTRICT EXPENSES (SPONSORSHIPS) TOTAL</b>	<b>45,000</b>	<b>-</b>	<b>45,000</b>
1010.51192	<b>TECHNICAL TRAINING</b>			
	STAFF TRAINING	250		250
	<b>TECHNICAL TRAINING TOTAL</b>	<b>250</b>	<b>-</b>	<b>250</b>
1010.51301	<b>TRAVEL/CONFERENCE/MILEAGE</b>			
	ACWA SPRING CONFERENCE, MONTEREY, CA	1,800		1,800
	ACWA FALL CONFERENCE, INDIAN WELLS	1,500		1,500
	SACRAMENTO LEGISLATIVE TRIPS (4)	2,000		2,000
	WASHINGTON DC LEGISLATIVE TRIPS (2)	5,000		5,000
	39TH ANNUAL WATEREUSE SYMPOSIUM, ORLANDO, FL	2,500		2,500
	WATEREUSE CALIFORNIA ANNUAL INDIAN WELLS, CA	1,500		1,500
	<b>TRAVEL/CONFERENCE/MILEAGE TOTAL</b>	<b>14,300</b>	<b>-</b>	<b>14,300</b>
1010.51501	<b>OFFICE EXPENSE - GENERAL</b>			
	BULK OFFICE AND CONSUMABLE SUPPLIES	4,500		4,500
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>4,500</b>	<b>-</b>	<b>4,500</b>
1010.51531	<b>SHIRTS - LOGO</b>			
	SHIRTS - LOGO	300		300
	<b>SHIRTS - LOGO TOTAL</b>	<b>300</b>	<b>-</b>	<b>300</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
GENERAL MANAGER'S OFFICE (1010)

JDE Account Number	Description	General	GWRS	Total
	ACTIVITY CODE	9900	9922	
1010.53001	PROFESSIONAL SERVICES - GENERAL			
	DISTRICT ISSUES CONSULTING	20,000		20,000
	OPERATIONAL EFFICIENCY CONSULTING	90,000		90,000
	MANAGEMENT CONSULTING	39,500		39,500
	<b>PROFESSIONAL SERVICES - GENERAL TOTAL</b>	<b>149,500</b>	<b>-</b>	<b>149,500</b>
1010.53005	PROFESSIONAL SERVICES - LEGAL			
	RUTAN & TUCKER, LLP	250,000		250,000
	<b>PROFESSIONAL SERVICES - LEGAL TOTAL</b>	<b>250,000</b>	<b>-</b>	<b>250,000</b>
1010.56012	INTERAGENCY AGREEMENTS			
	ACOE WATER CONSERVATION MAINTENANCE FEE	115,000		115,000
	LOCAL AGENCY FORMATION COMMISSION (LAFCO)	38,000		38,000
	NATIONAL WATER RESOURCE INSTITUTE (NWRI)	50,000		50,000
	OCFCD WATER CONSERVATION MAINTENANCE FEE	37,000		37,000
	SAWPA	375,240		375,240
	WATER EMERGENCY RESPONSE ORGANIZATION OF ORANGE COUNTY (WEROC)	144,900		144,900
	<b>INTERAGENCY AGREEMENTS TOTAL</b>	<b>760,140</b>	<b>-</b>	<b>760,140</b>
1010.57004	MAINTENANCE EQUIPMENT - GENERAL			
	EQUIPMENT REPAIRS	100		100
	<b>MAINTENANCE EQUIPMENT - GENERAL TOTAL</b>	<b>100</b>	<b>-</b>	<b>100</b>
	<b>GENERAL MANAGER'S OFFICE GRAND TOTAL</b>	<b>2,160,297</b>	<b>41,862</b>	<b>2,202,159</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
PUBLIC AFFAIRS (1012)

JDE Account Number	Description	General	Youth Education	Water Summit	Water 101	Tours	Total
	ACTIVITY CODE	9900	1206	9959	9962	9963	
	<b>SALARIES &amp; BENEFITS</b>						
1012.50104	REGULAR SALARIES	766,129	68,120	36,242	39,534	106,057	1,016,082
1012.50210	PAYROLL TAXES	12,479	988	526	573	1,538	16,104
1012.50202	RETIREMENT	123,881	11,342	6,034	6,582	17,659	165,498
1012.50204	HEALTH INSURANCE	97,613	7,807	4,822	7,487	17,060	134,789
1012.50206	WORKERS' COMPENSATION	3,984	354	188	206	551	5,283
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>1,004,086</b>	<b>88,611</b>	<b>47,812</b>	<b>54,382</b>	<b>142,865</b>	<b>1,337,756</b>
	<b>TRAVEL/CONFERENCE/MILEAGE</b>						
1012.51301	WASHINGTON D.C. - 1 TRIP	2,500					2,500
	ACWA CONF (SPRING (VIRTUAL) AND FALL; 2 STAFF)	6,000					6,000
	LOCAL ONE-DAY CONFERENCES (WEBINARS)	2,250					2,250
	SACRAMENTO (14) (ACWA/WRA LEG COMMITTEE & COMMUNICATIONS COMMITTEE)	10,000					10,000
	MISCELLANEOUS TRAVEL EXPENSES (MILEAGE)	1,000					1,000
	WATEREUSE CA CONFERENCES (1-2 STAFF)	2,000					2,000
	CAPIO CONFERENCE (2 STAFF)	3,500					3,500
	<b>TRAVEL/CONFERENCE/MILEAGE TOTAL</b>	<b>27,250</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>27,250</b>
	<b>PUBLIC INFORMATION TOURS</b>						
1012.51305	GROUNDWATER ADVENTURE TOUR					15,000	15,000
	NEXT GENERATION WATER LEADERS AND PRADO FIELD TRIPS (INSIDE THE OUTDOORS & SUBSIDIZED BUS FUNDING)		20,000				20,000
	SPEAKERS BUREAU	2,000					2,000
	<b>PUBLIC INFORMATION TOURS TOTAL</b>	<b>2,000</b>	<b>20,000</b>	<b>-</b>	<b>-</b>	<b>15,000</b>	<b>37,000</b>
	<b>MISCELLANEOUS EXPENSE</b>						
1012.51204	LEGISLATIVE & PRODUCER ACTIVITIES	2,000					2,000
	<b>MISCELLANEOUS EXPENSE TOTAL</b>	<b>2,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,000</b>
	<b>PROFESSIONAL SERVICES - GENERAL</b>						
1012.53001	ENS RESOURCES (FEDERAL ADVOCACY)	98,000					98,000
	EDELSTEIN, GILBERT, SMITH & ROBSON (STATE ADVOCACY)	92,000					92,000
	GONSALVES & SON (STATE ADVOCACY)	92,000					92,000
	LIBRIS ONLINE PHOTO AND VIDEO LIBRARY LICENSE	5,800					5,800
	CRISIS COMMUNICATIONS NOTIFICATION SYSTEM AND SOCIAL MEDIA (SEND WORD NOW)	10,000					10,000
	LICENSING, TECH SUPPORT AND MAINTENANCE/UPDATES FOR H2O LEARNING CENTER HALLWAY					5,000	5,000
	<b>PROFESSIONAL SERVICES - GENERAL TOTAL</b>	<b>297,800</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,000</b>	<b>302,800</b>
	<b>OFFICE EXPENSE - GENERAL</b>						
1012.51501	AWARDS (SUBMITTALS)	1,500					1,500
	PHOTOGRAPHY SERVICES & EQUIPMENT	1,000					1,000
	MEDIA ACTIVITIES (CISION; WEEKLY WATER LINES FEED)	22,000					22,000
	LICENSING TO POST/REPRINT ARTICLES	1,000					1,000
	OFFICE EXPENSES SUPPLIES, EQUIPMENT, AND PRINTING ETC.	15,000					15,000
	FLYER DISTRIBUTION & MAILINGS (WALKING MAN/POSTAGE) - CONSTRUCTION COMM. - NOT ALWAYS COVERED IN PROJECT BUDGETS	2,500					2,500
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>43,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>43,000</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
PUBLIC AFFAIRS (1012)

JDE Account Number	Description	General	Youth Education	Water Summit	Water 101	Tours	Total
	ACTIVITY CODE	9900	1206	9959	9962	9963	
1012.51102	MEMBERSHIP						
	PROFESSIONAL MEMBERSHIPS (CAPIO TIONAL AND ORANGE COUNTY CHAPTERS)	1,650					1,650
	<b>MEMBERSHIP TOTAL</b>	<b>1,650</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,650</b>
1012.56012	GWRS						
	GWRS VIP GROUP TOURS	4,500					4,500
	GWRS BOTTLED WATER (BOTTLING & SHIPPING)				20,000		20,000
	MARKETING/OUTREACH GWRS (TABLING, VIDEOS, ADVERTISING, TOUR ROUTE ENHANCEMENTS & EQUIPMENT)	10,000					10,000
	GWRS COLLATERAL (PROMOTIONAL ITEMS, TECH BROCHURE, BAGS, OTHER HANDOUTS)				10,000	20,000	30,000
	<b>GWRS TOTAL</b>	<b>14,500</b>	<b>-</b>	<b>-</b>	<b>30,000</b>	<b>20,000</b>	<b>64,500</b>
1012.51112	SPECIAL DEPARTMENT EXPENSE						
	OCWD BROCHURES, FOLDERS & FACT SHEETS	16,500					16,500
	EMPLOYEE EVENTS	15,000					15,000
	OCWD'S INDUSTRY AND COMMUNITY IMPACT (VIDEO, ADVERTISING, SOCIAL MEDIA, HISTORY BOOK)	12,000					12,000
	MILESTONE AND PROJECT DEDICATION EVENTS AND VIDEOS	15,000					15,000
	BOARD ROOM PHOTOS & UPDATE FRAMED DISTRICT MAPS AND PHOTOS FOR CONFERENCE ROOMS AS NEEDED	1,500					1,500
	<b>SPECIAL DEPARTMENT EXPENSE TOTAL</b>	<b>60,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>60,000</b>
1012.51119	SPECIAL DEPARTMENT EXPENSE - OC WATER SUMMIT						
	OC WATER SUMMIT - OPERATING COSTS			100,000			100,000
	WATER ADVISORY COMMITTEE OF ORANGE COUNTY	6,000					6,000
	<b>SPECIAL DEPARTMENT EXPENSE - OC WATER SUMMIT TOTAL</b>	<b>6,000</b>	<b>-</b>	<b>100,000</b>	<b>-</b>	<b>-</b>	<b>106,000</b>
	MISCELLANEOUS REIMBURSEMENT - OC WATER SUMMIT						
1012.51119.170	MWDOC REIMBURSEMENT (SUMMIT AND WACO)	(3,000)		(3,000)			(6,000)
1012.51119.250	OC WATER SUMMIT - SPONSOR REIMBURSEMENT & REGISTRATION			(87,000)			(87,000)
	<b>MISCELLANEOUS REIMBURSEMENT - OC WATER SUMMIT TOTAL</b>	<b>(3,000)</b>	<b>-</b>	<b>(90,000)</b>	<b>-</b>	<b>-</b>	<b>(93,000)</b>
1012.51116	SPECIAL DEPARTMENT EXPENSE - CWF						
	CHILDREN'S FESTIVAL		265,000				265,000
	<b>SPECIAL DEPARTMENT EXPENSE - CWF TOTAL</b>	<b>-</b>	<b>265,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>265,000</b>
1012.51116.250	MISCELLANEOUS REIMBURSEMENT - CWF						
	CHILDREN'S FESTIVAL (SPONSORS)		(70,000)				(70,000)
	<b>MISCELLANEOUS REIMBURSEMENT - CWF TOTAL</b>	<b>-</b>	<b>(70,000)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(70,000)</b>
	<b>PUBLIC AFFAIRS GRAND TOTAL</b>	<b>1,455,287</b>	<b>303,611</b>	<b>57,812</b>	<b>84,382</b>	<b>182,865</b>	<b>2,083,956</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
INFORMATION SERVICES (1016)

JDE Account Number	Description ACTIVITY CODE	General 9900	GWRS 9922	Total
	<b>SALARIES &amp; BENEFITS</b>			
1016.50104	REGULAR SALARIES	905,346	445,917	1,351,263
1016.50210	PAYROLL TAXES	13,128	6,466	19,594
1016.50202	RETIREMENT	150,740	74,245	224,985
1016.50204	HEALTH INSURANCE	118,359	58,296	176,655
1016.50206	WORKERS' COMPENSATION	4,708	2,319	7,027
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>1,192,281</b>	<b>587,243</b>	<b>1,779,524</b>
1016.52501	<b>COMMUNICATION</b>			
	PHONE SERVICE (PHYSICAL CIRCUITS, DID LINES, LONG DISTANCE, ETC.)	125,000		125,000
	DATA COMMUNICATIONS - FVALLEY X 2, ANAHEIM, SANTIAGO, PRADO, WELL SITE	72,000		72,000
	CELLULAR TELEPHONE & WIRELESS SERVICES	45,000		45,000
	ZOOM VIDEO CONFERENCING	15,000		15,000
	REPLACEMENT PHONES/COMMUNICATION EQUIP	8,000		8,000
	ADDITIONAL PHONE LICENSING (SIP LICENSES)	3,000		3,000
	<b>COMMUNICATION TOTAL</b>	<b>268,000</b>	<b>-</b>	<b>268,000</b>
1016.51301	<b>TRAVEL/CONFERENCE/MILEAGE</b>			
	CONFERENCE/TRAINING TRAVEL (MISAC/TECHNICAL CONFERENCES)	2,500		2,500
	MILEAGE (FIELD HQ, PRADO)	500		500
	<b>TRAVEL/CONFERENCE/MILEAGE TOTAL</b>	<b>3,000</b>	<b>-</b>	<b>3,000</b>
1016.51501	<b>OFFICE EXPENSE - GENERAL</b>			
	GENERAL OFFICE EXPENSE (SHIPPING, FEDEX)	2,000		2,000
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>2,000</b>	<b>-</b>	<b>2,000</b>
1016.51510	<b>HARDWARE/SOFTWARE</b>			
	HARDWARE & SOFTWARE PURCHASES FOR DEPTS, PROGRAMMER TOOLS FOR IS	45,000		45,000
	COMPUTER REPLACEMENTS (LAPTOPS) - QTY 18 (VARIOUS DEPARTMENTS / WIN REFRESH)	54,000		54,000
	COMPUTER REPLACEMENTS (DESKTOPS) - QTY 40 (PHASE 2 WIN 10 REFRESH)	60,000		60,000
	MICROSOFT 365 LICENSING (285 LICENSES)	72,000		72,000
	ADVANCED SECURITY SERVICES FOR MICROSOFT 365 EMAIL	14,000		14,000
	NETWORK SECURITY SERVICES/MONITORING	78,000		78,000
	ONLINE SERVICES (WEBSITES, VIRTUAL SERVERS & RELATED SERVICES)	15,000		15,000
	IT MANAGEMENT SYSTEM AND SERVICE	8,500		8,500
	COMPUTER UPGRADE HARDWARE (DRIVES AND MEMORY)	2,000		2,000
	DATA CENTER EQUIPMENT/RACKS, RAILS, POWER SUPPLIES	2,000		2,000
	ONLINE & OTHER DATA SERVICES (DATA BACKUP)	15,000		15,000

GENERAL FUND OPERATING BUDGET FY 23-24  
INFORMATION SERVICES (1016)

JDE Account Number	Description ACTIVITY CODE	General 9900	GWRS 9922	Total
1016.51510	HARDWARE/SOFTWARE (CONTINUED)			
	REPLACEMENT BATTERIES FOR DATA CENTER POWER SUPPLY (UPS)	6,000		6,000
	PRINTERS (REPLACEMENT AND NETWORK PRINTERS)	3,000		3,000
	ANTIMALWARE SUBSCRIPTION	17,000		17,000
	NETWORK WIFI AND SWITCH UPDATE SUBSCRIPTION	5,000		5,000
	GIS DOCUMENT INTEGRATION SOFTWARE	10,000		10,000
	<b>HARDWARE/SOFTWARE TOTAL</b>	<b>406,500</b>	<b>-</b>	<b>406,500</b>
1016.57004	MAINTENANCE EQUIPMENT - GENERAL			
	MAINTENANCE AGREEMENTS FOR EXISTING HW & SW	380,000		380,000
	SUPPORT FOR BOARDROOM/CONF ROOM AUDIOVISUAL EQUIP	10,000		10,000
	REPAIR EXISTING AUDIOVISUAL EQUIPMENT	5,000		5,000
	ON-CALL SERVICE AGREEMENT FOR HALLWAY LEARNING CENTER EQUIPMENT	8,000		8,000
	REPAIR EXISTING CABLING (NETWORK, TELEPHONE, COPPER, ETC.)	3,000		3,000
	REPAIR EXISTING EQUIPMENT (WORKSTATIONS, PRINTERS, ETC.)	7,000		7,000
	<b>MAINTENANCE EQUIPMENT - GENERAL TOTAL</b>	<b>413,000</b>	<b>-</b>	<b>413,000</b>
1016.53001	PROFESSIONAL SERVICE - GENERAL			
	ON-CALL CONSULTING (JD EDWARDS, MAXIMO, WRMS, SECURITY, NETWORK, DOCUMENTATION)	20,000		20,000
	<b>PROFESSIONAL SERVICE - GENERAL TOTAL</b>	<b>20,000</b>	<b>-</b>	<b>20,000</b>
1016.51102	MEMBERSHIP			
	USER GROUP MEMBERSHIP	500		500
	<b>MEMBERSHIP TOTAL</b>	<b>500</b>	<b>-</b>	<b>500</b>
1016.51192	TECHNICAL TRAINING			
	ONGOING TECHNICAL TRAINING FOR IS DEPARTMENT	5,000		5,000
	TRAINING FOR OTHER DEPARTMENTS	3,500		3,500
	ORACLE JD EDWARDS TRAINING/IBM MAXIMO TRAINING	6,000		6,000
	<b>TECHNICAL TRAINING TOTAL</b>	<b>14,500</b>	<b>-</b>	<b>14,500</b>
	<b>INFORMATION SERVICES GRAND TOTAL</b>	<b>2,319,781</b>	<b>587,243</b>	<b>2,907,024</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
BOARD ADMINISTRATION (1018)

JDE Account Number	Description	General	Total
		9900	
	<b>SALARIES &amp; BENEFITS</b>		
1018.50104	REGULAR SALARIES	581,446	581,446
1018.50118	DIRECTORS' FEES	359,100	359,100
1018.50210	PAYROLL TAXES	13,638	13,638
1018.50202	RETIREMENT	156,601	156,601
1018.50204	HEALTH INSURANCE	272,364	272,364
1018.50206	WORKERS' COMPENSATION	4,891	4,891
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>1,388,040</b>	<b>1,388,040</b>
1018.51301	<b>BOARD TRAVEL/CONFERENCE/MILEAGE</b>		
	ACWA, AWWA, ADA, NWRA, ASCE, CRWUA, OCCOG, WATEREUSE, AND MISC. CONFERENCES	45,000	45,000
	<b>BOARD TRAVEL/CONFERENCE/MILEAGE TOTAL</b>	<b>45,000</b>	<b>45,000</b>
1018.51012	<b>LEGAL ADVERTISING</b>		
	LEGALLY REQUIRED NOTICES AND REPORTS, I.E. PUBLIC HEARINGS, ETC.	5,000	5,000
	<b>LEGAL ADVERTISING TOTAL</b>	<b>5,000</b>	<b>5,000</b>
1018.51501	<b>OFFICE EXPENSE - GENERAL</b>		
	BOARDROOM SUPPLIES, REFRESHMENTS FOR BOARD AND COMMITTEES	40,000	40,000
	FED EX	100	100
	MINUTE MAN	100	100
	MAIL DISPATCH	4,500	4,500
	POSTAGE	20,000	20,000
	FILING FEES	100	100
	NOTARY SUPPLIES	100	100
	OFFICE SUPPLIES	100	100
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>65,000</b>	<b>65,000</b>



GENERAL FUND OPERATING BUDGET FY 23-24  
BOARD ADMINISTRATION (1018)

JDE Account Number	Description	General	Total
		9900	
1018.51565	RENT EQUIPMENT - GENERAL		
	XEROX E-1105 & E-5540CT COPY MACHINES LEASE (MAIN COPY ROOM)	20,000	20,000
	COPY CENTER C35 (MAIN COPY ROOM)	500	500
	COPY CENTER C35 (SM COPY ROOM)	500	500
	DC420AC COPIER (FHQ)	500	500
	DC420AC COPIER (LAB/MAINT)	500	500
	DC420AC COPIER (OPERATIONS)	500	500
	DC535H COPIER (LARGE COPY ROOM)	500	500
	DC535H COPIER (ANNEX)	500	500
	DC535H COPIER (WATER PRODUCTION)	500	500
	SCANNER	2,500	2,500
	DC535H COPIER (LAB)	500	500
	NEOPOST POSTAGE MACHINE	8,000	8,000
	<b>RENT EQUIPMENT - GENERAL TOTAL</b>	<b>35,000</b>	<b>35,000</b>
1018.51192	EDUCATIONAL TRAINING		
	ARMA TRAINING AND SEMINARS	300	300
	<b>EDUCATIONAL TRAINING TOTAL</b>	<b>300</b>	<b>300</b>
1018.51102	MEMBERSHIP		
	ASSOCIATION OF RECORDS MANAGERS & ADMINISTRATORS (1)	215	215
	NATIONAL NOTARY ASSOCIATION (2)	225	225
	<b>MEMBERSHIP TOTAL</b>	<b>440</b>	<b>440</b>
1018.51112	SPECIAL DEPARTMENT EXPENSE		
	DOCUMENT ARCHIVAL AND SCANNING	3,000	3,000
	OFFSITE STORAGE	52,000	52,000
	<b>SPECIAL DEPARTMENT EXPENSE TOTAL</b>	<b>55,000</b>	<b>55,000</b>
1018.51042	ELECTION COSTS		
	ACCRUED ELECTION COSTS	133,000	133,000
	<b>ELECTION COSTS TOTAL</b>	<b>133,000</b>	<b>133,000</b>
	<b>BOARD ADMINISTRATION GRAND TOTAL</b>	<b>1,726,780</b>	<b>1,726,780</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
PURCHASING (1022)

JDE Account Number	Description	General	GWRS	Total
	ACTIVITY CODE	9900	9922	
	<b>SALARIES &amp; BENEFITS</b>			
1022.50104	REGULAR SALARIES	473,124	118,281	591,405
1022.50210	PAYROLL TAXES	6,860	1,715	8,575
1022.50202	RETIREMENT	78,775	19,694	98,469
1022.50204	HEALTH INSURANCE	80,429	20,107	100,536
1022.50206	WORKERS' COMPENSATION	4,716	1,179	5,895
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>643,904</b>	<b>160,976</b>	<b>804,880</b>
1022.51501	<b>OFFICE EXPENSE - GENERAL</b>			
	SAFETY SIGNS/HARDWARE FOR WAREHOUSE	250		250
	MISCELLANEOUS SUPPLIES (TONERS, DRUMS, FILING SUPPLIES)	5,000		5,000
	SHIPPING SUPPLIES (SHRINK WRAP/TAPE, BINDING, ETC.)	1,000		1,000
	PAPER RECYCLING - SET FEE AT \$300 PER MONTH	3,600		3,600
	UPS SHIPPING FEES	2,500		2,500
	TRUCK WASH FOR DISTRICT VEHICLES - PRADO, FHQ AND FV	2,000		2,000
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>14,350</b>	<b>-</b>	<b>14,350</b>
1022.51520	<b>GAS &amp; DIESEL</b>			
	VEHICLE FUEL	400		400
	<b>GAS &amp; DIESEL TOTAL</b>	<b>400</b>	<b>-</b>	<b>400</b>
1022.51531	<b>SHIRTS - LOGO</b>			
	SHIRTS - LOGO/SHIRTS/JACKETS	350		350
	<b>SHIRTS - LOGO TOTAL</b>	<b>350</b>	<b>-</b>	<b>350</b>
1022.51545	<b>SMALL TOOLS</b>			
	MISCELLANEOUS HAND TOOLS	2,000		2,000
	<b>SMALL TOOLS TOTAL</b>	<b>2,000</b>	<b>-</b>	<b>2,000</b>
1022.51102	<b>MEMBERSHIP</b>			
	PURCHASING (CALIFORNIA ASSOCIATION OF PUBLIC PURCHASING OFFICERS, INC. AND NATIONAL ASSOCIATION)	130		130
	<b>MEMBERSHIP TOTAL</b>	<b>130</b>	<b>-</b>	<b>130</b>
1022.51192	<b>TECHNICAL TRAINING</b>			
	PURCHASING SEMINARS (INSURANCE, BIDDING AND NEGOTIATION)	250		250
	<b>TECHNICAL TRAINING TOTAL</b>	<b>250</b>	<b>-</b>	<b>250</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
PURCHASING (1022)

JDE Account Number	Description	General	GWRS	Total
	ACTIVITY CODE	9900	9922	
1022.51630	INVENTORY FREIGHT			
	DELIVERY FEES AND FREIGHT CHARGES	30,000		30,000
	<b>INVENTORY FREIGHT TOTAL</b>	<b>30,000</b>	<b>-</b>	<b>30,000</b>
1022.57016	MAINTENANCE STRUCTURE AND IMPROVEMENT - GENERAL			
	WAREHOUSE MAINTENANCE - ADDITIONAL SHELVING/RACKING & FLOOR REFURB.	2,000		2,000
	<b>MAINTENANCE STRUCTURE AND IMPROVEMENT - GENERAL TOTAL</b>	<b>2,000</b>	<b>-</b>	<b>2,000</b>
	<b>PURCHASING GRAND TOTAL</b>	<b>693,384</b>	<b>160,976</b>	<b>854,360</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
FINANCE (1024)

JDE Account Number	Description	General	GWRS	GAP	Total
	ACTIVITY CODE	9900	9922	9911	
	<b>SALARIES &amp; BENEFITS</b>				
1024.50104	REGULAR SALARIES	1,314,143	330,732	8,786	1,653,661
1024.50210	PAYROLL TAXES	21,247	5,344	127	26,718
1024.50202	RETIREMENT	212,917	53,595	1,463	267,975
1024.50204	HEALTH INSURANCE	181,085	45,678	1,627	228,390
1024.50206	WORKERS' COMPENSATION	6,879	1,734	56	8,669
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>1,736,271</b>	<b>437,083</b>	<b>12,059</b>	<b>2,185,413</b>
1024.53001	<b>PROFESSIONAL SERVICES - GENERAL</b>				
	EXTERNAL AUDIT (SINGLE AUDIT/MPP INCLUDED)	55,000			55,000
	PAYROLL OUTSOURCING	62,000			62,000
	AP SOFTWARE MAINTENANCE	12,000			12,000
	DEBTBOOK SOFTWARE MAINTENANCE	5,250			5,250
	INVESTMENT SOFTWARE MAINTENANCE	8,400			8,400
	SPECIALIZED ACCOUNTING/FINANCIAL SERVICES	25,000			25,000
	<b>PROFESSIONAL SERVICES - GENERAL TOTAL</b>	<b>167,650</b>	<b>-</b>	<b>-</b>	<b>167,650</b>
1024.51501	<b>OFFICE EXPENSE - GENERAL</b>				
	CHECK STOCK FOR A/P - SAFECHECKS	1,000			1,000
	COLOR COPY ALLOCATION	1,000			1,000
	COLOR PRINTING CHARGE FOR CAFR AND BUDGET BOOK	2,000			2,000
	FEDEX	1,000			1,000
	MICR TONER - A/P, P/R	1,000			1,000
	COMPREHENSIVE ANNUAL FINANCIAL REPORT APPLICATION	1,000			1,000
	MISCELLANEOUS SUPPLIES (COMPUTER PAPER, TONER, OFFICE SUPPLIES)	10,000			10,000
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>17,000</b>	<b>-</b>	<b>-</b>	<b>17,000</b>
1024.51104	<b>SUBSCRIPTIONS</b>				
	GASB/GAAP-ACCOUNTING JOURNAL	500			500
	<b>SUBSCRIPTIONS TOTAL</b>	<b>500</b>	<b>-</b>	<b>-</b>	<b>500</b>
1024.51520	<b>GAS &amp; DIESEL FUEL</b>				
	SC FUEL AT \$542 PER MONTH IN AVERAGE	6,500			6,500
	<b>GAS &amp; DIESEL FUEL TOTAL</b>	<b>6,500</b>	<b>-</b>	<b>-</b>	<b>6,500</b>
1024.51530	<b>UNIFORMS &amp; SAFETY</b>				
	WORK POLOS	500			500
	OVERALL - UNIFORMS	200			200
	<b>UNIFORMS &amp; SAFETY TOTAL</b>	<b>700</b>	<b>-</b>	<b>-</b>	<b>700</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
FINANCE (1024)

JDE Account Number	Description	General	GWRS	GAP	Total
	ACTIVITY CODE	9900	9922	9911	
1024.51102	MEMBERSHIP				
	AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS	1,000			1,000
	INSTITUTE OF MANAGEMENT ACCOUNTANTS	300			300
	CALIFORNIA MUNICIPAL TREASURERS ASSOCIATION	300			300
	CPA LICENSE, CAL CPA MEMBERSHIP(VS, DS, MO)	1,200			1,200
	CALIFORNIA SOCIETY OF MUNICIPAL FINANCE OFFICERS	300			300
	GOVERNMENT FINANCE OFFICERS ASSOCIATION	300			300
	<b>MEMBERSHIP TOTAL</b>	<b>3,400</b>	<b>-</b>	<b>-</b>	<b>3,400</b>
1024.51192	TECHNICAL TRAINING				
	TAX LAW CHANGES SEMINAR (2 STAFF)	1,000			1,000
	JDE AND OTHER TECHNICLE TRAINING	4,000			4,000
	GFOA CONFRANCE (RF, VS AND MO)	6,000			6,000
	CSMFO CONFRANCE (VS AND MO)	3,500			3,500
	CAL CPA CPE TECHNICAL TRAINING (VS, DS, MO)	3,000			3,000
	<b>TECHNICAL TRAINING TOTAL</b>	<b>17,500</b>	<b>-</b>	<b>-</b>	<b>17,500</b>
1024.56023	PURCHASE DISCOUNTS				
	PURCHASE DISCOUNTS	(60,000)			(60,000)
	<b>PURCHASE DISCOUNTS TOTAL</b>	<b>(60,000)</b>	<b>-</b>	<b>-</b>	<b>(60,000)</b>
1024.56024	REBATES - PURCHASING CARD				
	REBATES - PURCHASING CARD	(20,000)			(20,000)
	<b>REBATES - PURCHASING CARD TOTAL</b>	<b>(20,000)</b>	<b>-</b>	<b>-</b>	<b>(20,000)</b>
1024.56028	BANK CHARGES				
	BANK CHARGES (\$4,000 AVERAGE/MO)	24,000			24,000
	<b>BANK CHARGES TOTAL</b>	<b>24,000</b>	<b>-</b>	<b>-</b>	<b>24,000</b>
	<b>FINANCE GRAND TOTAL</b>	<b>1,893,521</b>	<b>437,083</b>	<b>12,059</b>	<b>2,342,663</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
HUMAN RESOURCES (1030)

JDE Account Number	Description ACTIVITY CODE	General 9900	GWRS 9922	Total
	<b>SALARIES &amp; BENEFITS</b>			
1030.50104	REGULAR SALARIES	545,474	60,608	606,082
1030.50210	PAYROLL TAXES	7,909	879	8,788
1030.50202	RETIREMENT	90,821	10,091	100,912
1030.50204	HEALTH INSURANCE	90,672	10,075	100,747
1030.50205	HEALTH INSURANCE - RETIREE PREMIUMS	5,500		5,500
1030.50206	WORKERS' COMPENSATION	2,836	315	3,152
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>743,212</b>	<b>81,968</b>	<b>825,180</b>
1030.51301	<b>TRAVEL/CONFERENCE/MILEAGE</b>			
	ACWA/JPIA COMMITTEE/ACWA/JPIA PERSONNEL COMMITTEE MEETINGS (4 TRIPS)	500		500
	CALPELRA CONFERENCE (MONTEREY, CA) & SEMINARS	2,800		2,800
	MILEAGE	300		300
	<b>TRAVEL/CONFERENCE/MILEAGE TOTAL</b>	<b>3,600</b>	<b>-</b>	<b>3,600</b>
1030.51102	<b>MEMBERSHIPS</b>			
	CALPELRA MEMBERSHIP FEE	380		380
	SOCIETY OF HUMAN RESOURCES PROFESSIONALS	300		300
	<b>MEMBERHSIPS TOTAL</b>	<b>680</b>	<b>-</b>	<b>680</b>
1030.53001	<b>PROFESSIONAL SERVICES - GENERAL</b>			
	LIFEWORKS EMPLOYEE ASSISTANCE PROGRAM	6,600		6,600
	HEALTH AND WELLNESS (FAIR AND ACTIVITIES)	2,200		2,200
	UNIVERSAL BACKGROUND INVESTIGATION	5,700		5,700
	ALLIANT BROKER SERVICES FEE	25,000		25,000
	PERSONNEL ISSUES - LEGAL FEES	10,000		10,000
	RETIREE MEDICAL ACTUARIAL FEES	3,000		3,000
	RETIREMENT PLAN FEES (PARTICIPANT INITIATED TRANSACTIONS)	1,000		1,000
	RETIREMENT PLAN LEGAL CONSULTING AND PLAN FILINGS	1,000		1,000
	PRE-EMPLOYMENT PHYSICALS	10,000		10,000
	SHEAKLEY FEES	150		150
	OCCU-MED - JOB ANALYSIS REVIEW FOR PRE-EMPLOYMENT PHYSICAL PROTOCOL	28,000		28,000
	<b>PROFESSIONAL SERVICES - GENERAL TOTAL</b>	<b>92,650</b>	<b>-</b>	<b>92,650</b>
1030.53015	<b>TEMPORARY LABOR - GENERAL</b>			
	TEMPORARY LABOR - MISC. DEPARTMENTS	50,000		50,000
	<b>TEMPORARY LABOR - GENERAL TOTAL</b>	<b>50,000</b>	<b>-</b>	<b>50,000</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
HUMAN RESOURCES (1030)

JDE Account Number	Description	General	GWRS	Total
	ACTIVITY CODE	9900	9922	
1030.51501	OFFICE EXPENSE - GENERAL			
	EMPLOYMENT ADVERTISING	10,000		10,000
	NEOGOV	8,000		8,000
	FEDERAL EXPRESS	200		200
	EMPLOYEE OF THE MONTH/YEAR AWARD EXPENSES	200		200
	ERP AWARD CERTIFICATES	2,000		2,000
	LENGTH OF SERVICE AWARDS	15,000		15,000
	OFFICE SUPPLIES	9,000		9,000
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>44,400</b>	<b>-</b>	<b>44,400</b>
1030.51104	SUBSCRIPTIONS			
	LEGAL BULLETINS AND FMLA ONLINE (3 YEARS - 2021)	750		750
	<b>SUBSCRIPTIONS TOTAL</b>	<b>750</b>	<b>-</b>	<b>750</b>
1030.51192	TECHNICAL TRAINING			
	EMPLOYEE TRAINING	10,000		10,000
	<b>TECHNICAL TRAINING TOTAL</b>	<b>10,000</b>	<b>-</b>	<b>10,000</b>
1030.50208	EDUCATION TUITION REIMBURSEMENT			
	EDUCATION TUITION REIMBURSEMENT	32,000		32,000
	<b>EDUCATION TUITION REIMBURSEMENT TOTAL</b>	<b>32,000</b>	<b>-</b>	<b>32,000</b>
1030.51112	SPECIAL DEPARTMENT EXPENSE			
	DOT DRUG & ALCOHOL PROGRAM	5,000		5,000
	EMPLOYEE FITNESS FACILITIES	2,500		2,500
	UNEMPLOYMENT INSURANCE	20,000		20,000
	<b>SPECIAL DEPARTMENT EXPENSE TOTAL</b>	<b>27,500</b>	<b>-</b>	<b>27,500</b>
	<b>HUMAN RESOURCES GRAND TOTAL</b>	<b>1,004,792</b>	<b>81,968</b>	<b>1,086,760</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
SAFETY & RISK MANAGEMENT (1034)

JDE Account Number	Description	Administration	GWRS	Total
		9900	9922	
	<b>SALARIES &amp; BENEFITS</b>			
1034.50104	REGULAR SALARIES	223,704	101,757	325,461
1034.50210	PAYROLL TAXES	4,856	1,878	6,734
1034.50202	RETIREMENT	32,918	15,860	48,778
1034.50204	HEALTH INSURANCE	28,914	16,869	45,783
1034.50206	WORKERS' COMPENSATION	1,401	643	2,044
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>291,793</b>	<b>137,007</b>	<b>428,800</b>
1034.52001	<b>INSURANCE</b>			
	CRIME/EXCESS	4,700		4,700
	FIDUCIARY	8,000		8,000
	GENERAL LIABILITY	375,000		375,000
	PROPERTY	460,000		460,000
	TOUR GROUP AND BUSINESS TRAVEL	3,500		3,500
	<b>INSURANCE TOTAL</b>	<b>851,200</b>	<b>-</b>	<b>851,200</b>
1034.52001.170	<b>INSURANCE REFUND</b>			
	INSURANCE REFUND	(150,000)		(150,000)
	<b>INSURANCE REFUND TOTAL</b>	<b>(150,000)</b>	<b>-</b>	<b>(150,000)</b>
1034.52005	<b>CLAIMS &amp; TESTING</b>			
	SMALL NON-TRIAL CLAIMS, WORK COMP FIRST AID, COVID TESTS	5,000		5,000
	<b>CLAIMS TOTAL</b>	<b>5,000</b>	<b>-</b>	<b>5,000</b>
1034.51301	<b>TRAVEL/CONFERENCE/MILEAGE</b>			
	AMERICAN SOCIETY OF SAFETY PROFESSIONALS CONFERENCE	2,400		2,400
	PASMA CONFERENCE/BUSINESS MEETINGS	450		450
	INDUSTRIAL ENVIRONMENTAL COALITION OF OC MEETINGS	300		300
	MILEAGE	500		500
	<b>TRAVEL/CONFERENCE/MILEAGE TOTAL</b>	<b>3,650</b>	<b>-</b>	<b>3,650</b>
1034.53001	<b>PROFESSIONAL SERVICE - GENERAL</b>			
	HEPATITIS A AND B SHOTS	2,000		2,000
	RESPIRATOR FIT TESTS	3,600		3,600
	INDUSTRIAL HYGIENE MONITORING	5,000		5,000
	<b>PROFESSIONAL SERVICE - GENERAL TOTAL</b>	<b>10,600</b>	<b>-</b>	<b>10,600</b>



GENERAL FUND OPERATING BUDGET FY 23-24  
SAFETY & RISK MANAGEMENT (1034)

JDE Account Number	Description	Administration	GWRS	Total
		9900	9922	
1034.51501	OFFICE EXPENSE - GENERAL			
	FEDERAL EXPRESS/COURIER	200		200
	OFFICE SUPPLIES	1,900		1,900
	TRAINING MATERIALS AND MEETING EXPENSES	2,000		2,000
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>4,100</b>	<b>-</b>	<b>4,100</b>
1034.51104	SUBSCRIPTIONS			
	CAL OSHA REPORTER	500		500
	BUSINESS AND LEGAL REPORT (BLR)	1,300		1,300
	MSDS ONLINE ANNUAL FEE (3 YEAR AGREEMENT 9/1/2020 - 8/31/2023)	4,000		4,000
	TRAINING TRACKING SERVICE	10,000		10,000
	<b>SUBSCRIPTIONS TOTAL</b>	<b>15,800</b>	<b>-</b>	<b>15,800</b>
1034.51530	UNIFORMS & SAFETY			
	ERGONOMIC EQUIPMENT	6,000		6,000
	PERSONAL PROTECTIVE EQUIPMENT - NON OPERATIONS DEPARTMENTS	1,500		1,500
	SAFETY GLASSES - RX	3,500		3,500
	SHOES	20,000		20,000
	<b>UNIFORMS &amp; SAFETY TOTAL</b>	<b>31,000</b>	<b>-</b>	<b>31,000</b>
1034.57004	MAINTENANCE EQUIPMENT - GENERAL			
	MEDICAL EQUIPMENT/AED UNITS & SUPPLIES	1,500		1,500
	<b>MAINTENANCE EQUIPMENT - GENERAL TOTAL</b>	<b>1,500</b>	<b>-</b>	<b>1,500</b>
1034.51550	SAFETY SUPPLIES			
	CONFINED SPACE EQUIPMENT	1,000		1,000
	COVID SUPPLIES	1,000		1,000
	DISASTER/HAZMAT EQUIPMENT/SUPPLIES	2,000		2,000
	SAFETY INCENTIVES/SUPPLIES	1,200		1,200
	FIRST AID SUPPLIES	1,000		1,000
	SIGNS, TRAFFIC CONES, MISC. SAFETY SUPPLIES	5,000		5,000
	<b>SAFETY SUPPLIES TOTAL</b>	<b>11,200</b>	<b>-</b>	<b>11,200</b>
1034.51102	MEMBERSHIP			
	AMERICAN SOCIETY OF SAFETY PROFESSIONALS	350		350
	INDUSTRIAL ENVIRONMENTAL COALITION OF ORANGE COUNTY	75		75
	PUBLIC SAFETY MANAGEMENT ASSOCIATION	150		150
	<b>MEMBERSHIP TOTAL</b>	<b>575</b>	<b>-</b>	<b>575</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
SAFETY & RISK MANAGEMENT (1034)

JDE Account Number	Description	Administration	GWRS	Total
		9900	9922	
1034.51192	STAFF TRAINING			
	CONFINED SPACE - TRAINING AND ANNUAL REQUIRED DRILLS	4,000		4,000
	RESPIRATOR TRAINING	2,000		2,000
	CPR/FIRST AID/AED	10,000		10,000
	HAZMAT 24/40 HOUR	6,000		6,000
	HAZMAT ANNUAL	6,000		6,000
	ACTIVE SHOOTER TRAINING - NEW HIRES	2,000		2,000
	SAFETY STAFF REQUIRED PROFESSIONAL TRAINING	2,000		2,000
	<b>STAFF TRAINING TOTAL</b>	<b>32,000</b>	<b>-</b>	<b>32,000</b>
1034.51202	SECURITY PROGRAM			
	ALARM SYSTEM MONITORING -BAY ALARM (FHQ AND PRADO)	12,000		12,000
	BAY ALARM FV PANIC ALARMS	1,000		1,000
	SECURITY GUARD SERVICES	450,000		450,000
	<b>SECURITY PROGRAM TOTAL</b>	<b>463,000</b>	<b>-</b>	<b>463,000</b>
1034.51112	SPECIAL DEPARTMENT EXPENSE			
	CITY/COUNTY ALARM PERMITS	1,800		1,800
	COUNTY HAZMAT WASTE PROGRAM - CUPA FEES	2,200		2,200
	DTSC AND EPA FEES	1,000		1,000
	<b>SPECIAL DEPARTMENT EXPENSE TOTAL</b>	<b>5,000</b>	<b>-</b>	<b>5,000</b>
	<b>SAFETY AND RISK MANAGEMENT GRAND TOTAL</b>	<b>1,576,418</b>	<b>137,007</b>	<b>1,713,425</b>

**GENERAL FUND OPERATING BUDGET FY 23-24  
WATER QUALITY (1036)**

JDE Account Number	Description	General	GWP Assistance	GWR System O&M	SAR Monitoring	NBPPP NCP	SBGPP NCP	PFAS	PFAS O&M Anaheim	PFAS O&M EOCWD	PFAS O&M Fullerton	PFAS O&M Garden Grove	PFAS O&M GSWC	PFAS O&M IRWD	PFAS O&M Orange	PFAS O&M Santa Ana	PFAS O&M Serrano	PFAS O&M Tustin	PFAS O&M YLWD	Total	
ACTIVITY CODE		9900	4406	9922	4602	9985	9986	1914	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
	<b>SALARIES &amp; BENEFITS</b>																				
1036.50104	REGULAR SALARIES	370,838	331,986	224,101	93,976	152,985	44,159	157,838	11,040	8,978	12,703	12,703	8,978	8,978	12,703	8,978	8,978	8,978	12,703	1,491,603	
1036.50106	OVERTIME	3,630	3,728	2,806	1,525	3,001	865	2,208	90	90	90	90	90	90	90	90	90	90	90	18,750	
1036.50210	PAYROLL TAXES	6,526	4,868	3,359	1,412	2,330	667	2,417	161	131	185	185	131	131	185	131	131	131	185	23,270	
1036.50202	RETIREMENT	59,405	55,896	37,596	15,827	25,788	7,460	26,390	1,853	1,510	2,130	2,130	1,510	1,510	2,130	1,510	1,510	1,510	2,130	247,795	
1036.50204	HEALTH INSURANCE	47,594	48,961	29,835	13,141	22,401	6,445	22,235	1,666	1,371	1,867	1,867	1,371	1,371	1,867	1,371	1,371	1,371	1,867	207,972	
1036.50206	WORKERS' COMPENSATION	6,893	5,620	5,218	2,242	3,857	1,134	3,366	150	139	161	161	139	139	161	139	139	139	161	29,956	
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>494,886</b>	<b>451,059</b>	<b>302,915</b>	<b>128,123</b>	<b>210,362</b>	<b>60,730</b>	<b>214,454</b>	<b>14,960</b>	<b>12,219</b>	<b>17,136</b>	<b>17,136</b>	<b>12,219</b>	<b>12,219</b>	<b>17,136</b>	<b>12,219</b>	<b>12,219</b>	<b>12,219</b>	<b>17,136</b>	<b>2,019,347</b>	
1036.51301	TRAVEL/CONFERENCES																				
	ACWA CONFERENCES & WQ COMMITTEE (SPRING, FALL, REGULATORY)	1,600																		1,600	
	ACWA WATER QUALITY COMMITTEE MEETINGS (SACRAMENTO)																			-	
	<b>TRAVEL/CONFERENCES TOTAL</b>	<b>1,600</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,600</b>	
1036.51501	OFFICE EXPENSE - GENERAL																				
	OFFICE/WQ SAMPLING CONSUMABLE PRODUCTS (SAMPLE LABELS, PAPER, PRINTER CARTRIDGES, TAPE, ETC.); COMPUTER-RELATED EQUIPMENT	2,000	2,000	2,000	2,000	2,000	500	2,000												12,500	
	FEDEX SHIPPING; WQ SAMPLE SHIPPING (CONTRACT LABS, RESEARCHERS, ETC.)	4,000																		4,000	
	SAMPLE SCHEDULING, TRACKING & REPORTING SOFTWARE PILOT PROGRAM	50,000																		50,000	
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>56,000</b>	<b>2,000</b>	<b>2,000</b>	<b>2,000</b>	<b>2,000</b>	<b>500</b>	<b>2,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>66,500</b>	
1036.53001	PROFESSIONAL SERVICE - GENERAL																				
	TRAFFIC CONTROL ENGINEER SERVICES - TRAFFIC CONTROL PLANS	2,000																		2,000	
	TRAFFIC CONTROL CONTRACTOR SERVICES	5,000																		5,000	
	<b>PROFESSIONAL SERVICE - GENERAL TOTAL</b>	<b>7,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>7,000</b>	
1036.51520	GAS & DIESEL FUEL																				
	GASOLINE/DIESEL FUEL	3,000	4,000	4,000	3,000	4,000	2,000	4,000												24,000	
	<b>GAS &amp; DIESEL FUEL TOTAL</b>	<b>3,000</b>	<b>4,000</b>	<b>4,000</b>	<b>3,000</b>	<b>4,000</b>	<b>2,000</b>	<b>4,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>24,000</b>	
1036.51530	UNIFORMS & SAFETY																				
	OCWD UNIFORMS; RAIN BOOTS; RAIN JACKET/OVERALLS; SUN PROTECTION	2,500																		2,500	
	<b>UNIFORMS &amp; SAFETY TOTAL</b>	<b>2,500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,500</b>	
1036.57004	MAINTENANCE & EQUIPMENT - GENERAL																				
	ROUTINE MAINT & PARTS FOR FIELD MONITORING EQUIPMENT, PUMPS, GENERATORS, CONSTRUCTING ANCILLARY SYSTEMS, TREATMENT ISSUES, ETC.; REPLACEMENT EQUIPMENT, FIELD METERS, INSTRUMENTATION, PIPES, WIRE, CONNECTORS, FITTINGS, PARTS FOR MECHANICAL AND SUBMERSIBLE PUMPS; SAFETY ITEMS, TRAFFIC CONTROL DEVICES; REPLACEMENT VEHICLE/OTHER SPECIALTY PARTS	1,000	1,000	1,000	1,000	1,000	500	1,000												6,500	
	REPLACEMENT OF FAILED SUBMERSIBLE PUMPS - MP1 & SOE PUMPS AT EXISTING SITES OR PUMPS ON TRUCKS	6,000		5,000		7,000	1,500													19,500	
	HYDRAULIC SYSTEM MAINTENANCE (T-98)	800		800																1,600	
	MANUFACTURER FIELD EQUIPMENT REPAIRS	3,500	200	2,000	1,000	500	200	1,000												8,400	
	<b>MAINTENANCE &amp; EQUIPMENT - GENERAL TOTAL</b>	<b>11,300</b>	<b>1,200</b>	<b>8,800</b>	<b>2,000</b>	<b>8,500</b>	<b>2,200</b>	<b>2,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>36,000</b>	
1036.51545	SMALL TOOLS/FIELD SUPPLIES																				
	FIELD SUPPLIES & MATERIALS FOR SAMPLE COLLECTION TASKS; BATTERIES,BUCKETS, ICE CHESTS, MAN-HOLE PULLERS, CARBON TREATMENT VESSELS AND ANCILLARY PARTS; LOCKS; 250-GAL. DECON WATER TANK(S) OR OTHER TANKS/VESSELS, SAFETY EQUIPMENT (LIGHT BAR, CONES, SIGNS), CARBON SUPPLIES, SPECIALIZED FITTINGS FOR CARBON TREATMENT SYSTEM, DRUMS FOR SPENT CARBON; SPECIALTY ITEMS/EQUIPMENT	4,000	500	3,000	3,000	2,000	500	1,500													14,500

**GENERAL FUND OPERATING BUDGET FY 23-24  
WATER QUALITY (1036)**

JDE Account Number	Description	General	GWP Assistance	GWR System O&M	SAR Monitoring	NBPPP NCP	SBGPP NCP	PFAS	PFAS O&M Anaheim	PFAS O&M EOCWD	PFAS O&M Fullerton	PFAS O&M Garden Grove	PFAS O&M GSWC	PFAS O&M IRWD	PFAS O&M Orange	PFAS O&M Santa Ana	PFAS O&M Serrano	PFAS O&M Tustin	PFAS O&M YLWD	Total	
	ACTIVITY CODE	9900	4406	9922	4602	9985	9986	1914	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
1036.51545	<b>SMALL TOOLS/FIELD SUPPLIES (CONTINUED)</b>																				
	WQ CONSUMABLE ITEMS (TUBING, HOSES, FITTINGS, SMALL TOOLS, BLUE ICE, SHIPPING SUPPLIES & PACKING MATERIALS, REPLACEMENT OF AGED, FAILED FIELD METERS, PROBES, WATER LEVEL TAPES, CONTROLLERS, ETC.)	1,500	800	1,000	1,000	1,000	700	500													6,500
	CARBON - MOBILE CARBON TREATMENT UNITS (WELL DISCHARGES)	12,000		4,000		13,000															29,000
	<b>SMALL TOOLS/FIELD SUPPLIES TOTAL</b>	<b>17,500</b>	<b>1,300</b>	<b>8,000</b>	<b>4,000</b>	<b>16,000</b>	<b>1,200</b>	<b>2,000</b>													<b>50,000</b>
1036.51555	<b>LAB SUPPLIES/EQUIPMENT</b>																				
	CALIBRATION SOLUTIONS AND FIELD PRESERVATIVES GLASSWARE, STORAGE CONTAINERS, CARBOYS, GLOVES, DISPENSERS, SAFETY GLASSES, SPILL CONTROL MATERIALS, MISC. LAB SUPPLIES AND UTENSILS, RADIOACTIVITY BOTTLES AND OTHER SPECIALTY SAMPLE CONTAINERS OR SUPPLIES (ORP SOLUTION, ETC.)	2,000	2,000	1,000	1,000	1,000	500	1,000													8,500
	<b>LAB SUPPLIES/EQUIPMENT TOTAL</b>	<b>2,000</b>	<b>2,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>500</b>	<b>1,000</b>													<b>8,500</b>
1036.51560	<b>LAB SAMPLES ANALYSIS</b>																				
	GWRS PERMIT: FPW, TALBERT BARRIER, FOREBAY, MID-BASIN MW SITES; RADIOLOGICAL PRIORITY POLLUTANTS, ASBESTOS, DIOXIN; MICROBIAL, BIOANALYTICAL, AND MONTHLY ROP COLIPHAGE MONITORING.			35,000																	35,000
	GWRS NPDES TOXICITY TESTING			10,000																	10,000
	GWRS SPECIAL STUDIES (OCWD/OCSD PATHOGEN LRV STUDY, CEC'S, ETC.)			25,000																	25,000
	GROUNDWATER PRODUCER DRINKING WATER WELL TESTING; NEW WELLS, RADIOLOGICAL TESTING, CONFIRMATION TESTING, ETC.		25,000																		25,000
	GREEN ACRES MONITORING	1,000																			1,000
	SARMON WATER QUALITY; MICROBIAL (E.G., PHAGE, BACTERIAL, ETC.) TOTAL ORGANIC HALIDES (TOX) AND RADIOLOGICAL TESTING					38,000															38,000
	SARMON SPECIAL STUDIES (EMERGING CONTAMINANTS / PFOA & PFOS)					5,000		5,000													10,000
	RIVER DESILTING STUDIES (RIVERBED FILTRATION)	3,000																			3,000
	IRVINE DESALTER/MCAS TCE PLUME; NAVY AGREEMENT, AND IRWD/DPH MONITORING PROGRAM - SENTINEL WELLS	8,000																			8,000
	MISC. CONTRACT LAB TESTING (SPILLS, EMERGENCIES, SPLITS, CONFIRMATION TESTING, SPECIFIC ANALYTES, ETC.)	12,000																			12,000
	NPDES TPH MONITORING DE MINIMUS PERMIT, AS NEEDED	2,000																			2,000
	WESTBAY VOC SAMPLES - CONTRACT LAB ANALYSIS	1,000																			1,000
	<b>LAB SAMPLES ANALYSIS TOTAL</b>	<b>27,000</b>	<b>25,000</b>	<b>70,000</b>	<b>43,000</b>			<b>5,000</b>													<b>170,000</b>
1036.51192	<b>TECHNICAL TRAINING</b>																				
	STAFF SAFETY / WQ SAMPLING / TECHNICAL TRAINING (I.E., STORMWATER NEW PERMIT & QISP TRAINING, REGULATORY, MONITORING TECHNIQUES, ETC.)	3,000																			3,000
	<b>TECHNICAL TRAINING TOTAL</b>	<b>3,000</b>																			<b>3,000</b>
1036.51112	<b>SPECIAL DEPT EXPENSE</b>																				
	NPDES INDUSTRIAL STORMWATER PERMIT - GWRS FACILITY			3,000																	3,000
	NPDES GENERAL DEWATERING PERMIT - BASINWIDE (EXCLUDES DISCHARGES TO NEWPORT BAY)	4,000																			4,000
	SPENT CARBON DISPOSAL COSTS (CARBON TREATMENT OF PURGED GW AT MONITORING WELL SITES TO MEET NPDES DISCHARGE PERMIT LIMITS)	6,000																			6,000
	<b>SPECIAL DEPT EXPENSE TOTAL</b>	<b>10,000</b>		<b>3,000</b>																	<b>13,000</b>
	<b>WATER QUALITY GRAND TOTAL</b>	<b>635,786</b>	<b>486,559</b>	<b>399,715</b>	<b>183,123</b>	<b>241,862</b>	<b>67,130</b>	<b>230,454</b>	<b>14,960</b>	<b>12,219</b>	<b>17,136</b>	<b>17,136</b>	<b>12,219</b>	<b>12,219</b>	<b>17,136</b>	<b>12,219</b>	<b>12,219</b>	<b>12,219</b>	<b>17,136</b>	<b>2,401,447</b>	

GENERAL FUND OPERATING BUDGET FY 23-24

LABORATORY (1038)

JDE Account Number	Description	General	GWR System O&M	Talbert Barrier O&M	GAP O&M	Groundwater Producers' Assistance	MTBE Litigation	Forebay VOC N. Basin	SAR Monitoring	PFAS	Prado O&M	Total
	ACTIVITY CODE	9900	9922	9908	9911	4406	9954	9936	4602	1914	9924	
	<b>SALARIES &amp; BENEFITS</b>											
1038.50104	REGULAR SALARIES	458,536	1,130,544	334,726	101,815	1,079,742	3,953	3,953	219,176	359,152	75,339	3,766,936
1038.50106	OVERTIME	6,195	27,497	8,347	2,353	26,785			4,971	9,080	1,739	86,967
1038.50210	PAYROLL TAXES	6,739	19,725	5,341	2,244	18,612	57	57	3,690	5,486	1,264	63,215
1038.50202	RETIREMENT	77,124	181,765	54,869	14,740	172,904	658	658	35,378	59,014	12,186	609,296
1038.50204	HEALTH INSURANCE	66,228	172,966	52,133	14,325	164,616	589	589	33,480	57,341	11,475	573,742
1038.50206	WORKERS' COMPENSATION	4,719	11,719	3,471	1,055	11,196	40	40	2,269	3,725	780	39,014
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>619,541</b>	<b>1,544,216</b>	<b>458,887</b>	<b>136,532</b>	<b>1,473,855</b>	<b>5,297</b>	<b>5,297</b>	<b>298,964</b>	<b>493,798</b>	<b>102,783</b>	<b>5,139,170</b>
	<b>TRAVEL/CONFERENCE/MILEAGE</b>											
1038.51301	TNI SEMI-ANNUAL REGULATORY CONFERENCE (AUGUST 2023, MINNEAPOLIS, MN, 1 STAFF)	3,000										3,000
	TNI SEMI-ANNUAL REGULATORY CONFERENCE (JANUARY 2024, COLUMBUS, OH, 1 STAFF)	3,000										3,000
	WQTC (NOVEMBER 2023, DALLAS, TX, 1 STAFF)	3,000										3,000
	<b>TRAVEL/CONFERENCE/MILEAGE TOTAL</b>	<b>9,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>9,000</b>
	<b>OFFICE EXPENSE - GENERAL</b>											
1038.51501	OFFICE SUPPORT MATERIALS	18,000										18,000
	PAPERS, PARTS, DATA CABLES, INSTRUMENT DATA LINKS, ETC.	8,000										8,000
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>26,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>26,000</b>
	<b>SUBSCRIPTIONS</b>											
1038.51104	GENERAL TNI STANDARD (8 USERS)	500				500						1,000
	JOURNAL: AWWA, ACS, ANALYTICAL CHROMATOGRAPHY	200										200
	STANDARD METHODS SMALL LAB ELECTRONIC LICENSE (9 USERS)	250	250			250			250			1,000
	QUALTRAX SOFTWARE LICENSE (UP TO 50 USERS)	5,000	5,000	1,000	1,000	2,000		1,000	1,000	1,000		17,000
	<b>SUBSCRIPTIONS TOTAL</b>	<b>5,950</b>	<b>5,250</b>	<b>1,000</b>	<b>1,000</b>	<b>2,750</b>	<b>-</b>	<b>1,000</b>	<b>1,250</b>	<b>1,000</b>	<b>-</b>	<b>19,200</b>
	<b>UNIFORMS &amp; SAFETY</b>											
1038.51530	LAB COATS AND SAFETY EQUIPMENT	7,000										7,000
	<b>UNIFORMS &amp; SAFETY TOTAL</b>	<b>7,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>7,000</b>
	<b>MAINTENANCE EQUIPMENT - GENERAL</b>											
1038.57004	THERMO SERVICE AGREEMENT - IC (2), IC/MS, AUTOTRACE (8)		35,000	10,000	5,000	25,000			15,000	5,000	5,000	100,000
	PERKIN ELMER - ICP/OES AND ICP/MS		20,000	3,000	2,000	10,000			5,000	6,000	4,000	50,000
	SEAL DISCRETE ANALYZER		3,500			3,500						7,000
	AGILENT UV/VIS		1,600			1,600						3,200
	METTLER TOLEDO AUTOTITRATOR		1,100	1,000	1,000	1,000			1,000	1,000	1,000	7,100
	ANNUAL LABORATORY BALANCES CERTIFICATION		400	400	200	400			400	500	400	2,700
	LABORATORY SCIENTIFIC REFRIGERATORS (19)		2,500	1,000	500	2,500			500	500	500	8,000
	SCION GC/MS SYSTEM (2)		10,000	3,000	1,000	10,000			2,000	3,000	2,000	31,000
	INSTRUMENTS SOFTWARE AND COMPUTERS UPGRADE		3,000	1,000	1,000	2,000			1,000	1,000	1,000	10,000
	TOC ANALYZERS (2)		5,000	2,000	1,000	5,000			2,000	2,000	1,000	18,000
	AGILENT GC/MS AND HPLC ANALYTICAL SYSTEMS (ORGANIC)		45,000	10,000	1,000	45,000			10,000	10,000	4,000	125,000
	WATERS HPLC SYSTEMS		8,000	2,000		8,000			4,000	1,000	1,000	24,000

GENERAL FUND OPERATING BUDGET FY 23-24

LABORATORY (1038)

JDE Account Number	Description	General	GWR System O&M	Talbert Barrier O&M	GAP O&M	Groundwater Producers' Assistance	MTBE Litigation	Forebay VOC N. Basin	SAR Monitoring	PFAS	Prado O&M	Total
	ACTIVITY CODE	9900	9922	9908	9911	4406	9954	9936	4602	1914	9924	
1038.57004	MAINTENANCE EQUIPMENT - GENERAL (CONTINUED)											
	PEAK NITROGEN GENERATOR FOR IC/MS		2,500			2,500						5,000
	NITROGEN GENERATORS FOR LC-MS/MS SYSTEMS (3)		3,000	1,000		5,000			3,000	5,000		17,000
	AB SCIEX LC-MS/MS SYSTEMS (3)		30,000	5,000		25,000			10,000	80,000		150,000
	HYDROGEN GENERATOR FOR GC/ECD		1,000	500		1,000				500		3,000
	DI SYSTEM - SUPPORT & MAINTENANCE		3,000	2,000	1,000	1,500			1,000	3,000	1,000	12,500
	STERIS -STERILIZERS, DRYING OVENS & AUTOMATED WASHERS		3,000	1,000	1,000	1,000			1,500	1,000	1,500	10,000
	CULLIGAN RO SYSTEM		400	400	400	400			400	400	400	2,800
	EST ANALYTICAL		2,700	1,500	100	2,300			500	1,000		8,100
	ACID DILUTION TANK PM'S		1,000			1,000			500	500		3,000
	VACUUM TRUCK HAUL OFF		2,000			2,000			500	500		5,000
	CHEM PRO - CORROSION INHIBITOR		700			700						1,400
	<b>MAINTENANCE EQUIPMENT - GENERAL TOTAL</b>	<b>-</b>	<b>184,400</b>	<b>44,800</b>	<b>15,200</b>	<b>156,400</b>	<b>-</b>	<b>-</b>	<b>58,300</b>	<b>121,900</b>	<b>22,800</b>	<b>603,800</b>
1038.51545	SMALL TOOLS & EQUIPMENT											
	TOOLS AND EQUIPMENT TO SERVICE ANALYTICAL SYSTEM	500	500	500	500			500	500			3,000
	<b>SMALL TOOLS &amp; EQUIPMENT TOTAL</b>	<b>500</b>	<b>500</b>	<b>500</b>	<b>500</b>	<b>-</b>	<b>-</b>	<b>500</b>	<b>500</b>	<b>-</b>	<b>-</b>	<b>3,000</b>
1038.51555	LAB SUPPLIES											
	STANDARDS, PROFICIENCY TEST & QA/QC SAMPLES	10,000	65,000		15,000	55,000			10,000	45,000		200,000
	REAGENTS, SOLVENTS & CHEMICALS	15,000	140,000		15,000	160,000			30,000	40,000		400,000
	GC-LC-MS COLUMNS, DETECTORS & ANALYTICAL PARTS	10,000	105,000		10,000	60,000			20,000	20,000		225,000
	EXTRACTION CARTRIDGES & DISKS	5,000	25,000		3,000	15,000			10,000	15,000		73,000
	GAS (HELIUM, NITROGEN, CARBON DIOXIDE, ARGON) SUPPLY		30,000			30,000			10,000	10,000		80,000
	MISCELLANEOUS SUPPLY		800			500			500	200		2,000
	<b>LAB SUPPLIES TOTAL</b>	<b>40,000</b>	<b>365,800</b>	<b>-</b>	<b>43,000</b>	<b>320,500</b>	<b>-</b>	<b>-</b>	<b>80,500</b>	<b>130,200</b>	<b>-</b>	<b>980,000</b>
1038.51560	LAB SAMPLES ANALYSIS											
	CONFIRMATION DATA FROM A SECOND LAB		400	200	200	400			400	400		2,000
	<b>LAB SAMPLES ANALYSIS TOTAL</b>	<b>-</b>	<b>400</b>	<b>200</b>	<b>200</b>	<b>400</b>	<b>-</b>	<b>-</b>	<b>400</b>	<b>400</b>	<b>-</b>	<b>2,000</b>
1038.51192	EDUCATIONAL TRAINING											
	ANNUAL LAB TRAINING ON TNI QUALITY SYSTEM/ETHICS	1,000	1,000			1,000			1,000	1,000		5,000
	LOCAL WATER EDUCATION SEMINAR (AUGUST, 2023, ORANGE, CA), 20 STAFF	2,000										2,000
	AMERICAN CHEMICAL SOCIETY MEMBERSHIP RENEWAL	175										175
	CWEA LAB ANALYST CERTIFICATION RENEWAL	350										350
	CSEA MEMBERSHIP	30										30
	<b>EDUCATIONAL TRAINING TOTAL</b>	<b>3,555</b>	<b>1,000</b>	<b>-</b>	<b>-</b>	<b>1,000</b>	<b>-</b>	<b>-</b>	<b>1,000</b>	<b>1,000</b>	<b>-</b>	<b>7,555</b>
1038.51112	SPECIAL DEPARTMENT EXPENSE											
	ANNUAL CERTIFICATION FEES - STATE ELAP & 3RD PARTY TNI AUDIT	25,000										25,000
	HAZARDOUS WASTE DISPOSAL SERVICE	35,000										35,000
	<b>SPECIAL DEPARTMENT EXPENSE TOTAL</b>	<b>60,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>60,000</b>
	<b>LABORATORY GRAND TOTAL</b>	<b>771,546</b>	<b>2,101,566</b>	<b>505,387</b>	<b>196,432</b>	<b>1,954,905</b>	<b>5,297</b>	<b>6,797</b>	<b>440,914</b>	<b>748,298</b>	<b>125,583</b>	<b>6,856,725</b>

**GENERAL FUND OPERATING BUDGET FY 23-24  
RESEARCH & DEVELOPMENT (1040)**

JDE Account Number	Description	General	GWR Process Opt.	GWR System O&M	Forebay O&M	Grants/Proposals	Participating Utility	Next Gen. Seq.	USBR LRV RO	USBR UGR ROP	PFAS	USBR PAA	RBFS PFAS	WRF PIGE	WRF RO LRV	FR-RO	PRADO	WRF-RIC	USBR P2P	NAWI CAR.	USBR KJ LP	USBR NOL.	NAWI TA&M	NAWI UCI	Total	
ACTIVITY CODE		9900	9952	9922	9920	9996	9997	9992	1801	1809	1914	1916	2005	2006	1917	2007	9983	2019	2020	2021	2022	2023	2024	2025		
<b>SALARIES &amp; BENEFITS</b>																										
1040.50104	REGULAR SALARIES	696,774	183,552	83,206	8,957	32,748	40,468	33,899	3,362	16,238	99,506	10,309	63,270	7,396	11,596	33,893	1,065	20,009	20,767	26,822	33,237	9,234	3,973	4,029	1,444	1,000
1040.50210	PAYROLL TAXES	14,105	4,913	1,666	130	475	587	489	49	235	1,604	149	1,401	107	168	540	15	290	315	598	590	214	58	58	28,756	
1040.50202	RETIREMENT	105,266	24,514	12,620	1,491	5,453	6,738	5,611	560	2,704	16,135	1,716	9,236	1,230	1,931	5,513	177	3,331	3,421	3,903	5,244	1,321	662	671	219,448	
1040.50204	HEALTH INSURANCE	82,814	15,525	8,598	1,013	4,071	4,508	4,136	368	1,559	16,889	1,020	7,385	1,401	1,276	3,730	130	3,745	2,063	2,525	3,355	929	387	457	167,884	
1040.50206	WORKERS' COMPENSATION	7,160	2,035	861	124	350	494	393	34	182	974	105	599	48	118	395	11	149	244	306	420	110	41	41	15,194	
<b>SALARIES &amp; BENEFITS TOTAL</b>		<b>906,119</b>	<b>230,539</b>	<b>106,951</b>	<b>11,715</b>	<b>43,097</b>	<b>52,795</b>	<b>44,328</b>	<b>4,373</b>	<b>20,818</b>	<b>135,108</b>	<b>13,299</b>	<b>81,891</b>	<b>10,172</b>	<b>15,089</b>	<b>44,071</b>	<b>1,398</b>	<b>27,524</b>	<b>26,810</b>	<b>34,154</b>	<b>42,846</b>	<b>11,608</b>	<b>5,121</b>	<b>5,256</b>	<b>1,875,382</b>	
<b>TRAVEL/CONFERENCE/MILEAGE</b>																										
1040.51301	6TH ANNUAL ORA WESTERN GROUNDWATER CONGRESS (2 STAFF, BURBANK, 9/2023)	2,800																								2,800
	USBR W/N WORKSHOP (1 STAFF, ALAMAGORDO NM, 10/2023)	1,200																								1,200
	98th ANNUAL WEFTEC (1 STAFF, CHICAGO, 10/2023)	2,300																								2,300
	CLARKE PRIZE CONFERENCE (3 STAFF, 10/2023)	500																								500
	WATERUSE CALIFORNIA ANNUAL CONFERENCE (2 STAFF, INDIAN WELLS, 11/2023)	2,300																								2,300
	AWWA MEMBRANE TECHNOLOGY CONFERENCE (1 STAFF, WEST PALM BEACH FL, 3/2024)	2,000																								2,000
	39TH ANNUAL WATERUSE SYMPOSIUM (2 STAFF, DENVER, 3/2024)	3,500																								3,500
	ACE24 (ANNUAL CONFERENCE & EXPOSITION) OR CA/INV AWWA SPRING CONFERENCE (1 STAFF, ANAHEIM, 4/2024)	700																								700
	BSMARTS- BIENNIAL SYMPOSIUM ON MANAGED AQUIFER RECHARGE (2 STAFF, TUCSON AZ, 4/2024)	3,500																								3,500
	AMERICAN SOCIETY OF MICROBIOLOGY (ASM) MICROBE CONFERENCE (1 STAFF, ATLANTA, 8/2024)	1,600																								1,600
<b>TRAVEL/CONFERENCE/MILEAGE TOTAL</b>		<b>20,400</b>																								<b>20,400</b>
<b>PROFESSIONAL SERVICES - GENERAL</b>																										
1040.53001	PROFESSIONAL SERVICES - GENERAL																									
	PFAS PILOT PHASE II SUPPORT										25,000															25,000
	FR-RO FEASIBILITY STUDY															15,000										15,000
	AQUIFER RECHARGE USBR PFAS PROJECT - CSM SUPPORT (GRANT REIMBURSED)													29,920												29,920
	AQUIFER RECHARGE USBR PFAS PROJECT - JACOBS SUPPORT (GRANT REIMBURSED)													29,920												29,920
	ISLE PFAS WORK GROUP (ANNUAL FEE)									5,000																5,000
	RESEARCH COLLABORATION SUPPORT PROJECTS	50,000																								50,000
<b>PROFESSIONAL SERVICES - GENERAL TOTAL</b>		<b>50,000</b>									<b>30,000</b>		<b>59,840</b>			<b>15,000</b>										<b>154,840</b>
<b>OFFICE EXPENSE - GENERAL</b>																										
1040.51501	OFFICE EXPENSE - GENERAL																									
	MISC OFFICE EXPENSES (OFFICE SUPPLIES, SOFTWARE)	1,000																								1,000
	SHIPPING SAMPLES (FEDEX/COURIER)	5,000																								5,000
	OFFICE FURNITURE	500																								500
<b>OFFICE EXPENSE - GENERAL TOTAL</b>		<b>6,500</b>																								<b>6,500</b>
<b>GAS &amp; DIESEL FUEL</b>																										
1040.51520	GAS & DIESEL FUEL																									
	FUEL FOR DEPARTMENT VEHICLE (SC FUELS BPO)	500			500																					1,000
<b>GAS &amp; DIESEL FUEL TOTAL</b>		<b>500</b>			<b>500</b>																					<b>1,000</b>
<b>MAINTENANCE EQUIPMENT - GENERAL</b>																										
1040.57004	MAINTENANCE EQUIPMENT - GENERAL																									
	BALANCES (9), INCUBATORS (7), MICROSCOPES, FRIDGES, CENTRIFUGES, AUTOCLAVE	2,000																								2,000
	ABI STEP ONE PLUS REPAIR	3,000																								3,000
	ALL HOOD SAFETY INSPECTION/CALIBRATION (5)	400																								400
	FRL EQUIPMENT MAINTENANCE	1,500																								1,500
	HACH 8000 SPECTROPHOTOMETER SERVICE (ERC HACH OR LAB HACH, ROTATE EVERY OTHER YEAR)	1,200																								1,200
	HACH EZ ATP ANALYZER MAINT. CONTRACT	6,200																								6,200
	HORIBA AQUALOG LAMP REPLACEMENT	1,000																								1,000
	ULTRALOW FREEZER	500																								500
	UV RADIOMETER CALIBRATION/SERVICE	450																								450
	VERTI FAST THERMOCYCCLER REPAIR	2,000																								2,000
	COULTER MULTISIZER 4 (PARTICLE COUNTER) SERVICE CONTRACT	3,500																								3,500
	PFAS ADSORBENT PILOT AT FHO									1,000																1,000
	ERC PILOTS MAINTENANCE (PUMPS, SENSORS, TANKS, ETC.)	10,000																								10,000
<b>MAINTENANCE EQUIPMENT - GENERAL TOTAL</b>		<b>31,750</b>								<b>1,000</b>																<b>32,750</b>
<b>MAINT STRUCTURE &amp; IMPROVEMENT - GENERAL</b>																										
1040.57016	MAINT STRUCTURE & IMPROVEMENT - GENERAL																									
	GENERAL DEPARTMENTAL REPAIR WORK (INCL FRL WINDOW COVERINGS)	3,000																								3,000
<b>MAINT STRUCTURE &amp; IMPROVEMENT - GENERAL TOTAL</b>		<b>3,000</b>																								<b>3,000</b>
<b>LAB SUPPLIES &amp; SMALL EQUIPMENT</b>																										
1040.51555	LAB SUPPLIES & SMALL EQUIPMENT																									
	LAB CONSUMABLES / EQUIP. - GENERAL		19,000	10,000	8,000																					37,000
	LAB CONSUMABLES / EQUIP. - MOLEC. BIO. SUPPLIES							5,000																		5,000
	PILOTS / ERC - GENERAL		12,000																							12,000
	PILOTS / ERC - MEMBRANES (MFI/RO)		5,000																							5,000
	FRL COLUMN SYSTEM FOR AQUIFER RECHARGE USBR PFAS PROJECT (GRANT REIMBURSED)													7,000												7,000
	GWRS RO CONCENTRATE COLUMN SYSTEM PFAS STUDY									3,600																3,600
	USBR ULTRAFILTRATION OPTIMIZATION STUDY (GRANT REIMBURSED)																							11,500	11,500	
	GRAINGER (BPO)				800																					800
	HOME DEPOT (BPO)		1,000		800																					1,800
	MCFADDEN DALE (BPO)				800																					800
<b>LAB SUPPLIES</b>																										

GENERAL FUND OPERATING BUDGET FY 23-24  
RESEARCH & DEVELOPMENT (1040)

JDE Account Number	Description	General	GWR Process Opt.	GWR System O&M	Forebay O&M	Grants/Proposals	Participating Utility	Next Gen. Seq.	USBR LRV RO	USBR UCR ACP	PFAS	USBR PAA	RBFS PFAS	WRF PIGE	WRF RO LRV	FR-RO	PRADO	WRF-RIC	USBR P2P	NAWI CAR.	USBR KJ LIF	USBR NOL	NAWI TA&M	NAWI UCI	Total
	ACTIVITY CODE	9900	9952	9922	9920	9996	9997	9992	1801	1809	1914	1916	2005	2006	1917	2007	9983	2019	2020	2021	2022	2023	2024	2025	
1040.51560	LAB SAMPLES ANALYSIS																								
	SEM ANALYSIS			6,000																					6,000
	WATER QUALITY ANALYSIS (DNA SEQUENCING, CHEMICALS, MICROBIO, ETC.)			12,000																					12,000
	PFAS SAMPLE ANALYSIS (FULL OR PARTIAL GRANT REIMBURSED)										12,000														12,000
	<b>LAB SAMPLES ANALYSIS TOTAL</b>			<b>18,000</b>							<b>12,000</b>														<b>30,000</b>
1040.51565	EQUIPMENT RENTAL - GENERAL																								
	BOTTLED WATER SERVICE (SPARKLETT'S BPO ANNEX)	1,000																							1,000
	DI CARTRIDGES (EVOQUA BPO)	2,000																							2,000
	GAS CYLINDERS/LIQUID N2 (WESTAIR BPO)	400																							400
	<b>EQUIPMENT RENTAL - GENERAL TOTAL</b>	<b>3,400</b>																							<b>3,400</b>
1040.51102	MEMBERSHIP																								
	PROFESSIONAL ENGINEER LICENSE RENEWAL FEE	115																							115
	INTERNATIONAL ULTRAVIOLET ASSOCIATION (IUA)	300																							300
	WATER UCI INDUSTRY-UNIVERSITY RESEARCH CENTER MEMBERSHIP	50,000																							50,000
	SOIL SCIENCE SOCIETY OF AMERICA (SSSA)	150																							150
	NATIONAL GROUNDWATER ASSOCIATION	150																							150
	AWWA (ADMINISTRATIVE STAFF FEE)	150																							150
	AMERICAN MEMBRANE TECHNOLOGY ASSOCIATION	200																							200
	AMERICAN SOCIETY FOR MICROBIOLOGY X2 STAFF	400																							400
	<b>MEMBERSHIP TOTAL</b>	<b>51,465</b>																							<b>51,465</b>
1040.51112	SPECIAL DEPARTMENT EXPENSE																								
	JOURNAL PUBLISHING AND OPEN ACCESS FEES	5,000																							5,000
	REFERENCE MATERIAL (BOOKS, MANUALS, JOURNAL ARTICLES, WEBINARS)	500																							500
	<b>SPECIAL DEPARTMENT EXPENSE TOTAL</b>	<b>5,500</b>																							<b>5,500</b>
1040.51192	TECH TRAINING																								
	TECHNICAL TRAINING (WEBINARS, COURSES)	1,500																							1,500
	<b>TECH TRAINING EXPENSE TOTAL</b>	<b>1,500</b>																							<b>1,500</b>
	<b>RESEARCH AND DEVELOPMENT GRAND TOTAL</b>	<b>1,080,134</b>	<b>267,539</b>	<b>134,951</b>	<b>22,615</b>	<b>43,097</b>	<b>52,795</b>	<b>49,328</b>	<b>4,373</b>	<b>20,916</b>	<b>181,708</b>	<b>13,299</b>	<b>145,731</b>	<b>10,172</b>	<b>15,089</b>	<b>59,071</b>	<b>1,398</b>	<b>27,524</b>	<b>26,810</b>	<b>34,154</b>	<b>42,846</b>	<b>11,808</b>	<b>5,121</b>	<b>16,756</b>	<b>2,270,237</b>



GENERAL FUND OPERATING BUDGET FY 23-24  
PLANNING & WATERSHED MANAGEMENT (1044)

JDE Account Number	Description	General	GWRS	SARCCUP	Prado FS	Total
		9900	9922	9993	9978	
	<b>SALARIES &amp; BENEFITS</b>					
1044.50104	REGULAR SALARIES	552,798	207,697	10,931		771,426
1044.50210	PAYROLL TAXES	8,016	4,543	239		12,798
1044.50202	RETIREMENT	92,041	30,469	1,604		124,114
1044.50204	HEALTH INSURANCE	50,312	25,186	1,326		76,824
1044.50206	WORKERS' COMPENSATION	2,875	1,080	57		4,012
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>706,042</b>	<b>268,975</b>	<b>14,157</b>	<b>-</b>	<b>989,174</b>
1044.51192	<b>TRAINING</b>					
	TECHNICAL WRITING CLASS	400				400
	<b>TRAINING TOTAL</b>	<b>400</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>400</b>
1044.51301	<b>TRAVEL/CONFERENCE/MILEAGE</b>					
	ACWA CONFERENCES (FALL AND SPRING)	2,500				2,500
	MULTI-STATE SALINITY CONFERENCE	800				800
	ACWA GROUNDWATER COMM MTGS IN SACRAMENTO	600				600
	BIENNIAL SYMPOSIUM ON MANAGED AQUIFER RECHARGE	1,000				1,000
	FIRO WORKSHOPS	2,000				2,000
	<b>TRAVEL/CONFERENCE/MILEAGE TOTAL</b>	<b>6,900</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6,900</b>
1044.53001	<b>PROFESSIONAL SERVICE - GENERAL</b>					
	PRADO BASIN ECOSYSTEM RESTORATION PROJECT (JOINT WITH ARMY CORPS)				60,000	60,000
	PRADO WATER CONSERVATION TECHNICAL STUDIES	70,000				70,000
	PRADO FORECAST INFORMED RESERVOIR OPERATIONS EVALUATION	280,000				280,000
	SUPPORT FOR CEQA COMPLIANCE (AIR & NOISE ANALYSES)	50,000				50,000
	RECHARGE FACILITIES MODEL SIMULATIONS	10,000				10,000
	SEDIMENT REMOVAL ANALYSIS (PRADO)	20,000				20,000
	<b>PROFESSIONAL SERVICE - GENERAL TOTAL</b>	<b>430,000</b>	<b>-</b>	<b>-</b>	<b>60,000</b>	<b>490,000</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
PLANNING & WATERSHED MANAGEMENT (1044)

JDE Account Number	Description	General	GWRS	SARCCUP	Prado FS	Total
	ACTIVITY CODE	9900	9922	9993	9978	
1044.51501	OFFICE EXPENSE - GENERAL					
	OFFICE SUPPLIES	50				50
	MEETING EXPENSES	600				600
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>650</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>650</b>
1044.51112	SPECIAL DEPARTMENT EXPENSE					
	WATER RIGHTS FEE (STATE WATER RESOURCES CONTROL BOARD)	35,000				35,000
	REGIONAL GENERAL MAINTENANCE PERMIT (CA DEPT OF FISH & WILDLIFE ANNUAL F	12,000				12,000
	O.C. CONSERVATION CORP - ADOPTED CHANNEL	34,000				34,000
	REWG STUDIES (CLOGGING STUDIES, SUBSURFACE RECHARGE)	10,000				10,000
	PAYMENT TO SAWPA FOR BASIN MONITORING PROGRAM TASK FORCE EXPENSES	30,000				30,000
	PAYMENT TO SAWPA FOR WEATHER MODIFICATION PROGRAM	45,000				45,000
	PERMIT FEES FOR PROJECTS (CDFG, ARMY CORPS, REG BOARD, CEQA FILINGS)	7,000				7,000
	<b>SPECIAL DEPARTMENT EXPENSE TOTAL</b>	<b>173,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>173,000</b>
1044.51530	UNIFORMS & SAFETY					
	DISTRICT SHIRTS	200				200
	<b>UNIFORMS &amp; SAFETY TOTAL</b>	<b>200</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>200</b>
1044.51102	MEMBERSHIP					
	PROFESSIONAL CERTIFICATIONS & MEMBERSHIPS	400				400
	<b>MEMBERSHIP TOTAL</b>	<b>400</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>400</b>
	<b>PLANNING &amp; WATERSHED MANAGEMENT GRAND TOTAL</b>	<b>1,317,592</b>	<b>268,975</b>	<b>14,157</b>	<b>60,000</b>	<b>1,660,724</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
LOCAL RESOURCES (1045)

JDE Account Number	Description	General	Total
	ACTIVITY CODE	9900	
	<b>SALARIES &amp; BENEFITS</b>		
1045.50104	REGULAR SALARIES	261,977	261,977
1045.50210	PAYROLL TAXES	3,799	3,799
1045.50202	RETIREMENT	43,619	43,619
1045.50204	HEALTH INSURANCE	30,205	30,205
1045.50206	WORKERS' COMPENSATION	1,362	1,362
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>340,962</b>	<b>340,962</b>
1045.51102	<b>MEMBERSHIPS</b>		
	MEMBERSHIPS (OCWA, AWWA, CRWA)	200	200
	<b>MEMBERSHIPS TOTAL</b>	<b>200</b>	<b>200</b>
1045.51301	<b>TRAVEL/CONFERENCE/MILEAGE</b>		
	ACWA MEETING	1,200	1,200
	CAL DESAL	1,000	1,000
	LOCAL MEETINGS	100	100
	<b>TRAVEL/CONFERENCE/MILEAGE TOTAL</b>	<b>2,300</b>	<b>2,300</b>
1045.51501	<b>OFFICE EXPENSE - GENERAL</b>		
	OFFICE/MEETING SUPPLIES	400	400
	COLOR COPIES	300	300
	FEDERAL EXPRESS TO GRANT & LOAN FUNDING AGENCIES	400	400
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>1,100</b>	<b>1,100</b>
	<b>LOCAL RESOURCES GRAND TOTAL</b>	<b>344,562</b>	<b>344,562</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
REGULATORY AFFAIRS (1046)

JDE Account Number	Description	General	GWR System O&M	GAP O&M	PFAS	SAWPA PFAS Regional Study	GWR O&M	SAR Monitoring	Total
	ACTIVITY CODE	9900	9922	9911	1914	2026	2003	4602	
	<b>SALARIES &amp; BENEFITS</b>								
1046.50104	REGULAR SALARIES	166,067	106,811	11,702	60,003	12,075	12,075	29,628	398,361
1046.50210	PAYROLL TAXES	2,408	1,549	170	870	175	175	430	5,777
1046.50202	RETIREMENT	27,650	17,784	1,948	9,991	2,011	2,011	4,933	66,328
1046.50204	HEALTH INSURANCE	27,682	17,556	2,468	7,685	1,304	1,304	5,006	63,005
1046.50206	WORKERS' COMPENSATION	864	555	61	312	63	63	154	2,072
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>224,671</b>	<b>144,255</b>	<b>16,349</b>	<b>78,861</b>	<b>15,628</b>	<b>15,628</b>	<b>40,151</b>	<b>535,543</b>
1046.51301	<b>TRAVEL/CONFERENCE/MILEAGE</b>								
	WATER QUALITY POLICY/LEGISLATION TRIPS (SACRAMENTO, CA) (3)	1,500							1,500
	39TH WATEREUSE SYMPOSIUM (MARCH 2024: DENVER) (2 STAFF)		3,500						3,500
	2023 WATEREUSE CALIFORNIA ANNUAL CONF (NOV 2023: INDIAN WELLS, CA) (2 STAFF)		1,500						1,500
	WEFTEC 2023 (OCT 2023: CHICAGO, IL) (1 STAFF)	2,000							2,000
	PFAS-RELATED CONFERENCE (TBD) (1 STAFF)				1,500				1,500
	<b>TRAVEL/CONFERENCE/MILEAGE TOTAL</b>	<b>3,500</b>	<b>5,000</b>	<b>-</b>	<b>1,500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>10,000</b>
1046.53001	<b>PROFESSIONAL SERVICE - GENERAL</b>								
	CONSULTING SERVICES FOR 2023 GWRS ANNUAL REPORT		65,000						65,000
	NWRI GWRS INDEPENDENT ADVISORY PANEL		60,000						60,000
	TOXICOLOGICAL/RISK ASSESSMENT CONSULTING SUPPORT				50,000				50,000
	SAWPA PFAS REGIONAL STUDY					110,000			110,000
	GWRS CLIMATE CHANGE ACTION PLAN (PERMIT REQUIREMENT)		120,000						120,000
	<b>PROFESSIONAL SERVICE - GENERAL TOTAL</b>	<b>-</b>	<b>245,000</b>	<b>-</b>	<b>50,000</b>	<b>110,000</b>	<b>-</b>	<b>-</b>	<b>405,000</b>
1046.51501	<b>OFFICE EXPENSE - GENERAL</b>								
	SHIPPING COST/FEDEX/ONTRAC	500							500
	OFFICE SUPPLIES (TONER, ETC.)	1,000							1,000
	COLOR COPIES FOR GWRS ANNUAL REPORT & GWRS NWRI IAP MEETING	1,500							1,500
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>3,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,000</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
REGULATORY AFFAIRS (1046)

JDE Account Number	Description	General	GWR System O&M	GAP O&M	PFAS	SAWPA PFAS Regional Study	GWR O&M	SAR Monitoring	Total
	ACTIVITY CODE	9900	9922	9911	1914	2026	2003	4602	
1046.51104	<b>SUBSCRIPTION</b>								
	NGWA GROUNDWATER JOURNAL	200							200
	ENVIRONMENTAL SCIENCE & TECHNOLOGY JOURNAL	200							200
	<b>SUBSCRIPTION TOTAL</b>	<b>400</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>400</b>
1046.51102	<b>MEMBERSHIPS AND REGISTRATIONS</b>								
	MEMBERSHIPS AND PROFESSIONAL REGISTRATIONS (P.E., P.G., IAAP LICENSES)	1,000							1,000
	<b>MEMBERSHIPS AND REGISTRATIONS TOTAL</b>	<b>1,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,000</b>
1046.51112	<b>SPECIAL DEPARTMENT EXPENSE</b>								
	RWQCB PERMIT FEE FOR GWRS EMERGENCY SAR DISCHARGE NPDES PERMIT		5,000						5,000
	RWQCB FEE FOR GWRS FINAL EXPANSION PERMIT		50,000						50,000
	SWRCB DDW FEES FOR REVIEWING PERMITS, PROJECTS, PANEL MEETINGS		50,000						50,000
	<b>SPECIAL DEPARTMENT EXPENSE TOTAL</b>	<b>-</b>	<b>105,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>105,000</b>
	<b>REGULATORY AFFAIRS GRAND TOTAL</b>	<b>232,571</b>	<b>499,255</b>	<b>16,349</b>	<b>130,361</b>	<b>125,628</b>	<b>15,628</b>	<b>40,151</b>	<b>1,059,943</b>

**GENERAL FUND OPERATING BUDGET FY 23-24**  
**WATER PRODUCTION (1050)**

JDE Account Number	Description	General	GWR System O&M	Process Optimization	Talbert Barrier O&M	FV Facility O&M	GAP O&M	Lab Maintenance	Alamitos Barrier O&M	Forebay O&M	MWDOC	EW1	MBI	Total
	ACTIVITY CODE	9900	9922	9952	9908	9901	9911	9974	9932	9920	9970	1711	9990	
	<b>SALARIES &amp; BENEFITS</b>													
1050.50104	REGULAR SALARIES	922,308	4,851,157	293,884	322,631	239,700	670,631	136,587	21,349	179,747	108,452	41,896	140,965	7,929,307
1050.50106	OVERTIME SALARIES	41,167	320,207	7,528	10,641	10,134	49,842	5,283	531	5,864	4,686	1,523	4,453	461,859
1050.50210	PAYROLL TAXES	14,454	87,911	9,785	4,832	3,623	10,447	2,057	317	4,368	1,640	630	2,109	142,173
1050.50202	RETIREMENT	159,120	826,319	35,646	55,490	41,597	119,959	23,621	3,643	26,402	18,837	7,229	24,212	1,342,075
1050.50204	HEALTH INSURANCE	169,331	820,136	36,785	55,179	53,479	123,836	26,166	4,211	23,415	19,922	7,032	23,458	1,362,950
1050.50206	WORKERS' COMPENSATION	22,512	122,157	5,236	8,798	6,634	18,476	3,716	597	3,245	3,031	1,049	3,827	199,278
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>1,328,892</b>	<b>7,027,887</b>	<b>388,864</b>	<b>457,571</b>	<b>355,167</b>	<b>993,191</b>	<b>197,430</b>	<b>30,648</b>	<b>243,041</b>	<b>156,568</b>	<b>59,359</b>	<b>199,024</b>	<b>11,437,642</b>
1050.51301	<b>TRAVEL/CONFERENCE/MILEAGE</b>													
	PATEL MARCH 2024 AWWA/AMTA JOINT MEMBRANE TECHNOLOGY CONF (CONF ORGANIZER, AMTA BOARD MEETING) WEST PALM BEACH, FL		2,000											2,000
	PATEL AUG 29-31, 2023 AMTA WORKSHOP, VANCOUVER, WA. ATTEND BOARD MEETING. AMTA TO PAY HOTEL, AIRFARE		500											500
	PATEL OCT 3-5, 2023 AMTA WORKSHOP, ITHACA, NY. ATTEND BOARD MEETING. AMTA TO PAY HOTEL, AIRFARE		1,000											1,000
	PATEL NOV 5-7, 2023, WATEREUSE CA ANNUAL CONF, INDIAN WELLS, CA		900											900
	PATEL AUG 29-31, 2023 AMTA WORKSHOP, DALLAS, TX. ATTEND BOARD MEETING. AMTA TO PAY HOTEL, AIRFARE		500											500
	PATEL MARCH 10-13 2024, WATEREUSE ANNUAL CONFERENCE, DENVER, CO		1,500											1,500
	CWEA TRI-STATE SEMINAR, AUG. 7-10, LAS VEGAS, NV		1,500											1,500
	PHILLIPS APRIL 2024 CWEA ANNUAL CONFERENCE, SACRAMENTO, CA		1,500											1,500
	EMERSON USER CONFERENCE PHOENIX, AZ, 1 PERSON		3,500											3,500
	<b>TRAVEL/CONFERENCE/MILEAGE TOTAL</b>	<b>-</b>	<b>12,900</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>12,900</b>
1050.53001	<b>PROFESSIONAL SERVICES-GENERAL</b>													
	CONSULTING SERVICES GWRS PROCESS OPTIMIZATION (SPI)		125,000											125,000
	<b>PROFESSIONAL SERVICES - GENERAL TOTAL</b>	<b>-</b>	<b>125,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>125,000</b>
1050.51501	<b>OFFICE EXPENSE - GENERAL</b>													
	BLUE PRINT AND COPIES		2,000											2,000
	OFFICE FURNITURE		2,000				2,500							4,500
	OFFICE SUPPLIES		8,400	400										8,800
	CHAIR/FLOOR MATS FOR AWPFC CONTROL ROOM		1,200											1,200
	REPLACEMENT CHAIRS SHOP OFFICES (17)		8,500											8,500
	ADOBE PROFESSIONAL		2,000											2,000
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>-</b>	<b>24,100</b>	<b>400</b>	<b>-</b>	<b>-</b>	<b>2,500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>27,000</b>
1050.51510	<b>HARDWARE/SOFTWARE</b>													
	REPLACE 4 OPERATOR BUSINESS SYSTEM WORKSTATIONS		8,000											8,000
	PCS SYSTEM SOFTWARE SUPPORT (EMERSON GUARDIAN)		60,100											60,100
	LAB BUILDING BMS SYSTEM HARDWARE/SOFTWARE UPGRADE							7,000						7,000
	ADOBE PROFESSIONAL				500									500
	<b>HARDWARE/SOFTWARE TOTAL</b>	<b>-</b>	<b>68,100</b>	<b>-</b>	<b>500</b>	<b>-</b>	<b>-</b>	<b>7,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>75,600</b>
1050.51520	<b>GAS &amp; DIESEL FUEL</b>													
	FUEL		12,000		11,000	3,000								26,000
	<b>GAS &amp; DIESEL FUEL TOTAL</b>	<b>-</b>	<b>12,000</b>	<b>-</b>	<b>11,000</b>	<b>3,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>26,000</b>
1050.51530	<b>UNIFORMS &amp; SAFETY</b>													
	BOTTLED WATER AS REQUIRED IN TREATMENT AREA		3,000											3,000
	JACKETS, POLO SHIRTS, RAINGEAR		4,500											4,500
	DISTRICT SUPPLIED UNIFORMS (ARAMARK CONTRACT PRICE INCREASE)		40,000											40,000
	<b>UNIFORMS &amp; SAFETY TOTAL</b>	<b>-</b>	<b>47,500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>47,500</b>

**GENERAL FUND OPERATING BUDGET FY 23-24**  
**WATER PRODUCTION (1050)**

JDE Account Number	Description	General	GWR System O&M	Process Optimization	Talbert Barrier O&M	FV Facility O&M	GAP O&M	Lab Maintenance	Alamitos Barrier O&M	Forebay O&M	MWDOC	EW1	MBI	Total
	ACTIVITY CODE	9900	9922	9952	9908	9901	9911	9974	9932	9920	9970	1711	9990	
1050.57001	<b>MAINTENANCE - SUPPLIES &amp; MATERIAL - ELECTRICAL/INSTRUMENTATION</b>													
	MISC MOTOR, PUMP WAREHOUSE SUPPLIES		6,000		1,000	750	1,250							9,000
	PLANT UPS SYSTEM REPAIRS		7,500		1,000		500							9,000
	ELECTRICAL WAREHOUSE SUPPLIES		5,000	1,000			500							6,500
	INSTRUMENTATION PARTS AND SUPPLIES		11,000	3,000			1,000							15,000
	LIGHTING & EMERGENCY, LIGHT SUPPLIES		3,500			1,000	200	500						5,200
	OFFICE ELECTRICAL & LIGHTING REPAIRS		2,500			1,000		500						4,000
	<b>MAINTENANCE - SUPPLIES &amp; MATERIAL - ELECTRICAL/INSTRUMENTATION TOTAL</b>		<b>35,500</b>	<b>4,000</b>	<b>2,000</b>	<b>2,750</b>	<b>3,450</b>	<b>1,000</b>						<b>48,700</b>
1050.57004	<b>MAINTENANCE - SUPPLIES &amp; MATERIAL</b>													
	BARRIER FIELD EQUIPMENT REPAIR SUPPLIES				2,000									2,000
	BOTTLED GAS NITROGEN ECT FOR BARRIER, OPTIONS & MAINTENANCE		500		3,200		750							4,450
	EQUIPMENT AND STRUCTURE REPAIRS SUPPLIES		5,500			3,000	2,500	2,500						13,500
	EQUIPMENT LUBRICATION SUPPLIES		14,000	2,000		2,000	3,000							21,000
	FENCING AND SECURITY GATE REPAIRS		3,000		1,500	2,000								6,500
	GASKETS, BEARINGS, AND GEARS WAREHOUSE SUPPLIES		8,500		500	1,000	2,000							12,000
	HARDWARE SUPPLIES FOR BUILDINGS AND PROCESSES		9,000	1,000	1,000	3,000	1,500							15,500
	IRRIGATION SUPPLIES		2,000		1,000	5,000	2,000							10,000
	JANITORIAL SUPPLIES					9,500								9,500
	ADMININSTATION, LABORATORY & ANNEX REPAIRS					6,000		5,000						11,000
	LANDSCAPE SUPPLIES					3,000								3,000
	LUMBER, PAINT, HARDWARE SUPPLIES		3,500				2,500							6,000
	PIPE AND SUPPLIES		9,000	10,000		4,000	3,000							26,000
	PVC PIPE REPAIRS AND SUPPLIES		7,500	6,000		1,000	3,000							17,500
	SIGNAGE SUPPLIES		5,500			5,500	2,000				1,000			14,000
	SITE FACILITY PAINTING/SUPPLIES		7,000			4,500	2,000							13,500
	STRUCTURE BLDG REPAIRS MISC		8,000		1,000	6,000	3,000	3,000						21,000
	WELDING MATERIAL (SHEET METAL, STAINLESS, ANGLE IRON)		10,000	6,000	3,000	3,000	4,000	2,500						28,500
	SUMP PUMP REPLACEMENT ELECTRICAL MANHOLES		5,000		1,000	1,000	1,500							8,500
	WELDING SUPPLIES		6,000		500	1,000	2,000							9,500
	US FLAGS					3,000								3,000
	ENGINEERING RESEARCH CENTER PARTS			6,000										6,000
	<b>MAINTENANCE - SUPPLIES &amp; MATERIAL TOTAL</b>		<b>104,000</b>	<b>31,000</b>	<b>14,700</b>	<b>63,500</b>	<b>34,750</b>	<b>13,000</b>			<b>1,000</b>			<b>261,950</b>
1050.57006	<b>MAINTENANCE EQUIPMENT - COMMUNICATION</b>													
	REPAIR AND REPLACEMENT OF HANDHELD AND CAR RADIOS		500		800		700							2,000
	<b>MAINTENANCE EQUIPMENT - COMMUNICATION TOTAL</b>		<b>500</b>		<b>800</b>		<b>700</b>							<b>2,000</b>
1050.57008	<b>MAINTENANCE EQUIPMENT - CARTS</b>													
	REPAIR OF CARTS	3,500	12,000											15,500
	<b>MAINTENANCE EQUIPMENT - CARTS TOTAL</b>	<b>3,500</b>	<b>12,000</b>											<b>15,500</b>
1050.57010	<b>MAINTENANCE EQUIPMENT - VEHICLES</b>													
	MAINTENANCE OF ALL VEHICLES IN OCWD FV POOL	40,000												40,000
	PAIN AND BODY REPAIR OF POOL VEHICLES	5,000												5,000
	SOFTWARE UPGRADE VEHICLE SCANNER	2,000												2,000
	<b>MAINTENANCE EQUIPMENT - VEHICLES TOTAL</b>	<b>47,000</b>												<b>47,000</b>
1050.57012	<b>MAINTENANCE EQUIPMENT - HEAVY EQUIPMENT</b>													
	MAINTENANCE OF HEAVY EQUIPMENT FOR WATER PRODUCTION		2,000											2,000
	MAINTENANCE OF LARGE AIR COMPRESSOR FOR INJECTION WELLS				2,000									2,000
	<b>MAINTENANCE EQUIPMENT - HEAVY EQUIPMENT TOTAL</b>		<b>2,000</b>		<b>2,000</b>									<b>4,000</b>

**GENERAL FUND OPERATING BUDGET FY 23-24**  
**WATER PRODUCTION (1050)**

JDE Account Number	Description	General	GWR System O&M	Process Optimization	Talbert Barrier O&M	FV Facility O&M	GAP O&M	Lab Maintenance	Alamitos Barrier O&M	Forebay O&M	MWDOC	EW1	MBI	Total
	ACTIVITY CODE	9900	9922	9952	9908	9901	9911	9974	9932	9920	9970	1711	9990	
1050.57016	<b>MAINTENANCE STRUCTURE AND IMPROVEMENT - OUTSIDE SERVICES</b>													
	FV SITE BUILDING REPAIRS		4,000			3,500		2,500						10,000
	ROOF REPAIRS		1,300			2,500	200	1,000						5,000
	GRAFFITI REMOVAL SERVICE				5,000					10,000				15,000
	ANNUAL INSPECTION/REPAIR OF RPPD		5,000			2,500	3,000							10,500
	PLANT WIDE CRANE SERVICE AND INSPECTION		14,500			2,500	1,500							18,500
	CONCRETE REPAIRS & CORE DRILLING		2,000		500	500								3,000
	ELEVATOR YEARLY INSPECTION AND CERTIFICATION (MF, RO, ANNEX & LAB)		4,000			8,000		3,000						15,000
	FIRE SPRINKLER SERVICE WET AND DRY QUARTERLY AND ANNUAL TEST		12,000			5,000		2,000						19,000
	FIRE EXTINGUISHER SERVICE PM		6,000											6,000
	LABORATORY FIRE ALARM SERVICE							6,000						6,000
	FV SITE FIRE ALARM SERVICE/REPAIR		9,000			4,000								13,000
	HVAC & AIR HANDLING PREVENTIVE MAINT GWRS & FV OFFICES		34,000			35,000	2,000	20,000						91,000
	HVAC & AIR HANDLING REPAIRS GWRS AND FV SITE OFFICES		20,000			10,000	2,000							32,000
	HVAC LAB PM/REPAIR INCLUDES PHOENIX AND ANDOVER CONTROLS AND BOILERS							35,000						35,000
	COVID-19 EXTRA CLEANING BY JANITORIAL SERVICE (\$4500/MONTH)					27,000								27,000
	JANITORIAL SERVICE GWRS, FV, LAB BLDG & WINDOWS (PLANT WIDE)													
	INCLUDES SHARED MWDOC (PRICE INCREASE PER BOARD ACTION 8/13/20)					157,000								157,000
	GWRS EXTERIOR PANEL MAINTENANCE					5,000								5,000
	EMERGENCY JANITORIAL SERVICES & CARPET CLEANING					4,000								4,000
	LANDSCAPE SERVICES INCLUDING SHARED MWDOC					52,000								52,000
	TREE TRIMMING SERVICE					12,000								12,000
	INDOOR PLANT SERVICES					3,800								3,800
	EXTERMINATOR PEST CONTROL SERVICES		3,000			6,000								9,000
	RAINBOW DISPOSAL TRASH PICKUP INCLUDES SHARED MWDOC		6,000			51,000								57,000
	SITE STREET SWEEPING					5,000								5,000
	MEDIUM VOLTAGE VFD ANNUAL PM (VFD COUNT INCREASED DUE TO GWRSFE)		50,000											50,000
	MOTOR CONTROL CENTER PM		2,000			1,000	1,000							4,000
	MEDIUM VOLTAGE DISTRIBUTOR & SWITCHGEAR PM & OIL TESTING		51,000											51,000
	MEDIUM VOLTAGE DISTRIBUTOR & SWITCHGEAR PM REPAIRS 20% OF PM		10,200											10,200
	NFPA SAFETY EQUIPMENT CERTIFICATION/TESTING		5,000											5,000
	NIST CERTIFICATION CALIBRATION ELECTRICAL SHOP EQUIPMENT		2,500											2,500
	GWRS EMERGENCY GENERATORS QUARTERLY INSPECTION & LOAD TEST		5,500											5,500
	MOTOR OIL ANALYSIS		5,000				3,000							8,000
	MOTOR VIBRATION ANALYSIS		3,000				1,000							4,000
	PLUMBING SERVICE BUILDINGS		1,500			3,000	1,500	1,000			1,000			8,000
	PUMP MISC INSPECTION AND MODIFICATION		2,000			1,500								3,500
	REPAIR STAINLESS STEEL VALVE, FITTINGS AND MISC PIPES		2,000		500		1,000							3,500
	REPAIR/INSPECTION OF AIR VAC AND PRESS RELIEF & BF VALVES		2,000		800		1,500							4,300
	USA OUTSOURCE UNDERGROUND SERVICE ALERTS		22,000		16,000		37,000							75,000
	USA NOTIFICATION REQUEST FEE		6,000				4,000							10,000
	STOCKING MAINTENANCE PARTS CAGE		3,500	1,500	1,000	1,500	1,500							9,000
	WINDOW AND DOOR REPAIRS AND SUPPLIES		3,000		500	1,500	500							5,500
	VIBRALIGN CALIBRATION & SERVICE		2,000											2,000
	ANNUAL GARAGE DOOR MAINTENANCE		2,500			1,000								3,500
	FUME HOOD CERTIFICATION		500					5,000						5,500
	UE SYSTEMS ULTRASONIC CALIBRATION SERVICE		1,000											1,000
	VACTOR TRUCK SERVICE FOR SCREENINGS SUMP, STORM DRAINS ON SITE		3,000				1,000							4,000
	CHEMICAL TREATMENT FOR HOT WATER LOOPS FOR ADMIN AND LAB					2,000								2,000
	BC WIRE ROPE FALL PROTECTION EQUIPMENT INSPECTION CERTIFICATION		3,000		1,000		500							4,500
	SUNBELT CONTROLS -1 YEAR SERVICE CONTRACT FOR NEW ADMIN HVAC SOFTWARE CONTROL SYSTEM					7,000								7,000
	<b>MAINTENANCE STRUCTURE AND IMPROVEMENT - OUTSIDE SERVICES TOTAL</b>	-	309,000	1,500	25,300	414,800	62,200	75,500	-	10,000	1,000	-	-	899,300
1050.57044	<b>MAINTENANCE STRUCTURE AND IMPROVEMENT - GWRS SCREENINGS</b>													
	SCREENINGS PM		15,000											15,000
	<b>MAINTENANCE STRUCTURE AND IMPROVEMENT - GWRS SCREENINGS TOTAL</b>	-	15,000	-	-	-	-	-	-	-	-	-	-	15,000



**GENERAL FUND OPERATING BUDGET FY 23-24**  
**WATER PRODUCTION (1050)**

JDE Account Number	Description	General	GWR System O&M	Process Optimization	Talbert Barrier O&M	FV Facility O&M	GAP O&M	Lab Maintenance	Alamitos Barrier O&M	Forebay O&M	MWDOC	EW1	MBI	Total
	ACTIVITY CODE	9900	9922	9952	9908	9901	9911	9974	9932	9920	9970	1711	9990	
1050.57031	<b>MAINTENANCE STRUCTURE AND IMPROVEMENT - GWRS MICROFILTRATION</b>													
	MF BACKWASH PUMP PM		5,500											5,500
	MF FILTRATE PUMP PM		12,000	2,000										14,000
	MF PUMP VFD PM/REPAIRS		14,000	1,000										15,000
	MF PCS EQUIPMENT		6,000	500										6,500
	MF CHEMICAL PUMPS		9,500	2,000										11,500
	MF INSTRUMENTATION PM		12,000	1,000										13,000
	MF CHLORINE ANALYZER PM		2,000											2,000
	MF PIPE REPAIRS		21,000	500										21,500
	MF COMPRESSOR PM		12,000											12,000
	MF BLOWER PM		13,000											13,000
	MF CHEMICAL SUMP PUMP REPAIRS		5,000											5,000
	MF HORIBA AMMONIA ANALYZER REPAIRS AND CALIBRATION		3,000											3,000
	MF VALVE/ACTUATOR PM		65,000	4,000										69,000
	TRANSFER PUMP, BACKWASH PUMP AND VALVE PM		15,500											15,500
	MISC MF ELEMENT REPLACEMENT NON WARRANTY/TESTING OF NEW (MANUFACTURERS) ELEMENT APPROX. 18 ELEMENTS @ \$690 EACH			5,000										5,000
	<b>MAINTENANCE STRUCTURE AND IMPROVEMENT - GWRS MICROFILTRATION TOTAL</b>	-	<b>195,500</b>	<b>16,000</b>	-	-	-	-	-	-	-	-	-	<b>211,500</b>
1050.57032	<b>MAINTENANCE STRUCTURE/IMPROVEMENT - GWRS REVERSE OSMOSIS</b>													
	RO FEED PUMP PM		25,000	4,000										29,000
	REPLACE 4 MECHANICAL SEALS RO FEED PUMPS		15,000											15,000
	RO ACID PUMP PM		6,000	1,000										7,000
	RO VFD PM		10,000											10,000
	RO PCS EQUIPMENT		8,000											8,000
	RO INSTRUMENTATION PM		8,000	5,000										13,000
	ANNUAL AMMONIA ANALYZER SENSOR REPLACEMENT		3,000											3,000
	RO PRESSURE VESSEL END CAP ORING REPLACEMENT		12,000											12,000
	RO PIPE REPAIRS		25,000	5,000										30,000
	REPLACING RO CLEANING PVC PIPE		25,000											25,000
	TOC ANALYZER CHEMICALS/MISC.		12,000											12,000
	TOC ANALYZER PM (INCREASE NUMBER OF ANALYZERS IN PLANT FROM 4 TO 6 FROM GWRSFE)		71,000											71,000
	RO VALVE ACTUATOR PM		10,000											10,000
	MISC RO MEMBRANES (FULL-SCALE EVALUATIONS)		8,000	5,000										13,000
	<b>MAINTENANCE STRUCTURE/IMPROVEMENT - GWRS REVERSE OSMOSIS TOTAL</b>	-	<b>238,000</b>	<b>20,000</b>	-	-	-	-	-	-	-	-	-	<b>258,000</b>
1050.57038	<b>MAINTENANCE STRUCTURE/IMPROVEMENT - GWRS UV SYSTEM</b>													
	UV CHEMICAL PUMP PM		6,000											6,000
	UV PCS EQUIPMENT		5,000											5,000
	UV INSTRUMENT PM		5,000											5,000
	UV LAMP ASSEMBLY PM ORINGS END ADAPTERS		6,000											6,000
	UV BALLASTS		15,000											15,000
	UV LAMP REPLACEMENT AND SPARES (PRICE INCREASE TO \$228/LAMP AND NOT INCREASED SINCE 2017, 3460 LAMPS ESTIMATED)		750,000											750,000
	UV LAMP RECYCLING FEE		11,000											11,000
	UV QUARTZ SLEEVES		10,000											10,000
	UV TRANSMITTANCE METER PM		4,000											4,000
	UV VALVE ACTUATOR PM		5,000											5,000
	<b>MAINTENANCE STRUCTURE/IMPROVEMENT - GWRS UV SYSTEM TOTAL</b>	-	<b>817,000</b>	-	-	-	-	-	-	-	-	-	-	<b>817,000</b>
1050.57046	<b>MAINTENANCE STRUCTURE/IMPROVEMENT - GWRS LIME SYSTEM</b>													
	LIME MIXING EQUIPMENT PM		8,500											8,500
	POLYMER EQUIPMENT		10,000											10,000
	LIME INSTRUMENTATION		5,000											5,000
	LIME LOOP PUMP PM / SLAKER PM		9,000											9,000
	LIME SLURRY LOOP OPTIMIZATION			2,500										2,500
	LIME 4 INCH SLUDGE LINE PLUMBING PM		10,000											10,000
	LIME SOLIDS HAULING		2,000											2,000
	LIME VALVE PM		4,500											4,500
	<b>MAINTENANCE STRUCTURE/IMPROVEMENT - GWRS LIME SYSTEM TOTAL</b>	-	<b>49,000</b>	<b>2,500</b>	-	-	-	-	-	-	-	-	-	<b>51,500</b>

**GENERAL FUND OPERATING BUDGET FY 23-24**  
**WATER PRODUCTION (1050)**

JDE Account Number	Description	General	GWR System O&M	Process Optimization	Talbert Barrier O&M	FV Facility O&M	GAP O&M	Lab Maintenance	Alamitos Barrier O&M	Forebay O&M	MWDOC	EW1	MBI	Total
	ACTIVITY CODE	9900	9922	9952	9908	9901	9911	9974	9932	9920	9970	1711	9990	
1050.57048	MAINT STRUCTURE/IMPROVEMENT - GWRS PRODUCT WTR PUMP STATION													
	VFD PM		3,500											3,500
	MOTOR PM		3,000											3,000
	SPLIT SEAL REPLACEMENT (2 SEALS)		8,000											8,000
	PUMP PM		10,000											10,000
	VALVE PM		6,000											6,000
	INSTRUMENTATION PM		3,000											3,000
	<b>MAINT STRUCTURE/IMPROVEMENT - GWRS PRODUCT WATER PUMP STATION TOTAL</b>		<b>33,500</b>											<b>33,500</b>
1050.57034	MAINTENANCE STRUCTURE/IMPROVEMENT - GREEN ACRES PROJECT													
	GAP EFFLUENT PUMP VFD PM						3,500							3,500
	GAP EFFLUENT MOTOR PM						4,000							4,000
	GAP EFFLUENT PUMP PM						3,000							3,000
	GAP BACKWASH PUMP PM						1,000							1,000
	GAP CHEMICAL PUMP PM						1,500							1,500
	GAP FLOCCULATOR PM						4,000							4,000
	GAP PCS REPAIRS						2,500							2,500
	GAP CL2 ANALYZER PM						2,500							2,500
	GAP INSTRUMENT PM						4,000							4,000
	GAP PIPING REPAIRS						1,500							1,500
	GAP VALVE PM						3,000							3,000
	GAP AIR VAC AND PIPELINE EMERGENCY REPAIRS						4,000							4,000
	GAP CHLORINE MIXER REPAIRS						2,000							2,000
	GAP GRAVITY FILTER SURVEILLANCE INSPECTION						10,000							10,000
	VACUUM TRUCK TO CLEAN BW SUMP						13,000							13,000
	<b>MAINTENANCE STRUCTURE/IMPROVEMENT - GREEN ACRES PROJECT TOTAL</b>						<b>59,500</b>							<b>59,500</b>
1050.57036	MAINTENANCE STRUCTURE/IMPROVEMENT - INJECTION WELLS													
	INJECTION WELL INSTRUMENT PM				4,000									4,000
	REHABILITATE UP TO 23 INECTION WELLS				150,000									150,000
	INJECTION WELL PCS PM				3,000							1,000		4,000
	REPAIR & RECALIBRATION OF FLOW METERS/INSTRUMENTS/9 MAG METERS				2,500							1,000		3,500
	REPAIR ACCESS HATCHES AND VAULTS				25,000									25,000
	REPAIR OF DOWN-HOLE VALVES AND BF PUMPS				20,000									20,000
	REPAIR/INSPECTION OF SEB 10 INCH BACK FLOW PREVENTION				2,000									2,000
	REPLACEMENT PARTS AND SUPPLIES FOR BARRIER				30,000									30,000
	REPAIR STAINLESS STEEL VALVE, FITTINGS AND MISC PIPES				5,000									5,000
	REPAIR/INSPECTION OF AIR VAC AND PRESS RELIEF & BF VALVES				4,000									4,000
	INJECTION WELL SUMP PUMP PM				3,500									3,500
	BARRIER FIELD EQUIPMENT SUPPLIES REPAIRS				2,000									2,000
	MAINTENANCE FEES TO MAINTAIN M-26 DATA LOGGER				420									420
	MAINTENANCE FOR 3 LASER TURBIDITY METERS				1,500									1,500
	PARTICLE COUNTER MAINTENANCE				1,200									1,200
	<b>MAINTENANCE STRUCTURE/IMPROVEMENT - INJECTION WELLS TOTAL</b>				<b>254,120</b>								<b>2,000</b>	<b>256,120</b>
1050.51540	CARTRIDGE FILTERS - REVERSE OSMOSIS													
	REPLACEMENT OF RO PRETREATMENT FILTERS 3 REPLACEMENTS OF 14 HOUSING WITH 283 FILTERS EACH (NOW 16 HOUSING WITH GWRSFE, MATERIAL COST INCREASE)		45,000											45,000
	<b>CARTRIDGE FILTERS - REVERSE OSMOSIS TOTAL</b>		<b>45,000</b>											<b>45,000</b>
1050.51545	SMALL TOOLS													
	TOOLS OPERATIONS		1,500	300	1,000									2,800
	POWER HAND TOOLS AND INFRARED THERMOMETER		8,000											8,000
	TOOLS MAINTENANCE		2,500	1,000	1,000	1,500								6,000
	TOOLS I&E		5,000											5,000
	INSTRUMENT SHOP CALIBRATION EQUIPMENT		3,200		1,500									4,700
	SPECIALIZED TOOLS FOR TREATMENT PROCESS AREAS		4,500											4,500
	<b>SMALL TOOLS TOTAL</b>		<b>24,700</b>	<b>1,300</b>	<b>3,500</b>	<b>1,500</b>								<b>31,000</b>

**GENERAL FUND OPERATING BUDGET FY 23-24**  
**WATER PRODUCTION (1050)**

JDE Account Number	Description	General	GWR System O&M	Process Optimization	Talbert Barrier O&M	FV Facility O&M	GAP O&M	Lab Maintenance	Alamitos Barrier O&M	Forebay O&M	MWDOC	EW1	MBI	Total
	ACTIVITY CODE	9900	9922	9952	9908	9901	9911	9974	9932	9920	9970	1711	9990	
1050.51550	<b>SAFETY SUPPLIES</b>													
	TRAFFIC SAFETY SUPPLIES		1,000		1,000									2,000
	CONFINED SPACE GAS DETECTORS		2,500		1,500									4,000
	CONFINED SPACE BLOWERS		1,500		500									2,000
	CONFINED SPACE RESCUE EQUIPMENT		7,000		500		500							8,000
	PPE FOR EMPLOYEES		3,000	200										3,200
	FULL FACE RESPIRATORS (REPLACE SOME EXISTING THAT ARE SEVERAL YEARS OLD, ADD MORE FOR NEW EMPLOYEES)		5,000											5,000
	RESPIRATOR FILTERS		1,500											1,500
	SCBA TESTING REPAIR		2,000											2,000
	SAFETY EQUIPMENT FOR 12 KV ELECTRICAL SYSTEM PM AND EMERGENCY TESTING		2,500											2,500
	SPILL CONTAINMENT SUPPLIES		4,000	500										4,500
	SAFETY AND OPERATION SIGNS		1,000	200	500									1,700
	<b>SAFETY SUPPLIES TOTAL</b>		<b>31,000</b>	<b>900</b>	<b>4,000</b>		<b>500</b>							<b>36,400</b>
1050.57040	<b>MAINT STRUCTURE/IMPROV - GREEN ACRES INFLUENT PUMP STATION</b>													
	INSTRUMENTATION PM						750							750
	VFD PM						750							750
	MOTOR PM						750							750
	PUMP PM						750							750
	VALVE ACTUATOR PM						500							500
	VALVE PM						500							500
	<b>MAINT STRUCTURE/IMPROVEMENT - GREEN ACRES INFLUENT PUMP STATION TOTAL</b>						<b>4,000</b>							<b>4,000</b>
1050.57042	<b>MAINTENANCE - SANTA ANA RESERVOIR</b>													
	CHEMICAL PUMP PM						500							500
	INSTRUMENTATION PM						750							750
	MOTOR PM						750							750
	PUMP PM						750							750
	VALVE MOTOR ACTUATOR PM						1,500							1,500
	VALVE PM						750							750
	<b>MAINTENANCE - SANTA ANA RESERVOIR TOTAL</b>						<b>5,000</b>							<b>5,000</b>
1050.54001	<b>CHEMICALS - CHLORINE (NO TAX)</b>													
	GWRs SODIUM HYPOCHLORITE - (65% UNIT PRICE INCREASE, GWRsFE POORER WATER QUALITY, HIGHER PRODUCTION, MORE USAGE WITH PVDF)		7,553,000	2,000										7,555,000
	GAP INFLUENT AND CL CONTACT SODIUM HYPOCHLORITE (1275 TONS) - 65% PRICE INCREASE						400,000							400,000
	<b>CHEMICALS - CHLORINE TOTAL</b>		<b>7,553,000</b>	<b>2,000</b>			<b>400,000</b>							<b>7,955,000</b>
1050.54060	<b>CHEMICALS - ANHYDROUS AMMONIA (TAX)</b>													
	GAP CL CONTACT AMMONIA						2,500							2,500
	<b>CHEMICALS - ANHYDROUS AMMONIA TOTAL</b>						<b>2,500</b>							<b>2,500</b>
1050.54045	<b>CHEMICALS - POST TREATMENT HYDRATED LIME (NO TAX)</b>													
	HYDRATED LIME - (UNIT PRICE INCREASE EXPECTED WHEN CONTRACT EXPIRES IN APRIL 2022, HIGHER PRODUCTION GWRsFE)		1,500,000											1,500,000
	<b>CHEMICALS - POST TREATMENT HYDRATED LIME TOTAL</b>		<b>1,500,000</b>											<b>1,500,000</b>
1050.54050	<b>CHEMICALS - HYDROGEN PEROXIDE UV (NO TAX)</b>													
	HYDROGEN PEROXIDE UV 20% PRICE INCREASE; INCREASE DOSE VIA DDW		600,000											600,000
	<b>CHEMICALS - HYDROGEN PEROXIDE UV TOTAL</b>		<b>600,000</b>											<b>600,000</b>
1050.54055	<b>CHEMICALS - SODIUM BISULFITE (TAX)</b>													
	SODIUM BISULFITE RO FLUSH AND SAR DISCHARGE (25 TONS)		7,000											7,000
	<b>CHEMICALS - SODIUM BISULFITE TOTAL</b>		<b>7,000</b>											<b>7,000</b>
1050.54015	<b>CHEMICALS - POLYMER (TAX)</b>													
	ANIONIC POLYMER LIME SATURATOR (17 TONS) - (UNIT PRICE INCREASE BASED ON BULK VS. TOTAL DELIVERY PRICE)		97,000											97,000
	<b>CHEMICALS - POLYMER TOTAL</b>		<b>97,000</b>											<b>97,000</b>
1050.54020	<b>CHEMICALS - GWRs REVERSE OSMOSIS SULFURIC ACID (NO TAX)</b>													
	SULFURIC ACID OPERATING WITH SEASONAL ADJUSTMENTS BETWEEN PH (2,900 TONS) 6.9 PH (25% UNIT PRICE INCREASE AND OC San WATER		700,000	1,500										701,500
	<b>CHEMICALS - GWRs REVERSE OSMOSIS SULFURIC ACID TOTAL</b>		<b>700,000</b>	<b>1,500</b>										<b>701,500</b>

**GENERAL FUND OPERATING BUDGET FY 23-24**  
**WATER PRODUCTION (1050)**

JDE Account Number	Description	General	GWR System O&M	Process Optimization	Talbert Barrier O&M	FV Facility O&M	GAP O&M	Lab Maintenance	Alamitos Barrier O&M	Forebay O&M	MWDOC	EW1	MBI	Total
	ACTIVITY CODE	9900	9922	9952	9908	9901	9911	9974	9932	9920	9970	1711	9990	
1050.54025	CHEMICALS - GWRS REVERSE OSMOSIS ANTISCALANT (NO TAX)													
	RO ANTISCALANT (510 TONS) - (DOSAGE INCREASED FROM 2.5 TO 3.0 PPM, INCREASED PRODUCTION, PRICE INCREASE EXPECTED JUNE 2023)		1,700,000											1,700,000
	<b>CHEMICALS - GWRS REVERSE OSMOSIS ANTISCALANT TOTAL</b>		<b>1,700,000</b>											<b>1,700,000</b>
1050.54030	CHEMICALS - GWRS MF CLEANING CHEMICALS (TAX)													
	MF MEMBRANE CLEANING CHEMICALS CAUSTIC (625 TONS) - (10% UNIT PRICE INCREASE)		600,000											600,000
	MF MEMBRANE CLEANING CHEMICALS CITRIC (700 TONS) - (PRIOR 265% PRICE INCREASE, POORER OC SAN QUALITY, MORE PVDF CELLS)		3,000,000											3,000,000
	MF PROPRIETARY CLEANING CHEMICAL STUDY			1,000										1,000
	MF MEMCLEAN		43,000											43,000
	<b>CHEMICALS - GWRS MF CLEANING CHEMICALS TOTAL</b>		<b>3,643,000</b>	<b>1,000</b>										<b>3,644,000</b>
1050.54033	CHEMICALS - GWRS RO CLEANING CHEMICALS (TAX)													
	RO MEMBRANE CITRIC (50 TONS) 275% UNIT PRICE INCREASE		150,000											150,000
	RO MEMBRANE CAUSTIC (25 TONS) UNIT PRICE INCREASE		15,000											15,000
	RO CLEANING CHEMICAL STUDY			500										500
	RO MEMBRANE PROPRIETARY CLEANING CHEMICALS 21 FULL UNIT		335,000	500										335,500
	<b>CHEMICALS - GWRS RO CLEANING CHEMICALS TOTAL</b>		<b>500,000</b>	<b>1,000</b>										<b>501,000</b>
1050.54040	CHEMICALS GAP ALUM													
	PRETREATMENT COAGULANT (21 TONS), PRICE INCREASE EXPECTED						10,000							10,000
	<b>CHEMICALS GAP ALUM TOTAL</b>						<b>10,000</b>							<b>10,000</b>
1050.51555	LAB SUPPLIES													
	CALIBRATION STANDARDS FOR BARRIER FIELD EQUIPMENT		20,000		600									20,600
	CHEMICALS AND SUPPLIES		2,500											2,500
	LABORATORY DI WATER SYSTEM		1,400											1,400
	PEROXIDE AND CHLORINE TEST STRIPS		2,500											2,500
	2 NEW HANDHELD EC PH METERS		2,000											2,000
	<b>LAB SUPPLIES TOTAL</b>		<b>28,400</b>		<b>600</b>									<b>29,000</b>
1050.51560	LAB SAMPLES ANALYSIS													
	GENERAL LAB ANALYSIS BY OUTSIDE LAB		3,000	2,000										5,000
	<b>LAB SAMPLES ANALYSIS TOTAL</b>		<b>3,000</b>	<b>2,000</b>										<b>5,000</b>
1050.51565	RENT EQUIPMENT- GENERAL													
	RENTAL OF EQUIPMENT FOR PM PROJECTS		5,000											5,000
	<b>RENT EQUIPMENT - GENERAL TOTAL</b>		<b>5,000</b>											<b>5,000</b>
1050.54501	UTILITIES - ELECTRICITY (OFFSITE & MISC ELECTRICAL METERS)													
	GAP CATHODIC PROTECTION						5,000							5,000
	GAP DEEP WELL WATER ELECTRICITY						20,000							20,000
	GAP INFLUENT PUMPING ELECTRICITY						40,000							40,000
	GAP SANTA ANA RESERVOIR PUMP STATION POWER (CNE/SCE)						170,000					50,000		170,000
	EW-1 WELL POWER													50,000
	MID BASIN INJECTION WELLS (5 WELLS)												130,000	130,000
	TALBERT BARRIER INJECTION WELLS				12,000									12,000
	<b>UTILITIES - ELECTRICITY (OFFSITE &amp; MISC ELECTRICAL METERS) TOTAL</b>				<b>12,000</b>		<b>235,000</b>					<b>50,000</b>	<b>130,000</b>	<b>427,000</b>
1050.54505	UTILITIES - ELECTRICITY (66KV FV SITE SCE)													
	MWDOC BLDG ELECTRICITY (NEW DA CONTRACT PRICE INCREASES 2021 TO 2022)					52,000								52,000
	WAREHOUSE, ANNEX & MAINTENANCE SHOPS		184,000			50,000								184,000
	LABORATORY SCREENINGS		12,400					300,000						300,000
	MICROFILTRATION (GWRSFE GOES FROM 36 TO 48 CELLS OR 33% MORE MF, PLUS REVERSE OSMOSIS (30% MORE RO CAPACITY PLUS WATER QUALITY		6,000,000											6,000,000
	UV SYSTEM ELECTRICITY (PRICE INCREASE PLUS MORE CAPACITY)		10,000,000											10,000,000
	DECARB		1,700,000											1,700,000
	CHEMICAL FEED/LIME SYSTEM		110,000											110,000
	PRODUCT WATER PUMP STATION (30% MORE PUMPING WITH GWRSFE)		23,000											23,000
	BARRIER PUMP STATION		4,000,000											4,000,000
			675,000											675,000
	<b>UTILITIES - ELECTRICITY (66KV FV SITE SCE) TOTAL</b>		<b>22,704,400</b>			<b>102,000</b>		<b>300,000</b>						<b>23,106,400</b>
1050.54505.250	UTILITIES ELECTRICAL CURTAILMENT POWER CREDITS													
	ESTIMATED PAYMENTS ENEL X \$900,000		(1,000,000)											(1,000,000)
	<b>UTILITIES ELECTRICAL CURTAILMENT POWER CREDITS TOTAL</b>		<b>(1,000,000)</b>											<b>(1,000,000)</b>

**GENERAL FUND OPERATING BUDGET FY 23-24**  
**WATER PRODUCTION (1050)**

JDE Account Number	Description	General	GWR System O&M	Process Optimization	Talbert Barrier O&M	FV Facility O&M	GAP O&M	Lab Maintenance	Alamitos Barrier O&M	Forebay O&M	MWDOC	EW1	MBI	Total
	ACTIVITY CODE	9900	9922	9952	9908	9901	9911	9974	9932	9920	9970	1711	9990	
1050.54510	UTILITIES - GAS													
	NATURAL GAS FOR HVAC OFFICES & ANNEX BUILDING					10,000								10,000
	NATURAL GAS FOR LABORATORY							60,000						60,000
	<b>UTILITIES - GAS TOTAL</b>	-	-	-	-	<b>10,000</b>	-	<b>60,000</b>	-	-	-	-	-	<b>70,000</b>
1050.54515	UTILITIES - WATER													
	POTABLE WATER AND INDUSTRIAL WATER		60,000											60,000
	<b>UTILITIES - WATER TOTAL</b>	-	<b>60,000</b>	-	-	-	-	-	-	-	-	-	-	<b>60,000</b>
1050.51102	MEMBERSHIPS/CERTIFICATION FEES													
	MEHUL - WEF, AWWA, ASCE MEMBERSHIP FEES		800	200										1,000
	JANICE - IAAP MEMBERSHIP (CAP CERT RENEWAL)		150											150
	JOHN - NGWA				115									115
	ISA MEMBERSHIP (4) FOR SCADA ICS CYBERSECURITY									600				600
	OPERATOR & MAINTENANCE CERTIFICATION FEES (\$1900 MORE FOR OPS)		11,400											11,400
	<b>MEMBERSHIPS/CERTIFICATION FEES TOTAL</b>	-	<b>12,350</b>	<b>200</b>	<b>115</b>	-	-	-	-	<b>600</b>	-	-	-	<b>13,265</b>
1050.51192	TECHNICAL TRAINING													
	DELTA V PROCESS CONTROL TRAINING (2 NEW SENIOR TECHS)		10,000											10,000
	I&E MEDIUM VOLTAGE SAFETY TRAINING CLASSES		2,000											2,000
	MANAGEMENT TRAINING		1,500											1,500
	MAINTENANCE TRAINING		4,000											4,000
	ADMINISTRATIVE CERTIFICATION		250											250
	WPG TRAINING LIBRARY			400										400
	OPERATOR CERTIFICATION CLASSES		5,000											5,000
	ON SITE O&M TECHNICAL TRAINING		1,500											1,500
	CRANE TRAINING/RIGGING AND SIGNALING		2,000											2,000
	ULTRASONIC MONITOR TRAINING & CERTIFICATION		2,500											2,500
	CSRT TRAINING		5,000											5,000
	WATER DISTRIBUTION TRAINING BARRIER STAFF				500									500
	<b>TECHNICAL TRAINING TOTAL</b>	-	<b>33,750</b>	<b>400</b>	<b>500</b>	-	-	-	-	-	-	-	-	<b>34,650</b>
1050.51112	SPECIAL DEPARTMENT EXPENSE													
	CONSULTING SERVICE PERMITS		2,000											2,000
	SCAQMD AND CITY PERMIT FEES		14,000											14,000
	CITY OF FOUNTAIN VALLEY ENCHROACHMENT PERMITS				4,200									4,200
	UNITED PARCEL SERVICE		1,000											1,000
	ORANGE COUNTY PUBLIC FACILITIES PERMIT				15,000									15,000
	<b>SPECIAL DEPARTMENT EXPENSE TOTAL</b>	-	<b>17,000</b>	-	<b>19,200</b>	-	-	-	-	-	-	-	-	<b>36,200</b>
1050.56026	LADPW CURRENT EXPENSE													
	LADPW BARRIER (NUMBER COMES FROM ROY HERNDON)								1,300,000					1,300,000
	<b>LADPW CURRENT EXPENSE TOTAL</b>	-	-	-	-	-	-	-	<b>1,300,000</b>	-	-	-	-	<b>1,300,000</b>
	<b>WATER PRODUCTION GRAND TOTAL</b>	<b>1,379,392</b>	<b>47,393,087</b>	<b>474,564</b>	<b>807,906</b>	<b>952,717</b>	<b>1,813,291</b>	<b>653,930</b>	<b>1,330,648</b>	<b>253,641</b>	<b>158,568</b>	<b>109,359</b>	<b>331,024</b>	<b>55,658,127</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
RECHARGE OPERATIONS (1060)

JDE ACCOUNT NUMBER	DESCRIPTION	General	GWRS	Forebay O&M	Prado O&M	Maint. Rubber Dam & Trash Rack	Maint. Burris Pump Stn	Maint. Santiago Basin	Maint. Warner Basin	Maint. Anaheim Lake	Maint. Miller Basin	Maint. Kraemer Basin	Maint. Mira Loma Basin	Maint. La Palma Basin	Maint. La Jolla Basin	Total
	ACTIVITY CODE	9900	9922	9920	9924	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	
	<b>SALARIES AND BENEFITS</b>															
1060.50104	REGULAR SALARIES	164,698	158,710	807,647	225,276	29,167	29,167	67,906	67,906	90,647	82,648	90,647	82,648	90,647	90,647	2,078,361
1060.50106	OVERTIME	5,766	7,127	25,882	20,553	927	927	4,322	4,322	7,602	7,545	7,602	7,545	7,602	7,602	115,327
1060.50210	PAYROLL TAX	2,472	2,405	13,456	3,565	436	436	1,047	1,047	1,425	1,308	1,425	1,308	1,425	1,425	33,179
1060.50202	RETIREMENT	28,382	27,612	135,103	40,931	5,011	5,011	12,026	12,026	16,358	15,017	16,358	15,017	16,358	16,358	361,568
1060.50204	HEALTH INSURANCE	38,449	31,492	158,361	48,388	5,898	5,898	14,504	14,504	19,270	17,350	19,270	17,350	19,270	19,270	429,272
1060.50206	WORKERS' COMPENSATION	3,265	4,321	21,700	6,395	819	819	1,858	1,858	2,456	2,234	2,456	2,234	2,456	2,456	55,328
	<b>SALARIES AND BENEFITS TOTAL</b>	<b>243,033</b>	<b>231,667</b>	<b>1,162,151</b>	<b>345,109</b>	<b>42,260</b>	<b>42,260</b>	<b>101,663</b>	<b>101,663</b>	<b>137,758</b>	<b>126,101</b>	<b>137,758</b>	<b>126,101</b>	<b>137,758</b>	<b>137,758</b>	<b>3,073,036</b>
1060.51102	<b>MEMBERSHIPS</b>															
	STATE OF CALIF. PESTICIDE LICENSE (1 STAFF)	150														150
	CWEA MEMBERSHIP FOR CERTIFICATION (3 STAFF)	500														500
	ANNUAL BACKFLOW CERTIFICATION AND MEMBERSHIP (1 STAFF)	400														400
	PROFESSIONAL ORGANIZATION MEMBERSHIPS AND MEETINGS	250														250
	WATER DISTRIBUTION CERTIFICATIONS (4 STAFF)	200														200
	PROFESSIONAL LICENSURE (1 STAFF)	200														200
	<b>MEMBERSHIPS TOTAL</b>	<b>1,700</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,700</b>
1060.51112	<b>SPECIAL DEPARTMENT EXPENSE</b>															
	TRANSPORTATION FEES			600												600
	SOUTH COAST AQMD PERMIT & FEES			2,000												2,000
	CITY FIRE INSPECTION			200												200
	PERP			2,000												2,000
	CITY OF ANAHEIM CUPA (UST)			2,900												2,900
	STATE CRANE CERTIFICATION			1,000												1,000
	DMV REQ FOR CLASS A HOLDERS			500												500
	<b>SPECIAL DEPARTMENT EXPENSE TOTAL</b>	<b>-</b>	<b>-</b>	<b>9,200</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>9,200</b>
1060.51192	<b>EDUCATIONAL TRAINING</b>															
	BACKFLOW TRAINING (1 STAFF)	400														400
	DISTRIBUTION LICENCE EXAM AND PREP	500														500
	PESTICIDE APPLICATORS PROF. ASSOCIATION WORKSHOPS	300														300
	PRYOR MEMBERSHIP (5 STAFF)	1,500														1,500
	TRAINING FOR SOFTWARE AND PERMITS	650														650
	MISCELLANEOUS TRAINING (21 STAFF)	1,000														1,000
	MAINTENANCE CERTIFICATION TRAININGS (3 STAFF)	600														600
	SCADA, WONDERWARE TRAINING	2,000														2,000
	<b>EDUCATIONAL TRAINING TOTAL</b>	<b>6,950</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6,950</b>
1060.51501	<b>OFFICE EXPENSE - GENERAL</b>															
	BASIC OFFICE SUPPLIES (PAPER, INK, CALENDARS, BATTERIES, MAILING), KITCHEN SUPPLIES	3,100														3,100
	COPIER EXPENSES	550														550
	CATERING MEETINGS (CORPS., TRAINING)	5,000														5,000
	OFFICE FURNITURE, MAPS	1,000														1,000
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>9,650</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>9,650</b>
1060.51510	<b>HARDWARE/SOFTWARE</b>															
	SCADA HARDWARE AND SOFTWARE			5,000												5,000
	<b>HARDWARE/SOFTWARE TOTAL</b>	<b>-</b>	<b>-</b>	<b>5,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,000</b>
1060.51520	<b>GAS AND DIESEL</b>															
	GASOLINE AND DIESEL			35,000												35,000
	<b>GAS AND DIESEL TOTAL</b>	<b>-</b>	<b>-</b>	<b>35,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>35,000</b>
1060.51521	<b>FUEL - OFF ROAD</b>															
	DIESEL FUEL (OFF-ROAD)			75,000												75,000
	<b>FUEL - OFF ROAD TOTAL</b>	<b>-</b>	<b>-</b>	<b>75,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>75,000</b>
1060.51530	<b>UNIFORMS</b>															
	UNIFORM SERVICES, SHIRTS/JACKETS			11,500												11,500
	<b>UNIFORMS TOTAL</b>	<b>-</b>	<b>-</b>	<b>11,500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>11,500</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
RECHARGE OPERATIONS (1060)

JDE ACCOUNT NUMBER	DESCRIPTION	General	GWRS	Forebay O&M	Prado O&M	Maint. Rubber Dam & Trash Rack	Maint. Burris Pump Stn	Maint. Santiago Basin	Maint. Warner Basin	Maint. Anaheim Lake	Maint. Miller Basin	Maint. Kraemer Basin	Maint. Mira Loma Basin	Maint. La Palma Basin	Maint. La Jolla Basin	Total
	ACTIVITY CODE	9900	9922	9920	9924	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	
1060.51545	SMALL TOOLS															
	MAINTENANCE AND HYDROGRAPHY OPERATIONS			500												500
	MAINTENANCE OPERATIONS			1,000												1,000
	SMALL TOOLS FOR H.E. MECHANIC & MAINTENANCE			1,500												1,500
	<b>SMALL TOOLS TOTAL</b>	-	-	<b>3,000</b>	-	-	-	-	-	-	-	-	-	-	-	<b>3,000</b>
1060.51550	SAFETY SUPPLIES															
	SAFETY EQUIPMENT, I.E., SAFETY GOGGLES, GLOVES, RESPIRATORS, EAR PROTECTORS, AIR MONITORING, TRAFFIC, AND CONFINED SPACE EQUIPMENT			3,000												3,000
	FIRE EXTINGUISHER MAINTENANCE			1,200												1,200
	ANNUAL FALL PROTECTION			1,200												1,200
	CONFINED SPACE SAFETY EQUIPMENT			1,600												1,600
	<b>SAFETY SUPPLIES TOTAL</b>	-	-	<b>7,000</b>	-	-	-	-	-	-	-	-	-	-	-	<b>7,000</b>
1060.51565	RENT EQUIPMENT - GENERAL															
	TRENCHERS, TAMPERS, DEWATERING EQUIPMENT, ETC.			1,500												1,500
	<b>RENT EQUIPMENT - GENERAL TOTAL</b>	-	-	<b>1,500</b>	-	-	-	-	-	-	-	-	-	-	-	<b>1,500</b>
1060.51570	RENT EQUIPMENT - HEAVY EQUIPMENT															
	RENTAL CRANE, MAN LIFT, SCRAPERS, ETC.			12,000												12,000
	<b>RENT EQUIPMENT - HEAVY EQUIPMENT TOTAL</b>	-	-	<b>12,000</b>	-	-	-	-	-	-	-	-	-	-	-	<b>12,000</b>
1060.53001	PROFESSIONAL SERVICES															
	SCADA MAINTENANCE AND TECHNOLOGY			20,000												20,000
	SCADA WONDERWARE AND TOPWORKS SUPPORT			15,000												15,000
	SCADA THREAT DETECTION SUPPORT			10,000												10,000
	SITELINE ELECTRICAL MAINTENANCE			70,000												70,000
	CATHODIC PROTECTION SYSTEM SUPPORT			5,000												5,000
	EMISSIONS REGULATORY CONSULTANT			20,000												20,000
	<b>PROFESSIONAL SERVICES TOTAL</b>	-	-	<b>140,000</b>	-	-	-	-	-	-	-	-	-	-	-	<b>140,000</b>
1060.53015	TEMPORARY LABOR															
	ON CALL LANDSCAPE MAINTENANCE SERVICES			15,000												15,000
	<b>TEMPORARY LABOR TOTAL</b>	-	-	<b>15,000</b>	-	-	-	-	-	-	-	-	-	-	-	<b>15,000</b>
1060.54010	HERBICIDE/CHEMICALS															
	HERBICIDE (WEED KILLER)			3,000												3,000
	<b>HERBICIDE/CHEMICALS TOTAL</b>	-	-	<b>3,000</b>	-	-	-	-	-	-	-	-	-	-	-	<b>3,000</b>
1060.54501	UTILITIES - ELECTRICITY															
	ANAHEIM LAKE DEWATER/TRANSFER			60,000												60,000
	BURRIS BASIN PUMP STATION			700,000												700,000
	KRAEMER/MILLER PUMPS			50,000												50,000
	SANTIAGO BASIN PUMP STATION			10,000												10,000
	WARNER PUMPS			10,000												10,000
	ALL OTHER (RUBBER DAMS, FHQ, VALVES, METERS, ETC.)			60,000												60,000
	<b>UTILITIES - ELECTRICITY TOTAL</b>	-	-	<b>890,000</b>	-	-	-	-	-	-	-	-	-	-	-	<b>890,000</b>
1060.54515	UTILITIES - WATER															
	GENERAL (FHQ, SANTIAGO BASIN, BURRIS PS, ETC.)			33,000												33,000
	LANDSCAPE - LA PALMA AVENUE (WARNER BASIN)			6,000												6,000
	KRAEMER BASIN IRRIGATION			5,000												5,000
	<b>UTILITIES - WATER TOTAL</b>	-	-	<b>44,000</b>	-	-	-	-	-	-	-	-	-	-	-	<b>44,000</b>
1060.57001	MAINTENANCE-SUPPLIES & MATERIAL- ELECT															
	MOTOR, PUMP WAREHOUSE SUPPLIES			4,000												4,000
	UPS SYSTEM REPAIRS			1,200												1,200
	ELECTRICAL WAREHOUSE SUPPLIES			2,500												2,500
	INSTRUMENTATION PARTS AND SUPPLIES			4,500												4,500
	LIGHTING & EMERGENCY, LIGHT SUPPLIES			1,500												1,500
	OFFICE ELECTRICAL & LIGHTING REPAIRS			1,500												1,500
	<b>MAINT.-SUPPLIES &amp; MATERIAL-ELECT TOTAL</b>	-	-	<b>15,200</b>	-	-	-	-	-	-	-	-	-	-	-	<b>15,200</b>
1060.57006	MAINTENANCE EQUIPMENT COMMUNICATION															
	REPAIR AND REPLACEMENT OF MOBILE RADIOS			2,000												2,000
	MONITOR REPLACEMENTS			1,000												1,000
	<b>MAINTENANCE EQUIPMENT COMMUNICATION TOTAL</b>	-	-	<b>3,000</b>	-	-	-	-	-	-	-	-	-	-	-	<b>3,000</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
RECHARGE OPERATIONS (1060)

JDE ACCOUNT NUMBER	DESCRIPTION	General	GWRS	Forebay O&M	Prado O&M	Maint. Rubber Dam & Trash Rack	Maint. Burris Pump Stn	Maint. Santiago Basin	Maint. Warner Basin	Maint. Anaheim Lake	Maint. Miller Basin	Maint. Kraemer Basin	Maint. Mira Loma Basin	Maint. La Palma Basin	Maint. La Jolla Basin	Total
	ACTIVITY CODE	9900	9922	9920	9924	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	
1060.57010	MAINTENANCE EQUIPMENT VEHICLES															
	TRUCK SCHEDULED AND UNSCHEDULED REPAIRS, TIRES, BELTS, ETC.			27,000												27,000
	ANNUAL SMOG AND PSIP			2,000												2,000
	ANNUAL DIAGNOSTIC SOFTWARE UPDATE			1,500												1,500
	<b>MAINTENANCE EQUIPMENT VEHICLES TOTAL</b>	-	-	<b>30,500</b>	-	-	-	-	-	-	-	-	-	-	-	<b>30,500</b>
1060.57012	MAINTENANCE EQUIPMENT - HEAVY EQUIPMENT															
	GENERAL HEAVY EQUIPMENT PM AND REPAIRS			34,000												34,000
	ANNUAL ET DIAGNOSTIC SOFTWARE FOR CAT			1,500												1,500
	ANNUAL ET DIAGNOSTIC SOFTWARE FOR JOHN DEER			3,000												3,000
	PARTS UNDERCARRIAGE REPAIRS			20,000												20,000
	PARTS FOR HEAVY EQUIPMENT GROUND ENGAGING TOOLS			20,000												20,000
	OIL AND LUBRICANT			20,000												20,000
	OIL ANALYSIS			4,000												4,000
	OFF ROAD TIRES			7,500												7,500
	<b>MAINTENANCE EQUIPMENT - HEAVY EQUIPMENT TOTAL</b>	-	-	<b>110,000</b>	-	-	-	-	-	-	-	-	-	-	-	<b>110,000</b>
1060.57016	MAINTENANCE STRUCTURE AND IMPROVEMENTS - GENERAL															
	GENERAL MAINTENANCE PARTS & REPAIRS			16,000												16,000
	FISH DISPOSAL (2 CLEANINGS)			10,000												10,000
	FLOWMETER AND INSTRUMENTATION MAINTENANCE			12,000												12,000
	MOTOR ACTUATOR/LIMITORQUE SERVICE			25,000												25,000
	MOTOR VIBRATION ANALYSIS			2,000												2,000
	FHQ AND FRL BUILDINGS HVAC PM AND REPAIRS	5,000		4,000												9,000
	FHQ 9 AIR COMPRESSORS PM AND CERTIFICATION			1,500												1,500
	FHQ CRANE INSPECTION			4,500												4,500
	UST SERVICE			10,000												10,000
	GASES (WESTAIR)			5,000												5,000
	PAINTING STRUCTURES			5,000												5,000
	JANITORIAL			30,000												30,000
	PLANT SERVICE			1,500												1,500
	FHQ FITNESS CENTER			2,500												2,500
	PORTABLE RESTROOM RENTALS			1,500												1,500
	<b>MAINTENANCE STRUCTURE AND IMPROVEMENTS - GENERAL TOTAL</b>	<b>5,000</b>	-	<b>130,500</b>	-	-	-	-	-	-	-	-	-	-	-	<b>135,500</b>
1060.57017	MAINTENANCE															
	TRASH RACK IMPERIAL					2,000										2,000
	RUBBER DAM IMPERIAL					1,500										1,500
	TRASH RACK 5 COVES					4,500										4,500
	RUBBER DAM 5 COVES					1,500										1,500
	LA JOLLA TRASH RACK					500										500
	INSTRUMENTATION PM			1,500		1,500	1,000	800	1,000	1,000	1,000	1,000	1,000	1,000	1,000	10,800
	VALVE AND ACTUATOR PM					500	800	200	500	2,000	1,000	1,000	1,000	1,000	1,000	9,000
	PUMP AND MOTOR PM						1,000	500	500	3,000	1,000	1,500	500	500	500	9,000
	VFD AND SOFT START PM						4,000									4,000
	AIR VAC PM						300	250	150	250	250	250	250	250	250	2,200
	FLOW METER PM						500	300	100	500	300	300	200	200	250	2,650
	SURGE TANK PM									2,500						2,500
	15' FLUME CALIBRATION - REQUIRED BY STATE WATER BOARD					3,900										3,900
	HVAC PM AND BUILDING FILTER CHANGE						2,000									2,000
	SOFT START PM							500								500
	<b>MAINTENANCE TOTAL</b>	-	-	-	-	<b>15,900</b>	<b>10,100</b>	<b>2,750</b>	<b>2,050</b>	<b>9,250</b>	<b>3,550</b>	<b>4,050</b>	<b>2,950</b>	<b>2,950</b>	<b>3,000</b>	<b>56,550</b>
1060.57011	MAINTENANCE EQ - GROUNDS															
	FENCE REPAIR			30,000												30,000
	LANDSCAPE MAINTENANCE/TREE TRIMMING			60,000												60,000
	LANDSCAPE MAINTENANCE/WARNER BASIN								60,000							60,000
	LANDSCAPE MAINTENANCE/SANTIAGO BIKE TRAIL							45,000								45,000
	LANDSCAPE MAINTENANCE/MULCH			25,000												25,000
	ANNUAL SMITH BASIN SLOPE CLEARING							15,000								15,000
	DUMPING AND DEBRIS CLEARING			10,000												10,000
	INSECT/RODENT CONTROL			15,000												15,000
	<b>MAINTENANCE EQ - GROUND TOTAL</b>	-	-	<b>140,000</b>	-	-	-	<b>60,000</b>	<b>60,000</b>	-	-	-	-	-	-	<b>260,000</b>
	<b>RECHARGE OPERATIONS GRAND TOTAL</b>	<b>266,333</b>	<b>231,667</b>	<b>2,842,551</b>	<b>345,107</b>	<b>58,160</b>	<b>52,360</b>	<b>164,413</b>	<b>163,713</b>	<b>147,008</b>	<b>129,651</b>	<b>141,808</b>	<b>129,051</b>	<b>140,708</b>	<b>140,758</b>	<b>4,953,286</b>



GENERAL FUND OPERATING BUDGET FY 23-24  
WETLAND OPERATIONS (1062)

JDE Account Number	Description	General	GWRS	Prado O&M	FHQ O&M	Total
	ACTIVITY CODE	9900	9922	9924	9920	
	<b>SALARIES &amp; BENEFITS</b>					
1062.50104	REGULAR SALARIES	12,042	12,042	122,533	94,230	240,847
1062.50106	OVERTIME	120	120	1,139	1,019	2,398
1062.50210	PAYROLL TAXES	176	176	1,793	1,381	3,526
1062.50202	RETIREMENT	2,025	2,025	20,591	15,859	40,500
1062.50204	HEALTH INSURANCE	2,155	2,155	15,262	23,521	43,093
1062.50206	WORKERS' COMPENSATION	312	312	3,006	2,610	6,240
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>16,830</b>	<b>16,830</b>	<b>164,324</b>	<b>138,620</b>	<b>336,604</b>
1062.51204	<b>MISCELLANEOUS EXPENSES</b>					
	MISCELLANEOUS EXPENSES			500		500
	<b>MISCELLANEOUS EXPENSES TOTAL</b>	<b>-</b>	<b>-</b>	<b>500</b>	<b>-</b>	<b>500</b>
1062.51501	<b>OFFICE EXPENSE - GENERAL</b>					
	OFFICE AND KITCHEN SUPPLIES, FED-EX			500		500
	PRINTER AND COMPUTER EQUIPMENT			500		500
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>-</b>	<b>-</b>	<b>1,000</b>	<b>-</b>	<b>1,000</b>
1062.51520	<b>GAS &amp; DIESEL FUEL</b>					
	GASOLINE AND DIESEL FUEL FOR ON-ROAD VEHICLES			6,200		6,200
	<b>GAS &amp; DIESEL FUEL TOTAL</b>	<b>-</b>	<b>-</b>	<b>6,200</b>	<b>-</b>	<b>6,200</b>
1062.51521	<b>FUEL - OFF ROAD</b>					
	FUEL - OFF ROAD			50,000		50,000
	<b>FUEL - OFF ROAD TOTAL</b>	<b>-</b>	<b>-</b>	<b>50,000</b>	<b>-</b>	<b>50,000</b>
1062.51530	<b>UNIFORMS &amp; SAFETY</b>					
	UNIFORMS AND BOTTLED WATER			4,000		4,000
	<b>UNIFORMS &amp; SAFETY TOTAL</b>	<b>-</b>	<b>-</b>	<b>4,000</b>	<b>-</b>	<b>4,000</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
WETLAND OPERATIONS (1062)

JDE Account Number	Description	General	GWRS	Prado O&M	FHQ O&M	Total
	ACTIVITY CODE	9900	9922	9924	9920	
1062.51545	SMALL TOOLS					
	MISCELLANEOUS HAND TOOLS (DRILLS, HAMMERS, WRENCHES, SOCKETS, AND SAWS)			500		500
	<b>SMALL TOOLS TOTAL</b>	-	-	<b>500</b>	-	<b>500</b>
1062.51550	SAFETY SUPPLIES					
	SAFETY SUPPLIES			500		500
	<b>SAFETY SUPPLIES TOTAL</b>	-	-	<b>500</b>	-	<b>500</b>
1062.51565	EQUIPMENT RENTAL - GENERAL					
	RENT SMALL CONSTRUCTION EQUIPMENT			500		500
	<b>EQUIPMENT RENTAL - GENERAL TOTAL</b>	-	-	<b>500</b>	-	<b>500</b>
1062.51570	EQUIPMENT RENTAL - HEAVY EQUIPMENT					
	VEGETATION CONTROL			25,000		25,000
	RENT EXCAVATOR, AND OTHER EQUIPMENT (DOZERS, WATER TRUCKS AND MOWERS)			25,000		25,000
	<b>EQUIPMENT RENTAL - HEAVY EQUIPMENT TOTAL</b>	-	-	<b>50,000</b>	-	<b>50,000</b>
1062.53015	TEMPORARY LABOR					
	TEMPORARY LABOR FOR PRADO			2,500		2,500
	<b>TEMPORARY LABOR TOTAL</b>	-	-	<b>2,500</b>	-	<b>2,500</b>
1062.54035	CHEMICALS					
	HERBICIDES FOR ARUNDO CONTROL			500		500
	<b>CHEMICALS TOTAL</b>	-	-	<b>500</b>	-	<b>500</b>
1062.54501	UTILITIES - ELECTRICITY					
	ELECTRICAL UTILITIES			8,000		8,000
	<b>UTILITIES - ELECTRICITY TOTAL</b>	-	-	<b>8,000</b>	-	<b>8,000</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
WETLAND OPERATIONS (1062)

JDE Account Number	Description	General	GWRS	Prado O&M	FHQ O&M	Total
	ACTIVITY CODE	9900	9922	9924	9920	
1062.57004	MAINTENANCE EQUIPMENT - GENERAL					
	REPAIR OF SMALL TOOLS, WQ EQUIPMENT, FLOW METERS, SENSORS, ETC.			1,500		1,500
	<b>MAINTENANCE EQUIPMENT - GENERAL TOTAL</b>	-	-	<b>1,500</b>	-	<b>1,500</b>
1062.57010	MAINTENANCE EQUIPMENT - VEHICLES					
	TRUCK MAINTENANCE AND ROUTINE REPAIRS			5,000		5,000
	<b>MAINTENANCE EQUIPMENT - VEHICLES TOTAL</b>	-	-	<b>5,000</b>	-	<b>5,000</b>
1062.57012	MAINTENANCE EQUIPMENT - HEAVY EQUIPMENT					
	REPAIRS (GREASE, OIL, AIR FILTERS, HYDRAULICS, BELT )			20,000		20,000
	<b>MAINTENANCE EQUIPMENT - HEAVY EQUIPMENT TOTAL</b>	-	-	<b>20,000</b>	-	<b>20,000</b>
1062.57016	MAINT STRUCTURE & IMPROVEMENT - GENERAL					
	A/C MAINTENANCE, SUPPLIES & REPAIRS			5,000		5,000
	ROCK FOR ROAD & LEVEE STABILIZATION			2,250		2,250
	GEO-CLOTH & GABIONS			1,500		1,500
	ELECTRICAL REPAIRS			1,000		1,000
	MISCELLANEOUS, RADIO AND EMERGENCY REPAIRS			5,000		5,000
	MOSQUITO AND VECTOR CONTROL			50,000		50,000
	SECURITY MAINTENANCE, FENCES, GATES, CAMERAS, REMOTE SENSING			1,500		1,500
	TRAILER MAINTENANCE & REPAIRS			3,500		3,500
	FENCING MODIFICATIONS			500		500
	JANITORIAL AND SUPPLIES SERVICE			8,000		8,000
	<b>MAINT STRUCTURE &amp; IMPROVEMENT - GENERAL TOTAL</b>	-	-	<b>78,250</b>	-	<b>78,250</b>
	<b>WETLAND OPERATIONS GRAND TOTAL</b>	<b>16,830</b>	<b>16,830</b>	<b>393,274</b>	<b>138,620</b>	<b>565,554</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
PROPERTY MANAGEMENT (1069)

JDE Account Number	Description	General	Total
	ACTIVITY CODE	9900	
	<b>SALARIES &amp; BENEFITS</b>		
1069.50104	REGULAR SALARIES	121,867	121,867
1069.50210	PAYROLL TAXES	1,767	1,767
1069.50202	RETIREMENT	20,291	20,291
1069.50204	HEALTH INSURANCE	14,484	14,484
1069.50206	WORKERS' COMPENSATION	634	634
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>159,043</b>	<b>159,043</b>
1069.53001	<b>PROFESSIONAL SERVICES</b>		
	REAL ESTATE SERVICES (APPRAISAL, SURVEYING, TITLE, ETC.)	3,000	3,000
	<b>PROFESSIONAL SERVICES TOTAL</b>	<b>3,000</b>	<b>3,000</b>
1069.51501	<b>OFFICE EXPENSES - GENERAL</b>		
	OFFICE SUPPLIES INCLUDING SMALL DESK SUPPLIES, REPROGRAPHICS, FILE CABINET	500	500
	<b>OFFICES EXPENSES - GENERAL TOTAL</b>	<b>500</b>	<b>500</b>
1069.51520	<b>GAS &amp; DIESEL FUEL</b>		
	FUEL FOR DISTRICT VEHICLES	250	250
	<b>GAS &amp; DIESEL FUEL TOTAL</b>	<b>250</b>	<b>250</b>
1069.56022	<b>TAXES &amp; ASSESSMENTS</b>		
	ORANGE COUNTY SEWER & MWD FEES AND ASSESSMENTS	35,965	35,965
	RIVERSIDE PROPERTY TAX & ASSESSMENTS	36,664	36,664
	SAN BERNARDINO PROPERTY TAX & ASSESSMENTS	547	547
	<b>TAXES &amp; ASSESSMENTS TOTAL</b>	<b>73,176</b>	<b>73,176</b>
1069.57016	<b>MAINTENANCE STRUCTURE AND IMPROVEMENTS - GENERAL</b>		
	PROPERTY FENCES, GATES, LOCKS, MISCELLANEOUS REPAIRS, DISPOSAL SERVICES	500	500
	<b>MAINTENANCE STRUCTURE AND IMPROVEMENTS - GENERAL TOTAL</b>	<b>500</b>	<b>500</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
PROPERTY MANAGEMENT (1069)

JDE Account Number	Description	General	Total
	ACTIVITY CODE	9900	
1069.51112	SPECIAL DEPARTMENT EXPENSE		
	UNITED PARCEL SERVICE	200	200
	<b>SPECIAL DEPARTMENT EXPENSE TOTAL</b>	<b>200</b>	<b>200</b>
1069.51206	LICENSES AND PERMITS		
	EDISON PIPELINE LICENSE ACCOUNT 2097 OLD SEAWATER LINE (RESO 72-1-5 / NO RENT INCREASE)	1,165	1,165
	GAP EDISON PIPELINE LICENSE ACCOUNT 9.4068 (FORMALLY #2110) (ADAMS, SAR, GARFIELD, HB)	23,673	23,673
	GAP EDISON PIPELINE LICENSE ACCOUNT 9.4172 (FORMALLY #3272) (GARFIELD, WARD)	13,861	13,861
	LICENSE WITH MWD FOR SANTIAGO CREEK RECHARGE ENHANCEMENT PROJECT (DOCUMENT # R.L. 2832)	1,544	1,544
	LEASE AGREEMENT WITH OC FLOOD CONTROL DISTRICT MID-BASIN INJECTION (CPI ADJUSTMENT)	29,043	29,043
	EDISON PIPELINE LICENSE ACCOUNT 9.4176 (FORMALLY # 3085) (GARFIELD/ELLIS) INJECTION WELLS I-27 & I-28	16,631	16,631
	LEASE AGREEMENT WITH CALTRANS FOR THE BURRIS BASIN / BALL ROAD PROPERTY	9,720	9,720
	<b>LICENSES AND PERMITS TOTAL</b>	<b>95,637</b>	<b>95,637</b>
	<b>PROPERTY MANAGEMENT GRAND TOTAL</b>	<b>332,306</b>	<b>332,306</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
ENGINEERING (1070)

JDE Account Number	Description	General	GWRS OM	GAP O&M	Forebay Recharge O&M	PFAS	OCTA I-405	Total
		9900	9922	9911	9920	1,914	1701	
	<b>SALARIES &amp; BENEFITS</b>							
1070.50104	REGULAR SALARIES	804,365	114,487	6,862	41,677	189,065	18,468	1,174,924
	CAPITALIZED SALARIES	(267,916)						(267,916)
1070.50210	PAYROLL TAXES	13,033	1,660	100	604	2,741	268	18,406
1070.50202	RETIREMENT	130,247	19,062	1,143	6,939	31,479	3,075	191,945
1070.50204	HEALTH INSURANCE	104,574	15,754	985	5,143	23,444	2,544	152,444
1070.50206	WORKERS' COMPENSATION	5,007	733	44	267	1,210	118	7,379
	CAPITALIZED BENEFITS	(86,100)						(86,100)
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>703,210</b>	<b>151,696</b>	<b>9,134</b>	<b>54,630</b>	<b>247,939</b>	<b>24,473</b>	<b>1,191,082</b>
1070.51102	<b>MEMBERSHIP</b>							
	ORGANIZATIONAL MEMBERSHIPS	1,000						1,000
	<b>MEMBERSHIP TOTAL</b>	<b>1,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,000</b>
1070.51301	<b>TRAVEL/CONFERENCE/MILEAGE</b>							
	ENGINEERS' CONFERENCE/SEMINARS	5,000						5,000
	<b>TRAVEL/CONFERENCE/MILEAGE TOTAL</b>	<b>5,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,000</b>
1070.51192	<b>TECHNICAL TRAINING</b>							
	LOCAL CLASSES AND TRAINING (4 CLASSES)	2,000						2,000
	<b>TECHNICAL TRAINING TOTAL</b>	<b>2,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,000</b>
1070.53010	<b>PROFESSIONAL SERVICES - ENGINEERING</b>							
	CONSULTING SERVICES	50,000						50,000
	<b>PROFESSIONAL SERVICES - ENGINEERING TOTAL</b>	<b>50,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>50,000</b>
1070.51501	<b>OFFICE EXPENSE - GENERAL</b>							
	ANNUAL ENGINEER'S REPORT PREPARATION	1,000						1,000
	OUTSIDE COPYING SERVICES	500						500
	PRINTER CARTRIDGES	1,500						1,500
	CONSTRUCTION MANUALS	200						200
	DESIGN BOOKS	500						500
	FEDERAL EXPRESS	500						500
	MISCELLANEOUS OFFICE SUPPLIES	500						500
	SUPPLEMENTS TO MANUALS AND BOOKS	200						200
	OUTSIDE SERVICES	1,000						1,000
	PUBLIC WORKS INSPECTION MANUALS	1,000						1,000
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>6,900</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6,900</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
ENGINEERING (1070)

JDE Account Number	Description	General	GWRS OM	GAP O&M	Forebay Recharge O&M	PFAS	OCTA I-405	Total
		9900	9922	9911	9920	1,914	1701	
1070.51104	SUBSCRIPTIONS							
	SMARTNET VRS FOR GPS	2,400						2,400
	AUTOCAD 3D	2,000						2,000
	AWWA STANDARDS	500						500
	ENR MAGAZINE	100						100
	<b>SUBSCRIPTIONS TOTAL</b>	<b>5,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,000</b>
1070.51520	GAS & DIESEL							
	FUEL FOR VEHICLE	3,500						3,500
	<b>GAS &amp; DIESEL TOTAL</b>	<b>3,500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,500</b>
1070.51531	SHIRTS - LOGO							
	SHIRTS - LOGO	700						700
	<b>SHIRTS - LOGO TOTAL</b>	<b>700</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>700</b>
	<b>ENGINEERING GRAND TOTAL</b>	<b>777,310</b>	<b>151,696</b>	<b>9,134</b>	<b>54,630</b>	<b>247,939</b>	<b>24,473</b>	<b>1,265,182</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
HYDROGEOLOGY (1075)

JDE Account Number	Description	General	GWRS	So. Basin Litigation	Well EW-1	Talbert Barrier O&M	Alamitos Barrier O&M	North Basin NCP	South Basin NCP	PFAS Litigation	PFAS	Total
	ACTIVITY CODE	9900	9922	9976	1711	9908	9932	9985	9986	2003	1914	
	<b>SALARIES &amp; BENEFITS</b>											
1075.50104	REGULAR SALARIES	1,625,648	58,540	11,605	15,271	9,391	70,696	80,243	108,811	11,605	11,605	2,003,415
1075.50106	OVERTIME	13,926	1,768									15,694
	CAPITALIZED SALARIES	(115,297)										(115,297)
1075.50210	PAYROLL TAXES	28,610	874	168	221	136	1,025	1,164	1,578	168	168	34,112
1075.50202	RETIREMENT	260,002	10,041	1,932	2,543	1,564	11,771	13,361	18,117	1,932	1,932	323,195
1075.50204	HEALTH INSURANCE	199,761	5,552	1,039	1,887	696	8,666	6,685	15,208	1,039	1,039	241,572
1075.50206	WORKERS' COMPENSATION	15,536	382	60	279	60	620	1,948	2,475	60	60	21,480
	CAPITALIZED BENEFITS	(38,651)										(38,651)
	<b>SALARIES &amp; BENEFITS TOTAL</b>	<b>1,989,535</b>	<b>77,157</b>	<b>14,804</b>	<b>20,201</b>	<b>11,847</b>	<b>92,778</b>	<b>103,401</b>	<b>146,189</b>	<b>14,804</b>	<b>14,804</b>	<b>2,485,520</b>
1075.51301	<b>TRAVEL/CONFERENCE/MILEAGE</b>											
	REGULATORY & AGENCY MEETINGS FOR WQ PROJECTS, SEAWATER BARRIERS, TECHNICAL CONFERENCE ATTENDANCE (GIS, SGMA, MODELING) (CALIFORNIA)	5,000										5,000
	<b>TRAVEL/CONFERENCE/MILEAGE TOTAL</b>	<b>5,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,000</b>
1075.53005	<b>PROFESSIONAL SERVICES - LEGAL</b>											
	CONNOR FLETCHER & HEDENKAMP			100,000						40,000		140,000
	MILLER & AXLINE			300,000								300,000
	LARSON O'BRIEN - INCLUDES S. SOMMER & K. TAKATA							15,000	30,000			45,000
	<b>PROFESSIONAL SERVICES - LEGAL TOTAL</b>	<b>-</b>	<b>-</b>	<b>400,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>15,000</b>	<b>30,000</b>	<b>40,000</b>	<b>-</b>	<b>485,000</b>
1075.53010	<b>PROFESSIONAL SERVICES - ENGINEER</b>											
	ENGINEERING ANALYTICS (SOUTH BASIN RI/FS SERVICES)								75,000			75,000
	AECOM (NORTH BASIN RI/FS SERVICES)							30,000				30,000
	INTERA (NORTH BASIN MODELING)							10,000				10,000
	TRAFFIC CONTROL, WASTE HAULING FOR WELL SAMPLING								27,000			30,000
	SUNSET GAP SEAWATER INTRUSION MODELING TO SUPPORT FEASIBILITY STUDY	120,000										120,000
	SUNSET GAP SEAWATER INTRUSION CONTROL FEASIBILITY STUDY	380,000										380,000
	WRMS PROGRAMMING SERVICES FOR CROSS-SECTION APPLICATION UPDATE	50,000										50,000
	<b>PROFESSIONAL SERVICES - ENGINEER TOTAL</b>	<b>550,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>43,000</b>	<b>102,000</b>	<b>-</b>	<b>-</b>	<b>695,000</b>
1075.51501	<b>OFFICE EXPENSE - GENERAL</b>											
	FEDERAL EXPRESS/COURIER	500										500
	OFFICE SUPPLIES INCLUDING SMALL DESK SUPPLIES, SCANNING SERVICES	3,000										3,000
	PLOTTER PAPER & INK CARTRIDGES	3,000										3,000
	SUPPLIES FROM WAREHOUSE, PETTY CASH	1,000										1,000
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>7,500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>7,500</b>
1075.51520	<b>GAS &amp; DIESEL FUEL</b>											
	FUEL FOR DISTRICT FIELD VEHICLES (WELL MONITORING & MAINTENANCE)	9,000										9,000
	<b>GAS &amp; DIESEL FUEL TOTAL</b>	<b>9,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>9,000</b>
1075.51530	<b>UNIFORMS &amp; SAFETY</b>											
	BOOTS, RAIN GEAR, UNIFORMS FOR FIELD PERSONNEL	200										200
	<b>UNIFORMS &amp; SAFETY TOTAL</b>	<b>200</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>200</b>
1075.51531	<b>SHIRTS - LOGO</b>											
	SHIRTS - LOGO	100										100
	<b>SHIRTS - LOGO TOTAL</b>	<b>100</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>100</b>
1075.57004	<b>MAINTENANCE EQUIPMENT - GENERAL</b>											
	FIELD EQUIPMENT REPAIR (VIDEO TRAILER, GENERATORS, PUMPS, WELDER)	1,500										1,500
	2 PRINTERS AND PLOTTER MAINTENANCE	1,000										1,000
	WATER LEVEL SENSOR REPAIR & CALIBRATION	1,500										1,500
	WESTBAY EQUIP. (REELS, SAMPLER, PROBES) SERVICE AGREEMENT	13,000										13,000
	<b>MAINTENANCE EQUIPMENT - GENERAL TOTAL</b>	<b>17,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>17,000</b>



GENERAL FUND OPERATING BUDGET FY 23-24  
HYDROGEOLOGY (1075)

JDE Account Number	Description	General	GWRS	So. Basin Litigation	Well EW-1	Talbert Barrier O&M	Alamitos Barrier O&M	North Basin NCP	South Basin NCP	PFAS Litigation	PFAS	Total
	ACTIVITY CODE	9900	9922	9976	1711	9908	9932	9985	9986	2003	1914	
1075.57016	MAINT STRUCTURES AND IMPROVEMENTS											
	BASIN-WIDE MONITORING WELL REPAIRS	12,000										12,000
	<b>MAINT STRUCTURES AND IMPROVEMENTS TOTAL</b>	<b>12,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>12,000</b>
1075.51545	SMALL TOOLS											
	DATALOGGERS, VEHICLE EQUIPMENT, WATER LEVEL PROBES, CABLES, EC & PH METERS	5,000										5,000
	GENERATOR FOR DOWNHOLE VIDEO EQUIPMENT	2,000										2,000
	<b>SMALL TOOLS TOTAL</b>	<b>7,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>7,000</b>
1075.51555	LAB SUPPLIES											
	CALIBRATION STANDARDS FOR FIELD EQUIPMENT	300										300
	<b>LAB SUPPLIES TOTAL</b>	<b>300</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>300</b>
1075.51102	MEMBERSHIP											
	DISTRICT MEMBERSHIPS FOR GRA, NGWA, URISA AND PROFESSIONAL CERTIFICATIONS	1,500										1,500
	<b>MEMBERSHIP TOTAL</b>	<b>1,500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,500</b>
1075.51192	TECHNICAL TRAINING											
	WEBINARS, GIS/WRMS PROGRAMMING TRAINING (ARC/GIS, ORACLE), GROUNDWATER MODELING TRAINING, GIS CONFERENCE PROCEEDINGS	6,000										6,000
	<b>TECHNICAL TRAINING TOTAL</b>	<b>6,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6,000</b>
1075.51112	SPECIAL DEPARTMENT EXPENSE											
	WELL SITE & DISCHARGE LICENSE/PERMIT RENEWALS	20,000										20,000
	USEPA, RWQCB & DTSC REVIEW OF NORTH BASIN RI/FS DOCUMENTS COST REIMBURSEMENT	105,000										105,000
	RWQCB & DTSC REVIEW OF SOUTH BASIN RI/FS DOCUMENTS COST REIMBURSEMENT	50,000										50,000
	SANTA ANA RIVER WATERMASTER EXPENSES	40,000										40,000
	USGS STREAMGAGING (WATERMASTER/PRADO GAUGE AND SANTIAGO CREEK GAUGE)	48,000										48,000
	AERIAL IMAGERY ANNUAL SUBSCRIPTION	5,000										5,000
	<b>SPECIAL DEPARTMENT EXPENSE TOTAL</b>	<b>268,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>268,000</b>
	<b>HYDROGEOLOGY GRAND TOTAL</b>	<b>2,873,135</b>	<b>77,157</b>	<b>414,804</b>	<b>20,201</b>	<b>11,847</b>	<b>92,778</b>	<b>161,401</b>	<b>278,189</b>	<b>54,804</b>	<b>14,804</b>	<b>3,999,120</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
NATURAL RESOURCES (1080)

JDE Account Number	Description	General	Wildlife Management	Habitat Restoration	Total
		ACTIVITY CODE 9900	8010	8008	
	<b>SALARIES AND BENEFITS</b>				
1080.50104	REGULAR SALARIES	202,678	271,179	174,549	648,406
1080.50210	PAYROLL TAXES	3,422	5,383	3,821	12,626
1080.50202	RETIREMENT	32,447	41,255	25,599	99,301
1080.50204	HEALTH INSURANCE	29,664	42,513	24,224	96,401
1080.50206	WORKERS' COMPENSATION	3,428	5,973	3,370	12,771
	<b>SALARIES AND BENEFITS TOTAL</b>	<b>271,639</b>	<b>366,303</b>	<b>231,563</b>	<b>869,505</b>
1080.51301	<b>TRAVEL/CONFERENCE/MILEAGE</b>				
	WESTERN WILDLIFE SOCIETY (CA) VIRTUAL	750			750
	CAL-IPC (CA) VIRTUAL	750			750
	<b>TRAVEL/CONFERENCE/MILEAGE TOTAL</b>	<b>1,500</b>	<b>-</b>	<b>-</b>	<b>1,500</b>
1080.53001	<b>PROFESSIONAL SERVICES - GENERAL</b>				
	VIREO MONITORING - JIM PIKE CONTRACT	69,000			69,000
	BIOLOGIST CONTRACTOR SAWA SPLIT	50,000			50,000
	BIRD USE OF OCWD LANDS CA GNATCATCHER (SAWA)	53,000			53,000
	PRADO VEG STATISTICS ANALYSIS	17,000			17,000
	SAWA - MONITOR AND MANAGE SUNNYSLOPE CREEK	37,000			37,000
	MONITOR AND REPORT LEAST TERNS (SAWA)	25,000			25,000
	CANDIDATE AND SENSITIVE SPECIES STUDIES	35,000			35,000
	<b>PROFESSIONAL SERVICES - GENERAL TOTAL</b>	<b>286,000</b>	<b>-</b>	<b>-</b>	<b>286,000</b>
1080.53001.170	<b>EXPENSE - CONTRA</b>				
	SAWA REIMBURSEMENT - PAYROLL	(53,000)			(53,000)
	<b>EXPENSE - CONTRA TOTAL</b>	<b>(53,000)</b>	<b>-</b>	<b>-</b>	<b>(53,000)</b>
1080.53015	<b>TEMP LABOR</b>				
	TEMPORARY FIELD LABORERS	75,000			75,000
	<b>TEMP LABOR TOTAL</b>	<b>75,000</b>	<b>-</b>	<b>-</b>	<b>75,000</b>
1080.51104	<b>SUBSCRIPTIONS</b>				
	SUBSCRIPTIONS/PUBLICATIONS	750			750
	<b>SUBSCRIPTIONS TOTAL</b>	<b>750</b>	<b>-</b>	<b>-</b>	<b>750</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
NATURAL RESOURCES (1080)

JDE Account Number	Description	General	Wildlife Management	Habitat Restoration	Total
		9900	8010	8008	
1080.51501	OFFICE EXPENSE - GENERAL				
	MISCELLANEOUS OFFICE SUPPLIES	5,000			5,000
	<b>OFFICE EXPENSE - GENERAL TOTAL</b>	<b>5,000</b>	<b>-</b>	<b>-</b>	<b>5,000</b>
1080.51520	GAS & DIESEL FUEL				
	GAS, DIESEL FUEL	11,000			11,000
	<b>GAS &amp; DIESEL FUEL TOTAL</b>	<b>11,000</b>	<b>-</b>	<b>-</b>	<b>11,000</b>
1080.51531	SHIRTS - LOGO				
	SHIRTS - LOGO	500			500
	<b>SHIRTS - LOGO TOTAL</b>	<b>500</b>	<b>-</b>	<b>-</b>	<b>500</b>
1080.51530	UNIFORMS				
	CLOTHING, UNIFORMS, AND BOOTS	500			500
	<b>UNIFORMS TOTAL</b>	<b>500</b>	<b>-</b>	<b>-</b>	<b>500</b>
1080.57004	MAINTENANCE EQUIPMENT - GENERAL				
	FIELD EQUIPMENT - TRAPS	1,500			1,500
	<b>MAINTENANCE EQUIPMENT - GENERAL TOTAL</b>	<b>1,500</b>	<b>-</b>	<b>-</b>	<b>1,500</b>
1080.57010	MAINTENANCE EQUIPMENT - VEHICLES				
	SMALL TRUCK SCHEDULED AND UNSCHEDULED REPAIRS, TIRES, BELTS, ETC.	5,000			5,000
	<b>MAINTENANCE EQUIPMENT - VEHICLES TOTAL</b>	<b>5,000</b>	<b>-</b>	<b>-</b>	<b>5,000</b>
1080.57012	MAINTENANCE EQUIPMENT - HEAVY EQUIPMENT				
	EQUIPMENT MAINTENANCE, SPRAYER, CHIPPER, SKID-STEER	3,000			3,000
	<b>MAINTENANCE EQUIPMENT - HEAVY EQUIPMENT TOTAL</b>	<b>3,000</b>	<b>-</b>	<b>-</b>	<b>3,000</b>
1080.57016	MAINT STRUCTURE AND IMPROVEMENTS - GENERAL				
	PRADO HABITAT RESTORATION/WETLAND IMPROVEMENTS	95,000			95,000
	SANTA ANA SUCKER HABITAT RESTORATION	37,000			37,000
	RGP RECHARGE AREA HABITAT MAINTENANCE	90,000			90,000
	OCWD PROJECT AREA HABITAT RESTORATION	90,000			90,000
	<b>MAINT STRUCTURE AND IMPROVEMENTS - GENERAL TOTAL</b>	<b>312,000</b>	<b>-</b>	<b>-</b>	<b>312,000</b>

GENERAL FUND OPERATING BUDGET FY 23-24  
NATURAL RESOURCES (1080)

JDE Account Number	Description	General	Wildlife Management	Habitat Restoration	Total
		9900	8010	8008	
1080.51545	SMALL TOOLS				
	WILDLIFE MANAGEMENT EQUIPMENT	6,500			6,500
	FIELD EQUIPMENT (GPS, NETS, BINOCULARS, BIRD BOXES, ETC.)	6,500			6,500
	<b>SMALL TOOLS TOTAL</b>	<b>13,000</b>	<b>-</b>	<b>-</b>	<b>13,000</b>
1080.51565	RENT EQUIPMENT - GENERAL				
	EQUIPMENT RENTAL	1,000			1,000
	<b>RENT EQUIPMENT - GENERAL TOTAL</b>	<b>1,000</b>	<b>-</b>	<b>-</b>	<b>1,000</b>
1080.51550	SAFETY SUPPLIES				
	SAFETY EQUIPMENT SUCH AS SAFETY GOGGLES, GLOVES	500			500
	<b>SAFETY SUPPLIES TOTAL</b>	<b>500</b>	<b>-</b>	<b>-</b>	<b>500</b>
1080.51112	SPECIAL DEPARTMENT EXPENSE				
	OTHER ENVIRONMENTALLY RELATED FEES	2,000			2,000
	<b>SPECIAL DEPARTMENT EXPENSE TOTAL</b>	<b>2,000</b>	<b>-</b>	<b>-</b>	<b>2,000</b>
1080.56012	INTER AGENCY				
	SANTA ANA SUCKER CONSERVATION (SAWPA)	15,000			15,000
	<b>INTER AGENCY TOTAL</b>	<b>15,000</b>	<b>-</b>	<b>-</b>	<b>15,000</b>
	<b>NATURAL RESOURCES GRAND TOTAL</b>	<b>951,889</b>	<b>366,303</b>	<b>231,563</b>	<b>1,549,755</b>

ACC-OC	Association of California Cities - Orange County
ACFR	Annual Comprehensive Financial Report
ACOE or Corps	United States Army Corps of Engineers
ACWA	Association of California Water Agencies
ADC	Actuarially Determined Contributions
af	Acre-feet
AGWA	Association of Ground Water Agencies
AMX	Water Billing System
AOP	Advanced Oxidation Process
AP	Accounts Payable
AWPF	Advanced Water Purification Facilities
AWWA	American Water Works Association
AWWARF	American Water Works Association Research Foundation
BCV	Basin Cleaning Vehicle
BEA	Basin Equity Assessment
BPP	Basin Production Percentage
CEC	Contaminants of Emerging Concern
CERCLA	The Comprehensive Environmental Response, Compensation, and Liability Act
CIP	Capital Improvement Program
CMMS	Computerized Maintenance Management System
COP	Certificate of Participation
CSDA	California Special Districts Association
DBPs	Disinfection By-Products
DDW	Division of Drinking Water
DPH	California Department of Public Health
EDC	Endocrine Disrupting Compounds
EPA	Environmental Protection Agency
ERP	Emergency Response Plan
FHQ	Field Headquarters
FIRO	Forecast Informed Reservoir Operations
FIS	Financial Information System
FRL	Field Research Laboratory
FTE	Full Time Equivalent
FWS	Fish and Wildlife Service
FY	Fiscal Year
GL	General Liability Insurance
GAP	Green Acres Project
GWP	Groundwater Producers
GWRS	Groundwater Replenishment System
GWRSFE	Groundwater Replenishment System Final Expansion
GWRSIE	Groundwater Replenishment System Initial Expansion
HCP	Habitat Conservation Plan
I&E	Instrumentation and electrical
IAP	Independent Advisory Panel
IEUA	Inland Empire Utilities Agency
IIS	Integrated Information Systems
IRWM	Integrated Regional Water Management
IRWD	Irvine Ranch Water District
IS	Information Services
JDE	JD Edwards

JPIA	Joint Powers Insurance Authority
LAFCO	Local Agency Formation Commission
LC/MS/MS	Liquid Chromatograph/Double Mass Spectrometer
LID	Low Impact Development
LIMS	Lab Information System
LRV	Log Removal Value
LOA	Leave of Absence
LTFP	Long-Term Facilities Plan
MAR	Managed Aquifer Recharge
MCLs	Maximum Contaminant Levels
MDL	Method Detection Limit
MF	Microfiltration
MGD	Million Gallons per Day
MSDS	Material Safety Data Sheet
MSL	Mean Sea Level
MWD	Metropolitan Water District of Southern California
MWDOC	Municipal Water District of Orange County
NBGPP	North Basin Groundwater Protection Project
NDMA	N-nitrosodimethylamine
NEMC	National Environment Management Council
NPDES	National Pollutant Discharge Elimination System
NWRI	National Water Research Institute
O&M	Operations and Maintenance
OCBC	Orange County Business Council
OCCOG	Orange County Council of Government
OCEA	Orange County Employee Association
OCHCA	Orange County Health Care Agency
OCSD	Orange County Sanitation District
OCWD	Orange County Water District
OMMP	Operations, Maintenance and Monitoring Plan
OPEB	Other Post Employment Benefits
PAC	Project Advisory Committee
PARS	Public Agency Retirement Services
PAYGO	Pay As You Go
PBDE	Poly-Brominated Diphenyl Ethers
PCS	Process Control System
PDA's	Personal Digital Assistants
PFAS	Per- and Polyfluoroalkyl Substances
PFOA	Perfluorooctanoic Acid
PHG	Public Health Goals
PO	Purchase Orders
Producers	Orange County Groundwater Producers
QA/QC	Quality Assurance/Quality Control
R&D	Research and Development
R&R	Replacement and Refurbishment
RA	Replenishment Assessment
RDL	Reporting Detection Limit
REWG	Recharge Enhancement Working Group
RFP	Requests for Proposals
RFQ	Request for Quotes
RMP	Risk Management Plan

RMS	Records Management System
RO	Reverse Osmosis
R&R	Replacement & Refurbishment
RWQCB	Regional Water Quality Control Board
SAR	Santa Ana River
SARCCUP	Santa Ana River Conservation and Conjunctive Use Project
SARMON	Santa Ana River Monitoring Program
SARWQH	Santa Ana River Water Quality Health
SAWA	Santa Ana Watershed Association
SAWPA	Santa Ana Watershed Project Authority
SBGPP	South Basin Groundwater Protection Project
SCADA	Supervisory Control and Data Acquisition
SRF	State Revolving Fund
SWRCB	State Water Resources Control Board
TMDL	Total Maximum Daily Load
TNI	The NELAC Institute
TOC	Total Organic Carbon
UCI	University of California Irvine
UCMR	Unregulated Contaminant Monitoring Rule
UF	Ultrafiltration
UV	Ultraviolet Light
VOC	Volatile Organic Compounds
W/C	Workers' Compensation
WACO	Water Advisory Committee of Orange County
WD	Water District
WEROC	Water Emergency Response of Orange County
WL	Water Level
WQ	Water Quality
WQTC	Water Quality Technology Conference
WIFIA	Water Infrastructure Finance and Innovation Act
WRD	Water Resources Department
WRF	WaterReuse Research Foundation
WRMS	Water Resource Management System
YLWD	Yorba Linda Water District