VALLECITOS WATER DISTRICT

Water and Wastewater Specialists since 1955

BUDGET

2020 FISCAL YEAR

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Our Mission

Water and wastewater specialists providing exceptional and sustainable services.

This mission of exceptional and sustainable services is reflected in this budget and in the attitudes and commitment of the Vallecitos Water District staff and Board Members.





Clockwise: Betty Evans, Hal Martin (center), Craig Elitharp, Mike Sannella and James Hernandez

Board of Directors

- Hal Martin, President
- Betty Evans, Vice President
- Craig Elitharp
- Mike Sannella
- James Hernandez

Vallecitos Water District is a public agency organized in 1955, proudly serving the City of San Marcos, portions of Escondido, Carlsbad, Vista, and the surrounding unincorporated areas.

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VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

201 Vallecitos de Oro · San Marcos, California · 92069-1453 · (760) 744-0460

Date: June 13, 2019

To: Honorable Board of Directors

Regarding: Fiscal Year 2019/20 Budget

Enclosed is the **Budget** for Fiscal Year 2019/20 (FY 19/20). The budget totals $212.9 million compared to $207.2 million for the 2018/19 budget. The FY 19/20 Budget is comprised of $58.6 million of operational expenses (a 2.7% increase from the $57 million in 2018/19 operating budget), a commitment of $140.8 million for capital items and projects ($144.7 million in 2018/19), debt service of $5.4 ($5.4 million in 2018/19) and CalPERS Unfunded Accrued Liability (UAL) funding of $8.1 million ($0 in 2018/19).

The operational increase of $1.6 million primarily is attributable to a $0.8 million increase in the cost of Encina Disposal. Encina Wastewater Authority approved the pre-funding of their Unfunded Accrued Liability with CalPERS and the District's portion of the pre-funding is $0.8 million. The remaining $0.8 million is mainly from increased costs of Transmission and Distribution to budget for the recent increases in main breaks in the District, meter replacements due to aging meters, increasing costs of power, and planned engineering studies. In addition, $8.9 million from operations is being transferred to reserves for capital replacement.

The revenue estimates included in this budget reflect rate increases for Water, Sewer and Ready-to-Serve which will be considered after completion of a cost of service study to be performed prior to consideration in December. Estimated rate increases included in this budget are between 3.5% and 4%. The rates are to recover the costs of service and meet strategic and financial objectives of the budget.

Long-range Financial Planning

As with recent budgets, this budget includes a 10-year projection of operating costs and capital needs in order to plan for a sound future in water supply and reliability. Fiscal sustainably is absolutely a necessary factor in the equation for future reliability and is a guiding influence in everything the District does.

All District employees are responsible to consider costs involved with activities and try to work as efficiently and effectively as possible. Consideration of controlling costs translates into the future viability of the District. Some of these considerations are: rate affordability; maintaining reserves, assess adequacy to cover debt obligations now and in the future; funding CalPERS UAL; and a credit worthy cash position. We plan to meet our capital needs and maintain a strong financial position without incurring any new debt in FY 2019/20.

FINANCIAL HIGHLIGHTS

The following narratives are financial highlights and comparisons of this budget, FY 2019/20, and last budget, FY 2018/19.

Water Operations (pages 3-14)

Water purchases are projected to total 16,100 acre feet with sales of 14,850 acre feet for 2019/20. The water operating budget increased by $0.4 million from last year's budget, or 0.9%.

Wastewater Operations (pages 15-24)
Wastewater operating costs increased $1.1 million, or 8.6%, over last year's budget mainly due to the District's portion of Encina's pre-funding of their UAL, as discussed previously. Reclaimed water costs are recovered by contractual sales to the Carlsbad Municipal Water District and Olivenhain Municipal Water District.

Personnel (pages 25-31)
Fiscal year 2019/20 includes one new position at an estimated annual cost of $144 thousand in salary and benefits. Two positions were retitled at no additional cost to the District. Salaries and benefits for 2019/20 increased from the last budget year by $740 thousand or 4.8% mainly as a result of a $286 thousand increase in the cost of Public Employment Retirement, the addition of one new position, 3 vacant positions for half of 2018/19 now being budgeted for the full year in 2019/20, and normal pay increases. Management will continue to scrutinize the need for all positions and only fill positions if absolutely necessary.

Capital Budget (pages 33-93)
Capital projects are summarized on the Comprehensive Project List found on page 34. Details of each project, including timing of phases and spending, are presented on pages 36 through 93, followed by requests for easements, vehicles and equipment of $688 thousand. Of the $140.2 million capital budget, $38.5 million are new requests and $54.9 million are for future projects included for planning purposes. The remainder is from projects carried over from the prior year resulting in a capital budget decrease of $3.8 million. The amount of capital funding for FY 2019/20 is $25.4 million.

Reserve Budget and Projection (pages 98-104)
The Reserve Budget includes revenues and transfers from various sources and summarizes appropriations and expected cash outflows for CalPERS UAL funding, debt service, and capital projects. Page 97 displays the 2019/20 reserve budget for consideration. Pages 98 through 102 display detailed reserve projections for four subsequent years followed by a summary projection for the five years thereafter.

As a final note, our projections are based on trends, anticipated large one-time expenditures, economic factors within our industry, and global factors influencing our operations. Obviously, a good amount of forethought and monitoring at both the Board and staff levels has been required to produce such a realistic and useable financial guide.

Respectfully submitted,

Glenn Pruim, General Manager

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

201 Vallecitos de Oro · San Marcos, California · 92069-1453 · (760) 744-0460

Date: June 13, 2019

To: Honorable Board of Directors

Regarding: CalPERS Unfunded Accrued Liability Funding Policy

It is Vallecitos Water District's commitment to excellence which drives staff to identify opportunities to remain efficient, fiscally responsible, and innovative. Managing the CalPERS pension liability is one of the District's most significant financial challenges and has been identified as one of the organization's key strategic initiatives to address. Based on the most recent actuarial valuation report, dated June 30, 2017, the District's pension liability is approximately $16.9 million. On May 1, 2019 the Board of Directors designated $834,000 of unanticipated revenue to pay down the CalPERS Unfunded Accrued Liability. As a result, staff estimates the liability to be approximately $16.1 million.

On May 29, 2019 the District had a Board workshop and staff obtained clear policy direction on how to manage the pension liability over the next few years. Staff has been instructed to pay one-half of the pension liability in Fiscal Year 2020 and the remaining balance over the following two years. The entire liability is to be paid off by Fiscal Year 2022 with the option of paying earlier with Board direction. Based on guidance and concerns received from the Board of Directors, Vallecitos intends to address the pension liability by doing the following:

1) Pay the entire $16.1 million pension liability over a maximum of three years with half of the amount due being paid in Fiscal Year 2020. For the five-year plan included in the Fiscal Year 2020 Recommended Budget it is assumed the underlying assumptions of the $16.1 million won't materially change during that time frame and assume a constant 7.0% interest rate being charged.

2) Revise the policy brief annually with updated amounts when new actuarial reports are released and incorporate them into Budgets for future fiscal years.

3) Maintain flexibility and control with this funding strategy, not locking into any formal arrangements with CalPERS.

4) Avoid over-paying, or becoming super-funded, by reassessing the final year's payment as necessary.

5) Report back to the Finance Committee and Board of Directors on pension funding status on a regular basis.

Below approximates the fiscal impact of this funding policy in conjunction with the minimum required payments Vallecitos would have to make regardless of the funding policy. This has been incorporated into the Recommended Budget for Fiscal Year 2020.

	Three Years to 100% Funded			
	FY 2020	FY 2021	FY 2022	Total
Funding Policy				
Additional Discretionary Payment (ADP)	$ 8,054,000	$ 4,027,000	$ 4,027,000	$ 16,108,000
Required Payment on UAL ***(1)***	1,171,674	1,337,000	1,538,000	4,046,674
Unfunded Accrued Liability Payment	$ 9,225,674	$ 5,364,000	$ 5,565,000	$ 20,154,674
Approximate Interest Savings	**$ 13,670,000**			

(1) Required payments on the UAL will change when new actuarial reports are released and will be reduced as a result of additional discretionary payments.

Respectfully submitted,

Glenn Pruim, General Manager

BUDGET FOR THE YEAR ENDING JUNE 30, 2020

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BUDGET FOR THE YEAR ENDING JUNE 30, 2020

BUDGETARY CONSIDERATIONS

Mission Statement

Water and wastewater specialists providing exceptional and sustainable services.

The budget reflects the mission statement

Budgetary Approach

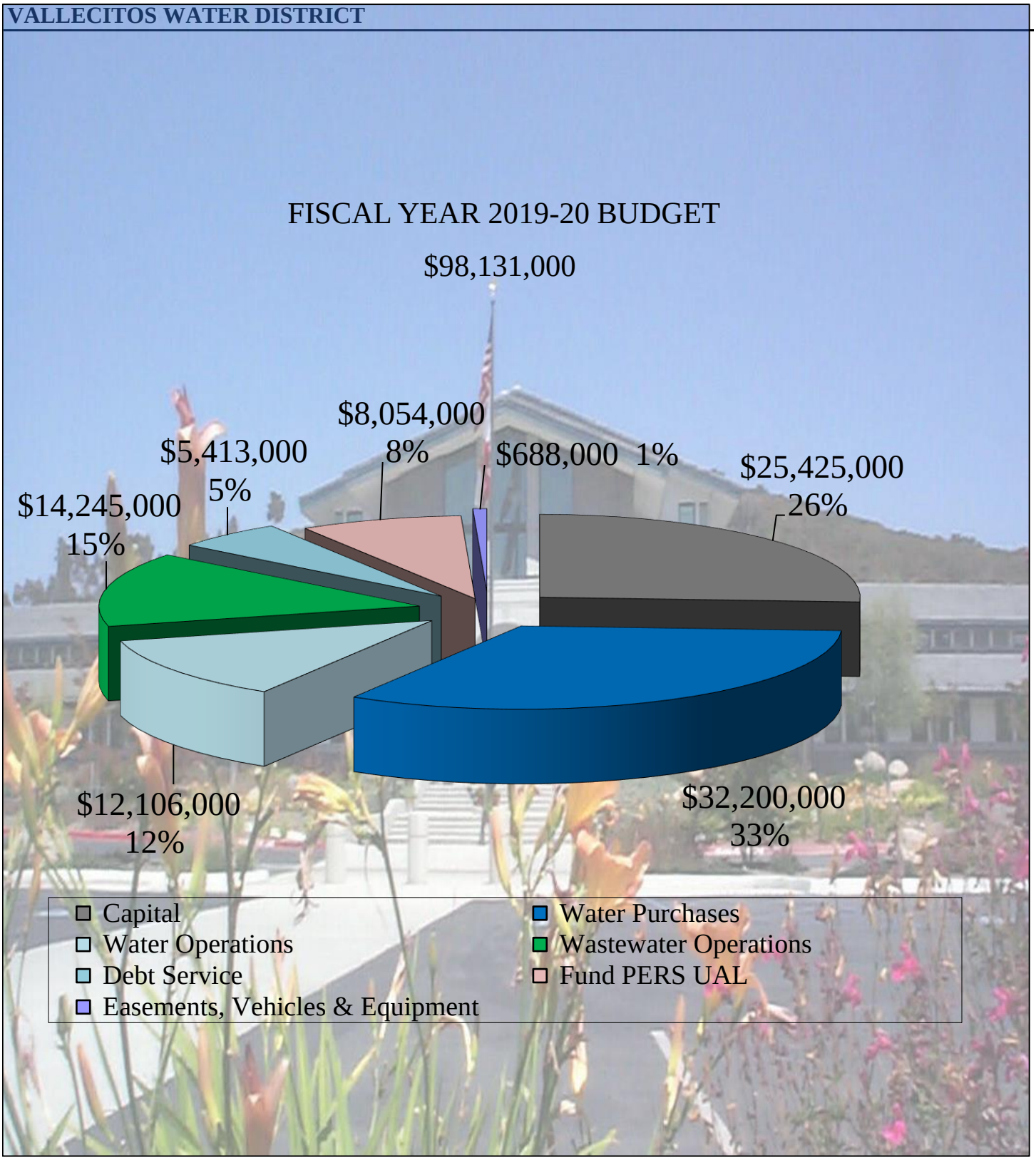
Governmental agencies, such as cities and counties, usually approach their budgets from the "revenue end." Since their revenues are somewhat predictable and restricted, their budgetary considerations are based on setting a level of service (expense total) that can be attained with those available funds.

A special district, however, must make a more thorough analysis. Normally, the expenses can be determined with a high degree of accuracy, and it's the revenues that must be set to cover those expenses. To complicate matters, factors such as weather variability and customer usage habits can have a profound effect on the overall revenue projection.

Operations vs. Capital Budget

The budget is designed to ensure various revenues and fees are used as intended. The Operations Budget, which covers the ongoing cost of running the District, is paid by the rate payers of the District through charges for water and sewer service. The Capital Facilities Budget is covered primarily by fees on new development and existing customers with increased demands.

Operating revenue in excess of operating expense is earmarked for transfer to the Replacement Reserve Fund for the future replacement of assets. This ensures the current users of our system are paying their fair share for the maintenance of existing facilities as they depreciate.

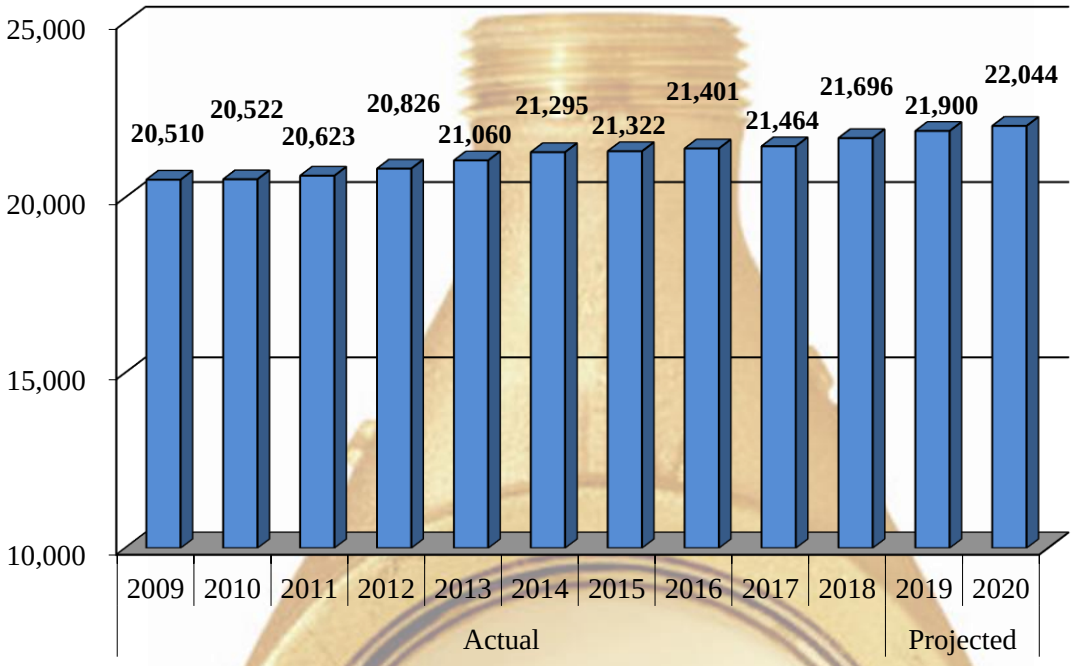

FISCAL YEAR 2019-20 BUDGET
$98,131,000
$8,054,000
8%
$5,413,000
5%
$688,000 1%
$25,425,000
26%
$14,245,000
15%
$12,106,000
12%
$32,200,000
33%
Capital
Water Operations
Debt Service
Easements, Vehicles & Equipment
Water Purchases
Wastewater Operations
Fund PERS UAL

2019-20 OPERATING BUDGET

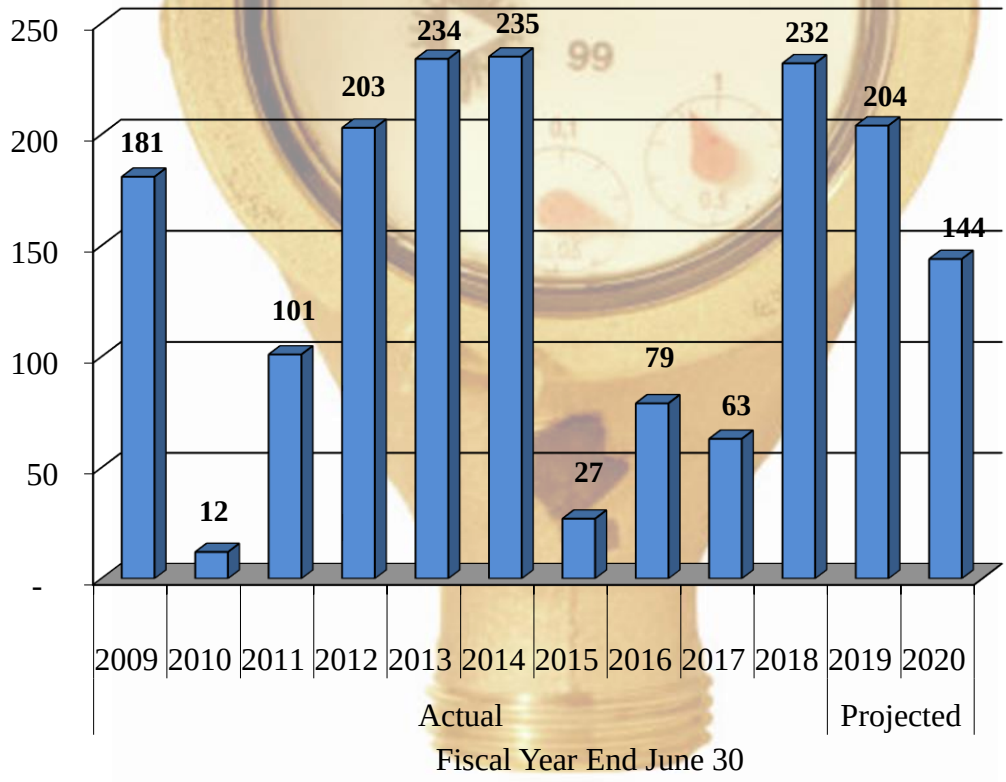
WATER

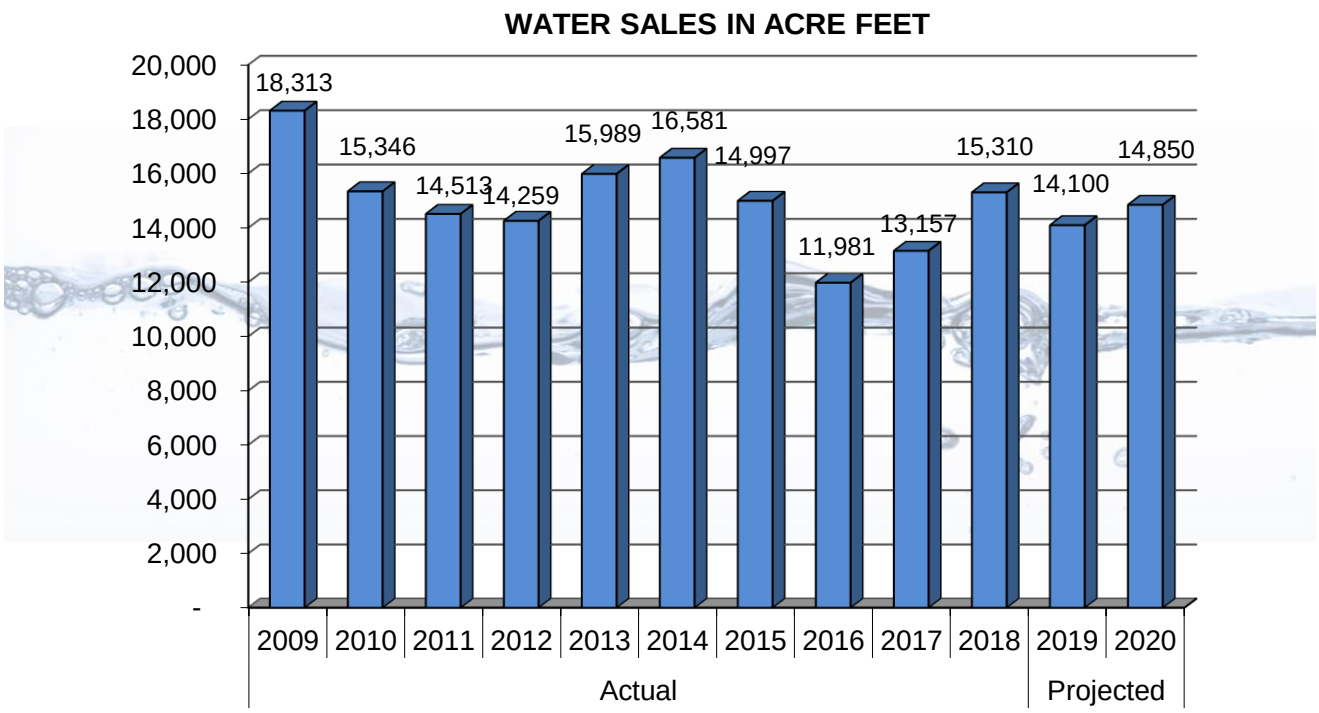
Double Peak Tank

METERS IN SERVICE

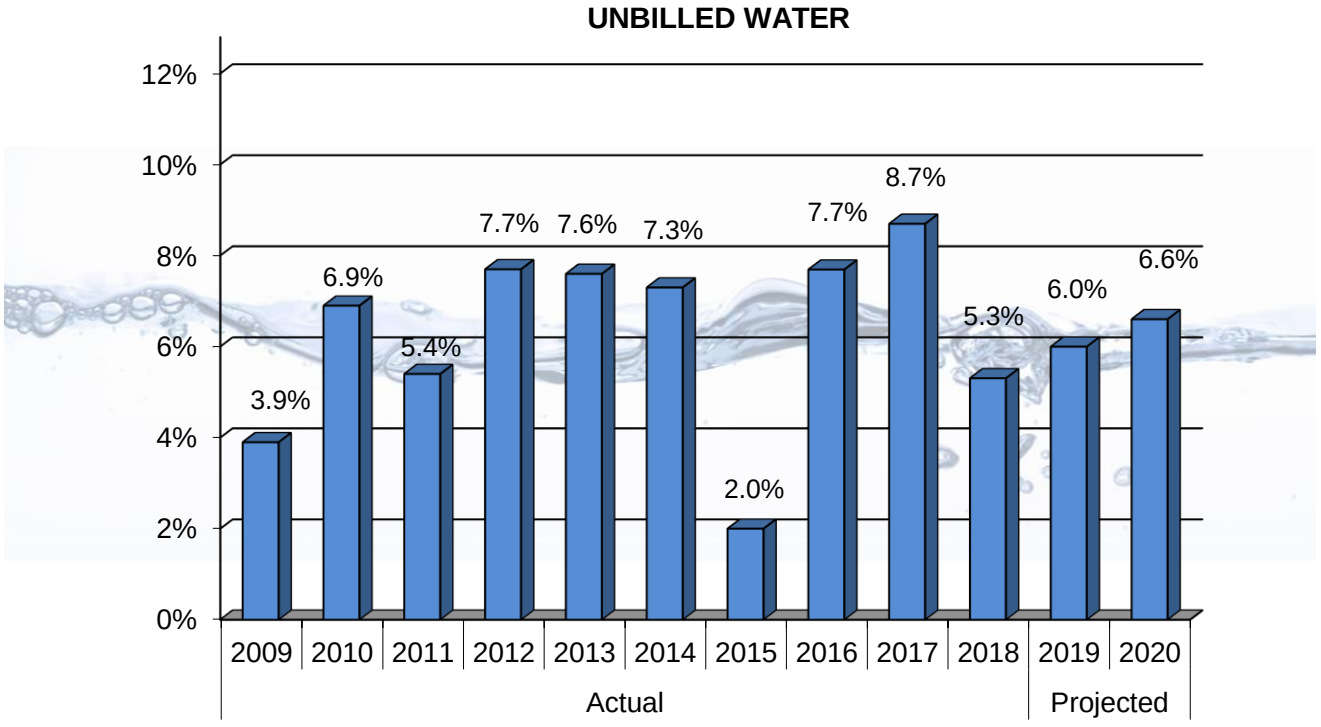


METER ADDITIONS





Year End June 30



Year End June 30

Unbilled Water includes use acquired with one-day permits, tie-ins, operational use, fire hydrant damage and use, meter malfunctions, leaks.and timing differences

BUDGET FOR THE YEAR ENDING JUNE 30, 2020

FUNCTION DEFINITIONS - WATER OPERATIONS

REVENUES

Water Sales: Monthly charges to cover the wholesale cost of water, with a minimal markup targeted to cover some operating costs and provide funds for capital improvements and replacement.

Ready To Serve: Monthly charge to cover fixed costs, regardless of water sales. Examples include maintenance of reservoirs and transmission lines, meter reading and administrative costs such as insurance.

Pumping Charges: Charges to customers at high elevations, to cover the power costs required to deliver water.

Interest and Other: Interest revenue, late charges, backflow fees, engineering fees and other miscellaneous revenues.

OPERATING EXPENSES

Water Purchases: Vallecitos purchases its water from two sources: The San Diego County Water Authority (SDCWA) and the Olivenhain Municipal Water District. Desalinated water is included in the water purchased from SDCWA.

Pumping: To move water to various elevations, and to provide adequate pressure and storage to higher service connections. Includes maintenance of ten pump stations, readings, and power costs.

Water Quality: To monitor incoming water in accordance with federal and state regulations. Includes collecting samples and reporting results, and maintenance of monitoring equipment.

Water Treatment: To treat water in tanks, handle chemicals, and use and maintain injection equipment for pipelines.

Tanks and Reservoirs: Maintenance of 17 steel tanks and 2 reservoirs. Includes corrosion control, security, and water level monitoring.

Transmission and Distribution: Maintenance of pipeline system within 45 square miles, consisting of 329 miles of pipes. Includes 26 pressure reducing stations, 3 (internal) flow control facilities, all air releases/blow-offs, fire hydrants (buried portion), cross-tie valves with other districts, and valve exercising.

Services: Maintenance of all service lines located from main lines to meters.

BUDGET FOR THE YEAR ENDING JUNE 30, 2020

FUNCTION DEFINITIONS - WATER OPERATIONS (Continued)

Meters: Reading approximately 22,000 meters monthly for billing purposes as well as maintenance of all customer meters.

Backflow Prevention: Ensures compliance with Title 17, requiring backflow devices for specific connections to protect quality of water in our system.

Customer Accounts: Costs related to opening and closing accounts, response to customer concerns, billing costs (statements, mailing), and uncollectible accounts.

Equipment and Vehicles: Maintenance of District equipment. Includes all construction equipment, water, sewer and administrative vehicles, plus miscellaneous tools and equipment.

Buildings and Grounds: Maintenance of administrative and operations buildings, warehouse, and shops. Also includes power costs, alarmed security system, landscape service, janitorial, and pest control.

Engineering: All costs of engineering, capital facilities and inspection services. Includes review and monitoring of development to ensure compliance with standard design practices, impact on existing system and environment, and orderly planning to provide adequate water and sewer service as demand dictates.

Safety and Regulatory Affairs: Program to control unnecessary risks, hazardous conditions, and unsafe practices, and minimize physical losses, personnel injuries, and district liability, and to provide for regulatory compliance in environmental, public health and other mandated areas.

Information Technology: Centralization of the District's technology to maintain hardware, software, servers, networks, and interfaces.

General and Administrative
Cost of Labor:

- *Salaries* include administrative and conservation personnel salaries and all vacation, sick leave, and holiday time for administrative and water personnel.

- *Group Insurance* is health, vision, and dental costs for all administrative and water personnel.

- *Workers' Compensation Insurance* costs for all administrative and water personnel.

- *Public Employees Retirement System* (PERS) participation costs for all administrative and water personnel.

- *Social Security* costs for all administrative and water personnel.

BUDGET FOR THE YEAR ENDING JUNE 30, 2020

FUNCTION DEFINITIONS - WATER OPERATIONS (Continued)

General and Administrative (continued)

- *Other Taxes/Benefits* includes unemployment and other miscellaneous employee taxes and benefits such as annual luncheon, and awards for all personnel.

District Insurance premium costs protect District assets, such as buildings and vehicles, and provide liability coverage for potential claims.

Outside Services are provided by consultants and temporary help.

Legal costs are incurred for general legal counsel (presence at board meetings, contracts, employment issues, etc.)

Auditing is conducted by a certified public accounting firm to provide an opinion on the annual financial report.

Banking Services are provided to maintain the District's general checking account plus trust and custody services.

Office Supplies are purchased for necessary administration of the District including office equipment costing less than the capitalization threshold.

Postage not related to public relations or customer billing includes notifications, such as shutdowns and public hearing notification mailings.

Office Equipment Repair covers maintenance contracts on computer system, billing equipment, copiers, telephone system, and other repairs as needed.

Telephone costs are for service at administration and water operations, long distance, data lines, and cellular phone service for field and key personnel.

Travel costs are for administrative and water personnel.

Meetings and Seminars for administrative and water personnel provide District representation and professional development.

Dues and Subscriptions are for memberships and periodicals to various organizations, such as American Water Works Association (AWWA).

Public Awareness/Conservation is the "image and information" arm of the District, utilizing publications, special events, the speakers' bureau, and the VWD School Program to present Vallecitos as the "Water and Wastewater Specialists" and promote effective water conservation programs.

BUDGET FOR THE YEAR ENDING JUNE 30, 2020

FUNCTION DEFINITIONS - WATER OPERATIONS (Continued)

General and Administrative (continued)

Regulatory Fees are incurred for renewal fees for personnel certifications such as water distribution and treatment, notary, and professional memberships, state regulatory agencies, and other compliance matters.

Election and Annexations facilitation costs are assessed by the County.

Director Fees are paid for attendance of board meetings, professional conferences, and other District-sanctioned organizations.

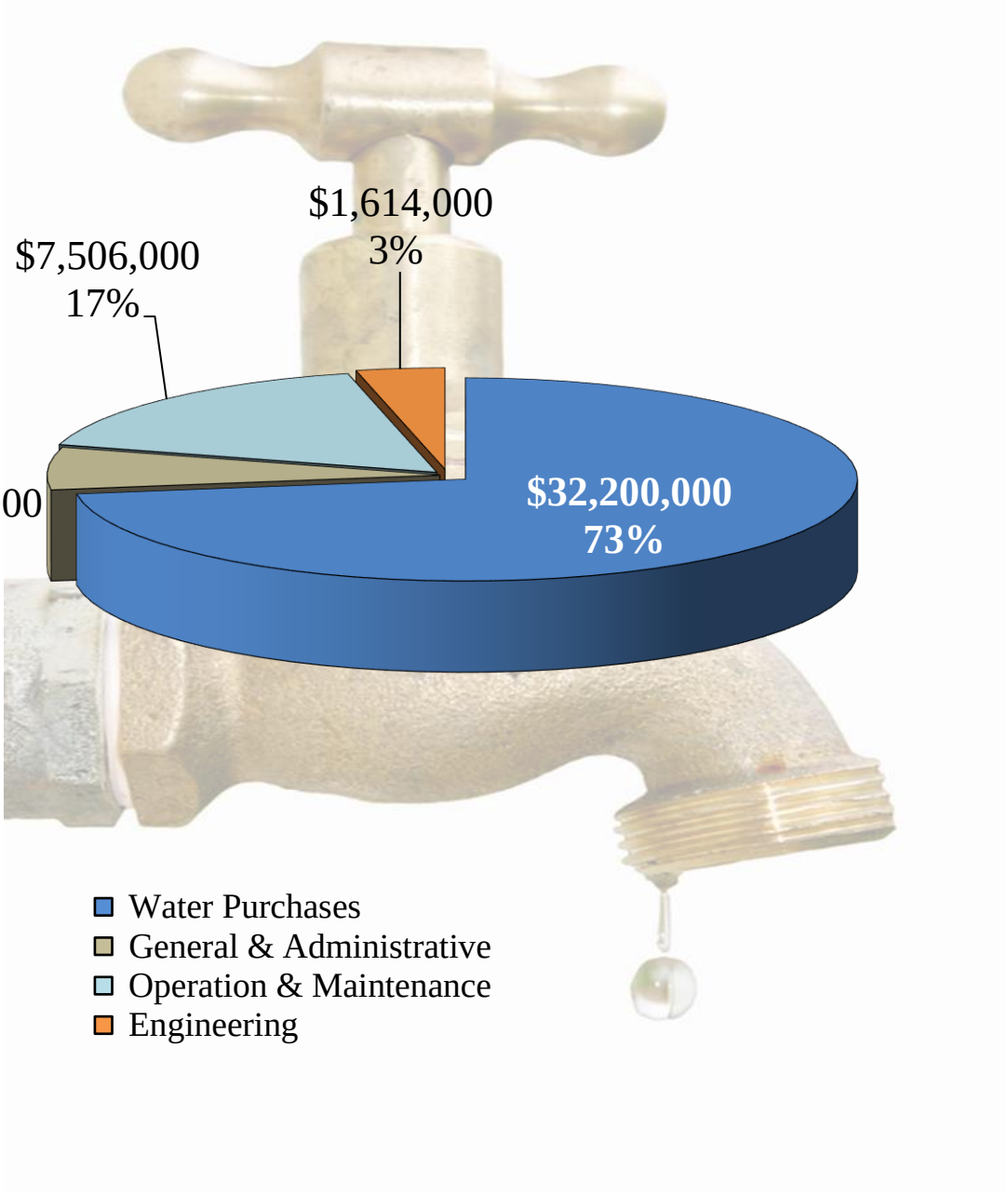
Director Expenses include all costs incurred by Directors, such as travel reimbursement and conference fees.

Other/Mandated Reimbursements include miscellaneous expenses that do not specifically apply to any of the above-referenced categories less mandated cost reimbursements due from the State.

Administrative Credit Transfer is a collection or recovery of overhead costs that are applied to all construction work orders.

2019-20 WATER OPERATING EXPENSE BUDGET

$44,306,000



VALLECITOS WATER DISTRICT

WATER OPERATIONS BUDGET FOR THE YEAR ENDING JUNE 30, 2020

		Actual FY 17-18	Budget FY 18-19	Projected FY 18-19	Budget FY 19-20	Estimated FY 20-21
OPERATING REVENUES						
Water Sales	*4001*	$ 29,800,000	$ 31,800,000	$ 28,970,000	$ 31,850,000	$ 33,050,000
Ready to Serve	*4003*	13,600,000	13,300,000	13,680,000	13,800,000	14,250,000
Pumping Charges	*4002*	250,000	340,000	310,000	340,000	420,000
Interest	*4401*	5,000	5,000	5,000	5,000	5,000
Other	*Various*	675,000	685,000	725,000	695,000	705,000
Total Revenue		44,330,000	46,130,000	43,690,000	46,690,000	48,430,000
OPERATING EXPENSES						
Water Purchases	*1010*	30,678,093	32,250,000	30,630,000	32,200,000	33,750,000
Pumping	*2010*	839,884	838,000	904,000	911,000	1,018,000
Water Quality	*2020*	169,819	154,000	153,000	227,000	241,000
Water Treatment	*2030*	481,677	475,000	409,000	485,000	501,000
Tanks & Reservoirs	*2040*	364,239	451,000	419,000	465,000	477,000
Transmission & Dist.	*2050*	1,565,815	1,719,000	2,220,000	1,840,000	1,996,000
Services	*2060*	195,350	139,000	80,000	82,000	88,000
Meters	*2070*	712,760	675,000	647,000	766,000	724,000
Backflow Prevention	*2080*	57,885	66,000	56,000	65,000	67,000
Customer Accounts	*4010*	648,479	635,000	696,000	672,000	708,000
Equipment & Vehicles	*4210*	287,632	320,000	287,000	328,000	324,000
Buildings & Grounds	*4110*	406,844	377,000	363,000	392,000	387,000
Engineering	*5010*	1,665,981	1,582,000	1,588,000	1,614,000	1,640,000
Safety & Reg. Affairs	*5210*	266,622	268,000	254,000	246,000	249,000
Information Technology	*6230*	798,930	973,000	888,000	1,027,000	1,060,000
General & Admin.	*6xxx*	3,204,330	2,985,000	2,916,000	2,986,000	3,145,000
Total Expense		42,344,340	43,907,000	42,510,000	44,306,000	46,375,000
OPERATING INCOME		1,985,660	2,223,000	1,180,000	2,384,000	2,055,000
LESS TRANSFERS TO REPLACEMENT RESERVE		1,985,660	2,223,000	1,180,000	2,384,000	2,055,000
NET INCOME		$ -	$ -	$ -	$ -	$ -

VALLECITOS WATER DISTRICT

WATER OPERATIONS BUDGET FOR THE YEAR ENDING JUNE 30, 2020

			Actual FY 17-18	Budget FY 18-19	Projected FY 18-19	Budget FY 19-20	Estimated FY 20-21
WATER PURCHASES		*5001*	$ 30,678,093	$ 32,250,000	$ 30,630,000	$ 32,200,000	$ 33,750,000
PUMPING							
Cost of Labor	*2010xxx.51xx*		115,998	118,000	101,000	119,000	123,000
Materials & Supplies	"	*.53xx*	27,030	80,000	44,000	29,000	32,000
Outside Repair/Service	"	*.54xx*	10,708	45,000	41,000	75,000	84,000
Power	"	*.5306*	686,148	595,000	718,000	688,000	779,000
Total Pumping			839,884	838,000	904,000	911,000	1,018,000
WATER QUALITY							
Cost of Labor	*2020000.51xx*		68,611	54,000	60,000	58,000	59,000
Materials & Supplies	"	*.53xx*	50,696	41,000	40,000	49,000	54,000
Outside Repair/Service	"	*.54xx*	50,512	59,000	53,000	120,000	128,000
Total Water Treatment			169,819	154,000	153,000	227,000	241,000
WATER TREATMENT							
Cost of Labor	*2030000.51xx*		420,209	393,000	346,000	411,000	419,000
Materials & Supplies	"	*.53xx*	38,316	50,000	25,000	42,000	48,000
Outside Repair/Service	"	*.54xx*	14,150	20,000	27,000	20,000	22,000
Power	"	*.5306*	9,002	12,000	11,000	12,000	12,000
Total Water Treatment			481,677	475,000	409,000	485,000	501,000
TANKS & RESERVOIRS							
Cost of Labor	*2040xxx.51xx*		235,020	233,000	249,000	244,000	251,000
Materials & Supplies	"	*.53xx*	23,152	47,000	30,000	26,000	23,000
Outside Repair/Service	"	*.54xx*	101,619	165,000	134,000	189,000	196,000
Power	"	*.5306*	4,448	6,000	6,000	6,000	7,000
Total Tanks & Reservoirs			364,239	451,000	419,000	465,000	477,000
TRANSMISSION & DISTRIBUTION							
Cost of Labor	*2050xxx.51xx*		1,135,320	1,122,000	1,183,000	1,185,000	1,219,000
Materials & Supplies	"	*.53xx*	201,740	260,000	235,000	265,000	277,000
Outside Repair	"	*.54xx*	217,658	325,000	789,000	377,000	485,000
Power	"	*.5306*	11,097	12,000	13,000	13,000	15,000
Total Trans. & Dist.			1,565,815	1,719,000	2,220,000	1,840,000	1,996,000
SERVICES							
Cost of Labor	*2060xxx.51xx*		92,198	102,000	53,000	45,000	48,000
Materials & Supplies	"	*.53xx*	21,597	12,000	15,000	12,000	12,000
Outside Repair	"	*.54xx*	81,555	25,000	12,000	25,000	28,000
Total Services			195,350	139,000	80,000	82,000	88,000

VALLECITOS WATER DISTRICT

WATER OPERATIONS BUDGET FOR THE YEAR ENDING JUNE 30, 2020

		Actual FY 17-18	Budget FY 18-19	Projected FY 18-19	Budget FY 19-20	Estimated FY 20-21
METERS						
Cost of Labor	*2070xxx.51xx*	$ 649,905	$ 622,000	$ 606,000	$ 663,000	$ 684,000
Materials & Supplies	" *.53xx*	56,469	42,000	36,000	95,000	34,000
Outside Service/Repair	" *.54xx*	6,386	11,000	5,000	8,000	6,000
Total Meters		712,760	675,000	647,000	766,000	724,000
BACKFLOW PREVENTION						
Cost of Labor	*2080000.51xx*	8,839	20,000	13,000	21,000	22,000
Materials & Supplies	" *.53xx*	1,000	2,000	1,000	1,000	2,000
Outside Service	" *.54xx*	48,046	44,000	42,000	43,000	43,000
Total Backflow		57,885	66,000	56,000	65,000	67,000
CUSTOMER ACCOUNTS						
Cost of Labor	*4010000.51xx*	462,829	466,000	460,000	496,000	533,000
Materials & Supplies	" *.53xx*	95,687	85,000	98,000	113,000	116,000
Outside Service/Repair	" *.54xx*	45,147	44,000	68,000	23,000	27,000
Uncollectible Accts.	" *.5703*	44,816	40,000	70,000	40,000	32,000
Total Cust. Accts.		648,479	635,000	696,000	672,000	708,000
EQUIPMENT & VEHICLES						
Cost of Labor	*4210000.51xx*	90,678	122,000	79,000	129,000	133,000
Materials & Supplies	" *.53xx*	64,036	65,000	59,000	65,000	67,000
Fuel	" *.5307*	87,088	93,000	105,000	94,000	98,000
Outside Repair	" *.54xx*	45,830	40,000	44,000	40,000	26,000
Total Equip. & Vehicles		287,632	320,000	287,000	328,000	324,000
BUILDINGS & GROUNDS						
Cost of Labor	*4110000.51xx*	196,200	163,000	157,000	163,000	152,000
Materials & Supplies	" *.53xx*	28,818	62,000	19,000	66,000	68,000
Outside Services	" *.54xx*	65,176	92,000	77,000	112,000	115,000
Power	" *.5306*	116,650	60,000	110,000	51,000	52,000
Total Bldg. & Grnd.		406,844	377,000	363,000	392,000	387,000
ENGINEERING						
Cost of Labor	*5010000.51xx*	1,600,075	1,419,000	1,493,000	1,518,000	1,580,000
Materials & Supplies	" *.53xx*	21,961	15,000	9,000	12,000	13,000
Outside Services	" *.54xx*	43,945	148,000	86,000	84,000	47,000
Total Engineering		1,665,981	1,582,000	1,588,000	1,614,000	1,640,000

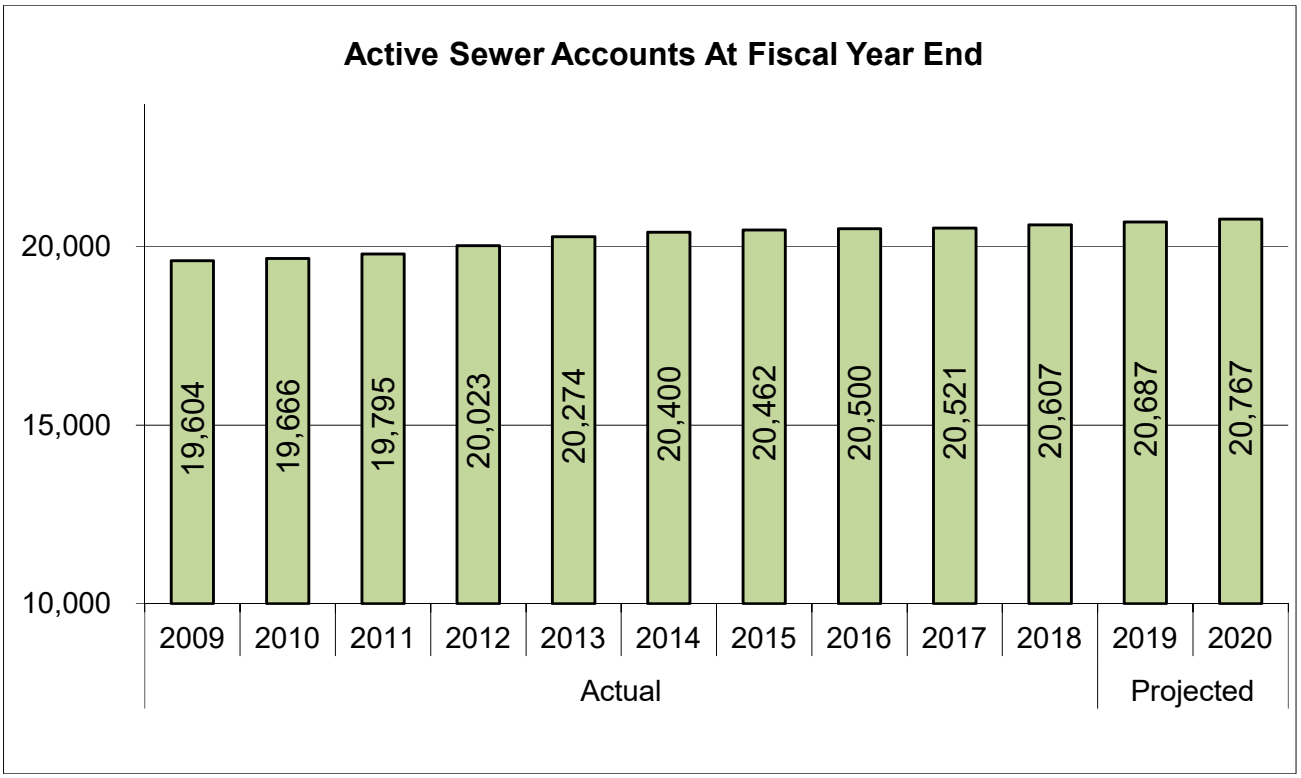
WATER OPERATIONS BUDGET FOR THE YEAR ENDING JUNE 30, 2020

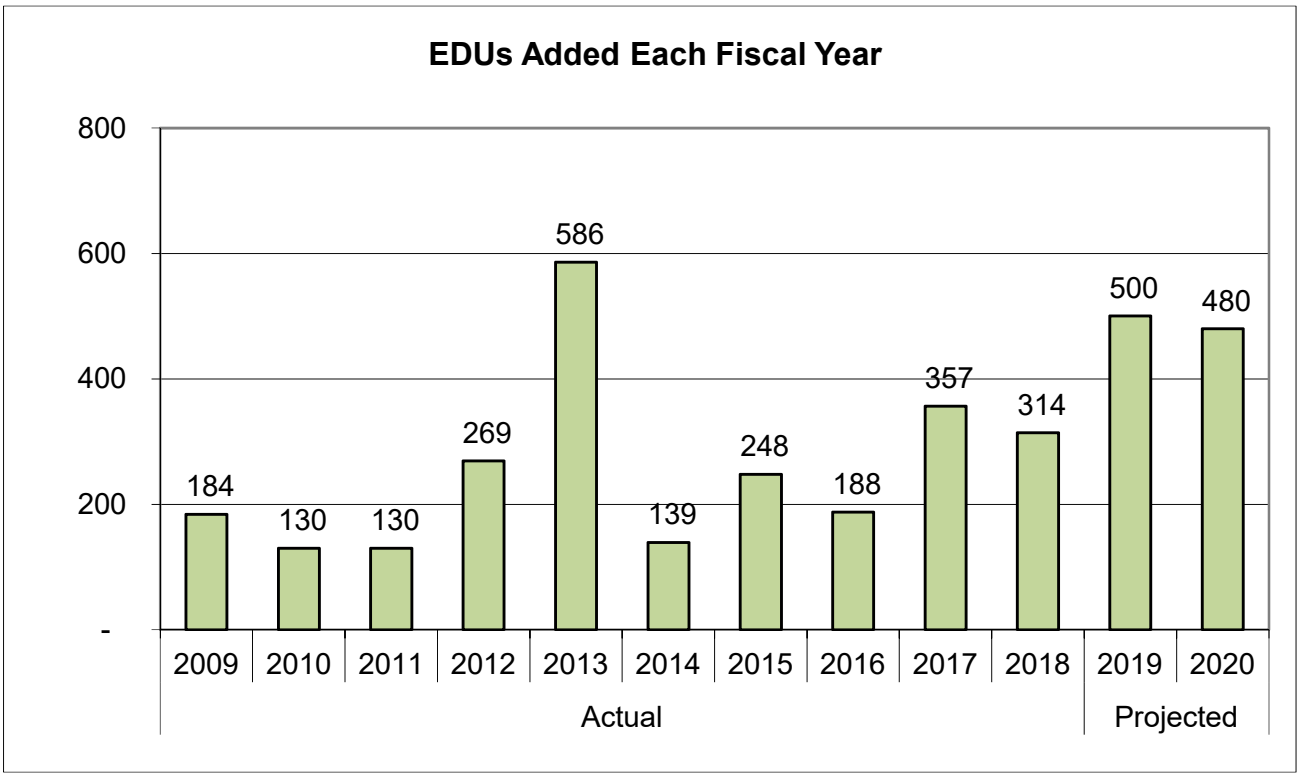
		Actual FY 17-18	Budget FY 18-19	Projected FY 18-19	Budget FY 19-20	Estimated FY 20-21
SAFETY & REG. AFFAIRS						
Cost of Labor	*5210000.51xx*	$ 243,112	$ 238,000	$ 232,000	$ 214,000	$ 216,000
Materials & Supplies	*" .53xx*	7,766	13,000	5,000	12,000	12,000
Safety Support	*" .54xx*	15,744	17,000	17,000	20,000	21,000
Total Safety		266,622	268,000	254,000	246,000	249,000
INFORMATION TECHNOLOGY						
Cost of Labor	*6230000.51xx*	409,119	525,000	481,000	568,000	589,000
Materials & Supplies	*" .53xx*	124,451	62,000	84,000	70,000	72,000
Outside Services	*" .54xx*	265,360	386,000	323,000	389,000	399,000
Total Information Tech		798,930	973,000	888,000	1,027,000	1,060,000
GENERAL & ADMINISTRATION						
Cost of Labor	*6xxxxxx.51xx*	3,458,823	3,035,000	2,966,000	3,141,000	3,341,000
Directors Fees	*" .5101*	48,906	62,000	74,000	62,000	64,000
District Insurance	*" .5201*	143,315	161,000	120,000	163,000	182,000
Travel	*" .5202*	14,005	8,000	13,000	11,000	11,000
Meetings & Seminars	*" .5203*	16,431	31,000	22,000	30,000	31,000
Dues & Subscriptions	*" .5204*	88,098	73,000	111,000	71,000	73,000
Directors Expenses	*" .5205*	46,092	50,000	39,000	50,000	51,000
Office Supplies	*" .5301*	24,838	45,000	30,000	43,000	44,000
Awareness/Conservation	*" .5303*	96,075	79,000	60,000	79,000	81,000
Postage	*" .5304*	1,572	3,000	3,000	3,000	3,000
Outside Services	*" .5401*	62,683	102,000	69,000	81,000	60,000
Legal	*" .5402*	85,850	130,000	86,000	95,000	102,000
Auditing	*" .5403*	13,253	13,000	14,000	13,000	15,000
Bank/Investment Svcs	*" .5501*	23,502	45,000	22,000	25,000	26,000
Regulatory Fees	*" .5502*	48,691	57,000	78,000	68,000	70,000
Election & Annexation	*" .5503*	-	2,000	2,000	2,000	2,000
Other/Reimbursements		4,631	10,000	25,000	10,000	10,000
Admin Credit Transfer.	*4702*	(972,435)	(921,000)	(818,000)	(961,000)	(1,021,000)
Total Gen. & Admin.		3,204,330	2,985,000	2,916,000	2,986,000	3,145,000
TOTAL EXPENSES		$ 42,344,340	$ 43,907,000	$ 42,510,000	$ 44,306,000	$ 46,375,000

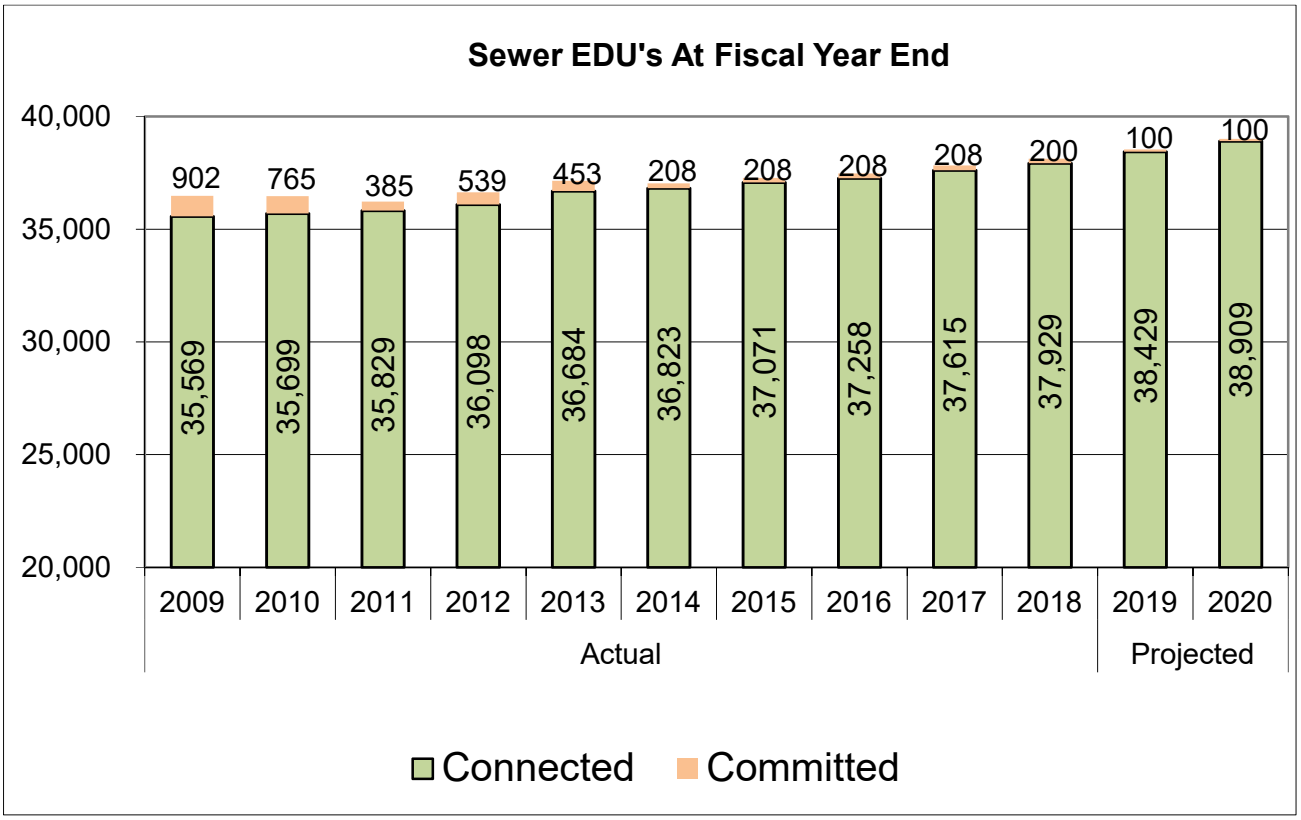
2019-20 OPERATING BUDGET

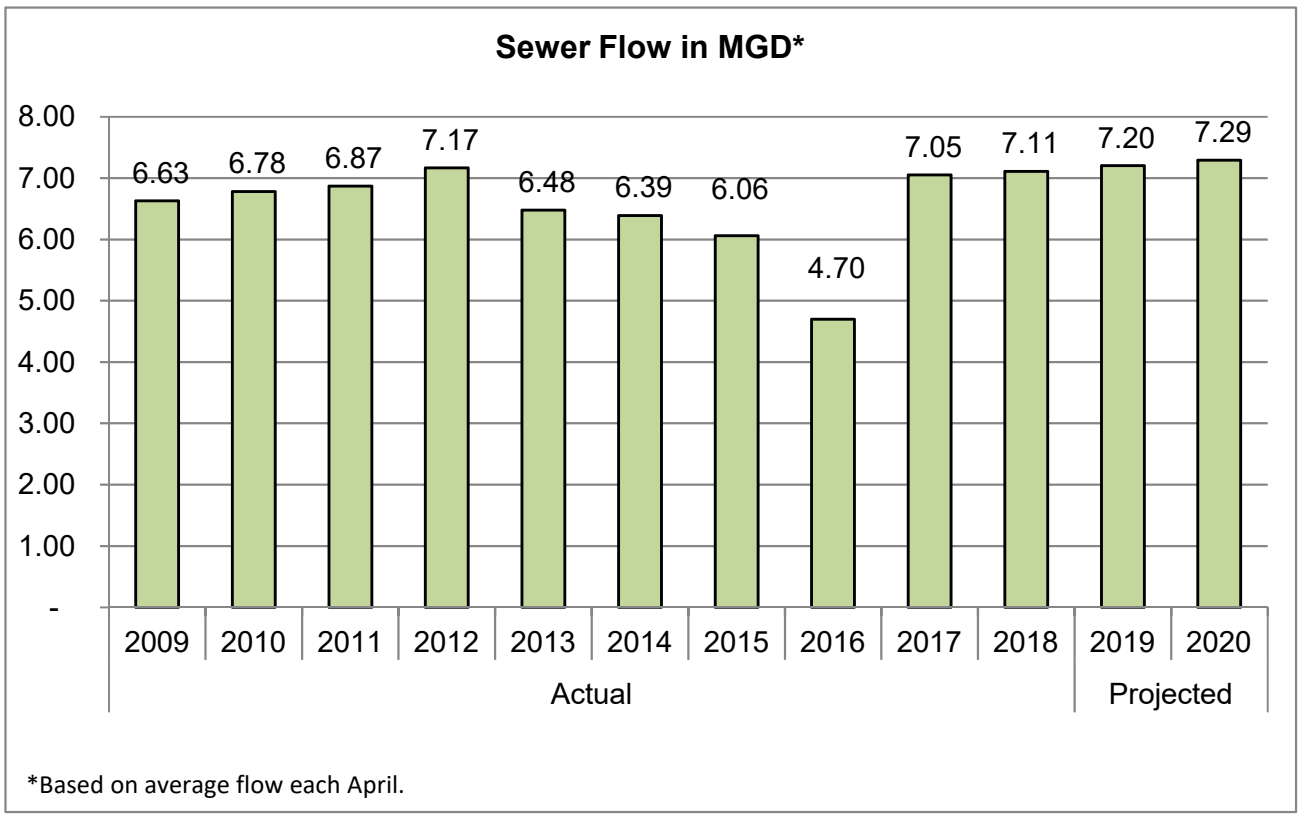
WASTEWATER

Chlorine Contact Tank at Meadowlark Wastewater Reclamation Facility


Active Sewer Accounts At Fiscal Year End
20,000
15,000
10,000
19,604
19,666
19,795
20,023
20,274
20,400
20,462
20,500
20,521
20,607
20,687
20,767
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Actual
Projected


EDUs Added Each Fiscal Year
800
600
400
200
-
184
130
130
269
586
139
248
188
357
314
500
480
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Actual
Projected





*Based on average flow each April.

BUDGET FOR THE YEAR ENDING JUNE 30, 2020

FUNCTION DEFINITIONS - WASTEWATER OPERATIONS

REVENUES

Sewer Service: Monthly charges to cover the cost to collect, treat and dispose of wastewater plus maintain the various wastewater facilities.

Reclaimed Water Sales: Revenue generated from contractual sale of reclaimed water to the Carlsbad Municipal Water District and the Olivenhain Municipal Water District on a cost recovery basis.

Other: Interest revenue, late charges, engineering fees and other miscellaneous revenues.

OPERATING EXPENSES

Collection and Conveyance: Maintaining flow in 249 miles of District sewer lines. Includes blockage removal, television inspection, and maintenance of pipeline system and manholes.

Lift Stations: Cost of lifting sewage flows at the Montiel Lift Station, Lake San Marcos Lift Station and Questhaven Lift Station. Includes maintenance and power costs of the pumping systems.

Source Control: Costs to ensure compliance with federal, state, and local regulations as administered through the Encina Wastewater Authority.

Encina Disposal: Cost reimbursement to the Encina Wastewater Authority for processing wastewater and returning clean water to the environment.

Meadowlark Plant: All costs attributed to treating wastewater and for production and sale of reclaimed water to City of Carlsbad, and OMWD including operation and maintenance of the plant, No. 1 Lift Station, and Mahr Reservoir.

Customer Accounts: Responds to customers, associated billing costs, and uncollectible accounts.

Equipment and Vehicles: Maintenance of sewer vehicles and equipment and transfer of a portion of administrative and water operations vehicle costs attributable to sewer.

Buildings and Grounds: A transfer of costs attributable to sewer.

Engineering: All attributable sewer engineering, capital facilities and inspection costs.

BUDGET FOR THE YEAR ENDING JUNE 30, 2020

FUNCTION DEFINITIONS - WASTEWATER OPERATIONS (Continued)

Safety and Compliance: A transfer of safety and regulatory affairs costs attributable to sewer operations.

Information Technology: Centralization of the District's technology to maintain hardware, software, servers, networks, and interfaces.

General and Administrative
Cost of Labor:

- *Salaries* include all vacation, sick leave, and holiday time for sewer personnel.
- *Group Insurance* is health, vision, and dental costs for all sewer personnel.
- *Workers' Compensation Insurance* covers all sewer personnel.
- *Public Employees Retirement System* (PERS) participation costs for all sewer personnel.
- *Social Security* cost for all sewer personnel.
- *Other Taxes* include unemployment and other miscellaneous employee taxes for sewer personnel.

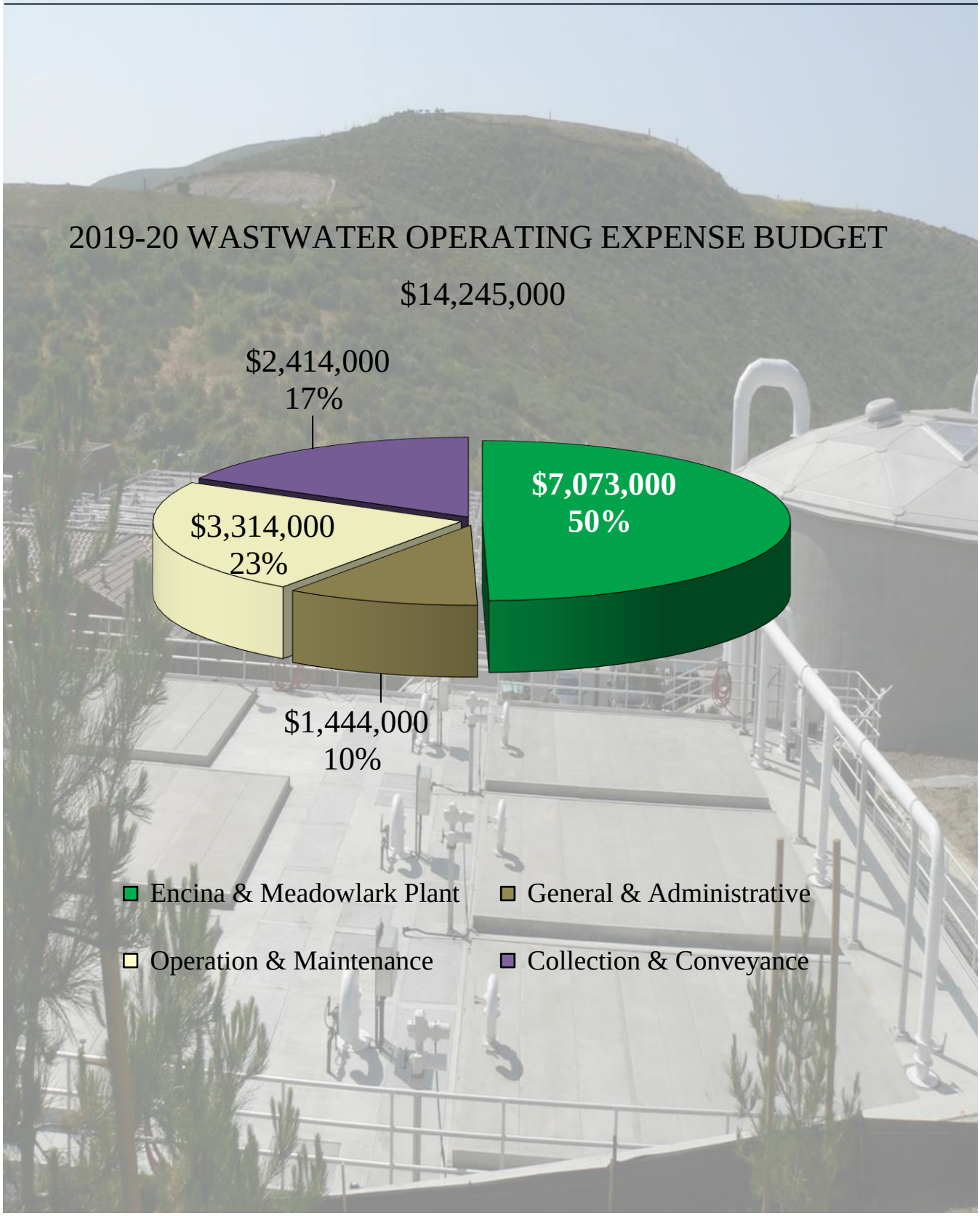
Travel costs for sewer personnel.

Meetings and Seminars fees for sewer personnel are to provide District representation and professional development.

Dues and Subscriptions are periodical costs for sewer-related activities.

Other includes miscellaneous expenses that do not specifically apply to any of the above-referenced categories.

Administrative Credit Transfer is the collection or recovery of overhead costs that apply to all construction work orders.


2019-20 WASTWATER OPERATING EXPENSE BUDGET
$14,245,000
$2,414,000
17%
$7,073,000
50%
$3,314,000
23%
$1,444,000
10%
Encina & Meadowlark Plant
General & Administrative
Operation & Maintenance
Collection & Conveyance

VALLECITOS WATER DISTRICT

WASTEWATER OPERATIONS BUDGET FOR THE YEAR ENDING JUNE 30, 2020

		Actual FY 17-18	Budget FY 18-19	Projected FY 18-19	Budget FY 19-20	Estimated FY 20-21
OPERATING REVENUES						
Sewer Service	*4101*	$ 17,900,000	$ 17,954,000	$ 18,127,000	$ 18,180,000	$ 18,230,000
Reclaimed Water Sales	*4102*	1,748,000	1,974,000	2,129,000	2,466,000	2,479,000
Other	*Various*	107,000	80,000	831,000	80,000	80,000
Total Revenue		19,755,000	20,008,000	21,087,000	20,726,000	20,789,000
OPERATING EXPENSES						
Collection & Conveyance	*3010000*	1,917,754	2,310,000	2,112,000	2,414,000	2,484,000
Lift Stations	*3020000*	221,180	293,000	216,000	338,000	347,000
Source Control	*3060000*	164,136	190,000	183,000	201,000	204,000
Encina Disposal	*3070000*	2,555,168	2,777,000	2,708,000	3,515,000	3,620,000
Meadowlark Plant	*3410000*	2,827,395	3,396,000	3,254,000	3,558,000	3,541,000
Customer Accounts	*4010000*	443,715	469,000	522,000	503,000	531,000
Equipment & Vehicles	*4210000*	210,914	241,000	187,000	256,000	248,000
Buildings & Grounds	*4110000*	252,299	260,000	261,000	272,000	284,000
Engineering	*5010000*	831,822	681,000	664,000	721,000	743,000
Safety & Compliance	*5210000*	172,896	203,000	165,000	190,000	192,000
Information Technology	*6230000*	691,287	845,000	718,000	833,000	858,000
General & Admin.	*6xxx000*	1,398,475	1,452,000	1,216,000	1,444,000	1,540,000
Total Expense		11,687,041	13,117,000	12,206,000	14,245,000	14,592,000
OPERATING INCOME		8,067,959	6,891,000	8,881,000	6,481,000	6,197,000
LESS: TRANSFERS TO REPLACEMENT RESERVE		8,067,959	6,891,000	8,881,000	6,481,000	6,197,000
NET INCOME		$ -	$ -	$ -	$ -	$ -

VALLECITOS WATER DISTRICT

WASTEWATER OPERATIONS BUDGET FOR THE YEAR ENDING JUNE 30, 2020

		Actual FY 17-18	Budget FY 18-19	Projected FY 18-19	Budget FY 19-20	Estimated FY 20-21
COLLECTION/CONVEYANCE						
Cost of Labor	*3010xxx.51xx*	$ 1,473,590	$ 1,566,000	$ 1,471,000	$ 1,642,000	$ 1,692,000
Materials & Supplies	*" .53xx*	116,904	154,000	121,000	201,000	206,000
Chemicals	*" .5350*	216,044	350,000	356,000	350,000	359,000
Outside Services/Power	*" .5xxx*	111,216	240,000	164,000	221,000	227,000
Total Collection/Conveyance		1,917,754	2,310,000	2,112,000	2,414,000	2,484,000
LIFT STATIONS						
Cost of Labor	*3020xxx.51xx*	139,783	168,000	110,000	183,000	188,000
Materials & Supplies	*" .53xx*	20,422	40,000	29,000	69,000	71,000
Outside Services	*" .54xx*	10,891	30,000	26,000	34,000	35,000
Power	*" .5306*	50,084	55,000	51,000	52,000	53,000
Total Lift Stations		221,180	293,000	216,000	338,000	347,000
SOURCE CONTROL						
Cost of Labor	*3060000.51xx*	163,861	164,000	158,000	176,000	178,000
Materials & Supplies	*" .53xx*	275	22,000	22,000	21,000	22,000
Outside Services	*" .54xx*	-	4,000	3,000	4,000	4,000
Total Industrial Waste		164,136	190,000	183,000	201,000	204,000
ENCINA DISPOSAL	*3070000.551*	2,555,168	2,777,000	2,708,000	3,515,000	3,620,000
MEADOWLARK LIFT STATION						
Cost of Labor	*3710000.51xx*	99,090	105,000	76,000	107,000	110,000
Materials & Supplies	*" .53xx*	13,301	45,000	23,000	55,000	56,000
Chemicals	*" .5350*	106,576	150,000	134,000	150,000	154,000
Outside Services	*" .54xx*	28,220	55,000	40,000	52,000	53,000
Power	*" .5306*	86,331	110,000	105,000	110,000	113,000
Total Lift Sta.		333,518	465,000	378,000	474,000	486,000

VALLECITOS WATER DISTRICT

WASTEWATER OPERATIONS BUDGET FOR THE YEAR ENDING JUNE 30, 2020

		Actual FY 17-18	Budget FY 18-19	Projected FY 18-19	Budget FY 19-20	Estimated FY 20-21
MEADOWLARK PLANT						
Cost of Labor	*3410000.51xx*	$ 1,041,447	$ 1,023,000	$ 1,098,000	$ 1,124,000	$ 1,170,000
Materials & Supplies	*" .53xx*	218,598	437,000	424,000	383,000	329,000
Chemicals	*" .5350*	256,231	350,000	348,000	340,000	349,000
Outside Services	*" .54xx*	313,921	417,000	355,000	499,000	449,000
Power	*" .5306*	401,845	435,000	407,000	435,000	448,000
Telephone	*" .5305*	-	2,000	2,000	2,000	2,000
Total Meadowlark		2,232,042	2,664,000	2,634,000	2,783,000	2,747,000
MAHR RESERVOIR						
Cost of Labor	*3810000.51xx*	85,893	84,000	82,000	95,000	99,000
Materials & Supplies	*" .53xx*	26,602	21,000	19,000	19,000	19,000
Chemicals	*" .5350*	43,347	30,000	33,000	30,000	29,000
Outside Services	*" .54xx*	41,371	67,000	49,000	92,000	94,000
Power	*" .5306*	64,622	65,000	59,000	65,000	67,000
Total Mahr Reservoir		261,835	267,000	242,000	301,000	308,000
CUSTOMER ACCOUNTS						
Cost of Labor	*4010000.51xx*	298,142	334,000	294,000	358,000	382,000
Materials & Supplies	*" .53xx*	91,199	79,000	89,000	108,000	111,000
Outside Services	*" .54xx*	42,762	41,000	69,000	22,000	23,000
Uncollectible Accts.	*" .5703*	11,612	15,000	70,000	15,000	15,000
Total Cust. Accts.		443,715	469,000	522,000	503,000	531,000
EQUIPMENT & VEHICLES						
Cost of Labor	*4210000.51xx*	126,918	124,000	97,000	137,000	141,000
Materials & Supplies	*" .53xx*	21,147	50,000	20,000	50,000	51,000
Fuel	*" .5307*	29,707	42,000	38,000	41,000	42,000
Outside Services	*" .54xx*	33,142	25,000	32,000	28,000	14,000
Total Equip. & Veh.		210,914	241,000	187,000	256,000	248,000
BUILDINGS & GROUNDS						
Cost of Labor	*4110000.51xx*	60,740	77,000	47,000	75,000	83,000
Materials & Supplies	*" .53xx*	20,771	53,000	27,000	51,000	52,000
Outside Services	*" .54xx*	58,938	75,000	58,000	97,000	99,000
Power	*" .5306*	111,850	55,000	129,000	49,000	50,000
Total Buildings & Grounds		252,299	260,000	261,000	272,000	284,000
ENGINEERING						
Cost of Labor	*5010000.51xx*	622,874	588,000	596,000	671,000	706,000
Materials & Supplies	*" .53xx*	6,257	14,000	11,000	23,000	24,000
Outside Services	*" .54xx*	202,691	79,000	57,000	27,000	13,000
Total Engineering		831,822	681,000	664,000	721,000	743,000

VALLECITOS WATER DISTRICT

WASTEWATER OPERATIONS BUDGET FOR THE YEAR ENDING JUNE 30, 2020

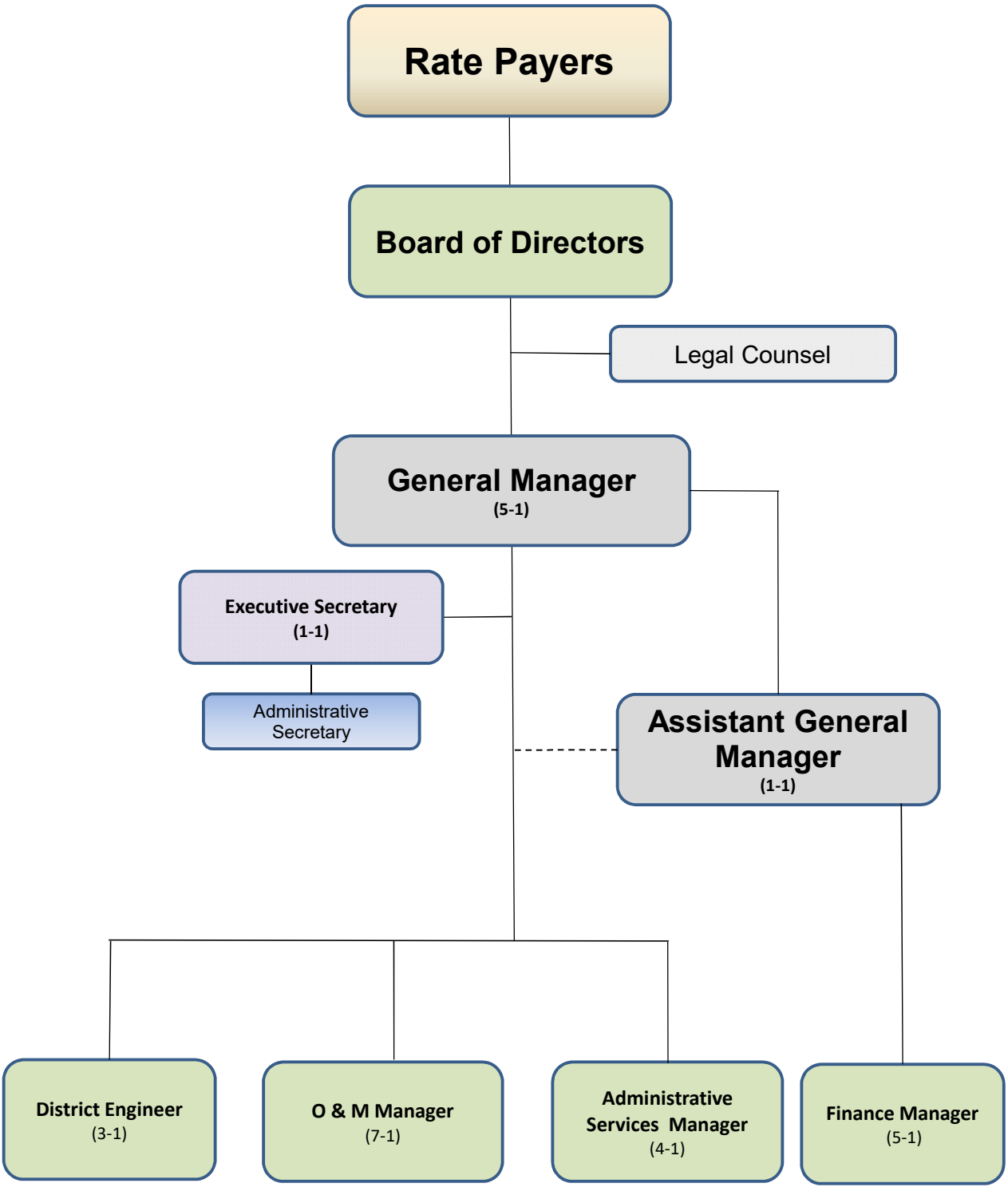
		Actual FY 17-18	Budget FY 18-19	Projected FY 18-19	Budget FY 19-20	Estimated FY 20-21
SAFETY & REGULATORY AFFAIRS						
Cost of Labor	*5210000.51xx*	$ 169,356	$ 176,000	$ 151,000	$ 158,000	$ 159,000
Materials & Supplies	*" .53xx*	1,268	12,000	2,000	12,000	12,000
Safety Support	*" .54xx*	2,272	15,000	12,000	20,000	21,000
Total Safety/Reg Affairs		172,896	203,000	165,000	190,000	192,000
INFORMATION TECH						
Cost of Labor	*6230000.51xx*	279,158	366,000	302,000	399,000	413,000
Materials & Supplies	*" .53xx*	117,527	58,000	71,000	65,000	67,000
Outside Services	*" .54xx*	294,602	421,000	345,000	369,000	378,000
Total Information Tech		691,287	845,000	718,000	833,000	858,000
GENERAL & ADMINISTRATION						
Cost of Labor	*6xxxxx.51xx*	1,435,612	1,445,000	1,316,000	1,462,000	1,594,000
Directors Fees	*" .5101*	34,877	58,000	53,000	58,000	59,000
District Insurance	*" .5201*	137,695	148,000	116,000	154,000	173,000
Travel	*" .5202*	-	1,000	1,000	1,000	1,000
Meetings & Seminars	*" .5203*	943	9,000	5,000	16,000	16,000
Dues & Subscriptions	*" .5204*	17,823	41,000	17,000	41,000	42,000
Office Supplies	*" .5301*	7,708	11,000	16,000	13,000	13,000
Postage	*" .5304*	1,510	6,000	3,000	6,000	6,000
Outside Services	*" .5401*	7,086	65,000	52,000	98,000	77,000
Legal	*" .5402*	84,805	142,000	82,000	90,000	97,000
Auditing	*" .5403*	12,747	12,000	13,000	12,000	14,000
Bank/Investment Svcs	*" .5501*	22,580	33,000	22,000	24,000	25,000
Regulatory Fees	*" .5502*	-	3,000	3,000	12,000	12,000
Other	*" .5702*	-	5,000	5,000	5,000	5,000
Admin Credit Trans	*4702*	(364,911)	(527,000)	(488,000)	(548,000)	(594,000)
Total Gen. & Admin.		1,398,475	1,452,000	1,216,000	1,444,000	1,540,000
TOTAL EXPENSES		$ 11,687,041	$ 13,117,000	$ 12,206,000	$ 14,245,000	$ 14,592,000

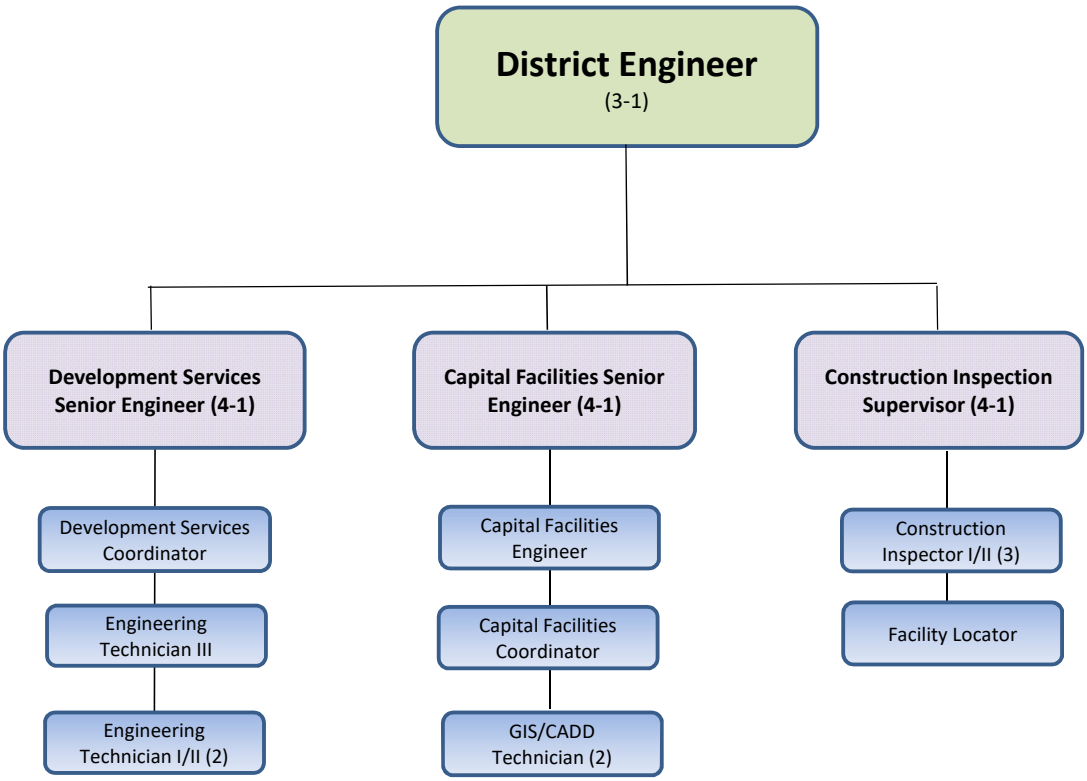
BUDGET FOR THE YEAR ENDING JUNE 30, 2020

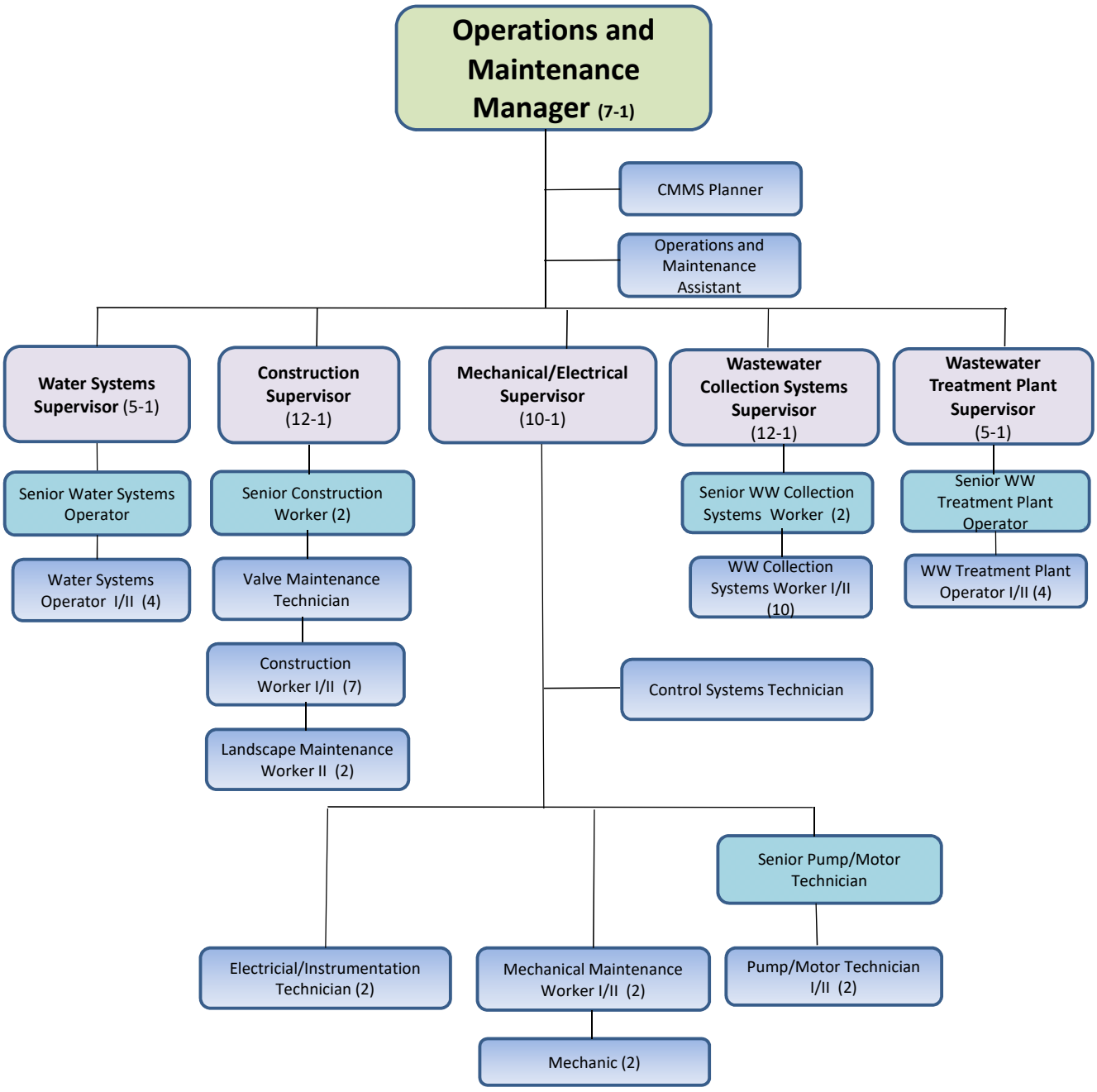
SALARY AND BENEFIT RECAP

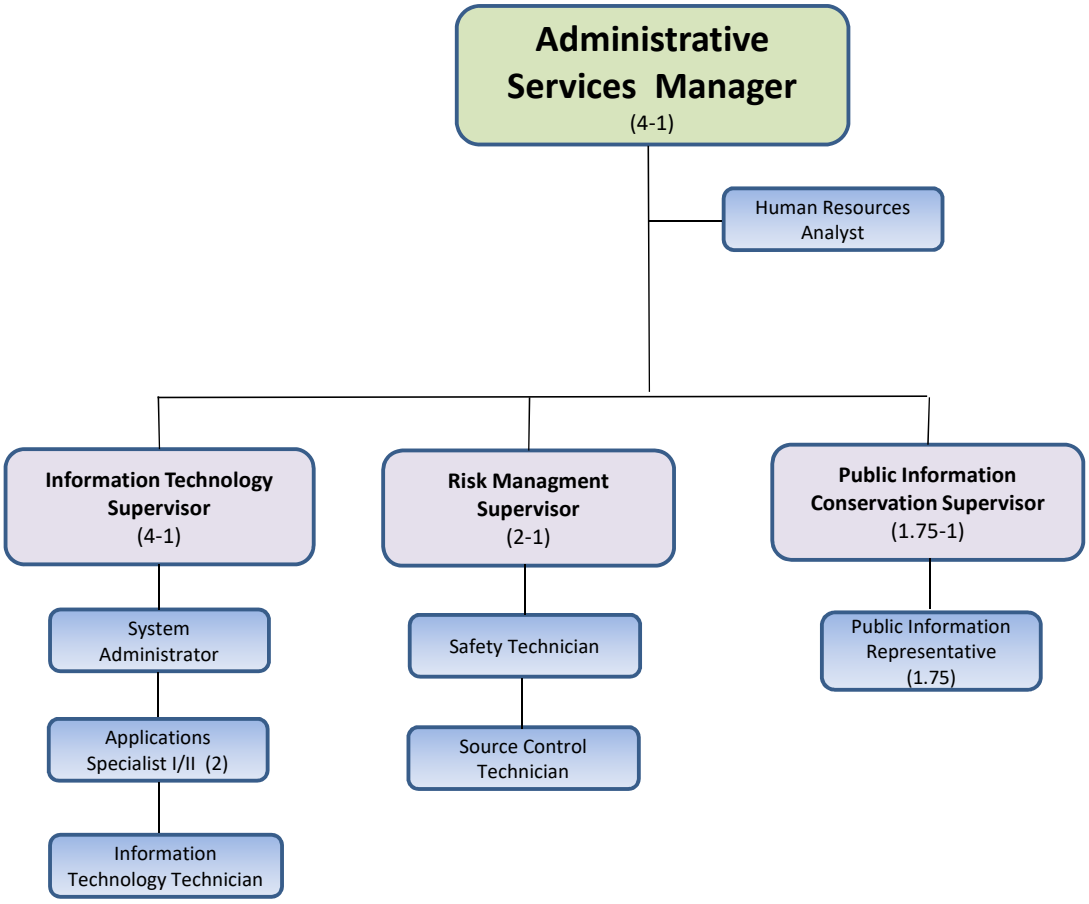
	Actual FY 17-18	Budget FY 18-19	Projected FY 18-19	Budget FY 19-20	Estimated FY 20-21
SALARIES					
Water Operations	$ 5,282,487	$ 5,255,000	$ 5,319,000	$ 5,353,000	$ 5,698,000
Wastewater Operations	3,398,037	3,786,000	3,454,000	3,929,000	4,208,000
Subtotal	8,680,524	9,041,000	8,773,000	9,282,000	9,906,000
Labor Posted to Work Orders*	620,734	667,000	639,000	697,000	733,000
TOTAL SALARIES	9,301,258	9,708,000	9,412,000	9,979,000	10,639,000
BENEFITS					
Public Employee Retirement	2,005,486	2,113,000	2,094,000	2,399,000	2,331,000
Group Insurance	2,411,062	2,603,000	2,547,000	2,648,000	2,738,000
Social Security	694,388	743,000	697,000	763,000	814,000
Workers' Comp Insurance	160,676	212,000	176,000	218,000	239,000
457 Contribution Match	96,413	108,000	95,000	218,000	218,000
Other Taxes and Benefits	17,723	32,000	22,000	34,000	37,000
TOTAL BENEFITS	5,385,748	5,811,000	5,631,000	6,280,000	6,377,000
TOTAL SALARIES & BENEFITS	$ 14,687,006	$ 15,519,000	$ 15,043,000	$ 16,259,000	$ 17,016,000
Benefits as a Percentage of Salaries	57.9%	59.9%	59.9%	62.9%	59.9%
Operations	52.00	52.00	52.00	52.00	52.00
Engineering	17.00	16.00	16.00	17.00	17.00
Finance	23.00	23.00	23.00	23.00	23.00
Administration	16.75	16.75	16.75	16.75	16.75
Total Funded FTEs	108.75	107.75	107.75	108.75	108.75

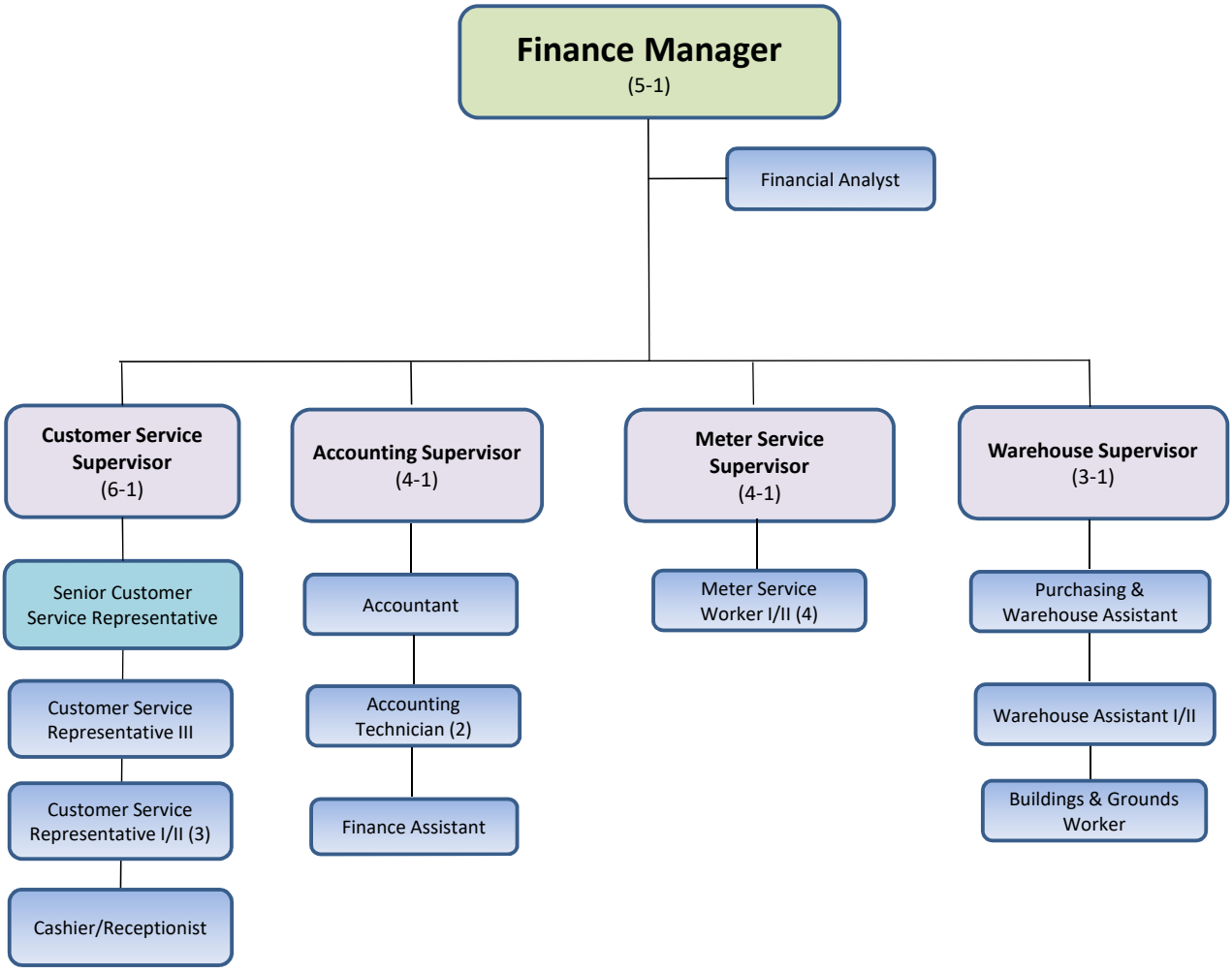
* There is also a labor overhead charge to work orders to cover benefit costs which are a part of the credit in the General and Administration sections of Water and Wastewater operations.


Rate Payers
Board of Directors
Legal Counsel
General Manager
(5-1)
Executive Secretary
(1-1)
Administrative Secretary
Assistant General Manager
(1-1)
District Engineer
(3-1)
O & M Manager
(7-1)
Administrative Services Manager
(4-1)
Finance Manager
(5-1)


District Engineer
(3-1)
Development Services Senior Engineer (4-1)
Capital Facilities Senior Engineer (4-1)
Construction Inspection Supervisor (4-1)
Development Services Coordinator
Engineering Technician III
Engineering Technician I/II (2)
Capital Facilities Engineer
Capital Facilities Coordinator
GIS/CADD Technician (2)
Construction Inspector I/II (3)
Facility Locator


Operations and Maintenance Manager (7-1)
CMMS Planner
Operations and Maintenance Assistant
Water Systems Supervisor (5-1)
Construction Supervisor (12-1)
Mechanical/Electrical Supervisor (10-1)
Wastewater Collection Systems Supervisor (12-1)
Wastewater Treatment Plant Supervisor (5-1)
Senior Water Systems Operator
Water Systems Operator I/II (4)
Senior Construction Worker (2)
Valve Maintenance Technician
Construction Worker I/II (7)
Landscape Maintenance Worker II (2)
Senior WW Collection Systems Worker (2)
WW Collection Systems Worker I/II (10)
Senior WW Treatment Plant Operator
WW Treatment Plant Operator I/II (4)
Control Systems Technician
Senior Pump/Motor Technician
Electricial/Instrumentation Technician (2)
Mechanical Maintenance Worker I/II (2)
Pump/Motor Technician I/II (2)
Mechanic (2)


Administrative Services Manager
(4-1)
Human Resources Analyst
Information Technology Supervisor
(4-1)
System Administrator
Applications Specialist I/II (2)
Information Technology Technician
Risk Managment Supervisor
(2-1)
Safety Technician
Source Control Technician
Public Information Conservation Supervisor
(1.75-1)
Public Information Representative
(1.75)


Finance Manager
(5-1)
Financial Analyst
Customer Service Supervisor
(6-1)
Senior Customer Service Representative
Customer Service Representative III
Customer Service Representative I/II (3)
Cashier/Receptionist
Accounting Supervisor
(4-1)
Accountant
Accounting Technician (2)
Finance Assistant
Meter Service Supervisor
(4-1)
Meter Service Worker I/II (4)
Warehouse Supervisor
(3-1)
Purchasing & Warehouse Assistant
Warehouse Assistant I/II
Buildings & Grounds Worker

2019-20 PERSONNEL BUDGET

POSITIONS/PERSONNEL:

Management will scrutinize the need for all positions and only fill positions if absolutely necessary. The fiscal year 2019-20 budget includes: one new position, and two retitles as outlined below.

NEW POSITION:

Asset Management Supervisor - Estimated Additional Annual Cost: $107,000 plus benefits

The Engineering department is in the process of upgrading GIS and adding an Asset Management system to better track and maintain District infrastructure and facilities. The addition of an Asset Management Supervisor is necessary to utilize the system effectively.

RETITLES:

Control Systems Technician to Control Systems Specialist - Estimated Additional Annual Cost: $0

This is a retitle only and will have no fiscal impact as there is no salary change.

Financial Analyst to Principal Financial Analyst - Estimated Additional Annual Cost: $0

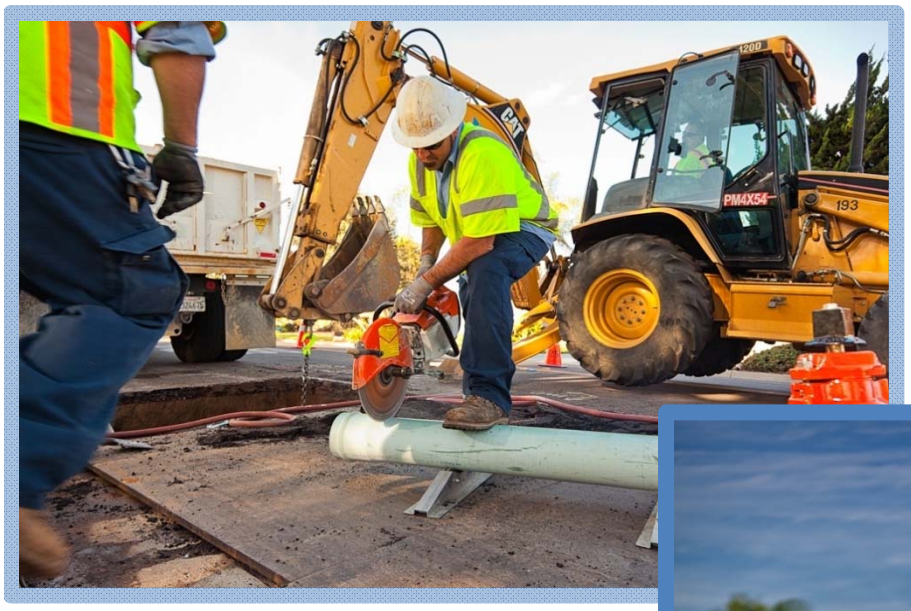
This is a retitle only and will have no fiscal impact as there is no salary change.

2019-20 PUBLIC AWARENESS AND CONSERVATION PROGRAM BUDGET

REBATE PROGRAMS *	Prj 2020100039	W/O 117447	
To encourage the purchase of qualified low flow devices, appliances, artificial turf or rebates to customers who remove their existing truf grass and install a low-water landscape (i.e., Cash for Grass program.)			$ 1,000
OUTREACH & ADVERTISING	Prj 2020100040	W/O 117448	
For purchase of items and services used to assist customers in becoming better informed about water related issues. Includes but not limited to: purchase of videos, books, displays and promotional items; advertising; cost to participate in community events; employee education; and to provide tours of District facilities. Includes cost to produce and mail newsletters, consumer confidence report, brochures, bill inserts, special hearing notifications, and others as needed.			52,900
VIDEO PRODUCTION	Prj 2020100041	W/O 123555	
Cost to hire outside production company to produce videos highlighting the District or for internal staff to purchase supplies and services to create videos. Videos to be shown during tours of the District, speaking engagements, on the VWD website and/or on social media.			6,000
EDUCATION	Prj 2020100042	W/O 117451	
For continued development and purchase of materials designed to promote and implement K-12 education programs. This includes the Splash Science Mobile Lab visits to area elementary schools and payment for bus transportation to Jack's Pond Park and Heritage Park to listen to educational water history information by District staff. Also includes bus transportation for school tours of the District. Includes materials and costs to participate in annual Water Awareness Campaign (4th grade calendar/poster contest), such as the purchase of calendars, entry forms, prizes for entrants and poster contest winners. Also includes participation in Palomar College GEAR UP program.			8,800
COOPERATIVE PROGRAMS*	Prj 2020100043	W/O 117452	
For participation in cost-sharing programs such as residential surveys; large property audits, which are outsourced due to extensive staff time that would be required; customer service surveys; and supplies such as dye tablets, showerheads and moisture probes.			4,000
WATERWISE LANDSCAPE	Prj 2020100044	W/O 117453	
To promote low water use landscape and irrigation practices. Includes the cost for sponsoring, maintaining and upgrading water-wise demonstration gardens**, landscape irrigation/plant selection workshops, signage and promotion of demonstration gardens, waterwise plant promotions, and purchase of waterwise landscape brochures and publication reprints. ** Demonstration gardens include: Sustainable Demonstration Garden at VWD Administration building, Heritage Park native plant garden and Jack's Pond Park native plant garden.			6,500
MEMBERSHIPS & EQUIPMENT	Prj 2020100045	W/O 117454	
To maintain memberships in related organizations and committees and for the purchases of new or replacement equipment.			2,600
COMMERCIAL/INDUSTRIAL	Prj 2020100046	W/O 117455	
To assist large commercial and public agency customers by providing workshops, written materials, monetary incentives, and using outside consultants.			1,200
TOTAL PUBLIC AWARENESS/CONSERVATION PROGRAM BUDGET			**$ 83,000**

* Uncertainty in the funding from the Metropolitan Water District may adversely impact the availablity of programs.

2019-20 CAPITAL BUDGET



VALLECITOS WATER DISTRICT

Comprehensive Project List

Page Number	Project Number	Project Title	Funding Source	Previous Budget & Amendments	Estimated Amt Expended @ 6/30/19	Fiscal Year 2019-20 Carryforward	Fiscal Year 2019-20 New Request
Carryover Projects							
36	90001	Land Outfall Gravity Sewer Sec D Phase 1	210 & 220	$ 8,550,000	$ 175,000	$ 8,375,000	$ -
37	71004	San Marcos Interceptor Phase 2	210 & 220	7,240,000	1,167,000	6,073,000	300,000
38	2019100001	Encina Wastewater Authority FY 18/19	210	4,795,000	2,863,000	1,932,000	-
39	2016100002	Chlorine Contact Tank Expansion	250	4,719,000	65,000	4,654,000	-
40	71084	Meadowlark Tank No. 3	120	4,552,000	490,000	4,062,000	-
41	71219	Mountain Belle Pump Station	120	3,860,000	100,000	3,760,000	-
42	90003	Rock Springs Sewer Replacement	210 & 220	3,390,000	2,790,000	600,000	50,000
43	2017100224	City of San Marcos Creek District	110 & 210	3,593,000	90,000	3,503,000	(513,000)
44	2017100002	MRF: Conversion to Sodium Hypochlorite	250	2,000,000	-	2,000,000	-
45	2019100002	MRF - Biological Selector Improvements	210	1,666,000	116,000	1,550,000	212,000
46	2018100002	Elser Lane Water Line Improvements	110	1,765,000	15,000	1,750,000	47,000
47	2012100002	Richland Invert Replacement	210	1,485,000	15,000	1,470,000	-
48	71177	Land Outfall Clearing & Access Road	210	1,150,000	370,000	780,000	-
49	80001	Old Questhaven Sewer Replacement	210 & 220	835,000	1,000	834,000	-
50	2019100005	Sewer Rehabilitation and Repairs	210	188,000	42,000	146,000	624,000
51	2018100003	Schoolhouse Tank Refurbishment	110	590,000	62,000	528,000	192,000
52	2014100004	Asset Management Replacement Schedule	110 & 210	600,000	134,000	466,000	104,000
53	2016100004	District-wide Valve Replacement Program	110	700,000	580,000	120,000	-
54	2014100002	NW Lake San Marcos Sewer Replacement and Lining	210	605,000	2,500	602,500	-
55	2019100003	North Twin Oaks Tank No. 1 Refurbishment	110	425,000	60,000	365,000	148,000
56	2018100011	MRF - Tertiary Structural Rehab and Repairs	250	165,000	13,000	152,000	408,000
57	2018100004	Las Posas Water Line Replacement	110	420,000	5,000	415,000	54,000
58	2018100006	Palos Vista Pump Station – Generator	110	325,000	206,000	119,000	-
59	2016100007	Rock Springs Valve Replacement	110	300,000	2,500	297,500	-
60	2016100014	Via Vera Cruz Tank Hill Stabilization	110	220,000	69,000	151,000	30,000
61	2017100005	Fire Services - Backflow Preventer Upgrades	110	250,000	90,000	160,000	-
62	2018100009	MRF - Replace the Influent Pumps & Motors	210	195,000	130,000	65,000	20,000
63	2019100006	Sewer Bypass Repair	210	142,000	96,000	46,000	38,000
64	2017100009	Building B Laminate Floor Replacement	110 & 210	40,000	-	40,000	20,000
				$ 54,765,000	***$ 9,749,000***	***$ 45,016,000***	***$ 1,734,000***
New Projects							
65	2020100001	Encina Wastewater Authority Five Year Plan	210	-	-	-	25,610,000
66	2020100002	Montiel Lift Station and Forcemain Replacement	210 & 220	-	-	-	2,815,000
67	2020100003	Tres-Amigos Water Line Replacement Phase 1	110	-	-	-	2,060,000
68	2020100004	District-wide SCADA Upgrade Project	110 & 210	-	-	-	1,250,000
69	2020100005	Failsafe Buena Sewer Outfall Condition Assessment	210	-	-	-	1,160,000
70	2020100006	Sage Canyon Tank Refurbishment	110	-	-	-	1,025,000
71	2020100007	Steel Pipeline Condition Assessment	110	-	-	-	855,000
72	2020100008	Lawrence Welk Court Water Line Replacement	110	-	-	-	679,000
73	2020100009	Land Outfall West Condition Assessment	210	-	-	-	609,000
74	2020100010	Ductile Iron Pipe Condition Assessment	110	-	-	-	605,000
75	2020100011	Palos Vista Pump Station - Motor Starters Upgrade	110	-	-	-	375,000
76	2020100012	DHS- Upgrades for Critical Infrastructure Hardware	110 & 210	-	-	-	239,000
77	2020100013	South Lake Pump Station Fence	110	-	-	-	145,000
78	2020100014	District Wide Solar	110 & 210	-	-	-	130,000
79	2020100015	HVAC Communication Upgrade	110 & 210	-	-	-	128,000
80	2020100016	Door Access Control System Expansion -MRF & Mahr	110 & 210	-	-	-	101,000
81	2020100017	Sewer Replacement and I&I Repairs	210	-	-	-	100,000
82	2020100018	Chlorine Building Seismic Retrofit	250	-	-	-	100,000
83	2020100019	Water Operations Control Room Upgrades	110	-	-	-	78,000
84	2020100020	City of San Marcos Joint Projects Relocate/Adjust	110 & 210	-	-	-	70,000
85	2020100021	Update Restrooms to ADA Compliance	110 & 210	-	-	-	67,000
86	2020100022	Redundancy for Admin. Wireless Radio Network	110 & 210	-	-	-	67,000
87	2020100023	Technology Infrastructure Upgrades	110 & 210	-	-	-	65,000
88	2020100024	MRF Site Lighting Upgrade and Repairs	250	-	-	-	60,000
89	2020100025	Water Meter Relocation	110	-	-	-	30,000
90	2020100026	Upgrades to Surveillance Video Management System	110 & 210	-	-	-	25,000
91	2020100027	DHS-Upgrades to Security Infrastructure monitoring	110 & 210	-	-	-	23,000
92	2020100028	Field Service Mobility Intiative	110 & 210	-	-	-	19,000
93	TBA	Future Projects		-	-	-	54,915,000
				$ -	***$ -***	***$ -***	***$ 93,405,000***
				$ 54,765,000	***$ 9,749,000***	***$ 45,016,000***	***$ 95,139,000***
						$140,155,000	

VALLECITOS WATER DISTRICT

Comprehensive Project List

Project Total	Spending by Fiscal Year 2019-20	2020-21	2021-22	2022-23	2023-24	2024 to 2029	Page Number
$ 8,550,000	$ -	$ 50,000	$ 625,000	$ 5,000,000	$ 2,700,000	$ -	36
7,540,000	6,373,000	-	-	-	-	-	37
4,795,000	1,932,000	-	-	-	-	-	38
4,719,000	1,000	1,000	1,000	264,000	3,212,000	1,175,000	39
4,552,000	51,000	-	-	4,011,000	-	-	40
3,860,000	-	-	-	310,000	2,960,000	490,000	41
3,440,000	650,000	-	-	-	-	-	42
3,080,000	-	2,990,000	-	-	-	-	43
2,000,000	50,000	950,000	1,000,000	-	-	-	44
1,878,000	1,762,000	-	-	-	-	-	45
1,812,000	187,000	1,610,000	-	-	-	-	46
1,485,000	10,000	100,000	1,360,000	-	-	-	47
1,150,000	580,000	200,000	-	-	-	-	48
835,000	-	-	-	59,000	400,000	375,000	49
812,000	770,000	-	-	-	-	-	50
782,000	720,000	-	-	-	-	-	51
704,000	270,000	150,000	150,000	-	-	-	52
700,000	120,000	-	-	-	-	-	53
605,000	2,500	105,000	495,000	-	-	-	54
573,000	513,000	-	-	-	-	-	55
573,000	560,000	-	-	-	-	-	56
474,000	469,000	-	-	-	-	-	57
325,000	119,000	-	-	-	-	-	58
300,000	2,500	75,000	220,000	-	-	-	59
250,000	181,000	-	-	-	-	-	60
250,000	55,000	55,000	50,000	-	-	-	61
215,000	85,000	-	-	-	-	-	62
180,000	84,000	-	-	-	-	-	63
60,000	60,000	-	-	-	-	-	64
$ 56,499,000	***$ 15,607,000***	***$ 6,286,000***	***$ 3,901,000***	***$ 9,644,000***	***$ 9,272,000***	***$ 2,040,000***	
25,610,000	4,848,000	5,501,000	4,338,000	5,142,000	5,781,000	-	65
2,815,000	415,000	900,000	1,500,000	-	-	-	66
2,060,000	130,000	725,000	1,205,000	-	-	-	67
1,250,000	625,000	625,000	-	-	-	-	68
1,160,000	140,000	1,020,000	-	-	-	-	69
1,025,000	65,000	960,000	-	-	-	-	70
855,000	355,000	250,000	250,000	-	-	-	71
679,000	679,000	-	-	-	-	-	72
609,000	609,000	-	-	-	-	-	73
605,000	205,000	200,000	200,000	-	-	-	74
375,000	375,000	-	-	-	-	-	75
239,000	239,000	-	-	-	-	-	76
145,000	145,000	-	-	-	-	-	77
130,000	130,000	-	-	-	-	-	78
128,000	128,000	-	-	-	-	-	79
101,000	101,000	-	-	-	-	-	80
100,000	100,000	-	-	-	-	-	81
100,000	25,000	75,000	-	-	-	-	82
78,000	78,000	-	-	-	-	-	83
70,000	70,000						84
67,000	67,000	-	-	-	-	-	85
67,000	67,000	-	-	-	-	-	86
65,000	65,000	-	-	-	-	-	87
60,000	60,000	-	-	-	-	-	88
30,000	30,000	-	-	-	-	-	89
25,000	25,000	-	-	-	-	-	90
23,000	23,000	-	-	-	-	-	91
19,000	19,000	-	-	-	-	-	92
54,915,000	-	864,000	3,241,000	6,510,000	17,860,000	26,440,000	93
$ 93,405,000	***$ 9,818,000***	***$ 11,120,000***	***$ 10,734,000***	***$ 11,652,000***	***$ 23,641,000***	***$ 26,440,000***	
$ 149,904,000	***$ 25,425,000***	***$ 17,406,000***	***$ 14,635,000***	***$ 21,296,000***	***$ 32,913,000***	***$ 28,480,000***	

Capital Improvement Program
Land Outfall Gravity Sewer Sec D Phs 1

Description: Approximately 7,900 feet of existing 30 to 39-inch sewer pipe within Gravity Section D of the Land Outfall is currently under capacity and will need to be upsized to new 36-inch to 48-inch PVC pipes.

Project Manager: James Gumpel **Department:** Engineering

Project: 90001 **Funding Source:** 20% Fund 220 - Sewer Capacity
80% Fund 210 - Sewer Replacement

Comments: The Land Outfall comprises approximately 34,000 feet of sewer pipe installed in 1985, connecting Lift Station No. 1 to the Encina Water pollution Control Facility. A portion of the Land Outfall, referred to as Gravity Section D, is made up of approximately 15,000 feet of sewer pipe ranging in size from 30 to 39-inch from east of Interstate 5 to the end of Siphon C, located near Palomar Oaks Way and Camino Vida Roble. Approximately 7,900 feet of Gravity Section D is currently under capacity and needs to be upsized to new 36-inch to 48-inch PVC pipes. The District will work with other interested agencies (City of Carlsbad, Buena Sanitation District & City of Vista) when possible in pursuit of cost-sharing alternatives. After project completion, we expect to receive $3,515,000 in reimbursements.

The existing Land Outfall capacity ownership percentages for the three agencies are:
Carlsbad 23.98%
Vista 17.99%
VWD 58.03%

Operations Impact: Reduce the risk of sewer spills. Increase capacity. Routine maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$175,000		$50,000				$225,000
Design				$625,000			$625,000
Construction					$5,000,000	$2,700,000	$7,700,000
Total	$175,000	$0	$50,000	$625,000	$5,000,000	$2,700,000	**$8,550,000**

FY 2019/20 Budget Request - $0

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2008	Jan 2009	Jun 2021	Jul 2021	Jun 2022	Jul 2022	Dec 2023	Dec 2023

Capital Improvement Program
San Marcos Interceptor Phase 2

Description: The project consists of constructing approximately 3400 feet of 42-inch sewer interceptor replacing an existing 21-inch sewer line. The existing line is prone to groundwater inflow and infiltration (I&I) and at risk for failure. The sewer interceptor runs along San Marcos Creek from north of the State Route 78 past McMahr Road. The project includes open cut and a tunnel section.

Project Manager: James Gumpel **Department:** Engineering

Project: 71004 **Funding Source:** 31% Fund 210 – Sewer Replacement
69% Fund 220 – Sewer Capacity

Comments: This project is the last phase of a project identified in the 2002 Master Plan. The reduction of inflow and infiltration (I&I) will help extend the life of the sewer system downstream of the San Marcos interceptor and reduce unnecessary treatment of groundwater at the Encina Water Pollution Control Facility and VWD's Meadowlark Water Reclamation Facility. The new line will also reduce the likelihood of spills within San Marcos Creek. Previous phases have already been completed. Design began FY 13/14 for the last phase, Phase 2, between Via Vera Cruz and Pacific Street in order to be consistent with the future improvements within the Creek District. The City of San Marcos will reimburse VWD for approximately $125,000 in design costs for Phase 2. Phase 2 will also include a construction cost reimbursement from the City which is estimated at $120,000. The construction cost reimbursement will be finalized after actual bid prices are received for the project. After project completion, the District expects to receive $61,000 in reimbursements.

Operations Impact: Minimal impact is anticipated as this project increases the size of an existing sewer line and does not add significant lineal footage of sewer for maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$370,000						$370,000
Design	$797,000	$28,000					$825,000
Construction		$6,345,000					$6,345,000
Total	$1,167,000	$6,373,000	$0	$0	$0	$0	**$7,540,000**

FY 2019/20 Budget Request - $300,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 1996	Jul 1996	Jun 2007	Dec 2013	Jul 2019	Aug 2019	May 2020	May 2020

Capital Improvement Program
Encina Wastewater Authority FY 18/19

Description: The District is a member agency of the Encina Wastewater Authority (EWA). The District shares in the cost of planned asset replacements and capital acquisitions.

Project Manager: Wes Owen **Department:** General Manager

Project: 2019100001 **Funding Source:** 100% Fund 210 – Sewer Replacement

Comments: These miscellaneous Encina Wastewater Authority capital projects are budgeted each year based on the District's 22.4% ownership share.

Operations Impact: No significant increase in costs or changes in efficiencies are anticipated from this project

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design							
Construction	$2,863,000	$1,932,000					$4,795,000
Total	$2,863,000	$1,932,000	$0	$0	$0	$0	**$4,795,000**

FY 2019/20 Budget Request - $0

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2009							Aug 2018

Capital Improvement Program
Chlorine Contact Tank Expansion

Description: Expand the existing Chlorine Contact Tank (CCT) at the Meadowlark Water Reclamation Facility (MRF) from 5 million gallons a day (MGD) to 6.5 MGD. Evaluate updating CCT process to utilize Ultraviolet Sterilization.

Project Manager: James Gumpel **Department:** Engineering

Project: 2016100002 **Funding Source:** 100% Fund 250 - Reclaimed

Work Order: 167177

Comments: The existing CCT were part of the original expansion of MRF in the 1980's. During the latest expansion of MRF which started in 2005, the CCTs were re-rated to handle the expanded flow but were not updated. Currently the CCTs remain one of the bottlenecks in the process at MRF.

Chlorine contact tanks (CCTs) at Meadowlark Water Reclamation Facility (MRF) can process up to 5 million gallons per day (MGD) of reclaimed water; all of the other treatment components at MRF has the ability to process up to 6.5 MGD. This was identified in the draft Nutrient Removal Study, which indicated that MRF has the ability to increase the daily treatment capacity to 6.5 MGD. The District as a member of the North San Diego County Water Reuse Coalition secured a grant of $90,000 under Prop 84, awarded by the State Water Resources Control Board (SWRCB). The District is seeking 25% Grant funding for the project budget total. Reimbursement for project costs will also be acquired from current recycled water customers (City of Carlsbad and Olivenhain Municipal Water District) through the Recycled Water Rates. Construction of the CCT expansion will be contingent on acquiring these grant funds and reimbursement agreements. The net result will be 'no cost' to the District.

Operations Impact: Normal maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$65,000	$1,000	$1,000	$1,000	$1,000		$69,000
Design					$263,000	$87,000	$350,000
Construction						$4,300,000	$4,300,000
Total	$65,000	$1,000	$1,000	$1,000	$264,000	$4,387,000	**$4,719,000**

FY 2019/20 Budget Request - $0

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2015	Apr 2016	Jun 2022	Jul 2022	Oct 2023	Nov 2023	Sep 2024	Sep 2024

Capital Improvement Program
Meadowlark Tank No. 3

Description: This existing Meadowlark Tank site is comprised of one 1.25 million gallon (MG) tank and a second 2.75 MG tank. As part of this project, a new 2.5 MG Meadowlark Tank No. 3 will be built.

Project Manager: Jason Hubbard **Department:** Engineering

Project: 71084 **Funding Source:** 100% Fund 120 – Water Capacity

Work Order: 71084

Comments: The site was master planned during the 76-1 Assessment District to accommodate three tanks total. A final 3.5 million gallon (MG) tank is not expected to be needed until 2036, when it will replace the 1.25 MG Tank No. 1. At build-out, the Meadowlark Tanks will provide a total storage capacity of 8.75 MG.

Operations Impact: The project will increase capacity at the site by 2.5 million gallons with the construction of the new tank. Daily monitoring of water levels and conditions at the tank site is expected.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$123,000						$123,000
Design	$367,000	$51,000					$418,000
Construction					$4,011,000		$4,011,000
Total	$490,000	$51,000	$0	$0	$4,011,000	$0	**$4,552,000**

FY 2019/20 Budget Request - $0

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2003	Aug 2003	Mar 2004	Apr 2004	Jun 2020	Jul 2022	Jun 2023	Jun 2023

Capital Improvement Program
Mountain Belle Pump Station

Description: A pump station will need to be constructed to provide redundant water supply to the 1330-foot Pressure Zone.

Project Manager: Jason Hubbard **Department:** Engineering

Project: 71219 **Funding Source:** 100% Fund 120 – Water Capacity

Comments: To serve as a completely redundant water supply to the new North Twin Oaks (1330-foot Pressure Zone) pump station, this project involves the construction of three 1,000 gallon-per-minute pumps (gpm) and 125 horsepower motors, along with all corresponding electronics, within a new building next to the existing Mountain Belle Reservoir. It will be sized to meet ultimate build-out demands in the North Twin Oaks 1330-foot Pressure Zone, the 1059-foot Pressure Zone, and the North 1228-foot Pressure Zone. A pad for this pump station has already been placed next to the Mountain Belle Reservoir. Approximately 1,800 feet of 16-inch connector pipe from the pump station to an existing 10-inch pipeline in the North Twin Oaks (1330-foot) Pressure Zone will also be installed.

Operations Impact: Redundant pumping capacity to the North Twin Oaks Pressure Zone. Daily, routine monitoring and inspections of the pump station is expected, as are regular maintenance efforts and some infrequent repair work.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$10,000						$10,000
Design	$90,000				$310,000		$400,000
Construction						$3,450,000	$3,450,000
Total	$100,000	$0	$0	$0	$310,000	$3,450,000	**$3,860,000**

FY 2019/20 Budget Request - $0

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2006	Aug 2006	Feb 2007	Feb 2007	Jun 2023	Jul 2023	Sep 2024	Sep 2024

Capital Improvement Program
Rock Springs Sewer Replacement

Description: Abandonment and/or removal of approximately 2,500 feet of aging sewer main and manholes within Rock Springs Road and adjacent greenbelt. This project will bring relief to a section of existing sewer pipe within a greenbelt drainage area that is currently operating beyond its design limits.

Project Manager: Jason Hubbard

Department: Engineering

Project: 90003

Work Order: 090003

Funding Source: 45% Fund 210 – Sewer Replacement
55% Fund 220 – Sewer Capacity

Comments: The 2500 feet of existing 8-inch vitrified clay pipe (VCP) will be replaced by 2,700 feet of new PVC sewer main, including 16 new manholes and the rehabilitation of 4 existing manholes. This will eliminate an existing surcharging condition in the District's collection system between Woods Dr. and Hannigans Way within a greenbelt drainage area south of Rock Springs Rd.

Operations Impact: Less inflow and infiltration into the collection system; reduced risk of sewer spilling. Annual, routine sewer pipeline maintenance is expected with the completion of this project.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$50,000						$50,000
Design	$590,000						$590,000
Construction	$2,150,000	$650,000					$2,800,000
Total	$2,790,000	$650,000	$0	$0	$0	$0	**$3,440,000**

FY 2019/20 Budget Request - $50,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2008	Jul 2008	Jan 2010	Feb 2010	Mar 2018	Jul 2018	Jul 2019	Oct 2019

Capital Improvement Program
City of San Marcos Creek District Phase 1

Description: This amount is set-aside to cover services rendered in conjunction with various City of San Marcos projects involving District infrastructure per the District/City of San Marcos Cost Sharing Agreement dated March 31, 2009. This includes District staff time involved in inspection and project management, as well as reimbursements to the City for District infrastructure relocations and adjustments.

Project Manager: Rob Scholl **Department:** Engineering

Project: 2017100224 **Funding Source:** See Below

Comments:

Project:	Amount:	Source:
Discovery St Widening*	$880,000	Water/Sewer 95% / 5%
Bent Ave Bridge*	$1,000,000	Water/Sewer 20% / 80%
Via Vera Cruz Bridge*	$1,200,000	Water/Sewer 70% / 30%
Total	$3,080,000	

These projects are in conjunction with the City's Capital Improvement Plan.

Operations Impact: Normal maintenance for infrastructure.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$90,000						$90,000
Design							
Construction			$2,990,000				$2,990,000
Total	$90,000	$0	$2,990,000	$0	$0	$0	**$3,080,000**

FY 2019/20 Budget Request - ($513,000)

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2016						Jun 2021	Jun 2021

Capital Improvement Program
MRF: Conversion to Sodium Hypochlorite

Description: Replace the use of chlorine gas at the Meadowlark Water Reclamation Facility with bulk storage of sodium hypochlorite (bleach).

Project Manager: Ed Pedrazzi **Department:** Engineering

Project: 2017100002 **Funding Source:** 100% Fund 250 - Reclaimed

Comments: The Meadowlark Water Reclamation Facility (MRF) currently uses 100% chlorine gas as a disinfectant in order to meet State regulations for reclaimed water. Chlorine gas is an acute hazard that presents a danger to District staff and the increasing number of residents in the immediate area. Use of this gas requires the District to maintain several expensive State and Federal safety programs, equipment, and a Hazardous Materials response team; requiring a considerable amount of staff time. The conversion to bulk storage of sodium hypochlorite removes the acute hazard of chlorine gas and replaces it with a bleach solution (12.5%) that removes the District's requirement to maintain several of the extensive safety programs for that site. Use of the bleach will not create an acute hazard in the event of a leak.

Operations Impact: Removal of an acute hazard. Reduction in regulatory requirements and staff time at the Meadowlark Reclamation Facility. Economic benefit of no longer needing to import chlorine gas or maintain a HazMat team. Routine maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning		$50,000					$50,000
Design			$200,000				$200,000
Construction			$750,000	$1,000,000			$1,750,000
Total	$0	$50,000	$950,000	$1,000,000	$0	$0	**$2,000,000**

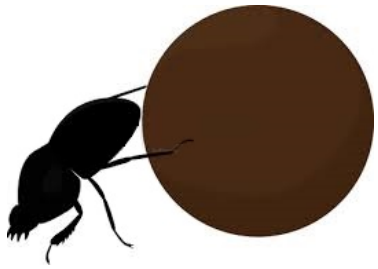
FY 2019/20 Budget Request - $0

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2016	Jul 2018	Jun 2020	Jul 2020	Dec 2020	Jan 2021	Aug 2021	Aug 2021

Capital Improvement Program
MRF - Biological Selector Improvements

Description: Construct modifications to the existing aeration basins to reduce sludge bulking, improve treatment, and reduce operation and maintenance costs at the Meadowlark Water Reclamation Facility (MRF).



Project Manager: James Gumpel **Department:** Meadowlark Reclamation Facility

Project: 2019100002 **Funding Source:** 100% Fund 210 – Sewer Replacement

Comments: Using biological modeling, this project will make improvements to the aeration basin operation and capacity. With the addition of a anaerobic selector to the existing aeration basin, overall treatment will improve, lowering operational costs. In addition flexibility will be added to the process by allowing treatment to occur without running the roughing filters. Infrastructure modifications will be made to the aeration basin including changing to ceramic disc diffusers and adding geo-membrane baffling, a new compressed air mixing system, and process control probes.

The construction of the biological selector will only proceed with an agreement from the current recycled water customers (City of Carlsbad and Olivenhain Municipal Water District) to reimburse the District through the Recycled Water Rates.

Operations Impact: Reduce operation and maintenance costs.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$50,000						$50,000
Design	$66,000	$72,000					$138,000
Construction		$1,690,000					$1,690,000
Total	$116,000	$1,762,000	$0	$0	$0	$0	**$1,878,000**

FY 2019/20 Budget Request - $212,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2018	Jul 2018	Feb 2019	Mar 2019	Dec 2019	Jan 2020	Jun 2020	Jun 2020

Capital Improvement Program
Elser Lane Water Line Improvements

Description: Project will insure reliability and improve water quality for residents along Elser Lane by transferring water services to a new 8-inch distribution main instead of the existing 18-inch transmission main.

Project Manager: Jason Hubbard **Department:** Engineering

Project: 2018100002 **Funding Source:** 100% Fund 110 – Water Replacement

Comments: An existing 18-inch steel (CML&C) transmission main between Rees Road and Rock Springs Road was installed in 1956. This line runs between homes, underneath structures, and in backyards where access is limited. Should repairs need to be made to this line, there is a greater chance of damage to property owners. This line also serves approximately 21 residential meters. This project will bring this area into District standards by extending new 8-inch distribution water lines on Elser Lane to service residents with new water meters. New connections to existing water lines in McLees Court will create a loop in the water supply system, insuring reliability of service and improving water quality. This project also offsets future costs to relocate the water main under the Rees Road Water Line Project.

Operations Impact: Improve reliability and water quality. Routine maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 22/23	FY 23/24	Thereafter	Total
Planning	$15,000	$22,000					$37,000
Design		$165,000					$165,000
Construction			$1,610,000				$1,610,000
Total	$15,000	$187,000	$1,610,000	$0	$0	$0	**$1,812,000**

FY 2019/20 Budget Request - $47,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2017	Mar 2019	Nov 2019	Dec 2019	Jun 2020	Oct 2020	Jan 2021	Jan 2021

Capital Improvement Program
Richland Invert Replacement

Description: This project calls for the replacement of the existing 100-foot wastewater siphon pipeline that travels under San Marcos Creek from the Diamond Environmental Services parking lot south of Mission Road to the 18-inch Richland Interceptor. The existing 8-inch and 10-inch pipelines will be replaced with either a new 15-inch siphon to be located at the existing pipelines' location or by a new 15-inch gravity pipeline in Mission Road and a new crossing further to the west.

Project Manager: Jason Hubbard **Department:** Engineering

Project: 2012100002 **Funding Source:** 100% Fund 210 – Sewer Replacement

Work Order: 123749

Comments: The existing 8-inch and 10-inch invert pipelines were installed over 27 years ago and were originally designed to be temporary. Because of their size restrictions, surcharging occurs in the upstream gravity pipelines during peak flows. In addition, recent inspections by the District's Collections crew have revealed damage to the existing pipe. This project will evaluate whether a new, larger capacity siphon underneath the San Marcos Creek or a gravity line in the City right-of-way is the most cost effective option. If the creek crossing is selected, staff anticipates environmental wetland permitting will be required. The 2018 Master Plan has identified this replacement as project SP-10.

Operations Impact: The project increases sewage handling capacity in the collections system and solves an existing sewer surcharge issue during daily peak and wet weather events. Annual, routine sewer pipeline maintenance is expected with the completion of this project.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$15,000	$10,000					$25,000
Design			$100,000	$50,000			$150,000
Construction				$1,310,000			$1,310,000
Total	$15,000	$10,000	$100,000	$1,360,000	$0	$0	**$1,485,000**

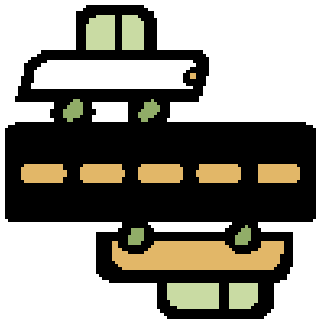
FY 2019/20 Budget Request - $0

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jun 2011	Apr 2012	Dec 2019	Jan 2020	Jul 2021	Aug 2021	Jan 2022	Jan 2022

Capital Improvement Program
Land Outfall Clearing & Access Road

Description: The Land Outfall is located within easements for a significant portion of its length where it runs within the Encina Creek riparian area parallel to Palomar Airport Road in Carlsbad. The District is attempting to remove the overgrown vegetation within the easement and construct a drivable path to access the pipeline for maintenance and emergencies. Streambed alteration permitting and habitat mitigation are the major challenges associated with this project.



Project Manager: Rob Scholl **Department:** Engineering

Project: 71177 **Funding Source:** 100% Fund 210 – Sewer Replacement

Comments: Clearing for the access road impacts is an estimated 1 acre of designated wetland at a cost of approximately $600,000/acre. The Land Outfall is owned by the District and shares capacity in this stretch with the cities of Carlsbad and Vista and the Buena Sanitation District. The joint agreement requires them to pay their proportionate share of this maintenance activity. After project completion, we expect to receive $280,000 in reimbursements. Approximate responsibility of cost:

Buena Sanitation District - 68%
City of Carlsbad - 12%
Vallecitos Water District - 20%

Operations Impact: Routine maintenance

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$270,000	$530,000					$800,000
Design	$40,000	$50,000					$90,000
Construction	$60,000		$200,000				$260,000
Total	$370,000	$580,000	$200,000	$0	$0	$0	**$1,150,000**

FY 2019/20 Budget Request - $0

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2006	Jul 2006	Jun 2020	Feb 2008	Dec 2019	Jul 2008	Jun 2021	Jun 2021

Capital Improvement Program
Old Questhaven Sewer Replacement

Description: Replace 1400 feet of existing temporary sewer pipe in the old Questhaven Road right-of-way.

Project Manager: Jason Hubbard **Department:** Engineering

Project: 80001 **Funding Source:** 77% Fund 210 – Sewer Replacement
23% Fund 220 – Sewer Capacity

Comments: This project will install of 1400 feet of 24-inch PVC sewer main in the old Questhaven Road right-of-way, along with 6 new manholes to replace 935 feet of 21-inch vitrified clay pipe (VCP) and 255 feet of 21-inch PVC temporary sewer pipe in the old Questhaven Road right-of-way. The 21-inch VCP will be abandoned along with 1470 feet of 24-inch ductile iron pipe (DIP) temporary sewer pipe in Rancho Santa Fe Road. The new pipe section will be higher in elevation to connect to the permanent pipeline in Rancho Santa Fe Road and allow the temporary pipeline in both old Rancho Santa Fe Road and old Questhaven Road right-of-way and San Marcos Creek to be abandoned.

Operations Impact: Less inflow and infiltration into the collection system; abandonment of a temporary sewer pipeline. Annual, routine sewer pipeline maintenance is expected with the completion of this project.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$1,000				$9,000		$10,000
Design					$50,000	$25,000	$75,000
Construction						$750,000	$750,000
Total	$1,000	$0	$0	$0	$59,000	$775,000	**$835,000**

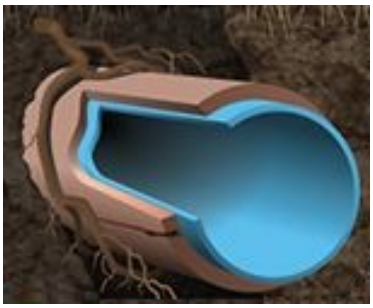
FY 2019/20 Budget Request - $0

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2007	Jul 2007	Aug 2022	Sep 2022	Dec 2023	Jan 2024	Jan 2025	Jan 2025

Capital Improvement Program
Sewer Rehabilitation and Repairs

Description: Approximately 5700 feet of existing sewer line located throughout the District will be rehabilitated using trenchless technology to extend the life of the aging pipe.



Project Manager: Eric Garcia **Department:** Systems Collection

Project: 2019100005 **Funding Source:** 100% Fund 210 – Sewer Replacement

Work Order: 204951

Comments: Sewer line sections on San Pablo Drive, Bennett Road, Ficus Lane, North Pacific Street, Avenida Fragata, Sutter Lane, Woods Drive, Richland Road, Rosemary Court, El Norte Parkway, Lindsley Park Road, and Via Las Brisas and within the Districts easements on Jennileah Lane, La Sombra Drive, Borden Road, Rock Springs Hollow, and along Montiel Road and State Route 78 totaling approximately 5700 feet are in need of rehabilitation to restore pipe integrity and flow capacity. These pipe sections have become compromised either due to age, pipe material type, ground settlement, or root intrusion. Significant costs will be accrued upon line failures if the sections of pipe are not rehabilitated. The project will utilize trenchless cured-in-place pipe (CIPP) liners, including spiral wound PVC, to rehabilitate the existing pipelines. To take advantage of volume pricing discounts and to solicit more competitive bids, pipe segments are group together in one project, rather than broken into smaller projects.

Operations Impact: Restored structural integrity and flow capacity and increased service life of sewer line sections.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design	$42,000						$42,000
Construction		$770,000					$770,000
Total	$42,000	$770,000	$0	$0	$0	$0	**$812,000**

FY 2019/20 Budget Request - $624,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2018	Jul 2018	Aug 2018	Aug 2018	Jun 2019	Jul 2019	Nov 2019	Nov 2019

Capital Improvement Program
Schoolhouse Tank Refurbishment

Description: Schoolhouse Tank requires interior refurbishment.

Project Manager: Jason Hubbard **Department:** Engineering

Project: 2018100003 **Funding Source:** 100% Fund 110 – Water Replacement

Work Order: 189273

Comments: The existing interior lining of the 2.4 million gallon (MG) tank has deteriorated and requires full refurbishment. This project will remove the existing lining and install a new interior lining. Repairs to the ceiling rafters and equipment upgrades may also be necessary.

Operations Impact: Prevent further delamination of the existing lining. Improve safety. Routine maintenance

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$5,000						$5,000
Design	$57,000						$57,000
Construction		$720,000					$720,000
Total	$62,000	$720,000	$0	$0	$0	$0	**$782,000**

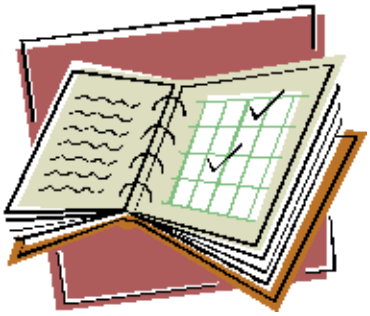
FY 2019/20 Budget Request - $192,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jun 2017	Jul 2017	Jul 2017	Aug 2017	Jun 2019	Jul 2019	Nov 2019	Nov 2019

Capital Improvement Program
Asset Management Replacement Schedule

Description: Create a comprehensive Asset Management Plan integrating the District's own computerized maintenance management system (CMMS), prioritized Asset/Infrastructure replacement schedule, including condition assessment, for the District Facilities. This item is part of the VWD Strategic Plan – Strategic Focus Area 1.2.



Project Manager: James Gumpel **Department:** Engineering

Project: 2014100004 **Funding Source:** 50% Fund 110 – Water Replacement
50% Fund 210 – Sewer Replacement

Comments: The District's infrastructure is aging and proper planning requires an understanding of when, where, and how much replacing that infrastructure will cost. Proper preventative maintenance helps insure the District obtains the maximum beneficial life out of its infrastructure. The District has already taken steps towards this by implementing a computerized maintenance management system (CMMS) also known as Maximo to implement and track preventative, corrective, and emergency maintenance/repairs on all assets or infrastructure. This project will take the CMMS information and prioritize a replacement schedule as well as cost over the expected life of all assets/infrastructure. Consultants will be utilized to perform condition assessment on pipelines identified from the Districts Asset Management schedule. Data from condition assessment will identify future repair and replacement projects.

Operations Impact: An asset management schedule will help to prevent costly line breaks.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$134,000	$120,000	$50,000	$50,000			$354,000
Design		$150,000	$100,000	$100,000			$350,000
Construction							
Total	$134,000	$270,000	$150,000	$150,000	$0	$0	**$704,000**

FY 2019/20 Budget Request - $104,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2013	Jul 2017	Jun 2022	Jan 2019	Jun 2022			Jun 2022

Capital Improvement Program
District-wide Valve Replacement Program

Description: Replace broken or leaking valves throughout the District.

Project Manager: Kevin Anctil **Department:** Construction

Project: 2016100004 **Funding Source:** 100% Fund 110 – Water Replacement

Comments: The valve crew has discovered many broken valves requiring replacement. This project targets 20 valves per year over four years.

Operations Impact: Routine maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design							
Construction	$580,000	$120,000					$700,000
Total	$580,000	$120,000	$0	$0	$0	$0	**$700,000**

FY 2019/20 Budget Request - $0

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2015					Jul 2015	Jun 2020	Jun 2020

Capital Improvement Program
NW Lake San Marcos Sewer Replacement and Lining

Description: This project involves the replacement of approximately 1000 feet of existing 8-inch vitrified clay pipe (VCP) sewer pipeline with new 8-inch PVC pipe. In addition, approximately 750 feet of adjacent VCP pipeline will be lined to extend its useful life. This item is part of the VWD Strategic Plan – Strategic Focus Area 1.4

Project Manager: Jason Hubbard **Department:** Engineering

Project: 2014100002 **Funding Source:** 100% Fund 210 – Sewer Replacement

Work Order: 167352

Comments: The sewer pipeline in the northwest Lake San Marcos area is being compromised due to lime leaching into the pipe. This pipe was installed between 1964 and 1971 and is reaching the end of its useful life. While lime damage warrants replacement of most of the pipe in this area, some pipeline can be relined instead to extend its life.

Operations Impact: Annual and routine sewer pipeline maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$2,500	$2,500					$5,000
Design			$105,000				$105,000
Construction				$495,000			$495,000
Total	$2,500	$2,500	$105,000	$495,000	$0	$0	**$605,000**

FY 2019/20 Budget Request - $0

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2013	Jul 2016	Jun 2020	Jul 2020	Jul 2021	Aug 2021	Mar 2021	Mar 2021

Capital Improvement Program
North Twin Oaks Tank No. 1 Refurbishment

Description: North Twin Oaks Tank No. 1 requires interior and exterior refurbishment.

Project Manager: Jason Hubbard **Department:** Engineering

Project: 2019100003 **Funding Source:** 100% Fund 110 – Water Replacement

Comments: North Twin Oaks Tank No. 1 was built in 1961 off El Paso Alto and was last inspected in 2010 and 2015. The existing interior lining and exterior coating of this 0.6 million gallon (MG) tank has deteriorated and requires full refurbishment. This project will remove the existing interior lining and exterior coating and install new linings and coatings. Due to the age of the tank and level of deterioration, repairs to the ceiling rafters or replacement may be necessary as well as upgrades to the safety and cathodic protection equipment. The existing antenna will also be relocated off the tank and remote communication equipment upgraded.

Operations Impact: Prevent further deterioration of the existing linings and coatings. Improved safety. Routine Maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design	$60,000	$5,000					$65,000
Construction		$508,000					$508,000
Total	$60,000	$513,000	$0	$0	$0	$0	**$573,000**

FY 2019/20 Budget Request - $148,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jun 2018	Jul 2018	Nov 2018	Dec 2018	Aug 2019	Sep 2019	Dec 2019	Dec 2019

Capital Improvement Program
MRF - Tertiary Structural Rehab and Repairs

Description: The Tertiary Treatment Area at the Meadowlark Water Reclamation Facility (MRF) requires rehabilitation and repairs to the influent chamber, an associated air line, a joint seal and pipe opening to Filter Basin No. 3, the existing sluice gate located in the Chlorine Contact Tank - Effluent and Backwash Pump Station, and various related areas.

Project Manager: Dawn McDougle **Department:** Meadowlark Reclamation Facility

Project: 2018100011 **Funding Source:** 100% Fund 250 - Reclaimed

Comments: The Meadowlark Water Reclamation Facility's (MRF) Tertiary Treatment Area needs various repairs due to the corrosive nature of the treatment process. The existing high solids epoxy coating the tertiary influent chamber is failing. A stainless steel mixing air line inside the chamber has also developed leaks. Using bypass methods, the chamber's protective lining will need to be repaired and the airline replaced. Associated with the tertiary influent chamber is a concrete mixer platform that has deteriorated and will need to be replaced with new steel beams and platform.

Downstream from the influent chamber are six tertiary filter basins. The joint seal in Filter Basin No. 3 is failing, resulting in corrosion to a pipe opening at the bottom of the filter and corrosion to the associated pipe located outside of the basin in the Filter Pipe Gallery. This isolated area will need to be repaired and recoated. All work will need to be scheduled during low production of recycled water.

The existing sluice gate in the Effluent and Backwash Pump Station, which is used to isolate tertiary flows in the Chlorine Contact Tank, is non-functional. The sluice gate needs to be replaced to restore operational use of this equipment.

To get more competitive pricing, and due to the coordinated scheduling of the related work, these individual repairs will be grouped together under one construction contract.

Operations Impact: Restore operational functionality. Maintains the integrity of tertiary treatment area and operational processes. Normal maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$3,000						$3,000
Design	$10,000	$40,000					$50,000
Construction		$520,000					$520,000
Total	$13,000	$560,000	$0	$0	$0	$0	**$573,000**

FY 2019/20 Budget Request - $408,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2017	Apr 2018	Jun 2019	Jul 2018	Dec 2019	Dec 2019	Mar 2020	Jun 2020

Capital Improvement Program
Las Posas Water Line Replacement

Description: Replace an existing 10-inch water line crossing underneath an existing double reinforced box culvert on Las Posas Road.

Project Manager: Jason Hubbard **Department:** Engineering

Project: 2018100004 **Funding Source:** 100% Fund 110 – Water Replacement

Comments: A 10-inch ductile iron (DIP) water main underneath a double reinforced box culvert (RBC) on Las Posas Road, between Linda Vista Drive and Stone Drive is aging and in need of replacement. It has experienced a break in recent years and control valves associated with this water main are non-operational. The replacement will involve installing a new parallel PVC water main in a steel casing and reconnecting to the existing asbestos-cement pipe (ACP) located on either side of the double RBC.

Operations Impact: Prevent future breaks. Routine maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$5,000	$12,000					$17,000
Design		$47,000					$47,000
Construction		$410,000					$410,000
Total	$5,000	$469,000	$0	$0	$0	$0	**$474,000**

FY 2019/20 Budget Request - $54,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jun 2017	Jun 2018	Aug 2019	Sep 2019	Dec 2019	Feb 2020	Mar 2020	Mar 2020

Capital Improvement Program
Palos Vista Pump Station – Generator

Description: Install new permanent generator with manual transfer switch.

Project Manager: Robert Salazar **Department:** Mechanical/Electrical

Project: 2018100006 **Funding Source:** 100% Fund 110 – Water Replacement

Comments: Palos Vista Pump Station has no permanent generator for emergency power. To insure reliability to this facility, an Air Pollution Control District (APCD) / California Air Resources Board (CARB) compliant generator will need to be installed at the station. Improvements will also include an manual transfer switch, enclosure, concrete pad, and conduit.

Operations Impact: Provide reliability to the pump station in the event of a power failure. Routine maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$3,000						$3,000
Design	$53,000						$53,000
Construction	$150,000	$119,000					$269,000
Total	$206,000	$119,000	$0	$0	$0	$0	**$325,000**

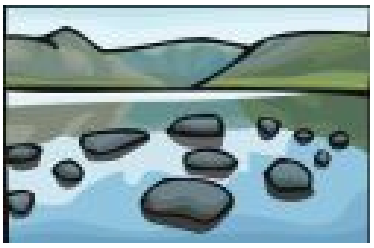
FY 2019/20 Budget Request - $0

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2016	Jul 2017	Aug 2017	Feb 2018	Aug 2018	Apr 2019	Oct 2019	Oct 2019

Capital Improvement Program
Rock Springs Valve Replacement

Description: Replace the existing 12-inch and 14-inch valve cluster at Rock Springs Road and Bennet Avenue and associated piping. The valves are non-operational and the nearby pipeline has failed in recent years



Project Manager: Jason Hubbard **Department:** Engineering

Project: 2016100007 **Funding Source:** 100% Fund 110 – Water Replacement

Comments: This project will allow proper control of the water system and prevent further failures.

Operations Impact: The valves are non-operational. Operations and maintenance repair costs will be minimized at this location.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning	$2,500	$2,500	$10,000				$15,000
Design			$65,000				$65,000
Construction				$220,000			$220,000
Total	$2,500	$2,500	$75,000	$220,000	$0	$0	**$300,000**

FY 2019/20 Budget Request - $0

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2015	Jun 2018	Aug 2020	Sep 2020	Jun 2021	Jul 2021	Oct 2021	Oct 2021

Capital Improvement Program
Via Vera Cruz Tank Hill Stabilization

Description: A side slope adjacent to the Via Vera Cruz Tank requires slope stabilization treatment.

Project Manager: Jason Hubbard **Department:** Engineering

Project: 2016100014 **Funding Source:** 100% Fund 110 – Water Replacement

Work Order: 162901

Comments: A portion of the existing slope adjacent to the Via Vera Cruz Tank on District property is failing due to steep terrain and material composition. The foundation of a property line fence is being eroded and exposed and material washes down to the tank elevation. Routine clean-up of the area is done and falling rocks threaten to damage the tank. Phase 1 of the project installed a rigid barrier at the toe of slope along a portion of the perimeter to catch failing rocks. Phase 2 will apply a mesh or tensioned slope stabilization system to approximately 2200 square feet (SF) of steep slope to prevent further failures. Repairs to the property line fence will also be performed and landscaping repairs may be necessary.

Operations Impact: Reduced risk of damage to the tank from falling rocks. Eliminate clean-up of the area from debris. Maintain security of property with intact fence. Annual and routine monitoring of the slope.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design	$36,000						$36,000
Construction	$33,000	$181,000					$214,000
Total	$69,000	$181,000	$0	$0	$0	$0	**$250,000**

FY 2019/20 Budget Request - $30,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2015	Jan 2016	Mar 2016	Apr 2016	Jun 2019	Oct 2018	Oct 2019	Oct 2019

Capital Improvement Program
Fire Services - Backflow Preventer Upgrades

Description: Replace single-check backflow prevention systems with double-check systems on fire services.

Project Manager: Kevin Anctil **Department:** Construction

Project: 2017100005 **Funding Source:** 100% Fund 110 – Water Replacement

Comments: The District is responsible for several fire service backflow preventers in the distribution system that were installed prior to new District standards being adopted. The single-check backflow preventers that were installed are no longer an acceptable device and some have failed due to corrosion from being installed in an underground vault. The Construction department will replace 5 systems each year with an approved double-check backflow prevention system and bring the services above ground.

Operations Impact: Enhanced backflow prevention. Routine maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design							
Construction	$90,000	$55,000	$55,000	$50,000			$250,000
Total	$90,000	$55,000	$55,000	$50,000	$0	$0	**$250,000**

FY 2019/20 Budget Request - $0

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2017							Jun 2022

Capital Improvement Program
MRF - Replace the Influent Pumps & Motors

Description: Replacement of the three influent dry-pit submersible pump & motor units with vertical, modular type pump & motor units.

Project Manager: Robert Salazar **Department:** Mechanical/Electrical

Project: 2018100009 **Funding Source:** 100% Fund 210 – Sewer Replacement

Comments: The current dry-pit submersible pump units have to be delivered to a facility that specializes in the repair of sealed pump units. A modular vertical type pump & motor unit can be disassembled, serviced and repaired by District maintenance staff. This reduces repair costs and allows for less down time of the equipment.

Operations Impact: Reduced repair costs and down time. Routine maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design							
Construction	$130,000	$85,000					$215,000
Total	$130,000	$85,000	$0	$0	$0	$0	**$215,000**

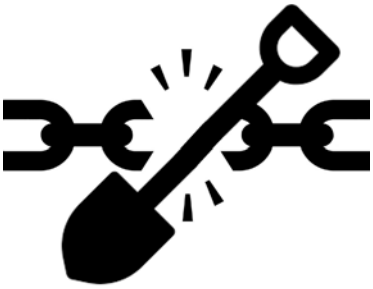
FY 2019/20 Budget Request - $20,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2017							Jun 2020

Capital Improvement Program
Sewer Bypass Repair

Description: The 16-inch Emergency Sewer Bypass pipeline is in need of repair at two point locations along its 4550 foot reach. A condition assessment will be made of the adjacent pipeline sections during the two repairs.



Project Manager: Jason Hubbard **Department:** Engineering

Project: 2019100006 **Funding Source:** 100% Fund 210 – Sewer Replacement

Comments: The 16-inch Emergency Sewer Bypass pipeline serves to divert sewer flows from Lift Station #1 and the Lake San Marcos Lift Station away from the Meadowlark Water Reclamation Facility (MRF) to the Land Outfall. This minimizes flows into MRF during scheduled maintenance or during plant capacity emergencies. Currently the emergency sewer bypass line has two breaks in the pipe at a point east of Carillo Way in Carlsbad and at a point east of Brighton Glen Road in San Marcos. The two sections of pipe will need to be replaced with new pipe. District staff will take advantage of the pipe being open during the repair of these two sections to clean the adjacent pipelines and perform a pipeline condition assessment to evaluate the need for future improvements.

Operations Impact: Restore integrity to the pipeline to allow normal operations.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design	$12,000						$12,000
Construction	$84,000	$84,000					$168,000
Total	$96,000	$84,000	$0	$0	$0	$0	**$180,000**

FY 2019/20 Budget Request - $38,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2018			Jul 2018	Aug 2018	Sep 2018	Oct 2018	Oct 2018

Capital Improvement Program
Building B Laminate Floor Replacement

Description: The flooring in B building is peeling up. To prevent trip hazards this project will thoroughly seal the concrete below and lay the new laminate.

Project Manager: Dennis Bowman

Department: Warehouse/Purchasing

Project: 2017100009

Funding Source: 51% Fund 110 – Water Replacement
49% Fund 210 - Sewer Replacement

Comments: Remove old flooring, seal concrete, and install new flooring.

Operations Impact: None

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design							
Construction		$60,000					$60,000
Total	$0	$60,000	$0	$0	$0	$0	**$60,000**

FY 2019/20 Budget Request - $20,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2016							Jun 2020

Capital Improvement Program
Encina Wastewater Authority Five Year Plan

Description: The District is a member agency of the Encina Wastewater Authority (EWA). The District shares in the cost of planned asset replacements and capital acquisitions.

Project Manager: Wes Owen **Department:** Finance

Project: 2020100001 **Funding Source:** 100% Fund 210 – Sewer Replacement

Comments: These miscellaneous capital projects are budgeted each year

Operations Impact: No significant increase in costs or changes in efficiencies are anticipated from this project..

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design							
Construction		$4,848,000	$5,501,000	$4,338,000	$5,142,000	$5,781,000	$25,610,000
Total	$0	$4,848,000	$5,501,000	$4,338,000	$5,142,000	$5,781,000	**$25,610,000**

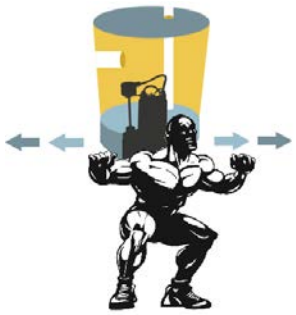
FY 2019/20 Budget Request - $25,610,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2009						Jun 2024	Jun 2024

Capital Improvement Program
Montiel Lift Station and Forcemain Replacement

Description: The Montiel Lift Station and the connected forcemain are at the end of their useful life and will need to be replaced. In addition, the lift station is undersized to handle build out demands for the area.



Project Manager: Jason Hubbard

Department: Engineering

Project: 2020100002

Funding Source: 29% Fund 220 – Sewer Capacity
71% Fund 210 – Sewer Replacement

Comments: The Montiel Lift Station is a small, underground facility just north of State Route-78 and east of Nordahl Road. This lift station was constructed in 1985 and collects and transfers wastewater flows from a 200-acre area east of Nordahl Road near the District's eastern service area boundary. The lift station and the 1,720 feet of existing 6-inch ductile iron pipe (DIP) forcemain connected to it has approached the end of its life span.The existing 100-gallons-per-minute (gpm) pumps in the lift station are not sufficiently sized to provide for ultimate wet weather flows and will need to be replaced with 300-gpm pumps. The lift station will also be located above ground to avoid confined space entry requirements. In addition the existing forcemain connecting the lift station to the gravity discharge point in Nordahl Road will need to be replaced due to its deteriorated condition. An additional 1200 feet of forcemain could be added to the project to reduce future upsizing of the existing gravity sewer in the Nordahl Shopping Center.

The District has prepared a planning document and determined that a gravity outfall solution in partnership with the City of Escondido is not an option.

Operations Impact: Routine monitoring and maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning		$315,000					$315,000
Design		$100,000	$200,000				$300,000
Construction			$700,000	$1,500,000			$2,200,000
Total	$0	$415,000	$900,000	$1,500,000	$0	$0	**$2,815,000**

FY 2019/20 Budget Request - $2,815,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019	Feb 2016	Sep 2019	Oct 2019	Oct 2020	Nov 2020	Feb 2022	Feb 2022

Capital Improvement Program
Tres-Amigos Water Line Replacement Phase 1

Description: Replace approximately 4,100 feet of the northern most portions of the Tres-Amigos water line along Fairview Drive. The aging 6-inch to 12-inch steel pipe will be replaced with new PVC pipe.

Project Manager: Jason Hubbard **Department:** Engineering

Project: 2020100003 **Funding Source:** 100% Fund 110 – Water Replacement

Comments: The Tres-Amigos water line consists of approximately 19,000 feet of pipelines ranging from 6-inch to 12-inch. This water line, installed in the 1950's and 1960's, is located in the northern part of the District, extending from North Twin Oaks Tank No. 2 off Pleasant Heights Drive to Via del Cerro/Carrio Drive.

Due to the frequency of breaks in the area, this project will replace approximately 4100 feet of the northern most alignment of the Tres-Amigos water line between Fairview Drive and Via del Cerro/Carrio Drive. Approximately 50% of the water lines are located within streets with the remaining 50% located within easements on private property. Phase 1 will relocate the failing existing pipe out of backyards and into more accessible areas.

Operations Impact: Reduced risk of water line breakage. Annual and routine pipeline maintenance is expected with the completion of this project.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning		$100,000					$100,000
Design		$30,000	$150,000				$180,000
Construction			$575,000	$1,205,000			$1,780,000
Total	$0	$130,000	$725,000	$1,205,000	$0	$0	**$2,060,000**

FY 2019/20 Budget Request - $2,060,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019	Jul 2019	Jan 2020	Feb 2020	Apr 2021	May 2021	Dec 2021	Dec 2021

Capital Improvement Program
District-wide SCADA Upgrade Project

Description: Upgrade SCADA Network, Software and Hardware Components.

Project Manager: Robert Salazar

Department: Operations and Maintenance

Project: 2020100004

Funding Source: 51% Fund 110 – Water Replacement
49% Fund 210 - Sewer Replacement

Comments:

The District's existing Supervisory Control and Data Acquisition (SCADA) system is outdated and obsolete. Replacement parts are difficult to obtain, extremely expensive and technical support is no longer available. The existing hardware is 1970's technology and no longer compatible with current software operating systems. The new hardware will include SCADA radios and PLC's (Programmable Logic Controllers) that are Ethernet capable, allowing for faster data transfer rates. This new hardware and software will also allow remote access, which allows staff to program and troubleshoot the SCADA network from one central location. This will decrease the downtime of the network and reduce travel time to remote sites, saving staff time and improving efficiency. Security of the SCADA network will be much improved with this upgrade and Operations will be working with IT staff to ensure the District's cyber-security needs are met.

Operations Impact: Routine maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design							
Construction		$625,000	$625,000				$1,250,000
Total	$0	$625,000	$625,000	$0	$0	$0	**$1,250,000**

FY 2019/20 Budget Request - $1,250,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019							Jun 2021

Capital Improvement Program

Failsafe Buena Sewer Outfall Condition Assessment

Description: Access manholes will be installed along the Buena Reach of the Failsafe Sewer Outfall to perform condition assessment using closed-circuit television (CCTV) inspection to evaluate future repair, rehabilitation, and/or replacement projects.

Project Manager: Jason Hubbard **Department:** Engineering

Project: 2020100005 **Funding Source:** 100% Fund 210 – Sewer Replacement

Comments: The Buena Reach of the Failsafe Sewer Outfall is composed of approximately 9900 feet of 16-inch ductile iron pipe (DIP) installed in 1980 from Aviara Parkway and Palomar Airport Road to Yarrow Road and Camino Vida Roble in Carlsbad. Recent repairs in the Buena Reach have determined that there is a need for further condition assessment and repairs to the line. This project will install manholes to provide access to the pressured system for closed-circuit television (CCTV) inspection. Repair, rehabilitation, and/or replacement options will be determined for a future project.

Buena Sanitation District is responsible for 50% of any repairs or improvements in the Buena Reach and a letter agreement as a rider to the 1980 agreement will be required. After project completion, we expect to receive $580,000 in reimbursements.

Operations Impact: Improve maintenance access. Identify structural, flow capacity deficiencies, and potential repairs. Reduce risk of sewer spills. Annual and routine pipeline maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design		$140,000					$140,000
Construction			$1,020,000				$1,020,000
Total	$0	$140,000	$1,020,000	$0	$0	$0	**$1,160,000**

FY 2019/20 Budget Request - $1,160,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019	Jul 2019	Aug 2019	Sep 2019	Jun 2020	Jul 2020	Oct 2020	Oct 2020

Capital Improvement Program
Sage Canyon Tank Refurbishment

Description: Sage Canyon Tank requires interior refurbishment.

Project Manager: Jason Hubbard **Department:** Engineering

Project: 2020100006 **Funding Source:** 100% Fund 110 – Water Replacement

Comments: The existing interior lining of the 3.7 million gallon (MG) tank has deteriorated and requires full refurbishment. This project will remove the existing lining and install a new lining. Repairs to the ceiling rafters and equipment upgrades may also be necessary.

Operations Impact: Prevent further delamination of the existing lining. Routine maintenance

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning		$3,000					$3,000
Design		$62,000					$62,000
Construction			$960,000				$960,000
Total	$0	$65,000	$960,000	$0	$0	$0	**$1,025,000**

FY 2019/20 Budget Request - $1,025,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019	Nov 2019	Dec 2019	Jan 2020	Aug 2020	Sep 2020	Feb 2021	Feb 2021

Capital Improvement Program
Steel Pipeline Condition Assessment

Description: Leverage the District's Asset Management Program to perform condition assessment on targeted areas of the District's highest priority steel water line. Results will be evaluated to minimize future replacement projects and reduce chances of emergency repairs.

Project Manager: Jason Hubbard **Department:** Engineering

Project: 2020100007 **Funding Source:** 100% Fund 110 – Water Replacement

Comments: The District will plan and implement a phased, multi-year condition assessment program. This program will use pipeline condition assessment technology in conjunction with the District's Asset Management Program, to target specific areas in the District's steel (CML&C) water line system for evaluation. The program will determine whether pipelines are in need of repair, rehabilitation, or full replacement. Coordination with Operations staff will minimize disruption to customers and provide invaluable insight to developing work plans. Work plans will establish where pipe tools will be inserted into the water line to measure pipeline wall thickness. Results will be evaluated to maximize the beneficial use of the District's existing infrastructure.

Operations Impact: Reduce risk of water line breakage by identifying potential repairs. Extend the useful life of the existing water lines. Annual and routine pipeline maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design		$92,000	$75,000	$75,000			$242,000
Construction		$263,000	$175,000	$175,000			$613,000
Total	$0	$355,000	$250,000	$250,000	$0	$0	**$855,000**

FY 2019/20 Budget Request - $855,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019	Jul 2019	Dec 2021	Jan 2020	Jun 2022			Jun 2022

Capital Improvement Program
Lawrence Welk Court Water Line Replacement

Description: Replace an existing 12-inch steel water line underneath Lawrence Welk Court that is no longer functioning with a new 12" PVC water line. The new line will need to be in a new location to avoid deep excavation in rocky terrain. A new easement will also be needed to accommodate the new line.

Project Manager: Jason Hubbard **Department:** Engineering

Project: 2020100008 **Funding Source:** 100% Fund 110 – Water Replacement

Work Order: 212256

Comments: A 12-inch steel (CML&C) installed in 1976 failed. Due to the deep and difficult location of the pipeline underneath Lawrence Welk Court, the pipe failure cannot be located and repaired. A temporary highline was installed to place residents back in service. The replacement will involve a new 12-inch PVC water line beginning on the west side of the road, relocated into Lawrence Welk Court via an existing easement at minimum depth, approximately 500 feet to reconnect to the existing 12" CML&C water line on the east side of the road. Cathodic protection measures will be added to the existing steel pipeline. A new easement will need to be acquired for the new water line alignment on the east side of the road. Environmental permitting may be required.

Operations Impact: Prevent future breaks. Routine maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning		$124,000					$124,000
Design		$96,000					$96,000
Construction		$459,000					$459,000
Total	$0	$679,000	$0	$0	$0	$0	**$679,000**

FY 2019/20 Budget Request - $679,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019	Jul 2019	Jul 2019	Jul 2019	Oct 2019	Nov 2019	Mar 2020	Mar 2020

Capital Improvement Program
Land Outfall West Condition Assessment

Description: The western segment of the sewer Land Outfall is in need of a condition assessment to evaluate future cleaning, rehabilitation, and/or repair projects.

Project Manager: Jason Hubbard **Department:** Engineering

Project: 2020100009 **Funding Source:** 100% Fund 210 – Sewer Replacement

Work Order: 212368

Comments: The existing sewer Land Outfall pipeline was installed in 1986 and connects the District's Lift Station No.1 to the Encina Water Pollution Control Facility (EWPCF). The 34,000 foot long pipeline has both gravity and pressurized segments. While some eastern segments, between Melrose Drive and Acacia Drive were replaced in 2006, there has been no evaluation of the western portion of the Land Outfall from El Camino Real to the EWPCF. This project will evaluate through closed-circuit television (CCTV) inspection the condition of approximately 16,700 feet of sewer pipeline ranging in size from 30-inch to 54-inch. The western segments are comprised of both ductile iron pipe (DIP) and vitrified clay pipe (VCP). Approximately 1600 feet of the western segment is pressurized. Results of the condition assessment will be evaluated to determine which segments require cleaning, rehabilitation, and/or replacement.

As joint partners in the Land Outfall, this project will require coordination with the City of Carlsbad and the Buena Sanitation District (Vista).The existing Land Outfall capacity ownership percentages for the three agencies are as follows:

Carlsbad 23.98%
Vista 17.99%
VWD 58.03%

After project completion, we expect to receive $256,000 in reimbursements.

Operations Impact: Reduce the risk of sewer spills. Routine maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning		$17,000					$17,000
Design		$12,000					$12,000
Construction		$580,000					$580,000
Total	$0	$609,000	$0	$0	$0	$0	**$609,000**

FY 2019/20 Budget Request - $609,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019	Jul 2019	Jul 2019	Aug 2019	Oct 2019	Oct 2019	Dec 2019	Jun 2020

Capital Improvement Program
Ductile Iron Pipe Condition Assessment

Description: Leverage the District's Asset Management Program to perform condition assessment on targeted areas of the ductile iron pipe system that have been experiencing breaks in recent years. Results will be evaluated to minimize future replacement projects and reduce chances of emergency repairs.

Project Manager: Jason Hubbard **Department:** Engineering

Project: 2020100010 **Funding Source:** 100% Fund 110 – Water Replacement

Comments: The District will plan and implement a phased, multi-year condition assessment program. This program will use pipeline condition assessment technology in conjunction with the District's Asset Management Program, to target specific areas in the ductile iron pipe (DIP water line system for evaluation. The program will determine whether pipelines are in need of repair, rehabilitation, or full replacement. Coordination with Operations staff will minimize disruption to customers and provide invaluable insight to developing implementation plans. Implementation plans will establish where pipe tools will be inserted into the water line to measure pipeline wall thickness. Results will be evaluated to maximize the beneficial use of the District's existing infrastructure.

Operations Impact: Reduce risk of water line breakage by identifying potential repairs. Extend the useful life of the existing water lines. Annual and routine pipeline maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design		$71,000	$75,000	$75,000			$221,000
Construction		$134,000	$125,000	$125,000			$384,000
Total	$0	$205,000	$200,000	$200,000	$0	$0	**$605,000**

FY 2019/20 Budget Request - $605,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019			Jul 2019	Dec 2021	Jan 2020	Jun 2022	Jun 2022

Capital Improvement Program
Palos Vista Pump Station - Motor Starters Upgrade

Description: Upgrade four auto-transformer motor starters to solid state soft starters.

Project Manager: Robert Salazar **Department:** Mechanical/Electrical

Project: 2020100011 **Funding Source:** 100% Fund 110 – Water Replacement

Comments:

Replace four auto-transformer motor starters. Replacement is required due to wear from a long service life of over 25 years and a lack of support for replacement parts. New solid state soft starters will improve reliability and operating efficiency of electric motors.

Operations Impact: Routine maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning		$5,000					$5,000
Design							
Construction		$370,000					$370,000
Total	$0	$375,000	$0	$0	$0	$0	**$375,000**

FY 2019/20 Budget Request - $375,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019							Jun 2020

Capital Improvement Program
DHS- Upgrades for Critical Infrastructure Hardware

Description: The Department of Homeland Security (DHS) performed an audit of the District Industrial Control System (ICS) Information Technology Network on 11/27-28/2018. Audit As a result of the audit, several recommendations were provided to enhance system architecture on the Supervisory Control and Data Acquisition (SCADA) network. Initiatives contained within this CIP aim to strengthen the cybersecurity posture of the District's industrial control systems (ICS).

Project Manager: Matias Labarrere **Department:** Information Technology

Project: 2020100012 **Funding Source:** 51% Fund 110 – Water Replacement
49% Fund 210 - Sewer Replacement

Comments: As a core part of its mission to reduce risk to the Nation's critical infrastructure (CI), Department of Homeland Security (DHS) National Cyber Assessments and Technical Services (NCATS) subject matter experts provide cybersecurity assessments to CI asset owners and operators to strengthen the cybersecurity posture of their industrial control systems (ICS). NCATS on behalf of the National Cybersecurity and Communications Integration Center (NCCIC) provides voluntary assessments based on standards, guidelines, and best practices. The assessment methodology provides a structured framework that asset owners and operators can leverage to evaluate and validate the cybersecurity of their ICS networks. The information gained from these reviews provided the District with additional understanding and context necessary to build effective defense-in-depth processes for enhancing our cybersecurity posture. The DHS team worked directly with the information technology (IT), operations technology (OT), and management staff at the VWD facilities to determine the overall cybersecurity posture of its ICS. DHS recommends physical isolation of the control systems network from the business network.

Hardware upgrades contained within this CIP are broken down in the following manner:

Creation of an isolated system for SCADA/ICS - $151,440
Backup/Disaster Recovery of isolated SCADA/ICS system - $80,260
Remote Monitoring/Support - $7500

Operations Impact: Hardware upgrades contained within this CIP aim to strengthen the cybersecurity posture of the District's industrial control systems (ICS) per DHS recommendations.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning		$44,000					$44,000
Design		$44,000					$44,000
Construction		$151,000					$151,000
Total	$0	$239,000	$0	$0	$0	$0	**$239,000**

FY 2019/20 Budget Request - $239,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019							Jun 2020

Capital Improvement Program
South Lake Pump Station Fence

Description: Install chain-link fence around the South Lake Pump Station.

Project Manager: Robert Salazar **Department:** Mechanical/Electrical

Project: 2020100013 **Funding Source:** 100% Fund 110 – Water Replacement

Comments: Housing developments are being built close to our South Lake reservoir and South Lake Pump Station. We are seeing an increase in trespassing and vandalism. South Lake Pump Station does not have a fence around the property line. A fence needs to be installed to deter trespassers and protect District property.

Operations Impact: Occasional repairs and maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning		$5,000					$5,000
Design							
Construction		$140,000					$140,000
Total	$0	$145,000	$0	$0	$0	$0	**$145,000**

FY 2019/20 Budget Request - $145,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019							Jun 2020

Capital Improvement Program
District Wide Solar

Description: The District is looking to build Solar Projects as various locations as a Power Purchase Agreement (PPA) with an independent third party who will build, maintain, and operate the solar installations at no cost to the District. The PPA will generate a reduced electric rate for 20-25 years resulting in net savings to the District with no capital contributions.

Project Manager: James Gumpel **Department:** Engineering

Project: 2020100014 **Funding Source:** 51% Fund 110 – Water Replacement
49% Fund 210 - Sewer Replacement

Comments: The District is interested in solar panel opportunities to reduce energy costs. The following three solar projects have been identified:
1. Net Energy Metering at Lift Station No. 1
2. RES-BCT Project at Twin Oaks Reservoir Site
3. Mahr Reservoir Floating Solar Project

All three projects are proposed as a Power Purchase Agreement (PPA) where an independent third party will build, maintain and operate the solar installation at no cost to the District. At this time the District is only moving forward with the first two projects. Environmental clearance is expected for these projects. The PPA will generate a reduced electric rate for 20-25 years resulting in net savings to the District with no capital contributions.

Operations Impact: Coordination with on-going facility maintenance as the various solar project locations.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning		$43,000					$43,000
Design		$16,000					$16,000
Construction		$71,000					$71,000
Total	$0	$130,000	$0	$0	$0	$0	**$130,000**

FY 2019/20 Budget Request - $130,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019	Aug 2017	Sep 2018	Oct 2018	Sep 2019	Oct 2019	Apr 2020	Apr 2020

Capital Improvement Program
HVAC Communication Upgrade

Description: Upgrade the District's HVAC control communication to an updated and user-friendly system. This will enable the District to control the HVAC system remotely, with non-proprietary restraints.

Project Manager: Dennis Bowman **Department:** Warehouse/Purchasing

Project: 2020100015 **Funding Source:** 51% Fund 110 – Water Replacement
49% Fund 210 - Sewer Replacement

Comments: The current Trane HVAC system is 22 years old. The system routinely fails and finding technicians trained to work on the outdated systems is expensive and cumbersome. Currently, we are unable to remote in and troubleshoot any issues; preventing us from making any modifications to the system.

Operations Impact: Facilities Maintenance and Information Technology meeting with contractors. Occasional HVAC service disruptions while the system is being upgraded.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning		$3,000					$3,000
Design		$5,000					$5,000
Construction		$120,000					$120,000
Total	$0	$128,000	$0	$0	$0	$0	**$128,000**

FY 2019/20 Budget Request - $128,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019							Jun 2020

Capital Improvement Program

Door Access Control System Expansion -MRF & Mahr

Description: Access control for a total of thirty-nine (39) doors between Meadowlark Reclamation, Mahr, and Administrative facilities.

Project Manager: Matias Labarrere

Department: Information Technology

Project: 2020100016

Funding Source: 51% Fund 110 – Water Replacement
49% Fund 210 - Sewer Replacement

Comments: There is a need to convert keyed locks at Meadowlark Reclamation, Mahr, and Administrative buildings to keyless entry and add them to our existing BlueWave access control system. This upgrade will allow dual access to doors through the use of a fob or a security code and will eliminate the need for keys at Meadowlark, Mahr, and Administrative buildings. This initiative will allow for improved control over access to VWD facilities while minimizing reliance on the management of physical keys.

Upgrades contained within this CIP are broken down in the following manner:

Access Control upgrades for Administrative Building - $28,000
Access Control upgrades for Meadowlark and Mahr Facilities - $66,000
Re-Key of existing locks for Administrative Building - $3,600
Re-Key of existing locks for Meadowlark and Mahr Facilities- $3,400

Operations Impact: Increased security, time savings, and eliminate the cost of replacing keys

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design							
Construction		$101,000					$101,000
Total	$0	$101,000	$0	$0	$0	$0	**$101,000**

FY 2019/20 Budget Request - $101,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019							Jun 2020

Capital Improvement Program
Sewer Replacement and I&I Repairs

Description: During the course of the year, unexpected damage and emergency repairs are needed. This budget item sets aside money to perform necessary repairs.

Project Manager: Eric Garcia **Department:** Systems Collection

Project: 2020100017 **Funding Source:** 100% Fund 210 – Sewer Replacement

Comments: These funds will only be used after review and approval by the District Engineer and the Operations and Maintenance Manager.

Operations Impact: None.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design							
Construction		$100,000					$100,000
Total	$0	$100,000	$0	$0	$0	$0	**$100,000**

FY 2019/20 Budget Request - $100,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019							Jun 2020

Capital Improvement Program
Chlorine Building Seismic Retrofit

Description: The Chlorine Building at the Meadowlark Water Reclamation Facility needs structural retrofitting to meet the current State seismic standards for buildings.

Project Manager: Dawn McDougle **Department:** Meadowlark Reclamation Facility

Project: 2020100018 **Funding Source:** 100% Fund 250 - Reclaimed

Comments: The Chlorine Building at the Meadowlark Water Reclamation Facility (MRF) stores chlorine gas for use as a disinfectant in order to meet State regulations for reclaimed water. Chlorine gas is a hazardous material. During the Process Hazard Analysis of 2019, ventilation openings in the Chlorine Building were identified as having seismic deficiencies. These deficiencies need to be seismically retrofitted to the current building code.

Operations Impact: Correct seismic deficiencies to bring building up to code.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design		$25,000					$25,000
Construction			$75,000				$75,000
Total	$0	$25,000	$75,000	$0	$0	$0	**$100,000**

FY 2019/20 Budget Request - $100,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019	Jul 2019	Dec 2019	Jan 2020	Jun 2020	Jul 2020	Dec 2020	Dec 2020

Capital Improvement Program
Water Operations Control Room Upgrades

Description: Replacement of the Water Operations SCADA console, floors and paint. New SCADA software and display screens will be used for enhanced distribution system control and security camera monitoring operations. This will comply with DHS recommendations and the District's VA.

Project Manager: Shawn Askine **Department:** Water Operations

Project: 2020100019 **Funding Source:** 100% Fund 110 – Water Replacement

Comments: VWD staff is working on a District-wide Supervisory Control and Data Acquisition (SCADA) upgrade that is compliant with the Department of Homeland Security (DHS) recommendations. The Water Operations control room console was constructed in 1997. This console was designed to hold the old style, square monitors and does not allow the use of the current wide screen technology monitors. The replacement console design will allow the use of wide screen monitors and have an option for an ergonomic sit/stand station. The new console will also allow for the additional screens needed to monitor security cameras throughout the distribution system, located in areas identified in the District's Vulnerability Assessment (VA). The control room floor is worn and will be replaced before installing the replacement console. The Water Operations control room and offices will also be painted at this time.

Operations Impact: Improved SCADA control systems and security monitoring. Routine maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design							
Construction		$78,000					$78,000
Total	$0	$78,000	$0	$0	$0	$0	**$78,000**

FY 2019/20 Budget Request - $78,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019							Jun 2020

Capital Improvement Program
City of San Marcos Joint Projects Relocate/Adjust

Description: This amount is set-aside to cover services rendered in conjunction with various City of San Marcos projects involving District infrastructure per the District/City of San Marcos Cost Sharing Agreement dated March 31, 2009. This includes District staff time involved in inspection and project management, as well as reimbursements to the City for District infrastructure relocations and adjustments.

Project Manager: Rob Scholl **Department:** Engineering

Project: 2020100020 **Funding Source:** See Below

Comments:

Miscellaneous relocations/adjustments resulting from City of San Marcos joint projects.

These projects are in conjunction with the City's Capital Improvement Plan.

Operations Impact: Normal maintenance for infrastructure.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design							
Construction		$70,000					$70,000
Total	$0	$70,000	$0	$0	$0	$0	**$70,000**

FY 2019/20 Budget Request - $70,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019						Jun 2020	Jun 2020

Capital Improvement Program
Update Restrooms to ADA Compliance

Description: Remove and replace the current counters, sinks, mirrors, and paint.

Project Manager: Dennis Bowman

Department: Warehouse/Purchasing

Project: 2020100021

Funding Source: 51% Fund 110 – Water Replacement
49% Fund 210 - Sewer Replacement

Comments: The restrooms need new counters, sinks, mirrors, and paint. When quotes were solicited for these updates, we were informed certain locations were not ADA compliant. The two areas of concern are the Lobby and Engineering restrooms.

Operations Impact: Certain restrooms will be down while under construction.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning		$2,000					$2,000
Design							
Construction		$65,000					$65,000
Total	$0	$67,000	$0	$0	$0	$0	**$67,000**

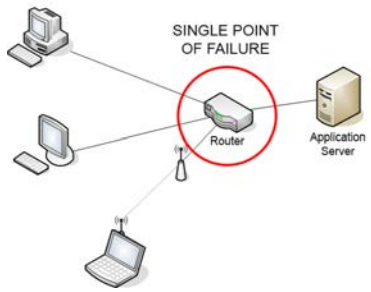
FY 2019/20 Budget Request - $67,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019							Jun 2020

Capital Improvement Program
Redundancy for Admin. Wireless Radio Network

Description: The District provides network connectivity between facilities via wireless radio infrastructure. Additional redundancy of radio network is necessary in order to provide continuity of data communications between sites in the event of a radio failure.



Project Manager: Matias Labarrere **Department:** Information Technology

Project: 2020100022 **Funding Source:** 51% Fund 110 – Water Replacement
49% Fund 210 - Sewer Replacement

Comments: Upgrades to District Wireless Radio network. Additional radio stations are needed to support redundancy of data communications between the following district locations: Admin/Operations Buildings, Meadowlark Reclamation Facility, Twin Oaks Reservoir. Current Administrative Wireless radio architecture has a single point of failure - one fault or malfunction will cause the entire communications system to stop operating in the event of a single radio outage.

Operations Impact: Additional redundancy must be added to the Administrative radio network in order to provide continuity of data communications in the event of radio failures.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning		$14,000					$14,000
Design		$8,000					$8,000
Construction		$45,000					$45,000
Total	$0	$67,000	$0	$0	$0	$0	**$67,000**

FY 2019/20 Budget Request - $67,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019							Jun 2020

Capital Improvement Program
Technology Infrastructure Upgrades

Description: Replacement or upgrades of District technology infrastructure. Includes servers, networking equipment (wired/wireless), security appliances, and supporting infrastructure management solutions.

Project Manager: Matias Labarrere **Department:** Information Technology

Project: 2020100023 **Funding Source:** 51% Fund 110 – Water Replacement
49% Fund 210 - Sewer Replacement

Comments: Secure and reliable technical infrastructure is mission critical to District operations and service to the public. Serious disruptions or costly unplanned emergency repairs can occur if end-of-life/end-of-support systems are not upgraded or replaced in a timely manner, resulting in reduced productivity and service levels.

Operations Impact: Replacement of end-of-life equipment is necessary to ensure continuity of business operations.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 23/24	Thereafter	Total
Planning							
Design							
Construction		$65,000					$65,000
Total	$0	$65,000	$0	$0	$0	$0	**$65,000**

FY 2019/20 Budget Request - $65,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019							Jun 2020

Capital Improvement Program
MRF Site Lighting Upgrade and Repairs

Description: Replace three light poles and existing outdoor High Pressure Sodium (HPS), Low Pressure Sodium (LPS) and Metal Halide lighting fixtures with LED fixtures.

Project Manager: Robert Salazar **Department:** Mechanical/Electrical

Project: 2020100024 **Funding Source:** 100% Fund 250 - Reclaimed

Comments:

Replacing existing outdoor lighting fixtures with LED fixtures will provide improved security and safety lighting at night for District staff.
LED fixtures will be more energy efficient and reduce operating and maintenance costs. There are currently three lighting poles that require replacement due to corrosion and deterioration at the bases.

Operations Impact: Routine maintenance.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design							
Construction		$60,000					$60,000
Total	$0	$60,000	$0	$0	$0	$0	**$60,000**

FY 2019/20 Budget Request - $60,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019							Jun 2020

Capital Improvement Program
Water Meter Relocation

Description: The existing meter and water service will be removed from the fire service and capped off. A new service line will be installed on the VWD water main that is located on La Bonita Drive. A new customer service line will be installed by VWD staff, from the new meter location to the existing water service connection.

Project Manager: Kevin Anctil **Department:** Construction

Project: 2020100025 **Funding Source:** 100% Fund 110 – Water Replacement

Comments:

The private fire service for 1105 La Bonita Drive has a VWD 1½" meter connected to it that feeds the building. The District has no record of the meter being installed and the meter does not meet VWD standards. The meter is not in the VWD easement. This project is to move the meter from the fire service line and into the District's right of way.

Operations Impact: None

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design		$5,000					$5,000
Construction		$25,000					$25,000
Total	$0	$30,000	$0	$0	$0	$0	**$30,000**

FY 2019/20 Budget Request - $30,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019							Jun 2020

Capital Improvement Program
Upgrades to Surveillance Video Management System

Description: Upgrades to existing Video Recording systems are required to obtain additional coverage, fidelity, and performance of the District's centralized recording system.

Project Manager: Matias Labarrere **Department:** Information Technology

Project: 2020100026 **Funding Source:** 51% Fund 110 – Water Replacement
49% Fund 210 - Sewer Replacement

Comments: Upgrades to the District's video recording systems have been recommended by the manufacturer. Long-range IR illuminators and additional cameras are recommended to provide additional coverage for dimly lit facilities. Current limitations of installed hardware adversely affect the quality of video recording during the night.

Operations Impact: Increased security, resiliency, and performance of existing video recording system.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design							
Construction		$25,000					$25,000
Total	$0	$25,000	$0	$0	$0	$0	**$25,000**

FY 2019/20 Budget Request - $25,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019							Jun 2020

Capital Improvement Program
DHS-Upgrades to Security Infrastructure Monitoring

Description: The Department of Homeland Security (DHS) performed an audit of the District's Industrial Control System (ICS) Information Technology Network on 11/27-28/2018. As a result of the audit, several recommendations were provided to enhance system security controls on the Supervisory Control and Data Acquisition (SCADA) network. Initiatives contained within this CIP aim to strengthen the cybersecurity posture of the District's industrial control systems (ICS).

Project Manager: Matias Labarrere **Department:** Information Technology

Project: 2020100027 **Funding Source:** 51% Fund 110 – Water Replacement
49% Fund 210 - Sewer Replacement

Comments: As a core part of its mission to reduce risk to the Nation's critical infrastructure (CI), Department of Homeland Security (DHS) National Cyber Assessments and Technical Services (NCATS) subject matter experts provide cybersecurity assessments to CI asset owners and operators to strengthen the cybersecurity posture of their industrial control systems (ICS). NCATS on behalf of the National Cybersecurity and Communications Integration Center (NCCIC) provides voluntary assessments based on standards, guidelines, and best practices. The assessment methodology provides a structured framework that asset owners and operators can leverage to evaluate and validate the cybersecurity of their ICS networks. The information gained from these reviews provided the District with additional understanding and context necessary to build effective defense-in-depth processes for enhancing our cybersecurity posture. The DHS team worked directly with the information technology (IT), operations technology (OT), and management staff at the VWD facilities to determine the overall cybersecurity posture of its ICS.

Operations Impact: Additional cybersecurity monitoring of the District's industrial control systems (ICS) will strengthen existing cybersecurity posture per DHS recommendation.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning							
Design							
Construction		$23,000					$23,000
Total	$0	$23,000	$0	$0	$0	$0	**$23,000**

FY 2019/20 Budget Request - $23,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019							Jun 2020

Capital Improvement Program
Field Service Mobility Intiative

Description: NetMotion software will be used by staff in the field to provide offline access to District applications in areas with poor cellular reception, thus increasing productivity for the District's mobile workforce.

Project Manager: Matias Labarrere **Department:** Information Technology

Project: 2020100028 **Funding Source:** 51% Fund 110 – Water Replacement
49% Fund 210 - Sewer Replacement

Comments: District staff working in the field are adversely affected when utilizing mobile business applications in areas of weak or no cellular coverage. Staff often need to re-submit data throughout the day if working in geographical areas with limited signal strength. NetMotion software can be used to provide offline access to District applications in areas with poor cellular reception, thus increasing productivity for the Districts mobile workforce.

Operations Impact: Netmotion software provides continued connections through coverage gaps and areas of weak signal strength. When users suspend their devices, applications pause then resume when a connection returns. Users can roam transparently between cellular, Wi-Fi and wired networks, thus increasing productivity in the field.

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24	Total
Planning							
Design							
Construction		$19,000					$19,000
Total	$0	$19,000	$0	$0	$0	$0	**$19,000**

FY 2019/20 Budget Request - $19,000

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
Jul 2019							Jun 2020

Capital Improvement Program
Future Projects

Description: This amount is set-aside to cover projects planned within the next five years with a start date later than the current fiscal year..

Project Manager: Jason Hubbard **Department:** Engineering

Project: TBA **Funding Source:** See Below

Project:	Amount:	Source:
Land Outfall Parallel Siphon Sewer Section A	25,400,000	100% Fund 220 – Sewer Capacity
San Marcos Boulevard West Sewer Replacement	4,100,000	55% Fund 220 – Sewer Capacity, 45% Fund 210 – Sewer Replacement
El Norte Parkway Water Line Extension	4,100,000	100% Fund 110 – Water Replacement
Tres-Amigos Water Line Replacement Phase Dos	3,850,000	100% Fund 110 – Water Replacement
Coronado Hills Tank #2	3,600,000	100% Fund 120 – Water Capacity
Rees Road Water Line Relocation	2,300,000	100% Fund 110 – Water Replacement
Nordahl Shopping Center Sewer Replacement	2,300,000	45% Fund 210 – Sewer Replacement, 55% Fund 220 – Sewer Capacity
Land Outfall Gravity Sewer Section A Replacement	2,030,000	40% Fund 220 - Sewer Capacity, 60% Fund 210 - Sewer Replacement
Land Outfall Gravity Sewer Section B Replacement	1,820,000	20% Fund 220 - Sewer Capacity, 80% Fund 210 - Sewer Replacement
16-Inch Emergency Bypass Pipeline Rehabilitation	1,740,000	100% Fund 210 – Sewer Replacement
Deer Springs Tank No.2	1,400,000	43% Fund 120 – Water Capacity, 57% Fund 110 – Water Replacement
Schoolhouse Pump Station Expansion	500,000	32% Fund 120 – Water Capacity, 68% Fund 110 – Water Replacement
Mountain Belle Tank Exterior Refurbishment	436,000	100% Fund 110 – Water Replacement
Coronado Hills Tank Exterior Refurbishment	400,000	100% Fund 110 – Water Replacement
Richland I Tank Exterior Refurbishment	354,000	100% Fund 110 – Water Replacement
Schoolhouse Water Line Improvements	300,000	36% Fund 120 – Water Capacity, 64% Fund 110 – Water Replacement
Coggan Pump Station - Generator	285,000	100% Fund 120 – Water Capacity
Total	$54,915,000	

Comments: These projects are part of the District's capital budget beginning after fiscal year 2019-20.

Operations Impact: Normal Maintenance for infrastructure

Project Spending Plan

Project Phase	Previous Spending	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24 & Thereafter	Total
Planning			$64,000	$373,000	$100,000	$500,000	$1,037,000
Design			$320,000	$123,000	$1,350,000	$1,940,000	$3,733,000
Construction			$480,000	$2,745,000	$5,060,000	$41,860,000	$50,145,000
Total	$0	$0	$864,000	$3,241,000	$6,510,000	$44,300,000	**$54,915,000**

FY 2019/20 Budget Request - $54,915,000.00

Estimated Project Timeline

Project Approval	Planning		Design		Construction		Completion
	Begin	End	Begin	End	Begin	End	
					Apr 2021	Jun 2027	Jun 2027

2019-20 CAPITAL BUDGET - EASEMENTS, VEHICLES & EQUIPMENT SCHEDULE

VEHICLES/MOBILE EQUIPMENT

Existing Vehicle #	Description	Project #	New or Replacement	*Funding Source:* Water	Sewer	Total Cost
	Collections:					
183	Vactor 850 Series Front Mounted Reel Ramjet Rodder	2020100029	Replacement		285,000	285,000
	Construction:					
212	Ford Super Duty 6.2L 4x4 Pickup	2020100030	Replacement	55,000		55,000
273	Wachs ERV-750 Valve Turning Machine	2020100031	Replacement	14,300	13,700	28,000
	John Deere 210L Tractor Loader	2020100032	New	51,000	49,000	100,000
	Mechanical/Electrical:					
197	Ford Super Duty F-350 SRW 4x4	2020100033	Replacement	32,100	30,900	63,000
210	Ford F-150 Super Cab, 3.3L V6 Engine	2020100034	Replacement	23,000	22,000	$ 45,000
TOTAL VEHICLES						*$ 576,000*

FACILITIES AND EQUIPMENT

Requesting Dept.	Description	Project #	New or Replacement	*Funding Source:* Water	Sewer	Total Cost
	Meadowlark Facility:					
	Three (3) Valve Actuators	2020100035	Replacement		40,000	$ 40,000
	Three (3) Chemical Pumps	2020100036	Replacement		18,000	18,000
	Two (2) Nitrate Probes	2020100037	New		38,000	38,000
	Algae Meter for Mahr Reservoir	2020100038	Replacement		16,000	$ 16,000
TOTAL FACILITIES AND EQUIPMENT						*$ 112,000*

VEHICLES & EQUIPMENT TOTAL **$ 688,000**

DEBT SERVICE BUDGET FOR THE YEAR ENDING JUNE 30, 2020

	Water		Wastewater		
	Replacement	Capacity	Replacement	Capacity	Total
2015 Refunding [1]					
Outstanding principal as of July 1, 2019[2]	$ -	$ 22,117,400	$ -	$ 21,292,600	$ 43,410,000
2018/19 Principal Payments	-	(1,029,190)	-	(990,810)	(2,020,000)
Outstanding principal as of July 1, 2020	$ -	$ 21,088,210	$ -	$ 20,301,790	$ 41,390,000
2008 Private Placement [3]					
Outstanding principal as of July 1, 2019	$ -	$ -	$ -	$ 3,800,000	$ 3,800,000
2018/19 Principal Payments	-	-	-	(400,000)	(400,000)
Outstanding principal as of June 30, 2020	$ -	$ -	$ -	$ 3,400,000	$ 3,400,000
2012 Debt [4]					
Outstanding principal as of July 1, 2018	$ -	$ -	$ -	$ 2,991,000	$ 2,991,000
2018/19 Principal Payments	-	-	-	(725,000)	(725,000)
Outstanding principal as of June 30, 2019	$ -	$ -	$ -	$ 2,266,000	$ 2,266,000
2018/19 Debt Service Budget					
2015 Revenue Refunding principal	$ -	$ 1,029,190	$ -	$ 990,810	$ 2,020,000
2015 Revenue Refunding interest	-	1,080,140	-	1,039,860	2,120,000
2008 Private Placement - principal	-	-	-	400,000	400,000
2008 Private Placement - interest	-	-	-	96,000	96,000
2012 Debt - principal	-	-	-	725,000	725,000
2012 Debt - interest	-	-	-	52,000	52,000
Total 2019/20 Debt Service Budget	$ -	$ 2,109,330	$ -	$ 3,303,670	$ 5,413,000

Projected Debt Service Coverage Ratio [5]	264%
Excluding Capital Facility Fees	222%
Excluding Capital Facility Fees and Property Tax	192%
Days of Operating Expenses in Unrestricted Cash and Investments	369

[1] The District issued Refunding Revenue Bonds on July 1, 2015, to prepay a portion of the previously outstanding COPS Series 2005A. The bonds have a 5% interest rate over the 20-year term.

[2] The 19/20 principal payment on the refunding bonds is due to bondholders on July 1, 2019. The District is obligated to transfer the payment before June 30, 2019, to a restricted account maintained by the Trustee, and, therefore, was deducted from the projected July 1, 2019 balance presented in the Reserve Budget.

[3] The District and Union Bank of California executed an $8 million 20-Year tax-exempt private placement with variable rate interest tied to the LIBOR. The District has the option of changing the LIBOR term. The current term is six months. The current rate is 2.50557%. The proceeds partially restored a deficit balance in the restricted wastewater capacity fund from cash funding construction of the Encina Wastewater Authority Phase V expansion.

[4] The District issued bonds on December 21, 2012, to fund the increased capacity portions of San Marcos Interceptor and Linda Vista Sewer projects. The bonds have a 1.98% interest rate over the 10-year term.

[5] Per the 2015 Refunding Revenue Bonds official statement, the District is required to maintain a debt service coverage ratio of 1.15. Debt service coverage ratios are presented above inclusive and exclusive of capital facilities fees to demonstrate the District's ability to cover debt service above the required minimum. Capital facility fees are included in the official statement's definition of "Net Revenues".

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2019-20 LONG-RANGE PLANNING

RESERVE PROJECTION FOR THE YEAR ENDING JUNE 30, 2020

	110 Water 120		210 Wastewater 220		
	Replacement	Capacity	Replacement	Capacity	Total
Projected July 1, 2019 Balance	$ 34,063,000	$ (8,671,000)	$ 56,429,000	$ (5,697,000)	$ 76,124,000
Revenues					
Operating Transfers	2,384,000	-	6,481,000	-	8,865,000
Capital Facility Fees	-	3,080,000	-	5,640,000	8,720,000
Property Tax	1,272,000	-	1,008,000	-	2,280,000
RDA pass-through	800,000	-	800,000	-	1,600,000
Project Reimbursements	-	-	19,000	42,000	61,000
Investment Earnings	760,000	(202,000)	1,248,000	(170,000)	1,636,000
Available Balance	39,279,000	(5,793,000)	65,985,000	(185,000)	99,286,000
Less 19/20 Expenditures					
San Marcos Interceptor Phase 2	-	-	1,975,630	4,397,370	6,373,000
Encina Wastewater Authority Five Year Plan	-	-	4,848,000	-	4,848,000
Encina Wastewater Authority FY 18/19	-	-	1,932,000	-	1,932,000
MRF - Biological Selector Improvements	-	-	1,762,000	-	1,762,000
Sewer Rehabilitation and Repairs	-	-	770,000	-	770,000
Schoolhouse Tank Refurbishment	720,000	-	-	-	720,000
Lawrence Welk Court Water Line Replacement	679,000	-	-	-	679,000
Rock Springs Sewer Replacement	-	-	292,500	357,500	650,000
District-wide SCADA Upgrade Project	318,750	-	306,250	-	625,000
Land Outfall West Condition Assessment	-	-	609,000	-	609,000
Land Outfall Clearing & Access Road	-	-	580,000	-	580,000
Vehicles	175,400	-	400,600	-	576,000
MRF - Tertiary Structural Rehab and Repairs	-	-	560,000	-	560,000
North Twin Oaks Tank No. 1 Refurbishment	513,000	-	-	-	513,000
Las Posas Water Line Replacement	469,000	-	-	-	469,000
Montiel Lift Station and Forcemain Replacement	-	-	294,650	120,350	415,000
Palos Vista Pump Station - Motor Starters Upgrade	375,000	-	-	-	375,000
Steel Pipeline Condition Assessment	355,000	-	-	-	355,000
Asset Management Replacement Schedule	135,000	-	135,000	-	270,000
DHS- Upgrades for Critical Infrastructure Hardware	121,890	-	117,110	-	239,000
Ductile Iron Pipe Condition Assessment	205,000	-	-	-	205,000
Elser Lane Water Line Improvements	187,000	-	-	-	187,000
Via Vera Cruz Tank Hill Stabilization	181,000	-	-	-	181,000
South Lake Pump Station Fence	-	145,000	-	-	145,000
Failsafe Buena Sewer Outfall Condition Assessment	-	-	140,000	-	140,000
Tres-Amigos Water Line Replacement Phase 1	130,000	-	-	-	130,000
District Wide Solar	66,300	-	63,700	-	130,000
HVAC Communication Upgrade	65,280	-	62,720	-	128,000
District-wide Valve Replacement Program	120,000	-	-	-	120,000
Miscellaneous Projects	619,770	51,000	756,230	-	1,427,000
Fund PERS UAL	4,832,000	-	3,222,000	-	8,054,000
Debt Service - 2012 Debt	-	-	-	777,000	777,000
Debt Service - 2008 Loan	-	-	-	496,000	496,000
Debt Service - 2015 Refunding	-	2,137,000	-	2,058,000	4,195,000
Less Total Expenditures	10,268,380	2,333,000	18,827,400	8,206,220	39,635,000
Projected June 30, 2020 Balance	29,010,620	(8,126,000)	47,157,600	(8,391,220)	***$ 59,651,000***
Less Operating Reserves	5,970,100	-	7,024,900	-	12,995,000
Projected replacement reserve/restricted funds	$ 23,040,520	$ (8,126,000)	$ 40,132,700	$ (8,391,220)	$ 46,656,000
Adopted replacement reserve floor	$ 8,136,700		$ 18,603,400		
Adopted replacement reserve ceiling	$ 34,640,500		$ 54,762,600		

See significant assumptions on page 102

RESERVE PROJECTION FOR THE YEAR ENDING JUNE 30, 2021

	110 Water 120		210 Wastewater 220		
	Replacement	Capacity	Replacement	Capacity	Total
Projected July 1, 2020 Balance	$ 29,010,620	$ (8,126,000)	$ 47,157,600	$ (8,391,220)	$ 59,651,000
Revenues					
Operating Transfers	2,055,000	-	6,197,000	-	8,252,000
Capital Facility Fees	-	3,508,000	-	6,250,000	9,758,000
Project Reimbursements			328,000		328,000
Property Tax	1,299,000	-	1,030,000	-	2,329,000
RDA pass-through	800,000		800,000	-	1,600,000
Investment Earnings	644,000	(184,000)	1,111,000	(173,000)	1,398,000
Available Balance	33,808,620	(4,802,000)	56,623,600	(2,314,220)	83,316,000
Less 20/21 Expenditures					
Encina Wastewater Authority Five Year Plan	-	-	5,501,000	-	5,501,000
City of San Marcos Creek District	2,242,500	-	747,500	-	2,990,000
Elser Lane Water Line Improvements	1,610,000	-	-	-	1,610,000
Failsafe Buena Sewer Outfall Condition Assessment	-	-	1,020,000	-	1,020,000
Sage Canyon Tank Refurbishment	960,000	-	-	-	960,000
MRF: Conversion to Sodium Hypochlorite	-	-	950,000	-	950,000
Montiel Lift Station and Forcemain Replacement	-	-	639,000	261,000	900,000
Future Projects	374,000	185,000	263,000	42,000	864,000
Tres-Amigos Water Line Replacement Phase 1	725,000	-	-	-	725,000
District-wide SCADA Upgrade Project	318,750	-	306,250	-	625,000
Steel Pipeline Condition Assessment	250,000	-	-	-	250,000
Land Outfall Clearing & Access Road	-	-	200,000	-	200,000
Palos Vista Pump Station - Motor Starters Upgrade	200,000	-	-	-	200,000
Asset Management Replacement Schedule	75,000	-	75,000	-	150,000
NW Lake San Marcos Sewer Replacement and Lining	-	-	105,000	-	105,000
Richland Invert Replacement	-	-	100,000	-	100,000
Miscellaneous Projects	130,000	-	116,000	10,000	256,000
Fund PERS UAL	2,468,000	-	1,559,000		4,027,000
Debt Service - 2012 Debt	-	-	-	777,000	777,000
Debt Service - 2008 Loan	-	-	-	491,000	491,000
Debt Service - 2015 Refunding	-	2,138,900	-	2,059,100	4,198,000
Less Total Expenditures	9,353,250	2,323,900	11,581,750	3,640,100	26,899,000
Projected June 30, 2021 Balance	24,455,370	(7,125,900)	45,041,850	(5,954,320)	***$ 56,417,000***
Less Operating Reserves	6,226,000	-	7,196,100	-	13,422,100
Projected replacement reserve/restricted funds	$ 18,229,370	$ (7,125,900)	$ 37,845,750	$ (5,954,320)	$ 42,994,900
Adopted replacement reserve floor	$ 9,096,900		$ 18,282,700		
Adopted replacement reserve ceiling	$ 36,357,700		$ 57,283,100		

Debt service coverage	*427%*
Debt service coverage without cap fees	*248%*
Debt service coverage without cap fees or property tax & RDA	*177%*
Days of Operating Expenses in Unrestricted Cash and Investments	*333*

See significant assumptions on page 102

RESERVE PROJECTION FOR THE YEAR ENDING JUNE 30, 2022

	110 Water 120		210 Wastewater 220		
	Replacement	Capacity	Replacement	Capacity	Total
Projected July 1, 2021 Balance	$ 24,455,370	$ (7,125,900)	$ 45,041,850	$ (5,954,320)	$ 56,417,000
Revenues					
Operating Transfers	1,678,000	-	6,199,000	-	7,877,000
Capital Facility Fees	-	2,753,000	-	5,743,000	8,496,000
Property Tax	1,327,000	-	1,052,000	-	2,379,000
RDA pass-through	800,000		800,000		1,600,000
Project Reimbursements	-	-	788,000	-	788,000
Investment Earnings	584,000	(168,000)	1,054,000	(131,000)	1,339,000
Available Balance	28,844,370	(4,540,900)	54,934,850	(342,320)	78,896,000
Less 21/22 Expenditures					
Encina Wastewater Authority Five Year Plan	-	-	4,338,000	-	4,338,000
Future Projects	406,000	100,000	2,080,000	655,000	3,241,000
Future Projects	-	-	1,065,000	435,000	1,500,000
Richland Invert Replacement	-	-	1,360,000	-	1,360,000
Tres-Amigos Water Line Replacement Phase 1	1,205,000	-	-	-	1,205,000
MRF: Conversion to Sodium Hypochlorite	-	-	1,000,000	-	1,000,000
Land Outfall Gravity Sewer Sec D Phase 1	-	-	500,000	125,000	625,000
NW Lake San Marcos Sewer Replacement and Lining	-	-	495,000	-	495,000
Steel Pipeline Condition Assessment	250,000	-	-	-	250,000
Rock Springs Valve Replacement	220,000	-	-	-	220,000
Ductile Iron Pipe Condition Assessment	200,000	-	-	-	200,000
Asset Management Replacement Schedule	75,000	-	75,000	-	150,000
Miscellaneous Projects	50,000	-	1,000	-	51,000
Fund PERS UAL	2,468,000	-	1,559,000	-	4,027,000
Debt Service - 2012 debt	-	-	-	778,000	778,000
Debt Service - 2008 Loan	-	-	-	484,000	484,000
Debt Service - 2015 Refunding	-	2,138,400	-	2,058,600	4,197,000
Less Total Expenditures	4,874,000	2,238,400	12,473,000	4,535,600	24,121,000
Projected June 30, 2022 Balance	23,970,370	(6,779,300)	42,461,850	(4,877,920)	***$ 54,775,000***
Less Operating Reserves	6,490,800	-	7,346,000	-	13,836,800
Projected replacement reserve/restricted funds	$ 17,479,570	$ (6,779,300)	$ 35,115,850	$ (4,877,920)	$ 40,938,200
Adopted replacement reserve floor	$ 9,932,300		$ 19,117,400		
Adopted replacement reserve ceiling	$ 38,492,200		$ 60,749,800		

Debt service coverage	*383%*
Debt service coverage without cap fees	*227%*
Debt service coverage without cap fees or property tax & RDA	*169%*
Days of Operating Expenses in Unrestricted Cash and Investments	*313*

See significant assumptions on page 102

RESERVE PROJECTION FOR THE YEARS ENDING JUNE 30, 2023

	110 Water 120		210 Wastewater 220		
	Replacement	Capacity	Replacement	Capacity	Total
Projected July 1, 2022 Balance	$ 23,970,370	$ (6,779,300)	$ 42,461,850	$ (4,877,920)	$ 54,775,000
Revenues					
Operating Transfers	1,542,000	-	7,108,954	-	8,650,954
Capital Facility Fees	-	2,754,000	-	5,746,000	8,500,000
Property Tax	1,356,000	-	1,075,000	-	2,431,000
RDA pass-through	800,000	-	800,000	-	1,600,000
Debt Proceeds	-	4,000,000	-	6,000,000	10,000,000
Project Reimbursements	-	-	226,000	57,000	283,000
Investment Earnings	625,000	(162,000)	1,003,000	(72,000)	1,394,000
Available Balance	28,293,370	(187,300)	52,674,804	6,853,080	87,633,954
Less 22/23 Expenditures					
Future Projects	410,000	-	2,460,000	3,640,000	6,510,000
Encina Wastewater Authority Five Year Plan	-	-	5,142,000	-	5,142,000
Land Outfall Gravity Sewer Sec D Phase 1	-	-	4,000,000	1,000,000	5,000,000
Meadowlark Tank No. 3	-	4,011,000	-	-	4,011,000
Mountain Belle Pump Station	-	310,000	-	-	310,000
Chlorine Contact Tank Expansion	-	-	264,000	-	264,000
Old Questhaven Sewer Replacement	-	-	45,430	13,570	59,000
Debt Service - 2012 Debt	-	-	-	780,000	780,000
Debt Service - 2008 Loan	-	-	-	477,000	477,000
Debt Service - 2015 Refunding	-	2,139,400	-	2,059,600	4,199,000
Less Total Expenditures	410,000	6,460,400	11,911,430	7,970,170	26,752,000
Projected June 30, 2023 Balance	27,883,370	(6,647,700)	40,763,374	(1,117,090)	***$ 60,881,954***
Less Operating Reserves	6,740,400	-	7,133,000	-	13,873,400
Projected replacement reserve/restricted funds	$ 21,142,970	$ (6,647,700)	$ 33,630,374	$ (1,117,090)	$ 47,008,554
Adopted replacement reserve floor	$ 10,517,000		$ 19,912,800		
Adopted replacement reserve ceiling	$ 40,583,600		$ 64,035,800		

Debt service coverage	*414%*
Debt service coverage without cap fees	*258%*
Debt service coverage without cap fees or property tax & RDA	*184%*
Days of Operating Expenses in Unrestricted Cash and Investments	*339*

See significant assumptions on page 102

RESERVE PROJECTION FOR THE YEAR ENDING JUNE 30, 2024

	110 Water 120		210 Wastewater 220		
	Replacement	Capacity	Replacement	Capacity	Total
Projected July 1, 2023 Balance	$ 27,883,370	$ (6,647,700)	$ 40,763,374	$ (1,117,090)	$ 60,881,954
Revenues					
Operating Transfers	1,019,000	-	7,244,000	-	8,263,000
Capital Facility Fees	-	2,756,000	-	5,749,000	8,505,000
Property Tax	1,385,000	-	1,098,000	-	2,483,000
RDA pass-through	800,000	-	800,000	-	1,600,000
Debt Proceeds	-	3,500,000	-	14,500,000	18,000,000
Project Reimbursements	-	-	2,586,000	646,000	3,232,000
Investment Earnings	708,000	(160,000)	997,000	(25,000)	1,520,000
Available Balance	31,795,370	(551,700)	53,488,374	19,752,910	104,484,954
Less 23/24 Expenditures					
Future Projects	943,750	541,250	78,750	16,296,250	17,860,000
Encina Wastewater Authority Five Year Plan	-	-	5,781,000	-	5,781,000
Chlorine Contact Tank Expansion	-	-	3,212,000	-	3,212,000
Mountain Belle Pump Station	-	2,960,000	-	-	2,960,000
Land Outfall Gravity Sewer Sec D Phase 1	-	-	2,160,000	540,000	2,700,000
Old Questhaven Sewer Replacement	-	-	308,000	92,000	400,000
Debt Service - 2008 Loan	-	-	-	469,000	469,000
Debt Service - 2023	-	454,000	-	1,226,000	1,680,000
Debt Service - 2015 Refunding	-	2,140,400	-	2,060,600	4,201,000
Less Total Expenditures	943,750	6,095,650	11,539,750	20,683,850	39,263,000
Projected June 30, 2024 Balance	30,851,620	(6,647,350)	41,948,624	(930,940)	***$ 65,221,954***
Less Operating Reserves	7,057,500	-	7,300,100	-	14,357,600
Projected replacement reserve/restricted funds	$ 23,794,120	$ (6,647,350)	$ 34,648,524	$ (930,940)	$ 50,864,354
Adopted replacement reserve floor	$ 10,692,600		$ 20,820,600		
Adopted replacement reserve ceiling	$ 41,516,200		$ 67,137,900		

Debt service coverage	*352%*
Debt service coverage without cap fees	*218%*
Debt service coverage without cap fees or property tax & RDA	*154%*
Days of Operating Expenses in Unrestricted Cash and Investments	*351*

See significant assumptions on page 102

LONG RANGE RESERVE PROJECTION

	2024/25	2025/26	2026/27	2027/28	2028/29
Projected Beginning Balance	$ 65,222,000	$ 74,755,000	$ 84,968,000	$ 95,896,000	$ 107,573,000
Revenues					
Operating transfers	8,511,000	8,766,000	9,029,000	9,300,000	9,579,000
Capital facility fees	8,633,000	8,762,000	8,893,000	9,026,000	9,026,000
Property tax	2,536,000	2,591,000	2,647,000	2,704,000	2,762,000
Investment earnings	1,687,000	1,925,000	2,179,000	2,452,000	2,746,000
Capital outlay	(4,750,000)	(4,750,000)	(4,750,000)	(4,750,000)	(4,750,000)
Debt service	(7,084,000)	(7,081,000)	(7,070,000)	(7,055,000)	(6,642,000)
Projected Ending Balance	$ 74,755,000	$ 84,968,000	$ 95,896,000	$ 107,573,000	$ 120,294,000
Operating reserves	14,717,000	15,085,000	15,462,000	15,849,000	16,245,000
Projected replacement reserve/restricted funds	$ 60,038,000	$ 69,883,000	$ 80,434,000	$ 91,724,000	$ 104,049,000
Adopted replacement reserve floor	$ 34,599,000	$ 37,333,000	$ 39,900,000	$ 40,132,000	$ 41,225,000
Adopted replacement reserve ceiling	$ 112,975,000	$116,387,000	$119,086,000	$ 116,426,000	$ 113,876,000

Significant Assumptions

Operating Transfers - the result of operating activity transferred from the disbursements fund during the year. Operating transfers from FY 2025 through 2029 will increase by 3%.

Rates - Combined water and sewer rates for the average single family resident are estimated to increase by 4% each year the first 2 years with estimated increases of 3.5% to 4.0% January 1, 2022 and beyond.

Operating Expense Assumptions - Over the next five years, cost of wholesale water commodity will increase by 26% and wholesale fixed charges will increase 24%. Power, fuel, and chemical costs will increase by 4.5% per year, while most other operating costs will increase by 2% from year-to-year on average. The District will add 120 water accounts in 2020/21, and 120 in 2021/22 and every year thereafter. The District will add 120 sewer accounts in 2020/21 and approximately 120 in 2021/22 and each year thereafter.

Capital Facility Fees – The District will collect capacity charges for 300 water EDUs in fiscal year 2019/20 and between 325 and 350 EDUs in each fiscal year, 2020/21 through 2023/24. The District will collect capacity charges for 290 sewer EDUs in 2019/20 and between 300 and 325 sewer EDUs from 2020/21 through 2023/24. The rate per EDU will increase by 2.0% each year.

Property Tax - revenue from the 1% allocation will increase by 2.15% each year.

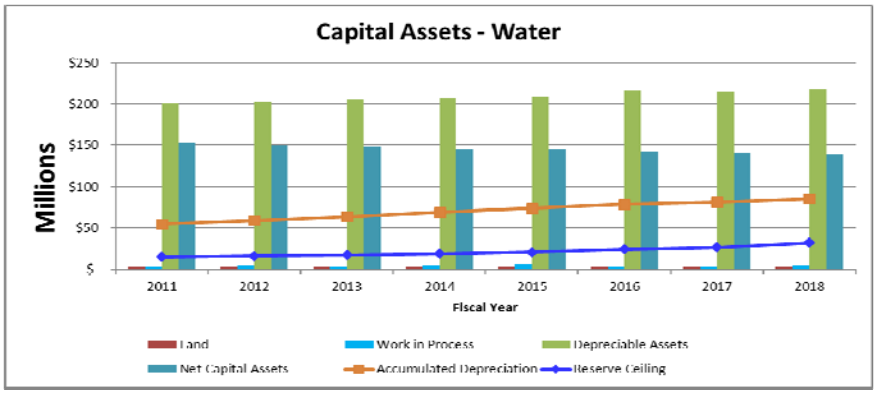
Investment Earnings - assumed at 2.41%.

Capital Outlay scheduled after Fiscal Year 2024 will be expended evenly over six years.

Vallecitos Water District
Replacement Reserve Limits - Water System
For the 2019-20 Budget year

ENR Index (as of March 2019)	11228

Year Added	Original Cost	ENR Factor	2019 Costs	Year of Replacement 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1957	$ 923,038	15.51	$ 14,314,738	461,766	461,766	461,766	461,766	461,766	461,766	461,766	461,766	-	-
1958	134,201	14.79	1,985,255	64,040	64,040	64,040	64,040	64,040	64,040	64,040	64,040	64,040	-
1963	2,067,687	12.46	25,766,914	831,191	831,191	831,191	831,191	831,191	831,191	831,191	831,191	831,191	831,191
1964	181,560	12.00	2,177,944	70,256	70,256	70,256	70,256	70,256	70,256	70,256	70,256	70,256	70,256
1965	256,377	11.56	2,964,574	95,631	95,631	95,631	95,631	95,631	95,631	95,631	95,631	95,631	95,631
1966	107,429	11.02	1,183,722	38,185	38,185	38,185	38,185	38,185	38,185	38,185	38,185	38,185	38,185
1967	122,039	10.45	1,275,842	41,156	41,156	41,156	41,156	41,156	41,156	41,156	41,156	41,156	41,156
1968	37,421	9.72	363,777	11,735	11,735	11,735	11,735	11,735	11,735	11,735	11,735	11,735	11,735
1969	39,742	8.85	351,634	11,343	11,343	11,343	11,343	11,343	11,343	11,343	11,343	11,343	11,343
1970	37,955	8.13	308,587	9,954	9,954	9,954	9,954	9,954	9,954	9,954	9,954	9,954	9,954
1971	90,080	7.10	639,733	20,637	20,637	20,637	20,637	20,637	20,637	20,637	20,637	20,637	20,637
1972	77,091	6.41	493,769	15,928	15,928	15,928	15,928	15,928	15,928	15,928	15,928	15,928	15,928
1973	169,427	5.93	1,003,866	32,383	32,383	32,383	32,383	32,383	32,383	32,383	32,383	32,383	32,383
1974	141,987	5.56	789,223	25,459	25,459	25,459	25,459	25,459	25,459	25,459	25,459	25,459	25,459
1975	230,530	5.08	1,170,159	37,747	37,747	37,747	37,747	37,747	37,747	37,747	37,747	37,747	37,747
1976	296,066	4.68	1,384,519	44,662	44,662	44,662	44,662	44,662	44,662	44,662	44,662	44,662	44,662
1977	303,133	4.36	1,321,264	42,621	42,621	42,621	42,621	42,621	42,621	42,621	42,621	42,621	42,621
1978	3,353,752	4.04	13,564,815	437,575	437,575	437,575	437,575	437,575	437,575	437,575	437,575	437,575	437,575
1979	933,794	3.74	3,491,388	112,625	112,625	112,625	112,625	112,625	112,625	112,625	112,625	112,625	112,625
1980	390,894	3.47	1,355,872	43,738	43,738	43,738	43,738	43,738	43,738	43,738	43,738	43,738	43,738
1981	397,944	3.18	1,263,965	40,773	40,773	40,773	40,773	40,773	40,773	40,773	40,773	40,773	40,773
1982	1,933,811	2.94	5,676,557	-	183,115	183,115	183,115	183,115	183,115	183,115	183,115	183,115	183,115
1983	3,393,243	2.76	9,370,224	-	-	302,265	302,265	302,265	302,265	302,265	302,265	302,265	302,265
1984	5,435,002	2.71	14,718,814	-	-	-	474,800	474,800	474,800	474,800	474,800	474,800	474,800
1985	675,452	2.68	1,807,861	-	-	-	-	58,318	58,318	58,318	58,318	58,318	58,318
1986	611,788	2.61	1,599,338	-	-	-	-	-	51,592	51,592	51,592	51,592	51,592
1987	799,052	2.55	2,036,259	-	-	-	-	-	-	65,686	65,686	65,686	65,686
1988	8,585,267	2.48	21,331,130	-	-	-	-	-	-	-	688,101	688,101	688,101
1989	1,572,104	2.43	3,824,829	-	-	-	-	-	-	-	-	123,382	123,382
1990	2,124,484	2.37	5,040,935	-	-	-	-	-	-	-	-	-	162,611
1991	1,777,396	2.32	4,127,529	-	-	-	-	-	-	-	-	-	-
1992	8,263,508	2.25	18,612,371	-	-	-	-	-	-	-	-	-	-
1993	3,727,844	2.16	8,033,826	-	-	-	-	-	-	-	-	-	-
1994	2,198,280	2.08	4,564,033	-	-	-	-	-	-	-	-	-	-
1995	4,438,365	2.05	9,108,748	-	-	-	-	-	-	-	-	-	-
1996	1,872,216	2.00	3,740,434	-	-	-	-	-	-	-	-	-	-
1997	3,075,659	1.93	5,927,480	-	-	-	-	-	-	-	-	-	-
1998	4,236,142	1.90	8,034,359	-	-	-	-	-	-	-	-	-	-
1999	1,216,379	1.85	2,254,085									-	-
2000	33,016,987	1.80	59,590,858									-	-
2001	1,599,452	1.77	2,831,254									-	-
2002	2,243,174	1.72	3,852,303									-	-
2003	8,148,602	1.68	13,666,531									-	-
2004	4,803,706	1.58	7,580,723									-	-
2005	4,945,039	1.51	7,456,762									-	-
2006	6,296,020	1.45	9,120,334									-	-
2007	9,123,102	1.41	12,858,924									-	-
2008	7,200,501	1.35	9,728,908									-	-
2009	32,403,360	1.31	42,453,317									-	-
2010	4,510,327	1.28	5,753,460									-	-
2011	2,053,547	1.24	2,542,142									-	-
2012	1,249,525	1.21	1,507,270									-	-
2013	3,574,225	1.19	4,243,565									-	-
2014	1,464,242	1.15	1,676,577									-	-
2015	1,950,156	1.12	2,184,175									-	-
2016	6,131,372	1.12	6,867,137	-	-	-	-	-	-	-	-	-	-
2017	-	1.09	-	-	-	-	-	-	-	-	-	-	-
2018	3,142,674	1.01	3,167,784	-	-	-	-	-	-	-	-	-	-
	$ 196,941,476		$ 400,894,612	2,489,405	2,672,520	2,974,785	3,449,586	3,507,904	3,559,495	3,625,181	4,313,282	3,974,898	4,073,468



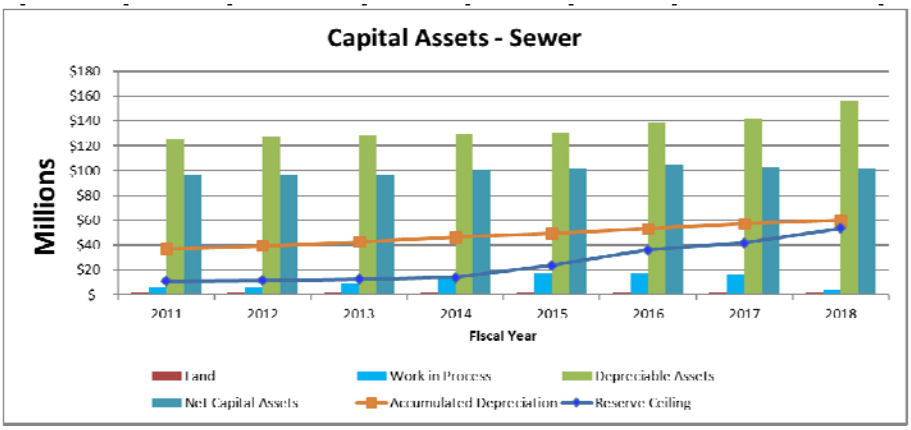
Three-Year Minimum Reserve Balance <-------$8,136,710------->

Ten-Year Maximum Reserve Balance <---------- $34,640,524 ---------->

Vallecitos Water District
Replacement Reserve Limits - Wastewater System
For the 2019-20 Budget year

ENR Index (as of March 2019)	11228

Year Added	Original Cost	ENR Factor	2019 Costs	Year of Replacement 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1964	$ 1,421,340	12.00	$ 17,050,006	-	-	-	-	-	-	-	-	-	
1965	394,116	11.56	4,557,296	-	-	-	-	-	-	-	-	-	
1966	110,183	11.02	1,214,067	-	-	-	-	-	-	-	-	-	
1967	41,816	10.45	437,160	-	-	-	-	-	-	-	-	-	
1968	24,352	9.72	236,731	-	-	-	-	-	-	-	-	-	
1969	28,784	8.85	254,678	-	-	-	-	-	-	-	-	-	
1970	1,617,466	8.13	13,150,549	821,909	-	-	-	-	-	-	-	-	
1971	53,601	7.10	380,665	23,792	23,792	-	-	-	-	-	-	-	
1972	78,755	6.41	504,427	31,527	31,527	31,527	-	-	-	-	-	-	
1973	149,279	5.93	884,488	55,280	55,280	55,280	55,280	-	-	-	-	-	
1974	409,501	5.56	2,276,177	142,261	142,261	142,261	142,261	142,261	-	-	-	-	
1975	189,378	5.08	961,273	60,080	60,080	60,080	60,080	60,080	60,080	-	-	-	
1976	151,559	4.68	708,748	44,297	44,297	44,297	44,297	44,297	44,297	44,297	-	-	
1977	394,775	4.36	1,720,704	107,544	107,544	107,544	107,544	107,544	107,544	107,544	107,544	-	
1978	930,683	4.04	3,764,304	235,269	235,269	235,269	235,269	235,269	235,269	235,269	235,269	235,269	
1979	697,184	3.74	2,606,721	162,920	162,920	162,920	162,920	162,920	162,920	162,920	162,920	162,920	162,920
1980	139,384	3.47	483,473	30,217	30,217	30,217	30,217	30,217	30,217	30,217	30,217	30,217	30,217
1981	192,586	3.18	611,699	38,231	38,231	38,231	38,231	38,231	38,231	38,231	38,231	38,231	38,231
1982	4,772,279	2.94	14,008,666	875,542	875,542	875,542	875,542	875,542	875,542	875,542	875,542	875,542	875,542
1985	5,149,309	2.68	13,782,227	861,389	861,389	861,389	861,389	861,389	861,389	861,389	861,389	861,389	861,389
1986	19,355,791	2.61	50,599,958	3,162,497	3,162,497	3,162,497	3,162,497	3,162,497	3,162,497	3,162,497	3,162,497	3,162,497	3,162,497
1987	381,136	2.55	971,265	-	60,704	60,704	60,704	60,704	60,704	60,704	60,704	60,704	60,704
1988	1,232,431	2.48	3,062,123	-	-	191,383	191,383	191,383	191,383	191,383	191,383	191,383	191,383
1989	2,001,761	2.43	4,870,157	-	-	-	304,385	304,385	304,385	304,385	304,385	304,385	304,385
1990	3,031,169	2.37	7,192,300	-	-	-	-	449,519	449,519	449,519	449,519	449,519	449,519
1991	1,864,618	2.32	4,330,079	-	-	-	-	-	270,630	270,630	270,630	270,630	270,630
1992	3,162,421	2.25	7,122,901	-	-	-	-	-	-	445,181	445,181	445,181	445,181
1993	13,446,724	2.16	28,978,852	-	-	-	-	-	-	-	1,811,178	1,811,178	1,811,178
1994	2,113,222	2.08	4,387,437	-	-	-	-	-	-	-	-	274,215	274,215
1995	3,276,618	2.05	6,724,523	-	-	-	-	-	-	-	-	-	420,283
1996	1,199,768	2.00	2,396,974	-	-	-	-	-	-	-	-	-	-
1997	988,964	1.93	1,905,954	-	-	-	-	-	-	-	-	-	-
1998	4,670,391	1.90	8,857,965	-	-	-	-	-	-	-	-	-	-
1999	1,047,495	1.85	1,941,125	-	-	-	-	-	-	-	-	-	-
2000	3,954,391	1.80	7,137,100										-
2001	2,705,995	1.77	4,789,991										-
2002	109,018	1.72	187,221										-
2003	9,260,829	1.68	15,531,916										-
2004	3,031,642	1.58	4,784,231										-
2005	2,984,298	1.51	4,500,106										-
2006	7,245,244	1.45	10,495,368										-
2007	(10,129,834)	1.41	(14,277,903)										-
2008	9,022,922	1.35	12,191,260										-
2009	37,476,922	1.31	49,100,453										-
2010	3,860,825	1.28	4,924,942										-
2011	1,487,477	1.24	1,841,388										-
2012	3,612,924	1.21	4,358,177										-
2013	(1,398,127)	1.18	(1,644,304)										-
2014	2,007,273	1.15	2,298,354										-
2015	(1,576,814)	1.12	(1,766,032)										-
2016	792,086	1.12	887,136										-
2017	1,984,324	1.09	2,167,736	-	-	-	-	-	-	-	-	-	-
2018	14,804,637	1.09	16,173,036	-	-	-	-	-	-	-	-	-	-
	$ 151,150,234		$ 320,442,816	6,652,755	5,891,550	6,059,141	6,331,999	6,726,237	6,854,606	7,239,708	9,006,589	9,173,260	9,358,274



Three-Year Minimum Reserve Balance <------$18,603,446------->

Eight-Year Maximum Reserve Balance <---------- $54,762,586 ---------->