Victor Valley Wastewater Reclamation Authority

Adopted Budget

FY 20/21

A Joint Powers Authority

VVWRA • 20111 Shay Rd., Victorville, CA 92394 • (760) 246-8638 • fax (760) 246-2895

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Victor Valley Wastewater Reclamation Authority
A Joint Powers Authority and Public Agency of the State of California
20111 Shay Road, Victorville, CA 92394
Telephone: (760) 246-8638
Fax: (760) 246-2898
e-mail: mail@vvwra.com

1 Budget Executive Summary

1.1 General Manager Budget Message

TO THE BOARD OF COMMISSIONERS, MEMBER AGENCIES OF THE VICTOR VALLEY WASTEWATER RECLAMATOIN AUTHORITY: THE TOWN OF APPLE VALLEY, THE CITY OF HESPERIA, THE COUNTY OF SAN BERNARDINO AND THE CITY OF VICTORVILLE, AND REGIONAL STAKEHOLDERS.

On behalf of the Victor Valley Wastewater Reclamation Authority (VVWRA/Authority), I am pleased to present for your consideration our Fiscal Years 2020-2021 Operating and Capital Budget. Preparation for these Budget calculations and supporting documents began on December 2, 2019, my first day as the new General Manager for the VVWRA. One of my first goals was to challenge the management team to develop a balanced, more focused, and comprehensive budget. The team worked diligently together to evaluate the present budget structure to identify shortcomings and ambiguity. We collaboratively identified areas for improvement to provide greater clarity with fewer line items, elimination of line item duplications and more a definitive separation of Department fiscal responsibility.

Past budgets reported operational expenses as one department when in fact there are three key VVWRA staff members who are fiscally responsible for developing their own independent budgets. The Plant Superintendent, Brad Adams, manages 19 staff members, including Operators and Mechanics, who are responsible for the operations of the regional and sub-regional facilities. He is responsible for developing the budget to operate the facilities. The Director of Administration, Robert Coromina, manages 9 employees who perform the environmental compliance, IT and electrical work, human resources, and safety. He works with the Controller, Chieko Keagy, to develop the Administrative budget.

VVWRA Mission Statement

"VVWRA is committed to protecting public health and the environment in the Victor Valley by providing effective and fiscally responsible wastewater collection, treatment and recycling."

In addition to developing two clear internal Departments who are held accountable for effective planning and budgeting, the number of line items was shortened to eliminate a level of granularity that created budgeting difficulties. The management team now has a much clearer understanding of where they have budgeted funds for their regular operations instead of having to dive into multiple layers of line items and codes. The elimination of this complexity allowed the management team to sharpen their pencils on the more general line items this budget year. Each manager was asked to eliminate worst case scenarios from the individual line items and to budget as close to normal expected operating costs for every element of their budget. They were each given a new line item for contingency that they could draw upon should any out of the ordinary situations arise. This new process eliminated additional funds from many line items that in the past had inflated budget numbers for the unknown situations that sometimes occur.

The VVWRA Budget Team

Darron Poulsen
General Manager

Brad Adams
Plant Superintendent

Robert Coromina
Director of Administration

Chieko Keagy
Controller

During these first six months as the new General Manager the management team and I have worked diligently in collaboration with each other, the Board of Commissioners, and the Member Agencies to build trust and a positive working relationship. We have developed a new Mission Statement and Core Values, that are discussed later in this document in greater detail. The management team is also developed a Model for Efficient Wastewater Utility Management that we will present to the Board in the new FY for their review and comments. The VVWRA staff and the management team have participated in making a culture shift to value every employee equally at a higher level and to put our customers, the Member Agencies, first in all of our decision and planning efforts.

The budget presented to you this June 18, 2020 provides for a surplus in revenues that will be used to fund a new strategy of pay-as-you-go Capital projects. This new budget is moving us closer to our desired debt ratio coverage of 1.2. Last year's budget was a deficit budget with a debt ratio of .76. The budget we are asking you to approve has a 1.16 debt ratio and a surplus budget over $300,000. Overall operating expenses were lowered almost 3% from last year and we have fully budgeted 12 Capital projects. The team is excited to move forward with our desired plans to better the Authority for the mutual benefit of our Member agencies.

The Victor Valley Wastewater Reclamation Authority is committed to satisfying the new Mission Statement utilizing our new Core Values and Model for Efficient Wastewater Utility Management as the road map to achieving those goals in the coming FY. The Authority strives to maintain transparency, responsiveness and stewardship toward our Board of Commissioners, our Member Agencies, our stakeholders, and our employees. I would like to take this opportunity to thank the external Finance

Committee made up of financial staff from the Member Agencies and the internal Finance Committee of Commissioners Bird and Lovingood for input on the proposed budget. Special thanks to the Finance staff including Controller, Chieko Keagy, Senior Accountant, Xiwei Wang, and Accountant, Kyle Parker.

Respectfully Submitted

Darron Poulsen
VVWRA General Manger

1.2 Overview of Revenue Changes and Analysis

This document includes the budget information for the fiscal year ending June 30, 2021 (hereafter referred to as FY 2021) for Victor Valley Wastewater Reclamation Authority (VVWRA or Authority). This financial plan serves as a policy document, operation guide, and as a means of transparent communication. The budget document is a comprehensive and balanced financial plan that features the analytical elements of a fiscally responsible public Authority. The budget also provides an overview of department operations and relative statistics utilized to measure performance and the achievement of goals. The Authority has developed a thorough table of contents inclusive of six major sections and a glossary that will help the reader locate information.

VVWRA Percolation Pond

For FY 2021, the Authority eliminated the Repairs and Replacements Fund and rolled the reoccurring regular operational expenses into the Operations and Maintenance Fund. Significant capital assets that need replacement on an as needed basis are now within the Operations and Maintenance Fund as supplemental capital purchases. These assets are not normally critical to operations and can be budgeted only when funds are available. In previous VVWRA budgets small capital projects that could not use restricted connection fee dollars were also located in the Repairs and Replacement Fund. All projects, inclusive of services and assets are now located in the Capital fund and appropriate funding sources are tracked appropriately. VVWRA accounts for these two divisions, Operations and Capital, using enterprise accounting practices and a comprehensive accounting software. The VVWRA conducts its businesses based on an Enterprise Accounting System that is an accrual accounting system, similar to a regular business accounting method, by recording revenues and expenses as incurred instead of recognizing transactions when cash is received or paid.

VVWRA provides wastewater treatment services to four member agencies: City of Victorville, City of Hesperia, Town of Apple Valley, and two areas of San Bernardino County Special Districts. the Authority treats and bills the total wastewater flow from the Member Agencies based on the approved flow allocation per member agency, on average of, 59% from the City of Victorville, 18% from the City of Hesperia, 17% from the Town of Apple Valley, and the remaining 6% from the two areas of San Bernardino County Special Districts. This treatment

process is billed to the Member agencies at a rate of $4,087 per million gallons of flow based on the percentage of overall flow allocation. Other operating income includes septage processing fees; tipping fees for anaerobically digestible materials, fats, oils, and grease; sludge flow; industrial pretreatment fees; reclaimed water sales; and high strength surcharge fees. The proposed total operating revenue for FY 2021 is projected to be $17.8 million. After the payment of the debt service the remaining funds available for operating expenses is $14.3 million.

In addition to the user fee revenues the Authority is also projecting the collection of $2.3 million of connection fees. Connection fees are collected from the Member Agencies as development impact fees which are paid to the Cities by developers seeking additional capacity and connection to the VVWRA system. The connection fee revenues are based on the connection fee rate $4,679 per equivalent dwelling unit (EDU) that was effective on April 1, 2020. The use of connection fee revenues is restricted to capital projects that add capacity to the VVWRA assets that deliver, treat, and monitor wastewater. The use of these funds is more clearly stated in the Financial Information Capital Projects section of this document.

1.3 Overview of Operational Expenses

VVWRA has submitted a proposed Operating budget of $17.8 million consisting of $2.5 million in debt service and $14.3 million for operations and maintenance expenses. These expenses exclude non-cash items, such as depreciation expense. The Authority predicted the operating revenues and expenses based on the assumption that the Authority will operate both sub-regional plants in Apple Valley and City of Hesperia during the FY 2021. These additional operations add extra expenses, but also add additional revenues from the sale of recycled water. It is always the goal.

Calculated into the operating budget in FY 2021 is the payment of a Notice of Violation (NOV) to the Lahontan Regional Water Quality Board for water quality infractions that occurred as far back as 2008. The final minimum mandatory penalties totaled $129,000 and were added to the FY 2021 operating budget. Had this expense not been added to the operating budget in the FY 2021 budget there would have been a surplus, but now the budget shows a deficit of $72,870. This deficit is offset by a one-time revenue of carried over funds from the FY 2020. During the year ending June 30, 2020, the Authority received a retention for the Upper Narrows Emergency Project from the Federal Emergency Management Authority (FEMA) and the California Governor's Office of Emergency Services (Cal OES) of $1,275,864. This infusion of carried over funds created a surplus of operating revenues of $1.2 million. These monies were allocated to proposed capital projects detailed in greater detail in the Capital section of the budget document.

These one-time revenues associated with withheld FEMA retention dollars that were received in FY 2020 was one of two pending retention amounts. There is a second pending retention

amount totaling over $3.1 million that is still being reviewed. Because these funds have been pending for the previous three years the Authority did not take any action to add them the FY 2021 budget due to the uncertainty of receiving the funds.

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In addition to developing two clear internal Departments who are held accountable for effective planning and budgeting, the number of line items was shortened to eliminate a level of granularity that created budgeting difficulties. The management team now has a much clearer understanding of where they have budgeted funds for their regular operations instead of having to dive into multiple layers of line items and codes. The elimination of this complexity allowed the management team to sharpen their pencils on the more general line items this budget year. Each manager was asked to eliminate worst case scenarios from the individual line items and to budget as close to normal expected operating costs for every element of their budget. They were each given a new line item for contingency that they could draw upon should any out of the ordinary situations arise. This new process eliminated additional funds from many line items that in the past had inflated budget numbers for the unknown situations that sometimes occur.

1.4 Capital Projects Strategy Update

The Authority started a new five-year capital improvement program in FY 2020. Since that time, a change in the Plant Superintendent and General Manger occurred which lead to an internal strategy discussion on capital project priorities to develop the FY 2021 capital project list. VVWRA staff members from each section Operations and Maintenance, Environmental Compliance and Electrical, Administration and Finance participated in in open discussion on all the previous projects identified over the last three years. During this review, a new pay-as-you-go strategy was detailed to the VVWRA staff by the new General Manager.

Regional Plant Digesters

Further details on this new Capital Improvement Program (CIP) strategy are detailed in section 6.1 of this budget document.

VVWRA has completed the construction of the two sub-regional treatment plants in the Town of Apple Valley and the City of Hesperia. Starting in FY 2021 these facilities will be delivering recycled water to the Member Agencies where the facilities are located.

A new rate study approved in FY 2020 designed rates to move away from significant debt service for capital projects in the future. The new rates were designed with a pay-as-you-go strategy for capital projects. In the proposed FY 2021 budget all available funds above debt service, operational expense, and mandatory reserves are now being allocated to fund future capital projects. The new capital improvement program (CIP) will now annually use this practice to fully fund or partially fund projects until such time that annual budget allocations reach the level of the proposed project cost.

1.5 Debts – SRF Loans

The agency has conducted its financial planning for the next five years, FY 2020 through FY 2024. Following the financial plan, the FY 2021 budget will result in a debt coverage ratio of 1.16, which is 0.04 less than the desired value of a 1.20 ratio as specified in the loan agreements with the State Water Resources Control Board.

Although there are no applicable legal debt limits for VVWRA to adhere to, the agency is challenged with the loan contractual obligation of maintaining the annual debt service reserve for the following year SRF loan payments. Due to these constraints the new rate study was designed to allow for a pay-as-you-go strategy for capital projects with limited future debt service for capital projects.

VVWRA's total debt service for FY 2021 is $4,882,810. Out of this amount, $2,749,738 is funded by the user charge revenue, and $2,133,072 is funded by the connection fee revenue. FY 2021's debt service shows a decrease of $265,049 from $5,147,859 in FY 2020. VVWRA's debt service amount will further decrease in future years as the agency continues to pay off debts. Please see the following pages for future loan payments.

Based on the Board consensus to pay back the loans timely, the Board has approved the user fee and connection fee rate adjustments during FY 2020. The new user fee was effective October 1, 2019 that will continue increasing by 8% annually throughout FY 2024. The adjusted connection fee rate was effective December 1, 2019 that will remain effective throughout FY 2024.

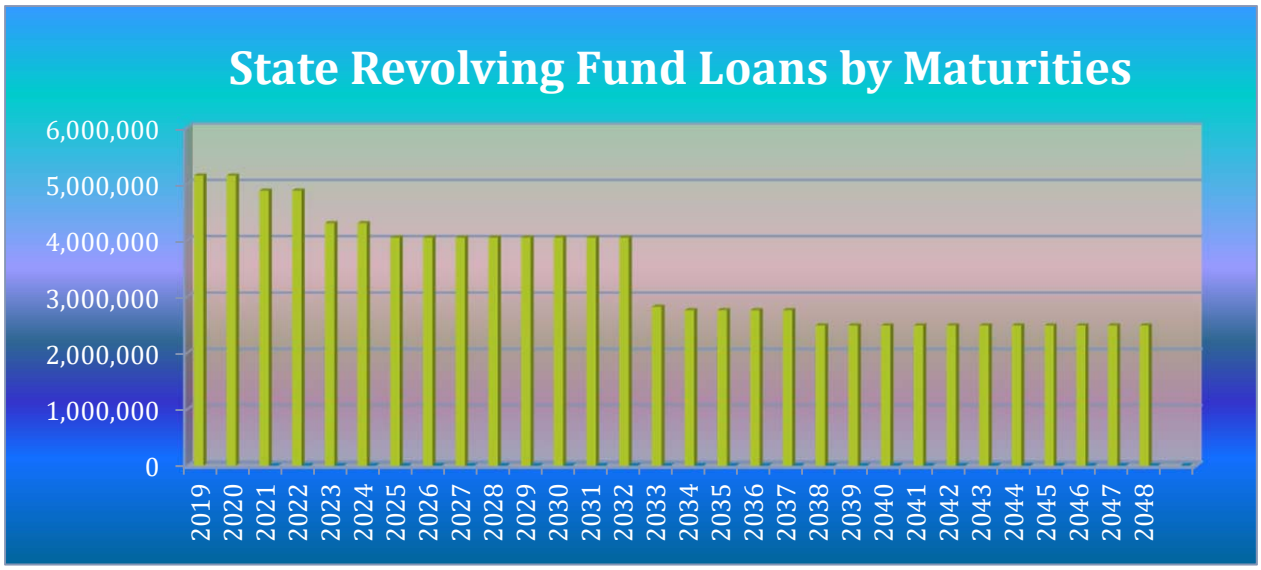
The table below represents our debt service payments for the Clean Water State Revolving Fund (SRF) loans. As of July 1, 2020, the agency has seven outstanding loans that are all SRF loans. Their annual repayments are presented in a bar graph at the following page. As a special

district, the agency is not required to maintain a legal debt limit but is required to adhere to the debt coverage clauses.

VVWRA Annual Debt Service

Fiscal Year	9.5 MGD Capital Improvements	11 MGD Expansion	North Apple Valley Interceptor	Phase IIIA Regulatory Upgrades	Upper Narrows Replacement	Nanticoke Bypass	Apple Valley Sub-Regional	Hesperia Sub-Regional	Total
2019	265,049	579,870	258,151	1,027,610	257,745	271,633	1,024,951	1,462,850	**5,147,859**
2020	265,049	579,870	258,151	1,027,610	257,745	271,633	1,024,951	1,462,850	**5,147,859**
2021	-	579,870	258,151	1,027,610	257,745	271,633	1,024,951	1,462,850	**4,882,810**
2022	-	579,870	258,151	1,027,610	257,745	271,633	1,024,951	1,462,850	**4,882,810**
2023	-	-	258,151	1,027,610	257,745	271,633	1,024,951	1,462,850	**4,302,940**
2024	-	-	258,151	1,027,610	257,745	271,633	1,024,951	1,462,850	**4,302,940**
2025	-	-	-	1,027,610	257,745	271,633	1,024,951	1,462,850	**4,044,789**
2026	-	-	-	1,027,610	257,745	271,633	1,024,951	1,462,850	**4,044,789**
2027	-	-	-	1,027,610	257,745	271,633	1,024,951	1,462,850	**4,044,789**
2028	-	-	-	1,027,610	257,745	271,633	1,024,951	1,462,850	**4,044,789**
2029	-	-	-	1,027,610	257,745	271,633	1,024,951	1,462,850	**4,044,789**
2030	-	-	-	1,027,610	257,745	271,633	1,024,951	1,462,850	**4,044,789**
2031	-	-	-	1,027,610	257,745	271,633	1,024,951	1,462,850	**4,044,789**
2032	-	-	-	1,027,610	257,745	271,633	1,024,951	1,462,850	**4,044,789**
2033	-	-	-	-	60,393	271,633	1,024,951	1,462,850	**2,819,827**
2034	-	-	-	-	-	271,633	1,024,951	1,462,850	**2,759,434**
2035	-	-	-	-	-	271,633	1,024,951	1,462,850	**2,759,434**
2036	-	-	-	-	-	271,633	1,024,951	1,462,850	**2,759,434**
2037	-	-	-	-	-	271,633	1,024,951	1,462,850	**2,759,434**
2038	-	-	-	-	-	-	1,024,951	1,462,850	**2,487,801**
2039	-	-	-	-	-	-	1,024,951	1,462,850	**2,487,801**
2040	-	-	-	-	-	-	1,024,951	1,462,850	**2,487,801**
2041	-	-	-	-	-	-	1,024,951	1,462,850	**2,487,801**
2042	-	-	-	-	-	-	1,024,951	1,462,850	**2,487,801**
2043	-	-	-	-	-	-	1,024,951	1,462,850	**2,487,801**
2044	-	-	-	-	-	-	1,024,951	1,462,850	**2,487,801**
2045	-	-	-	-	-	-	1,024,951	1,462,850	**2,487,801**
2046	-	-	-	-	-	-	1,024,951	1,462,850	**2,487,801**
2047	-	-	-	-	-	-	1,024,951	1,462,850	**2,487,801**
2048	-	-	-	-	-	-	1,024,951	1,462,850	**2,487,801**
Total	**530,098**	**2,319,480**	**1,548,906**	**14,386,540**	**3,668,823**	**5,161,027**	**30,748,530**	**43,885,500**	**102,248,904**

After FY 2025 the repayment amount will be lowered to about $4.0 million and then after FY 2033, the payment amount will become near $2.8 million. The high repayment amounts will negatively impact both operations and capital projects throughout the years.



VVWRA has utilized the SRF loans through California State Water Resources Control Board to fund most capital projects. The construction of the projects below was completed during the years before June 30, 2018. The following list shows two years of principal and interest repayments per Operations & Maintenance and Capital Funds.

2021	11 MGD Expansion	North Apple Valley Interceptor	Phase IIIA Regulatory Upgrades	Upper Narrows Replacement Project	Nanticoke Bypass Project	Apple Valley Sub-Regional Project	Hesperia Sub-Regional Project	2021 Total
SRF Loan Amount	$ 11,430,726	$ 4,084,688	$ 15,717,668	$ 4,286,380	$ 4,459,190	$ 26,455,229	$ 37,758,385	$ 104,192,266
Annual Payment	$ 579,870	$ 258,151	$ 1,027,610	$ 257,745	$ 271,633	$ 1,024,951	$ 1,462,850	$ 4,882,810
Payment Date	April 3	February 13	June 30	December 31	June 30	February 28	February 28	
1. Operations	0.00%	0.00%	75.00%	100.00%	75.00%	61.00%	61.00%	
Original Loan	$ -	$ -	$ 11,788,251	$ 4,286,380	$ 3,344,393	$ 16,137,690	$ 23,032,615	
Principal	$ -	$ -	$ 559,814	$ 204,738	$ 147,939	$ 473,189	$ 675,355	$ 2,061,035
Interest	$ -	$ -	$ 210,893	$ 53,007	$ 55,786	$ 152,032	$ 216,985	$ 688,703
Annual Payment	$ -	$ -	$ 770,707	$ 257,745	$ 203,725	$ 625,221	$ 892,340	$ 2,749,738
2. Capital	100.00%	100.00%	25.00%	0.00%	25.00%	39.00%	39.00%	
Original Loan	$ 11,430,726	$ 4,084,688	$ 3,929,417	$ -	$ 1,114,798	$ 10,317,539	$ 14,725,770	
Principal	$ 558,956	$ 233,872	$ 186,605	$ -	$ 49,313	$ 302,530	$ 431,782	$ 1,763,058
Interest	$ 20,914	$ 24,279	$ 70,298	$ -	$ 18,595	$ 97,200	$ 138,728	$ 370,014
Annual Payment	$ 579,870	$ 258,151	$ 256,903	$ -	$ 67,908	$ 399,730	$ 570,510	$ 2,133,072
Total Principal	$ 558,956	$ 233,872	$ 746,419	$ 204,738	$ 197,252	$ 775,719	$ 1,107,137	$ 3,824,093
Total Interest	$ 20,914	$ 24,279	$ 281,191	$ 53,007	$ 74,381	$ 249,232	$ 355,713	$ 1,058,717
Annual Payment	$ 579,870	$ 258,151	$ 1,027,610	$ 257,745	$ 271,633	$ 1,024,951	$ 1,462,850	$ 4,882,810

2022	11 MGD Expansion	North Apple Valley Interceptor	Phase IIIA Regulatory Upgrades	Upper Narrows Replacement Project	Nanticoke Bypass Project	Apple Valley Sub-Regional Project	Hesperia Sub-Regional Project	2022 Total
SRF Loan Amount	$ 11,430,726	$ 4,084,688	$ 15,717,668	$ 4,286,380	$ 4,459,190	$ 26,455,229	$ 37,758,385	$ 104,192,266
Annual Payment	$ 579,870	$ 258,151	$ 1,027,610	$ 257,745	$ 271,633	$ 1,024,951	$ 1,462,850	$ 4,882,810
Payment Date	April 3	February 13	June 30	December 31	June 30	February 28	February 28	
1. Operations	0.00%	0.00%	75.00%	100.00%	75.00%	61.00%	61.00%	
Original Loan	$ -	$ -	$ 11,788,251	$ 4,286,380	$ 3,344,393	$ 16,137,690	$ 23,032,615	
Principal	$ -	$ -	$ 574,930	$ 208,628	$ 150,750	$ 477,921	$ 682,108	$ 2,094,337
Interest	$ -	$ -	$ 195,778	$ 49,117	$ 52,975	$ 147,299	$ 210,232	$ 655,401
Annual Payment	$ -	$ -	$ 770,708	$ 257,745	$ 203,725	$ 625,220	$ 892,340	$ 2,749,738
2. Capital	100.00%	100.00%	25.00%	0.00%	25.00%	39.00%	39.00%	
Original Loan	$ 11,430,726	$ 4,084,688	$ 3,929,417	$ -	$ 1,114,798	$ 10,317,539	$ 14,725,770	
Principal	$ 571,534	$ 239,719	$ 191,643	$ -	$ 50,250	$ 305,556	$ 436,100	$ 1,794,802
Interest	$ 8,336	$ 18,432	$ 65,259	$ -	$ 17,658	$ 94,175	$ 134,410	$ 338,270
Annual Payment	$ 579,870	$ 258,151	$ 256,902	$ -	$ 67,908	$ 399,731	$ 570,510	$ 2,133,072
Total Principal	$ 571,534	$ 239,719	$ 766,573	$ 208,628	$ 201,000	$ 783,477	$ 1,118,208	$ 3,889,139
Total Interest	$ 8,336	$ 18,432	$ 261,037	$ 49,117	$ 70,633	$ 241,474	$ 344,642	$ 993,671
Annual Payment	$ 579,870	$ 258,151	$ 1,027,610	$ 257,745	$ 271,633	$ 1,024,951	$ 1,462,850	$ 4,882,810

Regional Secondary Clarifiers

1.6 Environmental and Regulatory Changes

Current and future regulations have a significant effect on VVWRA's financial planning. The VVWRA currently operates one regional wastewater plant located in the City of Victorville and two water reclamation plants (WRP) located in the City of Hesperia and the Town of Apple Valley.

VVWRA faces a greater need for capital funding than ever before to pay for new infrastructure, system expansions, renewal, and replacement of existing facilities, as well as to meet increasingly stringent environmental regulations and compliance requirements.

The regional wastewater plant is regulated by both a National Pollutant Discharge Elimination System (NPDES) permit issued under the authority of the Federal Clean Water Act (CWA) and a waste discharge requirements (WDR) issued by the State of California. WDR Permits regulate the WRPs. All three facilities produce disinfected tertiary recycled water available for member agencies' use. Under the NDPES and WDR permits, VVWRA manages several environmental programs.

Pretreatment program:

The CWA covers non-domestic sources of wastewater that discharge directly to a publicly owned treatment works like the VVWRA. Such discharges may be federally regulated or regulated by VVWRA's pretreatment ordinance, which is enforced by VVWRA in cooperation with member agencies under authority derived from the Federal CWA.

One of the main goals of VVWRA's pretreatment program is to prevent the discharge of pollutants into the member agencies sewer systems, which may interfere with the operation of the VVWRA plants or pass through the system and negatively impact the Mojave river basin including interference with its use or disposal of municipal sludge. The pretreatment program achieves this goal by: identifying regulated industries, conducting facility inspections, issuing wastewater discharge permits, sampling industrial discharges to determine compliance, taking enforcement in response to noncompliance, responding to Member Agencies' requests to perform investigations regarding non-routine discharges, and conducting related public outreach activities.

Recycled water program:

To augment and optimize its water recycling capabilities, VVWRA has elected to design and construct satellite scalping plants within the wastewater collection system to produce disinfected tertiary recycled water closer to the end-users and thereby minimize overall production and distribution costs. VVWRA is the recycled water program administrator.

Due to the proximity to the former George Air Force base, VVWRA works closely with the Air Force to monitor the plume of pollutants for a superfund site located nearby.

As federal and state grant funding programs continue to be reduced and/or eliminated, VVWRA continues to focus more attention on planning for the funding of future capital needs and finding alternative sources for capital funding.

1.7 Overview Conclusion

FY 2021 shows positive improvement from the FY 2020 deficit budget. During the FY ending June 30, 2020 the VVWRA staff were successful in developing and approving a new user fee structure which included 8% increases in the user fees to the Member Agencies flow rates to the VVWRA regional plant. The Authority staff and the Board also approved an increase in the connection fee rates moving from $4,000 to $4,679 per an EDU. These two increases are in line with surrounding agency fees and were fully supported by the VVWRA staff and the Board. These new rates have provided a solid base for the future fiscal planning for the Authority. In the FY 2021 proposed budget the Authority achieved a 1.16 debt ratio up from a .76 debt ratio in FY 2020. The new budget format and more interaction with the staff resulted in a 2.7% decrease in operational expenses. All these factors are proposed to produce a surplus that has been allocated to a new pay-as-you-go CIP strategy. Overall the VVWRA Budget Team is excited to share the fiscal planning for the FY 2021 Budget and looks forward to working with the Board to approve and implement the FY 2021 Budget.

2 History and Governance

2.1 History of VVWRA

The Victor Valley Wastewater Reclamation Authority was originally formed by the Mojave Water Agency to help meet the requirements of the Federal Clean Water Act and provide wastewater treatment for the region. The original treatment plant, with supporting pipelines and infrastructure, began operating in 1981 to provide tertiary level treatment for up to 4.5 million gallons per day (MGD) for discharge into the Mojave River to replenish the aquifer. The current operations at the regional treatment plant treat 11 MGD. The VVWRA operates as a Special District of the State of California which operates under a Joint Powers Authority (JPA) agreement between the member agencies, the Town of Apple Valley, The City of Hesperia, the County of San Bernardino Service Areas 42 and 63 and the City of Victorville.

Over the years, VVWRA has completed treatment plant upgrades and several capacity increases. The regional treatment plant is currently capable of treating a portion of the flow to a tertiary level and the remaining flow to a secondary level for percolation. A majority of the highly treated wastewater is discharged into the Mojave River Basin, while a smaller quantity is sold to Victorville power plant and American Organics.

In FY 2020 the Authority completed construction on the sub-regional treatment plants in the Town of Apple Valley and the City of Hesperia. These facilities will start full operations in FY 2021 and will treat between .5 and .75 MGD. The effluent recycled water will be sold to the local Member Agency to provide an additional revenue stream and relieve capacity at the regional plant.

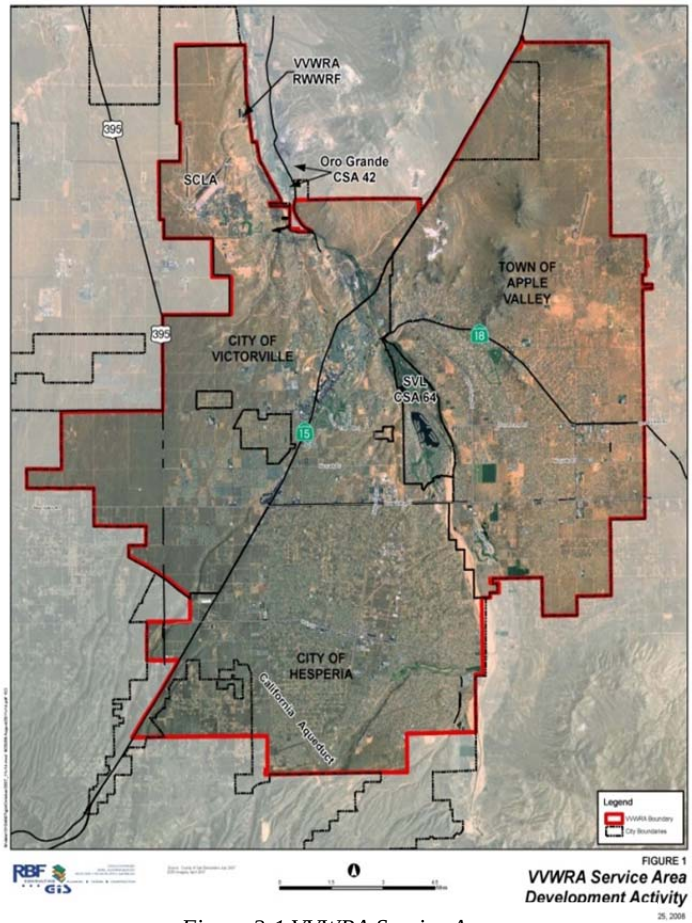


Figure 2-1 VVWRA Service Area

2.2 Local Demographics

The service area has a population of 297,219 in 2019 with a slow but steady population growth in recent years.

Unemployment in the San Bernardino County is 14.2% in 2010 due to the economic downturn that started in late 2008. The unemployment rate has decreased from 14.2% in 2020 to 3.8% in 2019.

The figures below represent data for the County of San Bernardino based on information from State of California Employment Development Department.

Figure 2-1: Population Growth

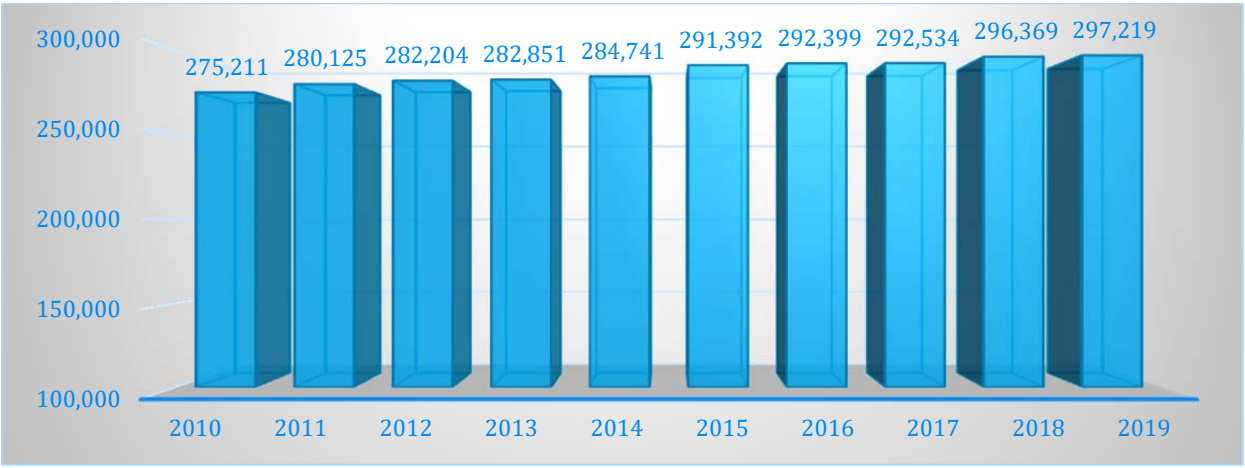


Figure 2-2: Unemployment Rate

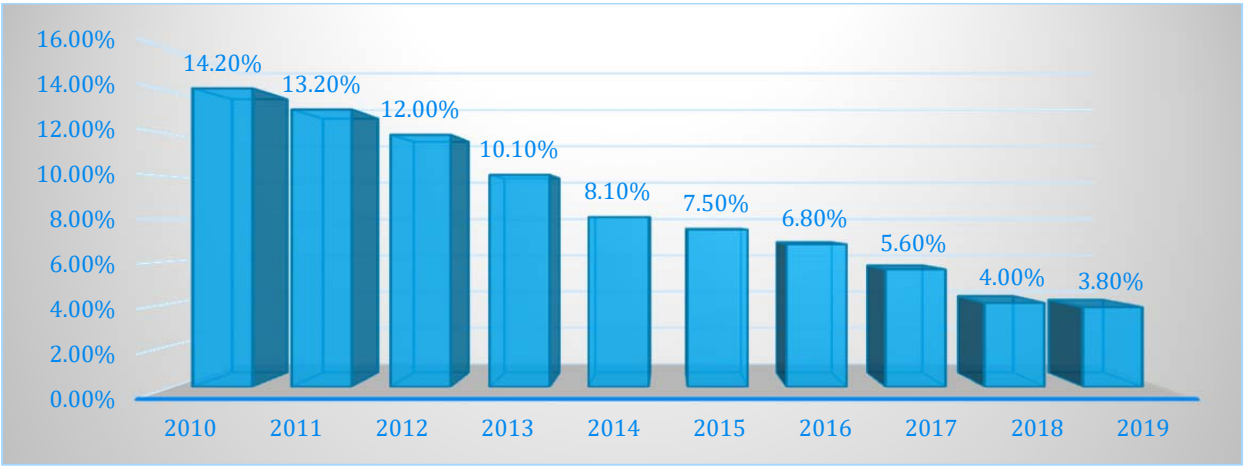
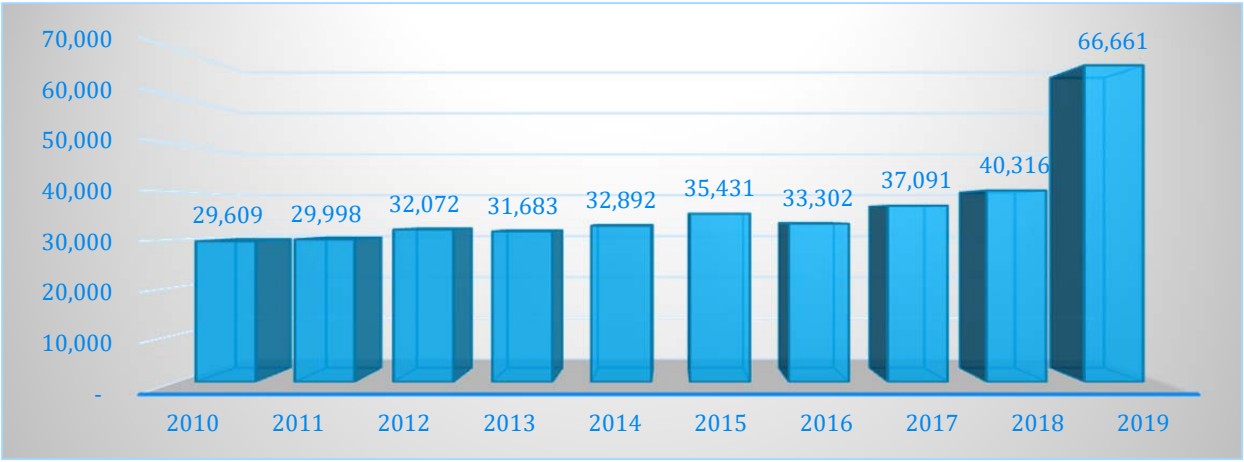


Figure 2-3: Personal Income Per Capita



2.3 Description of Governance

VVWRA is a quasi-governmental agency called a Special District of the State of California. It is not regulated by California Public Utilities Commission but governed by a Board of four Commissioners who are publicly elected for a four-year term from each Member Agency. Our affairs are bound by a joint powers agreement between VVWRA and Member Agencies. The board of Commissioners is responsible for approving policies and ordinances in accordance with the purpose detailed in the JPA agreement. These policies and ordinances are then enacted upon and put into practice by the General Manager who is responsible for setting the vision and goals of the organization in collaboration with the Board to achieve the desired outcomes detailed in the Mission Statement of the VWRA.

2.4 Board Member Pictures and Agency Names

VVWRA is governed by a four-member Governing Board represented by an elected official from each of the Member Agencies.

Board of Commissioners

As of June 30, 2020

			
Larry Bird	Robert Lovingood	Scott Nassif	Jim Cox
Secretary	**Treasurer**	**Chair**	**Vice Chair**
City of Hesperia	County of San Bernardino	Town of Apple Valley	City of Victorville

3 Organizational Mission and Structure

3.1 Community Involvement and Member Agency Collaboration

As a joint power authority, the VVWRA's primary goal is to provide the essential service of collecting, treating, and recycling wastewater for the benefit of the Member Agencies and the communities they serve. Through the JPA agreement the Board of Commissioners, the VVWRA General Manager and the VVWRA staff strive to set and achieve goals to provide sustainable and cost-effective solutions to deliver these necessary services for the benefit of the communities we all serve. The VVWRA serves an arid region which has historically depleted its groundwater resources. For this reason, the processed wastewater is valued for projects, such as replenishing groundwater, protecting riparian habitat, and generating power plant cooling water. The energy stored in the organic matter delivered in the wastewater can be used to provide heat and power to operate the wastewater treatment plant. Finally, the organic residual resulting from the treatment process can be beneficially reused to amend soil quality and to reduce greenhouse gas emissions

There are two primary concerns that drive the Authority's long-term planning and mission. It is vitally important that the Authority work with the Member agencies to work together to plan for community growth and to monitor the environmental and regulatory requirements that determine the amount of resources required to address issues. Additionally, the industry as a whole is changing with more focus on regional watershed-based decision making.

Hesperia Wastewater Reclamation Plant

Through a series of capital projects, the VVWRA endeavors to achieve the goal of providing sustainable and cost-effective solutions to the surrounding communities. Capital projects such as the sub-regional plants will allow VVWRA to have sufficient wastewater flow to provide reclaimed water locally and reduce sewage in our over-capacity interceptors. These sub-regional facilities represent a positive first step in the long-term planning to achieve the overall goals of the Authority and improving the overall customer service to the Member Agencies. The sub-regional treatment plants will produce recycled water a vital and cost-effective resource in this arid region. Another benefit of locating the sub-regional plants farther up the watershed in the vicinity of residential areas will result in saving the subsequent energy costs of pumping the recycled water back to the recycled water users from the regional plant.

The VVWRA plays a vital role in the region to protect public health, producing recycled water for irrigation use and recharge of the aquifer, and sustaining a part of the local Mojave River habitat.

3.2 VVWRA Mission Statement

As the construction of Sub-regional plants was completed during the FY 2018, VVWRA's SRF loans became due in February 2019 (one year after the completion of the construction of the project). The Board has discussed a long-term strategy to pay back these loans timely; the consensus indicates the need for the proper rate adjustments of user charge fees and connection fees. As these loan payments affect both funds, Operations (Fund 01) and Construction (Fund 09), the rate consideration involves both user charge fees (for the Fund 01) and connection fees (for the Fund 09). In FY 2020, the user charge fee will increase by 8%, from $3,503 per million gallons (MG) to $3,783 per MG; in addition, the connection fee will increase by 17%, from $4,000 per equivalent dwelling unit (EDU) to $4,679 per EDU. The increase of fees is intended to ensure that VVWRA remain in compliance with its debt coverage ratio of 1.20 and to have sufficient cash reserve for repayments as required by the loan covenants.

VVWRA Mission Statement

"VVWRA is committed to protecting public health and the environment in the Victor Valley by providing effective and fiscally responsible wastewater collection, treatment and recycling."

3.3 VVWRA Core Values

As a public agency, VVWRA has a responsibility to its member agencies and the communities they serve to strive to achieve the vision detailed in the mission statement. The mission statement provides purpose and guidance to the organization, but in order to achieve the desired vision it is imperative that core values be instilled to help align the organization to a common purpose and the achievement of common goals. VVWRA operates with three Core Values:



Collaboration

VVWRA focuses on building and supporting teamwork. By working together, we can support our staff and partners in the fulfillment of the respective visions. The value to the organization it to educate staff to distinguish between cooperation and collaboration. Cooperation is a group of staff working together with a different set of goals, while collaboration is everyone working together towards a common goal.

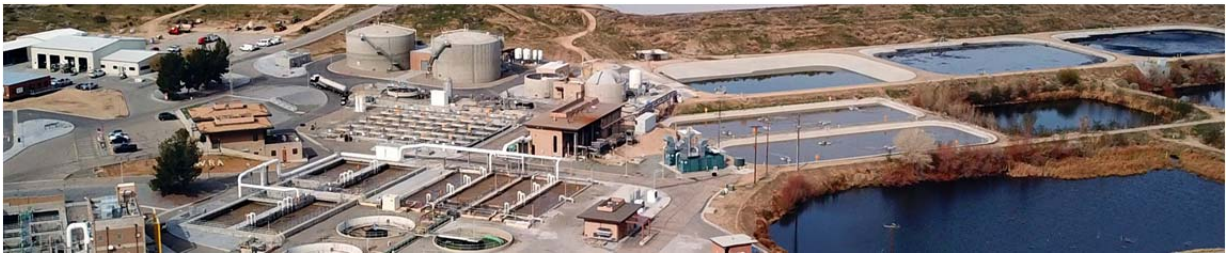
Dedication

Dedication is a quality we look for in our staff. As an organization, we are dedicated to working with our Member Agencies to create a symbiotic relationship which benefits us all. To meet this value, we must cultivate an environment which generates passion, loyalty, and a shared vision. By being dedicated to our purpose, we can ensure the positive future for the communities and residents we serve.

Integrity

Integrity is a term that carries a lot of weight. This is a quality of having strong moral principles and ethical conduct. It carries with it a sense of accountability to our Member Agencies. Honesty, forthright- ness, and doing the right thing for the right reasons all define integrity. It is of the utmost importance to hold ourselves to this standard if we are to request it of others.

3.4 VVWRA Model for Efficient Wastewater Utility Management



In the application of the core values, VVWRA has adopted ten operational attributes to operate and manage the Authority in an effective and efficient manner. These attributes describe desired outcomes that are applicable to the mission and goals of VVWRA. They comprise a comprehensive framework related to operations, infrastructure, customer satisfaction, effective leadership, employee valuation, financial responsibility, sustainability, and natural resource stewardship. VVWRA's attributes of an effective managed utility include:

Regulatory Compliance

VVWRA's core mission is to protect public health and the environment for our communities by providing high-quality wastewater-treatment services in an effective, efficient, and

responsive manner, we fulfill this mission by producing tertiary treated effluent and biosolids that meets or exceeds regulatory requirements.

Member Agency Support and Satisfaction

VVWRA seeks to provide reliable, responsive, and affordable services in line with the service levels as set by our Member Agencies. VVWRA will strive to be a resource and positive partner with the Member Agencies in how we communicate and perform outreach, how we operate and sustain facilities for our Member Agencies needs and how we collaboratively plan our capital projects with our Member Agencies to meet the growing needs of our region.

Outreach and Communications - Working in collaboration with the Member Agencies, VVWRA will utilize a mix of evolving communication technologies to convey common messaging in support of our mutual goals. The messaging and outreach from VVWRA will seek to focus on regional matters that impact VVWRA and its Member Agencies. All messaging will emphasize VVWRA's role and services to the Member Agencies and the communities we serve. VVWRA and the Member Agencies will actively promote and appreciation of the value of wastewater services and water's role in the social, economic, public, and environmental health of the community.

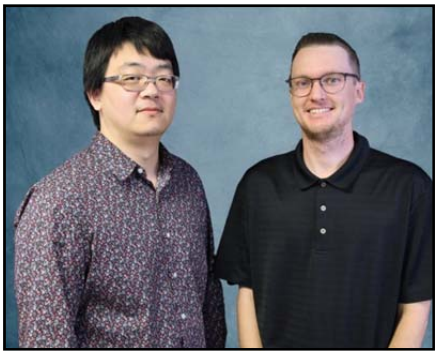
Operational Support – VVWRA will support operational needs by sustaining and operating vital waste disposal facilities for sewer and storm water operations performed by the operational units of the Member Agencies. Other Member agency desired services that VVWRA will operating include receiving local septage fats, oils, and grease (FOG) hauler materials. As demand for these services grows. VVWRA will be mindful to plan accordingly to assure the long-term sustainability and growth of the facilities necessary to process these materials that are in line with the desires of the Member Agencies. Another significant and important service is the delivery of recycled water. VVWRA will work diligently to assure a reliable delivery of recycled water for the benefit of the Member Agencies and to assure regulatory requirements are met. The Authority will strive to sustain a collaborative

approach to the Member Agency needs and regularly seek feedback for the benefit of VVWRA and the Member Agencies.

Capital Project Planning – VVWRA will actively engage and seek input from the Member Agencies in all capital and development projects that will affect VVWRA facilities and Member Agency collection systems. Regular communication and positive working relationships will be sustained to improve working relationships where VVWRA and Member Agencies openly share and collaborate on projects for their mutual benefit and the benefit of the communities we serve.

Financial Responsibility and Transparency

VVWRA understands and plans for the full life-cycle cost of utility operations through an open and transparent budgeting process and the development of a comprehensive Capital Improvement Program. All staff members will value and follow necessary purchasing policies as



dictated by the VVWRA Board to assure the highest levels of operational and financial integrity. VVWRA staff will make every effort to establish and maintain an effective balance between long-term debt, asset values, operations and maintenance expenditures, and operating revenues. The development of rates will seek to be consistent with Member Agency expectations and acceptability, but adequate to recover operational costs, provide for reserves, and plan and invest for future capital needs. With Board support and approval, staff will always seek funding sources to keep operational and capital costs down. A strong emphasis by VVWRA staff and consultants will be put towards acquiring grants and seeking smart public or private partnerships to help fund projects which will be presented to the Board for final approval. As part of the VVWRA commitment to fiscal responsibility staff will strive to sustain the necessary debt coverage requirements and annually report in the budget the Government Finance Officers Association (GFOA) required information. All efforts will be done in an open and transparent process in accordance with policies established by the Board.

Operational Optimization

By optimizing operations, VVWRA staff, ensures reliable, sustainable, and cost-effective performance in their service to public health and environmental protection. This is accomplished through the effective use of data acquired from automated and smart systems and performance monitoring of processes. VVWRA's highly technical staff is up to date on regulatory trends and technological developments in our industry, which make it possible to anticipate and support timely adoption of process improvements and

expansions.

Employee and Leadership Development

VVWRA recruits, develops, and retains a workforce that is competent, self-motivated and safety-focused. Employee development establishes an organization dedicated to continual learning, improvement, and innovation. Ensures employee institutional knowledge is retained, transferred, and improved upon over time. VVWRA understands the need for an effective, goal driven management staff and emphasizes and invests in opportunities for professional and leadership development. Employees at VVWRA are dedicated to delivering high level performance and are always looking for opportunities to expand their knowledge and/or improve their abilities to ensure this goal is met.

One Team One Vision

It is essential that all VVWRA staff members are dedicated to the effective and efficient operation of VVWRA facilities for the benefit of our Member Agencies, our staff, and the communities we serve. Every person plays a role in achieving this goal and, as such, all positions are equally valued and important. From the General Manager to the newest intern it is imperative that staff know and understand their job expectations and the priority of goals for the organization. The workload to achieve the desired goals of VWRA and the Member Agencies is the responsibility of every staff member. To achieve the highest levels of effectiveness and efficiency, it is imperative that all staff members are committed to the Core Values. There must be a common level of dedication to work together as a team to achieve goals, to achieve proper levels of operation, and to achieve the highest levels of customer service to our Member Agencies, to our staff and with the priorities and goals of the VVWRA and the Member Agencies.

Asset Management and Strategic Capital Planning

VVWRA is committed to a sound Asset Management and Strategic Capital Planning process. We make sure that planned maintenance can be conducted and capital assets (pumps, motors, pipes, etc.) can be repaired, replaced, or upgraded on time and on budget. The VVWRA has put in place best practices to manage infrastructure capital assets and minimize the total cost of owning and operating these assets while delivering the desired service levels.

Commitment to Excellence

VVWRA's commitment to excellence is shown in how we manage operations, infrastructure, and investments to support the economic, environmental and health of its community. By reviewing the relevance of operating procedures, performing in depth, staff driven and third party training, and investing in our employee improvement program VVWRA shows our dedication to employing the highest level staff and providing the most productive and enjoyable work environment. Collaboration with partners such as public and private utilities, vendors, local governments, and regulatory bodies we provide an effort to efficiently and cost effectively complete projects or overcome challenges faced by VVWRA, its member agencies and/or the environment. Spreading the message, the collaboration, dedication, and integrity through posts on social media, industry publications, and internal newsletters shows VVWRA's commitment to these core values.

Sustainability Focus

VVWRA has established several sustainability goals that reflect our community priorities:

- Reduce energy cost**:** we routinely invest in more energy efficient equipment or explore operational changes that can enhance energy optimization
- Preserve critical ecological areas like the Mojave River: Our effluent meets the most stringent regulatory requirements and we work with other regional agencies to reduce nutrient loadings to the regional watershed.
- Ensure a sustainable workforce: VVWRA has implemented steps to ensure a safe workplace, knowledge retention, and incorporating new knowledge through training.

Communication to Assure Stakeholder Understanding and Support

Communication and trust play an essential role in the success of this model for effective wastewater utility management. Positive and honest communication between VVWRA staff and the Board, between operational teams at VVWRA and the Member Agencies and internal communication within VVWRA are necessary to assure the clarity of goals and expectations. Effective communication is an integral element of success within an organization; it promotes team building, increases innovation, increases efficiency, and loyalty. VVWRA staff will seek to utilize positive and effective communication practices to assure that ideas, thoughts, knowledge, and information are shared to assure the purpose of the communication is fulfilled in the best possible manner. Communicated information will be confirmed by the

sender to assure the receiver has properly interpreted the message to assure the best possible outcome. These positive communication principles will be practiced by VVWRA staff to assure Member Agencies and internal staff have a strong understanding of the goals and expectations of the organization. The communication will focus on building trust to gain support for the necessary actions to best serve the Member Agencies and the customers we serve.

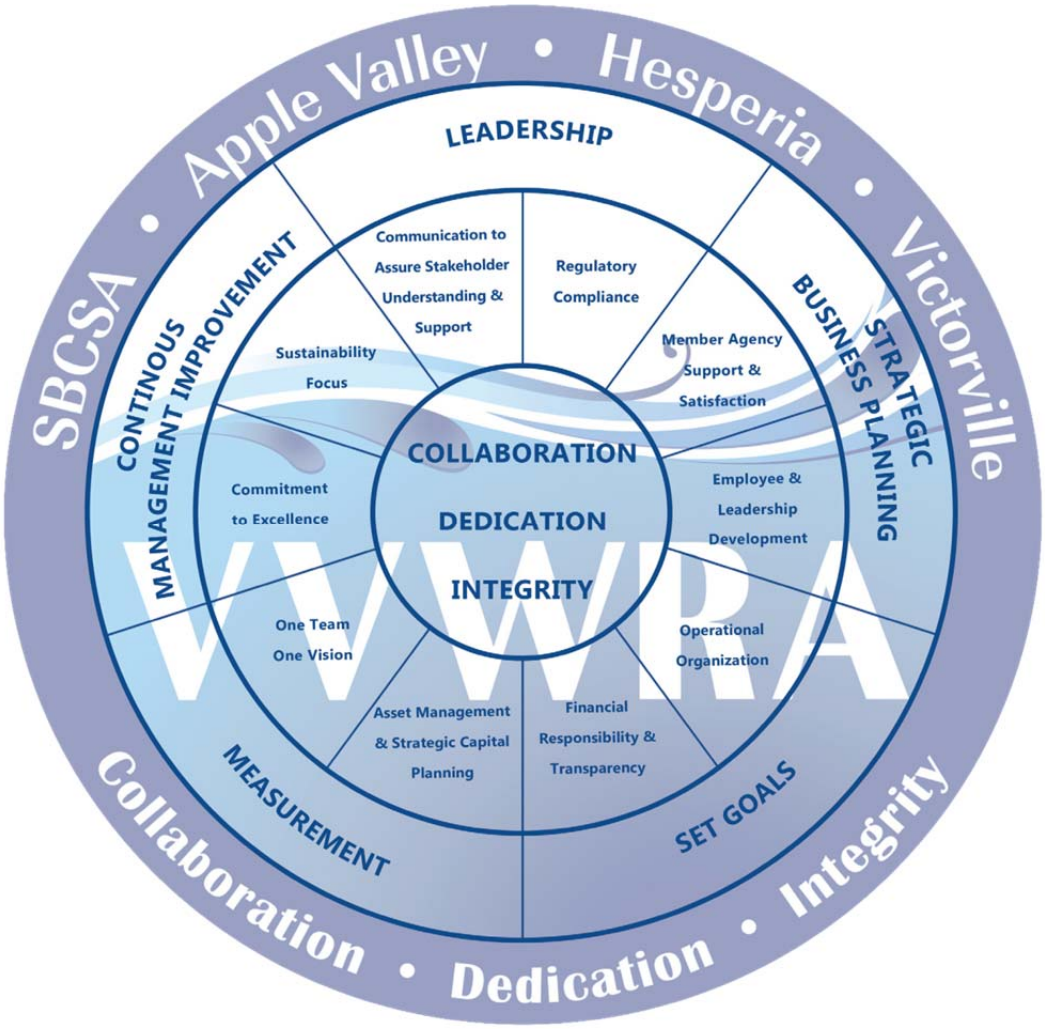
Keys to Management Success

The keys to management success at VVWRA represent frequently used management approaches that help managers be positively impactful in their roles to represent and apply the core values to achieve the attributes of an effective wastewater utility. They create a supportive framework for a utility as it works towards the outcomes outlined in the attributes. Change starts at the top and it is a requirement of VVWRA leaders that they strive to improve the Authority's operations through their effective leadership. The Keys to Management Success are as follows:

Leadership

The goals of a leader must be focused on the overall health and success of the organization. We must provide motivation, inspiration, and an environment of trust. We use these skills to impart a sense of importance and understanding to our Managers and staff. One inevitable fact of leadership is, we set the example, and as such must endeavor to practice our core values without compromise. We do this by demonstrating an unwavering resolve in our all our actions and decision making. We must hold ourselves accountable and allow others to do the same. We must allow others to succeed and plan for the future while being the champions for the organization. We not only provide the vision for the organization but develop the culture in which we operate. We must plan for our future while providing for our present. By demonstrating a high level of integrity in all our actions, we set the standard for all internal and external stakeholder interactions and expectations. We have a responsibility to our staff to insure we are providing the environment and tools they need to accomplish our organizational goals. Furthermore, we have a responsibility to our Member Agencies to provide reliable

service and sound fiscal responsibility through transparency and open communication.



As the leaders we must maintain a level of excellence in our day to day operations and understand that these ideals must carry over to our partners. We must show that our Member Agency's goals are just as important as our own. We demonstrate this by building a partnership with them through collaboration and dedication to a shared vision.

Strategic Business Planning

Strategic business planning directs and helps to achieve balance and cohesion across the EUWM ten attributes of an effectively managed utility. A VVWRA strategic business planning will provide a framework for decision making by:

- Assessing current conditions and conducting a strengths, weaknesses, opportunities, and threats (SWOT) analysis;

- Characterizing a range of possible and likely future conditions that may occur based regulatory requirements, deteriorating infrastructure, and growth
- Assessing underlying causes and effects of future conditions
- Establishing goals, vision, objectives, strategies, and underlying organizational values to overcome these future operational conditions.

The EWUM model will provide a platform to develop a successful strategic business planning strategy process that will be dynamic and adaptable, allowing VVWRA to capitalize on new and emerging opportunities. It will be made more robust by engaging with Board, Member Agencies, and staff. VVWRA will utilize a strong planning procedure that will identify specific implementation steps that will move operations from its current level of performance to achieving its vision.

VVVWRA staff will regularly deploy strategic planning principles to take a longer-term view of organizational goals and operations and establish a clear vision and mission. Planning efforts will be driven by clearly communicated objectives, measurement efforts, financial viability, and operational priority. Carefully developed strategic plans will clearly define cur- rent conditions, goals, and specific directives to staff to stimulate change, and increase engagement and support for improvement efforts.

Goal Setting

Goal setting is an important part of establishing a successful model for Efficient Wastewater Utility Management (EWUM). SMART Goals which are specific, measurable, attainable, realistic, and timely are necessary to define a clear vision of the target goal and the path to attain them. Goals encourage people to think about the meaning of their work and how it connects directly to the bigger picture. VVWRA will regularly set short- and long- term SMART goals to help achieve the desired goals of the Board, the staff and

Member Agencies. These goals will be properly developed and communicated to the staff to provide focus and direction to help individuals stay on track and accountable for delivering the necessary efforts they are responsible for to achieve the goal. VVWRA will focus on being a Get-It-Done organization by assuring goals are properly developed, measured and delivered in a timely manner.

Measurement

"If you can't measure it, you can't improve it."

Peter Drucker

VVWRA has put in place a performance measurement system to track key performance indicators. VVWRA has identified areas in which to improve its operational reliability and efficiency; financial policies and procedures; and capital improvement plans. Part of our ongoing effort is to track those improvements and make sure that when change occurs that it is incorporated into our organizational structure. Benchmarking is a measurement tool used to track the Authority's progress towards achieving its goals. The process encourages transparency, innovation, and accountability.

We rely on AWWA Utility Benchmarking tool to measure VVWRA's performance and given our increasing role as a part of the broader water solution locally and statewide, we follow the three actions set forth by the California Water Plan Update of 2005.

- Use water efficiently
- Protect water quality
- Manage water in ways that protect and restore the environment

VVWRA is actively pursuing these three goals within its service areas and within its organizational culture. To attain these goals, the Capital Improvement Plan (CIP) includes three elements in each project to improve and meet the capacity, the proper performance efficiency and the regulatory needs for wastewater treatment for its Member Agencies. As any good steward of our limited resources would do, we regularly conduct benchmarking analysis to identify areas where VVWRA could improve its operation. The primary objective is to create a performance measurement system to evaluate and improve the Authority's operational efficiency. Four indicators were chosen and are tracked which provide a broad perspective on the operational efficiency of VVWRA, these include:

- Sewer Overflow Rate: the purpose of this indicator is to provide "…a measure of collection system piping condition and the effectiveness of routine maintenance by quantifying the number of sewer overflows per 100 miles of collection

piping."

- Million Gallons per Day (MGD) of Wastewater Processed per Employee: This is a measure of employee productivity and includes all staff.
- Operations and Maintenance Cost per Million Gallons Processed: This represents the total operations and maintenance costs (without depreciation) divided by the volume processed during the year.
- Debt Ratio: It quantifies the utilities level of indebtedness.

Continual Improvement Management

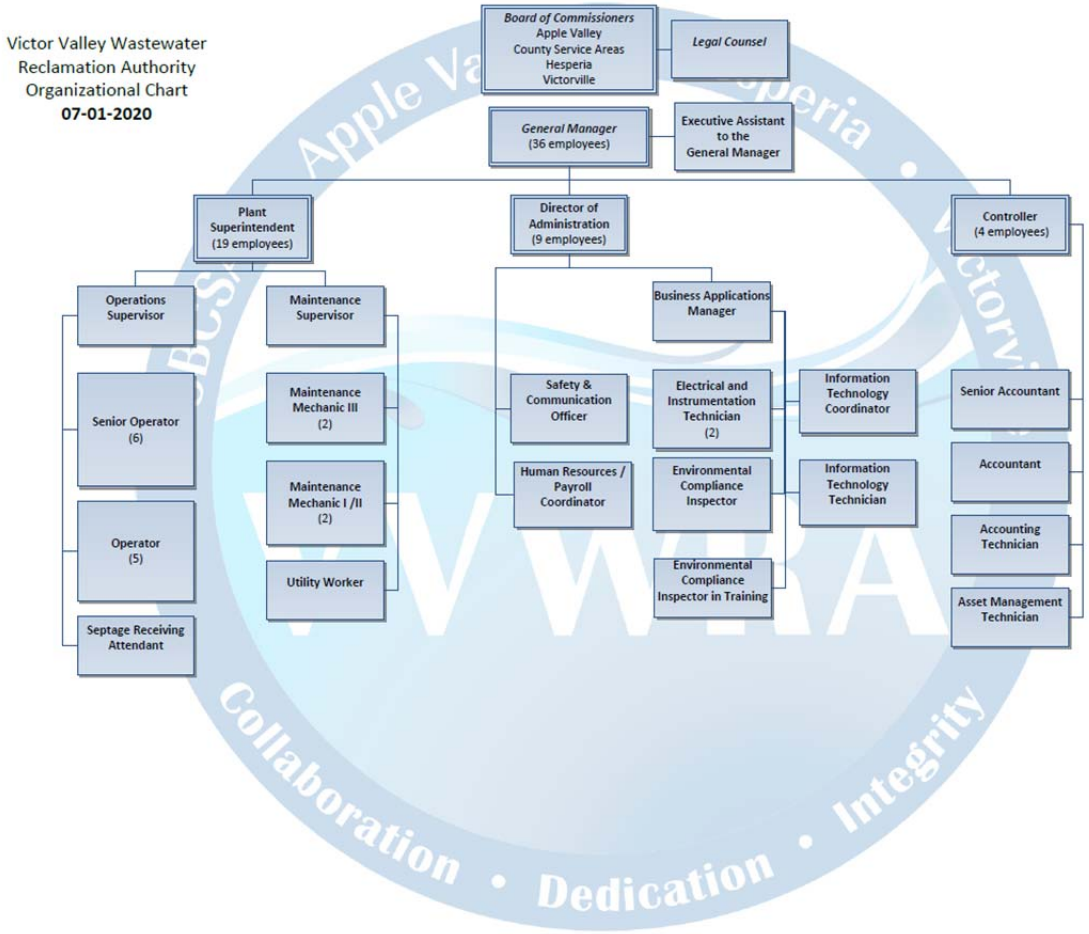
Continual improvement management falls into two categories at VVWRA; Capital Improvement and Employee Improvement. Managing of capital improvements include the determination of necessary improvements to critical infrastructure, assessing treatment process performance and efficiency, and evaluation of new technologies. On-site training, establishing "SMART" goals, regular evaluations, SOP audits and internal analysis and when appropriate external benchmarking, are some of the continual improvement tools used by VVWRA regarding employee improvement.

Continual improvements to VVWRA infrastructure and processes play a central role in effective utility management and are necessary to ensure proper treatment and to maintain regulatory compliance. To ensure treatment goals are always met, VVWRA defines roles and responsibilities to staff members at all levels to derive clear accountability for conducting condition and performance assessments. During evaluation of improvements we look at the feasibility of current assets meeting future process goals and objectives, consulting with experts when necessary, and the return on investment potential of new technologies. Adherence to VVWRA's procurement policy, efficient budgeting practices, the seeking of grants and other sources of funding, not only ensure timely implementation of these upgrades, but shows VVWRA's devotion to the responsible use of public funds.

VVWRA is committed to the personal and professional growth of all employees. VVWRA utilizes regular evaluations of employees, setting of realistic and attainable performance goals. VVWRA's management team assesses the effectiveness of management processes, techniques, and best practices which they frequently review to develop a continually improving yet constant work environment. VVWRA invests in employee improvement. Funding of higher education, access to industry seminars, comprehensive trainings, and incentives for certification achievements are policy and work practices that VVWRA provides to staff to help develop their "best self."

Whether improvements are for upgrading infrastructure or for betterment of personnel; VVWRA's core values of collaboration, dedication, and integrity are the driving force behind the procedures and activities that allow VVWRA to produce the highest-level staff, provide the most satisfying, up to date, and productive workplace. These things allow VVWRA to fulfill our obligations to our member agencies, regulatory bodies, rate payers and the environment.

3.5 Organizational Chart



3.6 Budgeted Positions

Administration Positions

DESCRIPTION	FISCAL YEAR ENDING JUNE 30				
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
General Manager	1	1	1	1	1
Director of Administration	1	1	1	1	1
Director of Finance	1	1	0	0	0

DESCRIPTION	FISCAL YEAR ENDING JUNE 30				
Controller	0	0	1	1	1
Accounting Supervisor	1	1	0	0	0
Construction & Energy Efficiency Manager	1	0	0	0	0
Project Construction Manager	0	1	1	1	0
Administrative Aide	1	0	0	0	0
Asset Management Technician	0	0	1	1	1
Business Applications Manager	0	0	1	1	1
EC/IT Supervisor	0	1	0	0	0
IT/Env Comp Supervisor	1	0	0	0	0
Accountant	1	1	1	1	1
Account Technician	1	1	0	0	1
Electrical / Instrumentation Tech I	1	0	0	0	2
Electrical / Instrumentation Tech II	1	0	0	1	0
Electrical / Instrumentation Tech III	0	0	1	1	0
Electrical / Instrumentation Tech IV	1	1	0	0	0
Environmental Compliance Technician	0	0	0	0	1
Environmental Compliance Inspector	1	1	1	1	1
Executive Assistant to the GM	0	0	0	0	1

DESCRIPTION	FISCAL YEAR ENDING JUNE 30				
Human Resource/Payroll Coordinator	1	1	1	1	1
Information Technology Coordinator	1	1	1	1	1
Information Technology Technician	1	0	1	1	1
IT Supervisor	0	0	0	0	0
Lead Environmental Compliance Inspector	0	0	0	0	0
O&M Clerk	1	0	0	0	0
Safety & Communication Officer	1	1	1	1	1
Secretary - GM/Board	1	1	1	1	0
Senior Accountant	0	0	1	1	1
Total Positions - Administration	**19**	**14**	**15**	**16**	**17**

Operations

DESCRIPTION	FISCAL YEAR ENDING JUNE 30				
	FY 2017	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**
Director of Operations	1	1	0	0	0
Plant Superintendent	0	0	0	0	1
Operations/Maintenance Manager	0	0	1	1	0
Operations & Maintenance Supervisor	1	1	0	0	1

DESCRIPTION	FISCAL YEAR ENDING JUNE 30				
Lab & Environmental Compliance Supervisor	1	0	0	0	0
Lab Tech I	2	0	0	0	0
Lab Tech II	0	0	0	0	0
Lead Operator	1	1	1	1	0
Operator-in-Training	2	1	0	0	0
Operator I/II	4	4	4	6	5
Operator III	6	0	0	0	0
Operator III/V	0	5	6	6	6
Septage Receiving Attendant	1	1	1	1	1
Total Positions - Operations	19	14	13	15	**14**

Maintenance

DESCRIPTION	FISCAL YEAR ENDING JUNE 30				
	FY 2017	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**
Maintenance Supervisor	1	0	0	0	1
Lead Mechanic	0	1	1	1	0
Maintenance Mechanic	0	1	0	5	0
Maintenance Mechanic in Training	3	3	3	0	0

Maintenance Planner	1	0	0	0	0
Mechanical Tech I/II	1	0	1	0	2
Mechanical Tech III	2	0	1	1	0
Maintenance Mechanic III	0	0	0	0	2
Utility Worker II	1	1	1	1	1
Total Positions – Maintenance	**9**	**6**	**7**	**8**	**6**

4 Department Overview and Performance Measures

4.1 Operations and Maintenance Department Overview

A significant goal of the Operations Department is to protect the environment, wildlife and recreational uses of the Mojave River and Downstream Mojave River Basin by cost-effectively treating the incoming wastewater to the highest levels so it can be returned to the environment as compliant recycled water. The Operations department provides high-quality treated effluent that complies with all local, State, and Federal requirements. To assure this compliance and to track the long term attainment of compliance and performance the Operations Department monitors a number of pertinent statistics.

The following data shows the performance level during the last five years.

Description	Fiscal Year Ending June 30				
	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Removal Efficiency					
Biochemical Oxygen Demand	98.50%	99.00%	99.07%	98.78%	98.32%
Total Suspended Solids	99.40%	99.50%	99.45%	99.46%	99.34%
Ammonia Nitrogen	98.50%	99.20%	99.54%	99.51%	N/A
Wastewater Processed					
Percolation Ponds (MG)	1,613.97	1,889.44	1401.40	2,385.33	2,198.26
Tertiary Treatment (MG)	3,921.47	4,820.55	3,879.10	3,948.56	4,038.43
Average Influent (MGD)	10.72	10.49	10.63	10.52	10.73
Total Effluent (MG)	3.921.47	4,820.55	3,879.10	3,948.56	4,038.43
Miscellaneous Operations					
Septage Waste Received (MG)	6.54	6.82	7.07	6.27	6.79
Recycled Water Sold (MG)	214.66	160.78	54.8	18.76	19.68

Notes:

Removal Efficiency:

Removal efficiency refers to the average removal of biochemical oxygen demand, total suspended solids and ammonia nitrogen in the overall treatment of wastewater.

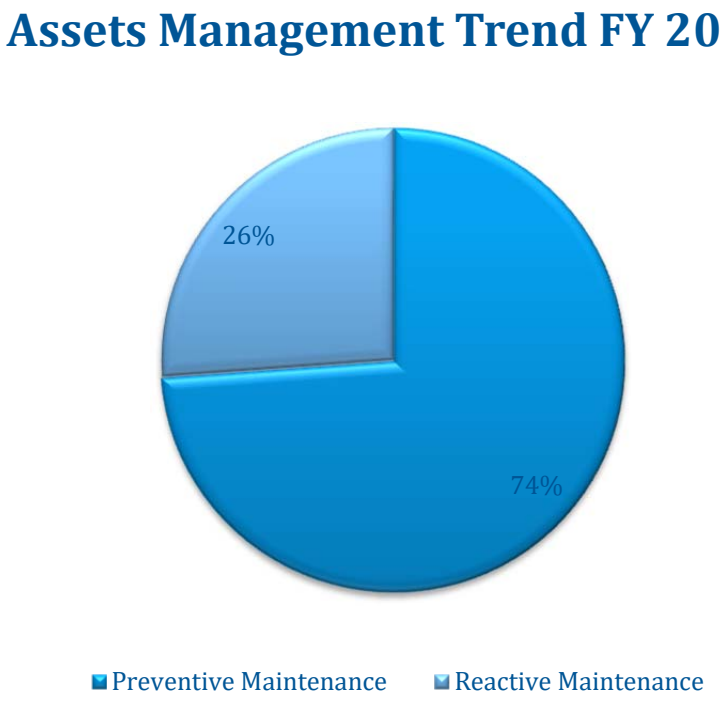
Wastewater Processing:

VVWRA uses percolation ponds for disposal of secondary effluent which allow the water to slowly seep into the soil.Tertiary treatment is the final level of treatment before the treated wastewater is discharged into the Mojave River.

Miscellaneous Operations:

- VVWRA operates a septage receiving facility, where local haulers may dispose their waste at the facility for a fee.
- Recycled water is provided to neighboring American Organics and the High Desert Power Plant for cooling water.

The goal of the Maintenance department is to provide the top quality, cost-effective services that are required to operate VVWRA's treatment facilities, lift stations, and collection system. Maintenance is also responsible for maintaining a fleet of standard vehicles, heavy equipment, off road vehicles, and golf carts. VVWRA has just under 200 million dollars of capital assets. Using a preventive maintenance approach to maintaining these assets, staff greatly reduces the higher costs of reactive repairs.



Preventive maintenance: Planned maintenance, also referred to as scheduled maintenance, is a proactive strategy where maintenance and inspections of equipment and other assets are scheduled at regular intervals to ensure that equipment is operating correctly so as to minimize breakdown and downtime levels.

Reactive maintenance: Often referred to as breakdown maintenance or corrective maintenance, is very much a reactive strategy where repairs are performed at the point when equipment fails. This maintenance results in unplanned downtime and damaged equipment.

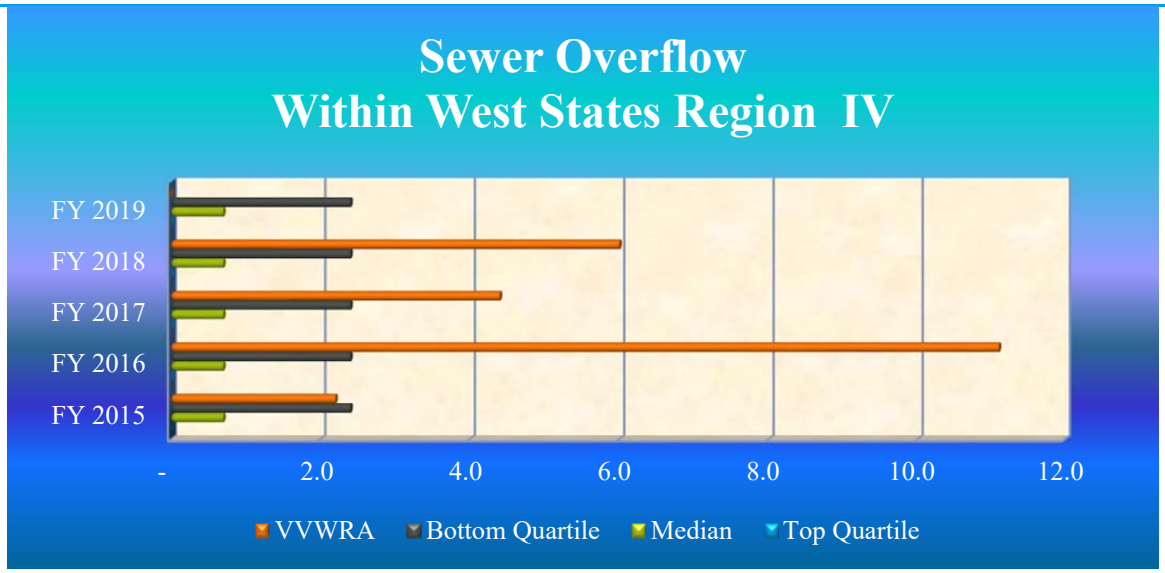
4.2 Operational Statistics Benchmarked Against Industry

The sewer overflow rate is an indicator that tracks the condition and the effectiveness of the maintenance of the wastewater collection system.

VVWRA had no spill during year ended June 30, 2019. VVWRA places at the top quartile both in the West States and nationally.

Sewer Overflow-West States Region IV Benchmark

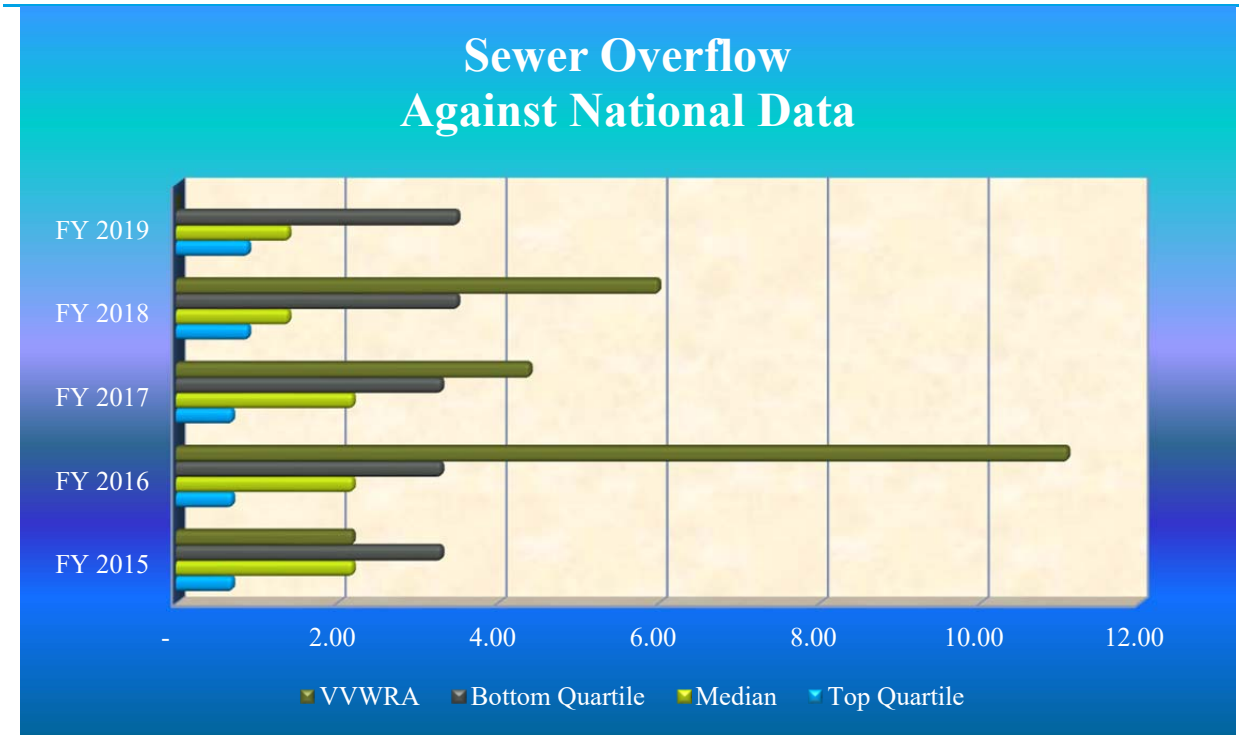
	Top Quartile	Median	Bottom Quartile	VVWRA
FY 2019	0.60	1.30	3.00	0.00
FY 2018	0.60	1.30	3.00	6.00
FY 2017	*Data Not Available*	0.70	2.40	4.40
FY 2016	*Data Not Available*	0.70	2.40	11.10
FY 2015	*Data Not Available*	0.70	2.40	2.20



Source: 2019 American Water Works Association Benchmarking analysis *FY = Fiscal Year ended June 30*

Sewer Overflow-National Benchmark

	Top Quartile	Median	Bottom Quartile	VVWRA
FY 2019	0.90	1.40	3.50	0.00
FY 2018	0.90	1.40	3.50	6.00
FY 2017	0.70	2.20	3.30	4.40
FY 2016	0.70	2.20	3.30	11.10
FY 2015	0.70	2.20	3.30	2.20



Source: 2019 American Water Works Association Benchmarking analysis *FY = Fiscal Year ended June 30*

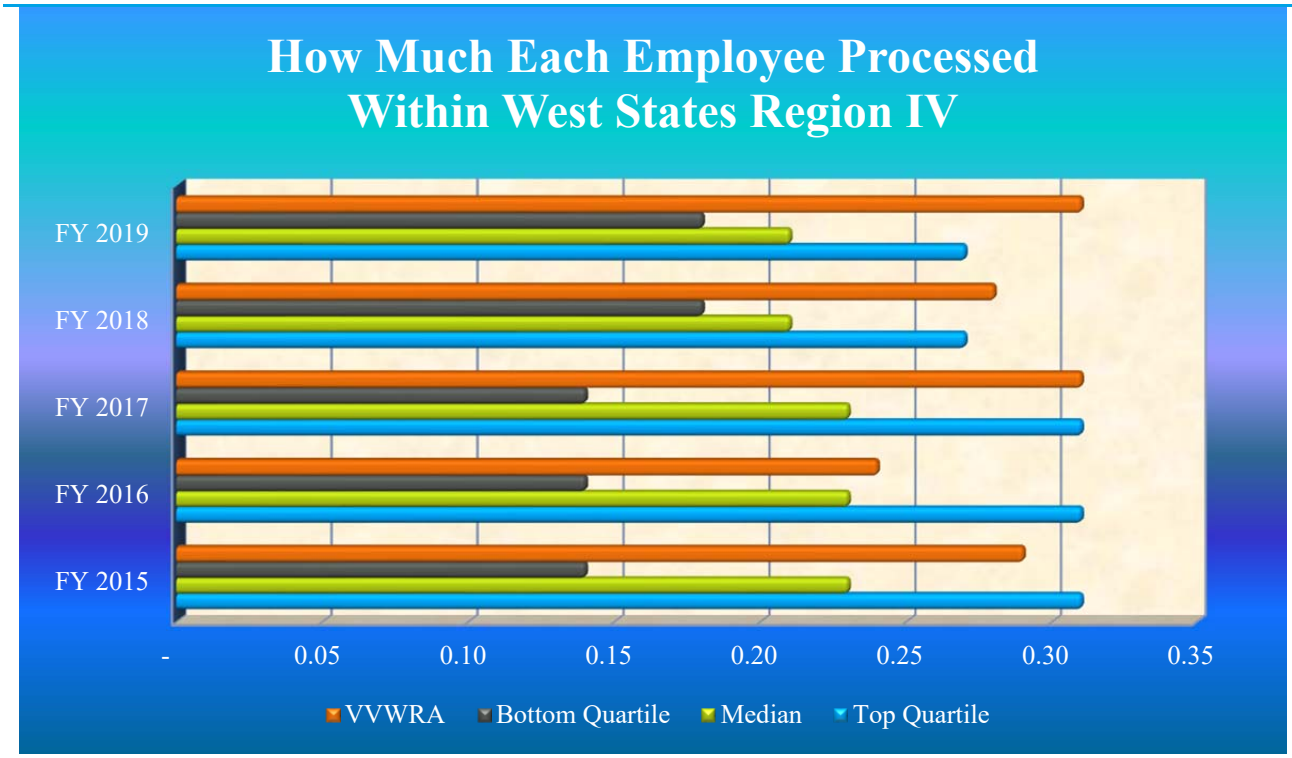
How Much Each Employee Processed

The quantity of wastewater processed by each employee has decreased from 0.29 million gallons per day (MGD) in FY 2015 to 0.24 MGD in FY 2016 and increased back to 0.31 MGD in FY 2019. The total amount of wastewater that VVWRA has processed has decreased by 7%, from 4,171 MG in FY 2015 to 3,864 MG in FY 2019. The total number of employees that VVWRA employed has also decreased as well by 13%, from 39 to 34 during the comparative period per CAFR's.

Compared to West States Region IV, VVWRA has almost continuously remained at the top quartile since FY 2015. Compared nationally, the quantity of wastewater processed by each employee has surpassed the median since FY 2015.

How Much Each Employee Processed-West States Region IV Benchmark

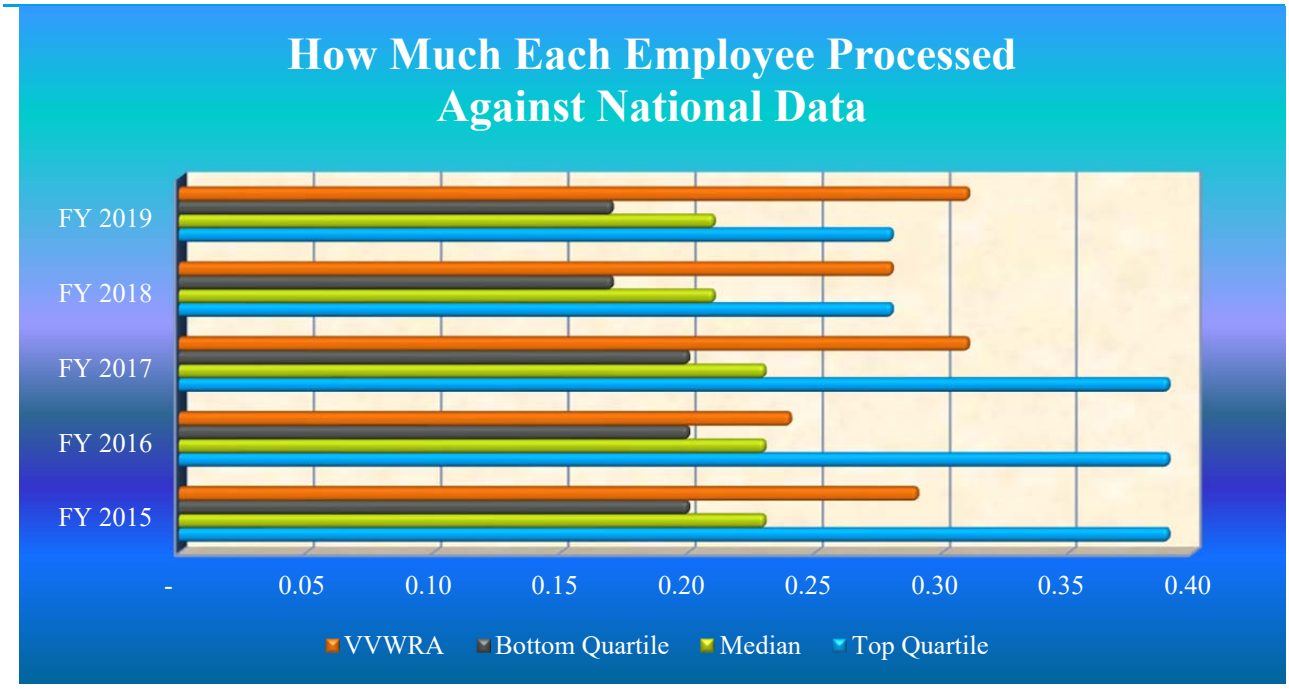
	Top Quartile	Median	Bottom Quartile	VVWRA
FY 2019	0.29	0.23	0.16	0.31
FY 2018	0.29	0.23	0.16	0.28
FY 2017	0.31	0.23	0.14	0.31
FY 2016	0.31	0.23	0.14	0.24
FY 2015	0.31	0.23	0.14	0.29



Source: 2019 American Water Works Association Benchmarking analysis *FY = Fiscal Year ended June 30*

How Much Each Employee Processed-National Benchmark

	Top Quartile	Median	Bottom Quartile	VVWRA
FY 2019	0.28	0.21	0.17	0.31
FY 2018	0.28	0.21	0.17	0.28
FY 2017	0.39	0.23	0.20	0.31
FY 2016	0.39	0.23	0.20	0.24
FY 2015	0.39	0.23	0.20	0.29



Source: 2019 American Water Works Association Benchmarking analysis *FY = Fiscal Year ended June 30*

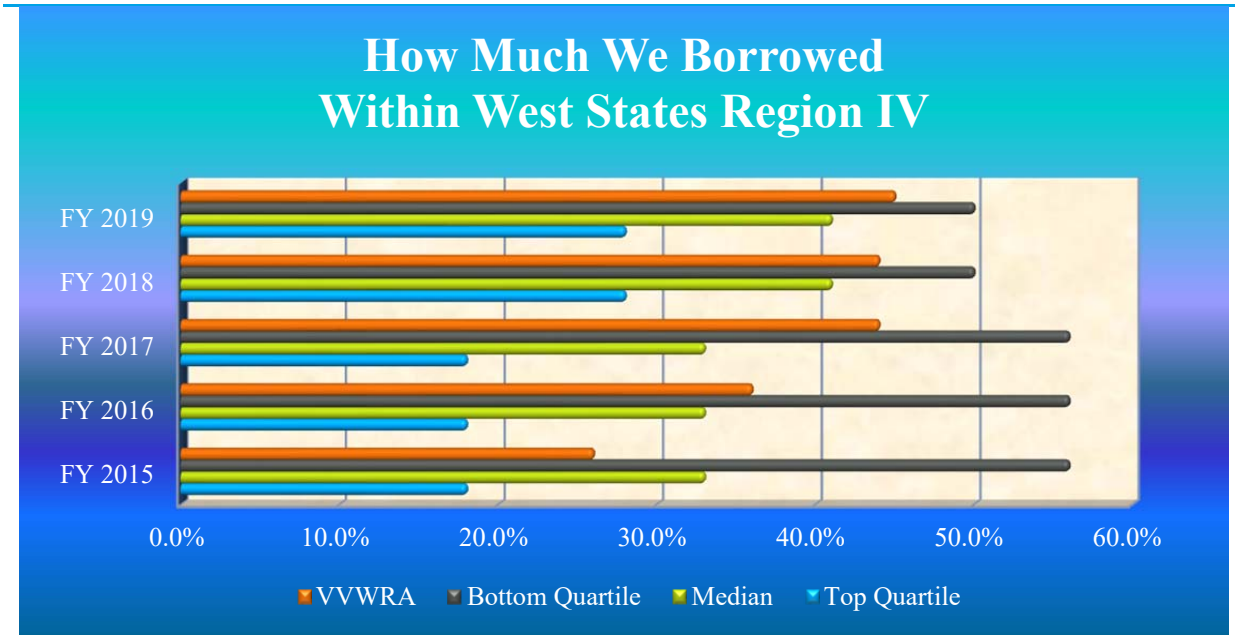
How Much VVWRA Borrowed

When you compare what you owe (liabilities) to what you have (assets), you will obtain a debt ratio. This ratio can be used to measure the health of a business. Lower value of the debt ratio is favorable and a higher value indicates that a higher portion of the organization's assets are claimed by its creditors which means there is a higher risk in operation since the entity would find it difficult to obtain loans for new projects. VVWRA's debt ratio has increased from 26.00% in FY 2015 to 45.00% in FY 2019 due to the increase in the amount of State Revolving Fund loans for the construction projects.

VVWRA is ranked on between the medium and bottom quartile of the West States Region IV in from FY 2015 to FY 2019. Compared nationally, VVWRA is ranked between median and bottom quartiles for the same period.

How Much We Borrowed-West States Region IV Benchmark

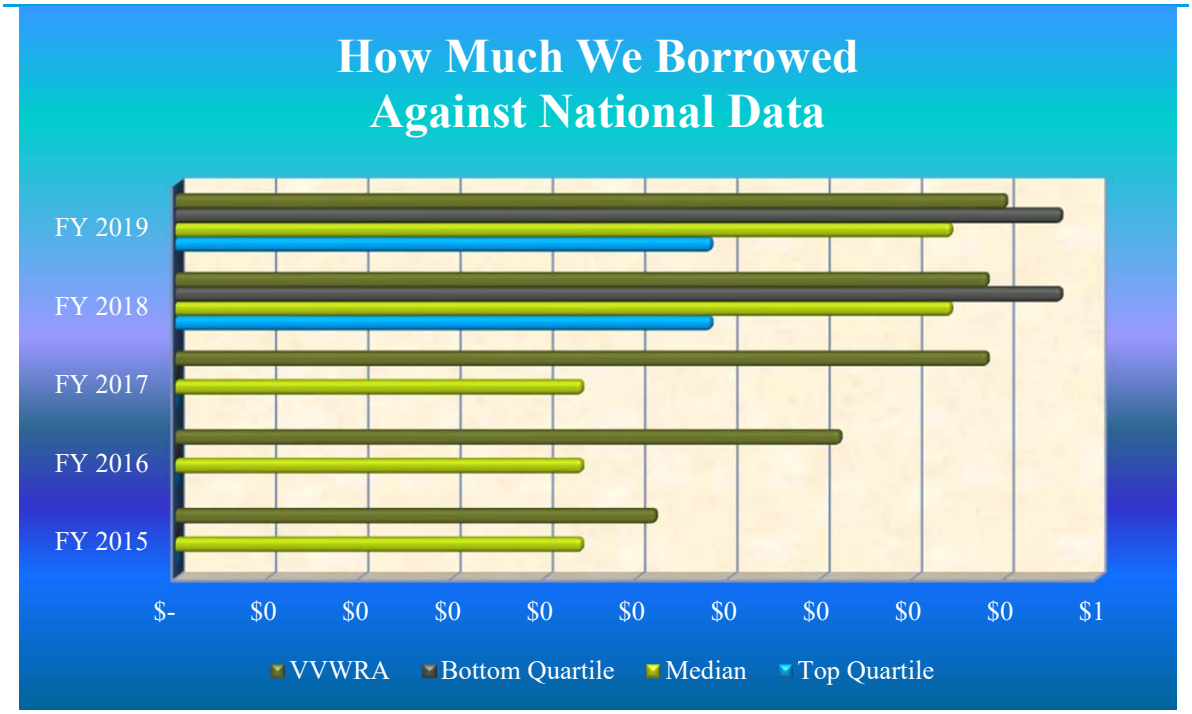
	Top Quartile	Median	Bottom Quartile	VVWRA
FY 2019	28.0%	41.0%	50.0%	45.0%
FY 2018	28.0%	41.0%	50.0%	44.0%
FY 2017	18.0%	33.0%	56.0%	44.0%
FY 2016	18.0%	33.0%	56.0%	36.0%
FY 2015	18.0%	33.0%	56.0%	26.0%



Source: 2019 American Water Works Association Benchmarking analysis *FY = Fiscal Year ended June 30*

How Much We Borrowed-National Benchmark

	Top Quartile	Median	Bottom Quartile	VVWRA
FY 2019	29.0%	42.0%	48.0%	45.00%
FY 2018	29.0%	42.0%	48.0%	44.00%
FY 2017	Data Not Available	22.0%	Data Not Available	44.00%
FY 2016	Data Not Available	22.0%	Data Not Available	36.00%
FY 2015	Data Not Available	22.0%	Data Not Available	26.00%



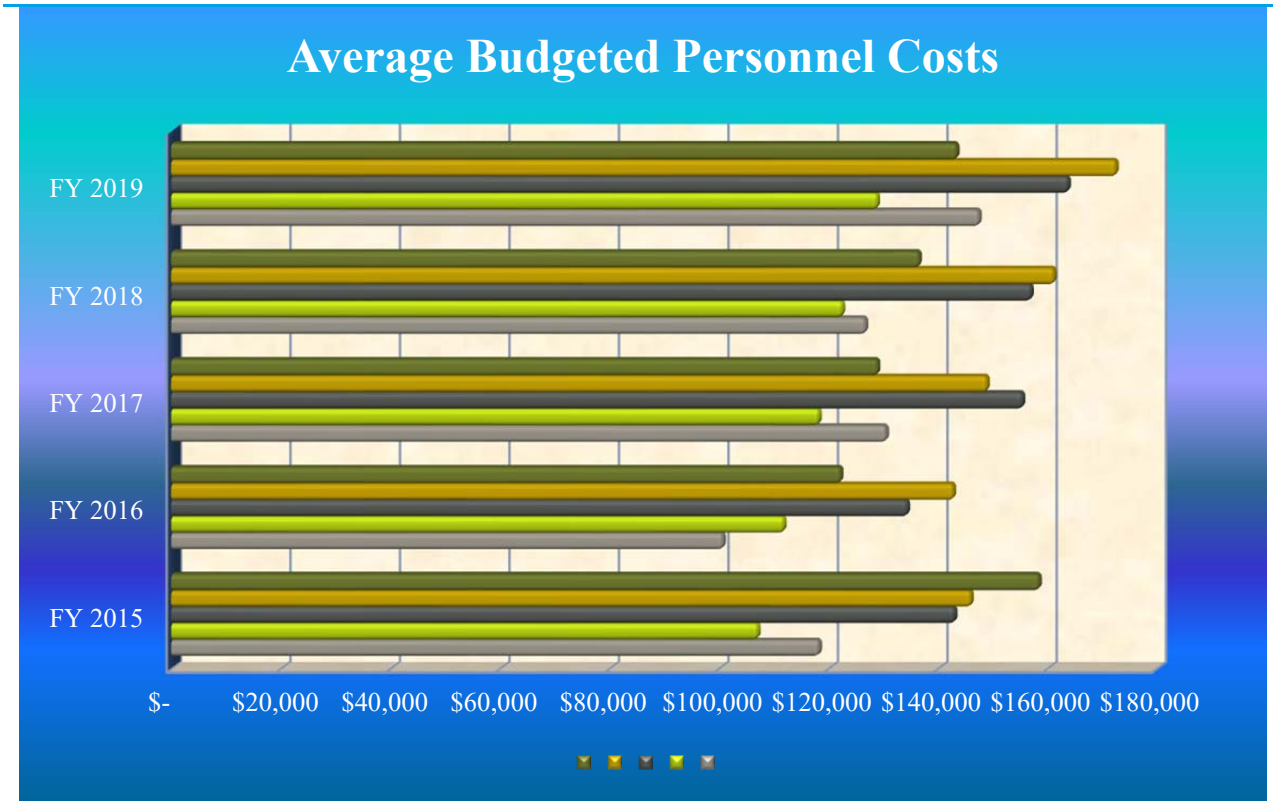
Source: 2019 American Water Works Association Benchmarking analysis *FY = Fiscal Year ended June 30*

Average Budgeted Personnel Cost

Average budgeted personnel cost indicates the cost-effectiveness of an agency's overall personnel budget. Such an indicator is calculated by dividing the total budgeted personnel costs by the total budgeted number of employees for a fiscal year. VVWRA's average budgeted personnel costs have improved from median to the low end compared to other wastewater treatment agencies with similar size in the Southern California.

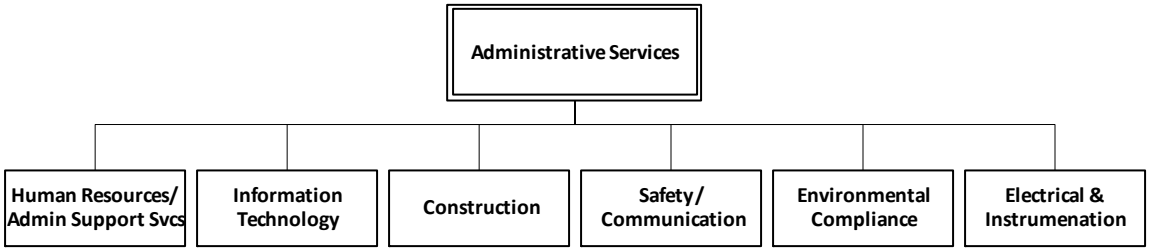
Average Budgeted Personnel Cost

	VVWRA	Arrowhead	Encina WA	Leucadia WD	Big Bear RWA
FY 2019	$ 147,403	$ 128,841	$ 163,731	$ 172,493	$ 143,344
FY 2018	$ 126,681	$ 122,463	$ 156,933	$ 161,137	$ 136,475
FY 2017	$ 130,464	$ 118,190	$ 155,394	$ 148,888	$ 128,896
FY 2016	$ 100,670	$ 111,767	$ 134,317	$ 142,734	$ 122,160
FY 2015	$ 118,218	$ 107,039	$ 142,968	$ 145,960	$ 158,417



Source: 2019 American Water Works Association Benchmarking analysis *FY = Fiscal Year ended June 30*

4.3 Administrative Department Overview and Statistics



The Administrative department is responsible for the oversight of the Human Resources, Information Technology (MIS), Electrical and Instrumentation, Environmental Compliance, Safety & Communications, and Construction Management departments. The Department is directly responsible for providing support for both internal and external customers and maintaining the integrity of the organization.

The Human Resource and Safety staff at VVWRA strive to sustain a positive and safe working environment. They look out for the best interest of all the employees to ensure their safety, provide benefit support, perform the hiring practices, and ensure the Authority stays in compliance with all regulatory requirements. With the guidance of the Administrative Director they work together to continuously seek out new ideas and training to enhance their skill sets and the skills of the employees. They monitor and evaluate the Authority's rules and regulations as well as the necessary safety practices. This Administrative team is small but provides a great deal of support and oversight that protects and enhances the entire organization.

The goal of Environmental Compliance and Management Information System (EC/MIS) is to ensure that the agency is in compliance with all environmental laws, providing VVWRA with the latest technologies and support, educating the users and promoting the new technology as an integral component of VVWRA's vision. This effort includes implementation of computerized maintenance management systems that keep track of the maintenance inventory more efficiently. The EC department implements and enforces VVWRA's Industrial Pretreatment Program to prevent upset, interference, and pass-through at the wastewater treatment facility, to ensure beneficial reuse of plant effluents and bio-solids, to protect the structure and integrity of the sewerage collection system, to ensure the safety of personnel working in the system and to protect the health and safety of the public and environment. The EC/MIS department is staffed by skilled professionals, certified for Environmental Compliance Inspection, Collection System Maintenance, Industrial Pretreatment Plant Operation, Drinking Water Treatment and Drinking Water Distribution.

The MIS department envisions an electronic network capable of distributing voice and data technology to all VVWRA staff. In this vision, VVWRA staff becomes users of the global information network with direct access to information and resources around the world. All our effort is dedicated to providing the operations, maintenance, and administration personnel with electronic access to information and to enrich communication among them. To achieve our

technological mission and materialize our vision, the staff is committed to employ all accessible and financially feasible technologies to support and educate all the staff.

The Administrative Services department works collaboratively with our Board of Commissioners, member, and regulatory agencies to ensure our visions are aligned with the best interests of the constituents in our service areas.

Human Resources / Administrative Support FY 2019	
Positions Hired	0
Evaluations Completed	29
Overtime Cost	$14,903
Board Meeting held	15
Board Action Items	77
Board Presentations	14
Public Hearings	2

Regulatory Compliance FY 2019	
Septage Volume Received	6.7 Million Gallons
FOG and ADM Volume Received	7.5 Million Gallons
Number of Industrial Permit inspections completed	13
Number of Industrial Permit sampling collected	13
Number of Food Services Inspections completed	126
Sewer Interceptors Cleaned (Miles)	21.5
Sanitary Sewer overflows	0
Information Technology	
Desktop systems replaced	15
Servers replaced/implemented	4

Safety/Communications FY 2019	
Number of Recorded Injuries	3
Number of days on Workers Comp	61
Near Miss	1
Safety training hours	821
Facebook Followers	1,541
Community Outreach	
Press Releases	2
Published Articles	3
Purple Pipe published	3

4.4 Finance Department Overview

The goal of Finance Department is to maintain sound financial accountability and integrity of the organization. Based on the concept, the department's responsibilities include establishing and monitoring internal control systems as an independent unit and preparing annual budgets and various financial reports including Comprehensive Annual Financial Reports. The agency utilizes enterprise accounting to administer general accounting and payroll. In order to better function, the finance department has implemented a new accounting, budget, and payroll software programs during the year ending June 30, 2020. Among various improved features, the new software has enabled us to maintain fund balances, capital projects, depreciation records, real-time payroll entries, and a budget that controls purchases and directly connects to general ledger. In addition, the Finance department has skilled professionals with certifications as certified public accountants.

The Finance Department has achieved its goal of presenting financial projections and results in an easy-to-understand format that has led VVWRA to win the Government Finance Officers Association awards. The awards won are:

1. Budgets: Distinguished Budget Presentation Award in the years beginning July 1, 2012 through July 1, 2020 and

2. Comprehensive Annual Financial Reports: Certificate of Achievement for Excellence in Financial Reporting for the years ended June 30, 2010 through June 30, 2019.

All the departmental goals and objectives are to pursue the agency's ultimate goal of serving the member agencies' needs, quantified as much as practically possible.

4.5 Finance Policies

Reserve Policy

The Reserve Policy establishes fund reserve balances to maintain adequate cash reserves to comply with a debt coverage requirement for State Revolving Fund (SRF) loans from State Water Resources Control Board and to handle the possible emergency expenditures in future. The Reserve Policy covers three types of reserves: Operations and Maintenance reserve, Repairs and Replacement reserve, SRF loan reserve. The reserve balances are to be revised annually with adoption of the budget.

The Operations and Maintenance Reserve is funded by operating revenue and equals to 10% of the budgeted total operating expenses for the prior fiscal year. In addition, the Repairs and Replacement Reserve includes 1% of the sum of land improvements, buildings, and interceptors. The SRF loan reserve is funded by both operating and non-operating revenues in order to maintain a sufficient reserve to meet the agreement provision of maintaining one fiscal year's debt service payments.

The Operations and Maintenance Reserve is $ 1.48million and the Repairs and Replacement Reserve is $2.97 million as of April 30, 2020. The SRF loan reserve for the year ending April 30, 2020 is $4.88 million.

Procurement Policy

The Procurement Policy lays the guidance for internal controls for the purchases of goods, services and capital expenditures required by VVWRA within the established limits. The policy requires two signatures on a check and a wire transfer issued based on approved purchase orders.

Managers and Department Directors are each authorized to approve expenses up to a limit of $10,000 on any one order or contract. The General Manager is authorized to approve expenses up to a limit of $30,000 on any one order or contract. The VVWRA Board of Commissioners approves all expenses in excess of $30,000, except for certain recurring expenses such as utilities, process chemicals, permit fees, and other expenses as defined in the policy, and must approve all construction contract change orders. Generally, the selection of purchases of materials, supplies, equipment, and contractual services having an estimated value of more than $2,000 should be considered based on a minimum of three quotes. Purchases of goods and services having an estimated value of more than $30,000 should be made through a competitive sealed bid process defined in the policy.

Almost all of our construction contracts fall in this category. Such contracts are awarded through public bids.

Investment Policy

The Investment Policy provides guidelines for the prudent investment of VVWRA's temporary idle cash with the primary objectives of safety, liquidity and yield under provisions of the California Government Code Section 53600.3. Authorized investments include California State Treasurer's Local Agency Investment Fund (LAIF); Investment Trust of California; San Bernardino County Local Agency Investment Fund; United States Treasury Bills, Notes and Bonds; insured Certificate of Deposits; and Money Market Mutual Funds.

The majority of VVWRA's investments is in Cal TRUST.

Other Policies

Debt Coverage:
VVWRA maintains a cash reserve at least equal to the annual debt payment amount required by State Water Resources Control Board for the existing SRF loans specified as:

1. The financing agreement shall pledge the net revenue of the recipient for repayment of the proposed SRF financing agreement. This pledged revenue source shall be subject to lien and pledge as security for the obligation.

2. The recipient shall establish a restricted reserve fund, held in the recipient's fund, equal to one year's debt service prior to the construction completion date of the project. The reserve fund shall be maintained for the full term of the finance agreement and shall be subject to lien and pledge as security for the obligation.

3. The recipient shall establish rates and charges sufficient to generate net revenues of at least 1.2 times the total annual debt service.

The annual debt principal payment is $3.82 million and interest portion is $1.06 million for FY2021 budget year (the year ending June 30, 2021).

Hesperia Lift Station

Revenues – Rate Ordinance:

VVWRA specifies fees in Fee Ordinances to meet operation needs and most of reserve requirements. The fees, such as connection fees, user charges, high strength surcharges, and septage receiving fees are posted at http://www.vvwra.com/depts/finance/fee_schedule.htm and updated each year. The connection fees are designed to fund capital projects.

These connection and user fees were determined with discussions with the member agencies to reflect ideas recommended by a five-year financial plan. Due to drastic decline in our service-area housing market demand in recent years, the revenues from connection fees are not sufficient to support the capital projects. To supplement the funding of the capital projects, VVWRA has obtained federal and state grants in addition to the SRF loans.

Overhead Allocation to Project:

VVWRA records overhead expenses such as legal counsel, engineering consulting, and audit fees as administration costs that are a part of the operation expenses. The personnel costs are also allocated between Operations and Non-Operations departments.

4.6 Budget Preparation Process

Basis of Budgeting

Victor Valley Wastewater Reclamation Authority (VVWRA) employs a fiscal year beginning July 1. VVWRA prepares its annual budget based on an accrual accounting method (which recognizes revenues and expenses when they incur) excluding non-cash depreciation expense but including loan proceeds and the related repayments to present the fund inflows and outflows. We have included the reconciliation of FY 2019 actual to FY 2019 Comprehensive Annual Financial Report later in the document.

Balanced Budget

A balanced budget is when VVWRA's overall revenues are equal to or exceed its overall expenses. The FY 2021 budget shows a balanced budget with $313,559 surplus that will be allocated to capital projects.

Budget Process

VVWRA managerial staff inputs budgetary estimates for the following year with their departmental goals in mind at the beginning of the budgetary process. Based on these inputs, the Finance Department prepares the draft budget. The senior management including the General Manager reviews the draft budget. The General Manager predicts capital project costs based on the member agency's needs. The Finance Department incorporates the data in to the draft budget.

The draft budget is presented to the External and Internal Financial Committees that consist of the member agencies for their close review. The revised draft budget is presented to the Financial Committees again to incorporate further recommendations in a proposed budget. After the revisions, the proposed budget is presented to the Board of Commissioners. Any additional comments are incorporated into the proposed budget. Then the Financial Committee finalizes the recommendations and the Committee presents the budget to the public hearing and Board for approval.

The Mojave River

VVWRA reviews and compares its performance to the budget at a mid-year point at around January. If any amendments are necessary, the finance staff revises the budget accordingly then present the revised budget to the Board for approval in February. The approved budgets are posted at VVWRA's website.

Budget Calendar

The following budget calendar shows our preparation and review process timeline.

VVWRA BUDGET PLANNING – FY 2020	REQUIRED BY DATE
Budget Kickoff Meeting	02/05/20
Update actual numbers and prepare for new budget cycle	02/28/20
Present the budget draft at Managers' meeting	03/05/20
Present the first draft budget to General Manager (GM) for review	03/12/20
Hold a preliminary staff budget review meeting with Supervisors and GM	03/26/20
Provide the draft changes to Controller	04/02/20
Present the budget executive summary to Internal Finance Committee	04/09/20
Finalize the draft budget	04/16/20
Present the budget recommendations to Internal and External Finance Committee	04/23/20
Present the second recommendations to Internal and External Finance Committee	04/30/20
Place a public notice on local newspaper to invite public participation	05/08/20
Circulate the budget document to the Board	05/14/20
Board Meeting - Present the budget	05/21/19
Board budget hearing and adoption	06/18/20
The second Board budget hearing and adoption	06/25/20
Apply for GFOA Award for Excellence in Budget Reporting.	06/26/20

Our budget activities are summarized as:

1. Initiate the budget.
2. Prepare a draft budget based on managers' input.
3. Present the draft to Internal and External Finance Committee.
4. Publish a public hearing notice on local newspaper to invite public participation.
5. Present the budget to the Board of Commissioners.
6. Propose any budget amendments, if applicable, when the staff reviews the performance and budget at around January.

4.7 GFOA Budget Presentation Award

GOVERNMENT FINANCE OFFICERS ASSOCIATION

Distinguished Budget Presentation Award

PRESENTED TO

Victor Valley Wastewater Reclamation Authority

California

For the Fiscal Year Beginning

July 1, 2019

Christopher P. Morrill

Executive Director

5 Financial Information Operations

5.1 Consolidated Budget Statement of All Funds

	2019 Actual $3,503/MG	2019 Budget $3,503/MG	2020 Actual as of 3/31/2020	2020 Projected to the Year End	2020 Budget $3,783/MG	2021 Budget $4,087/MG
Operations & Maintenance Fund Revenues						
User Charges	$ 13,574,648	$ 13,661,700	$ 10,726,519	$ 12,871,823	$ 14,480,700	$ 16,065,997
Allocate Resource to Repairs and Replacements Fund	(2,242,009)	(2,749,326)	(793,573)	(1,058,097)	(2,666,326)	-
VVIWWTP Sludge	105,190	120,000	84,714	101,657	120,000	108,000
High Strength Waste Surcharges	27,139	20,000	13,464	16,157	20,000	20,004
ADM FOG Tipping Fee Revenue	274,186	200,000	168,390	202,068	250,000	200,000
Septage Receiving Facility Charges	614,617	550,000	454,664	545,597	600,000	600,000
Reclaimed Water Sales	7,253	25,000	8,827	10,592	25,000	99,552
Interest	1,412	-	1,010	1,212	-	-
Pretreatment Fees	53,600	50,000	43,700	52,440	50,000	50,400
Miscellaneous	6,357	1,200	105,984	127,181	1,200	1,596
Grant - Proposition 1	-	-	-	-	-	-
Grant - Title 16	-	-	-	-	-	-
Grant - FEMA CalOES Grant	-	747,034	-	1,283,017	-	-
	$ 12,422,393	$ 12,625,608	$ 10,813,699	$ 14,153,647	$ 12,880,574	$ 17,145,549
Other Operating Financing Sources						
SRF Loan Funding	$ 70,338	$ -	$ -	$ -	$ -	$ -
	$ 70,338	$ -	$ -	$ -	$ -	$ -
Repairs and Replacements Fund Financing Sources						
Transferred from Operations & Maintenance Fund	$ 2,242,009	$ 2,749,326	$ 793,573	$ 1,058,097	$ 2,666,326	$ -
	$ 2,242,009	$ 2,749,326	$ 793,573	$ 1,058,097	$ 2,666,326	$ -
Capital Fund Revenues						
Connection Fees	$ 3,088,860	$ 2,000,000	$ 1,096,735	$ 1,462,313	$ 2,254,625	$ 2,339,500
Interest	280,209	35,000	169,808	226,411	50,000	180,000
Grant - FEMA/Cal-OES	-	3,105,375	-	-	-	-
Grant - Water Recycling	-	-	-	-	-	-
Grant - Proposition 1	-	-	-	-	-	-
Grant - Proposition 84	-	-	-	-	-	-
Grant - Title 16	-	-	-	-	-	-
Grant - CEC Microgrid	294,907	-	11,328	15,104	-	-
	$ 3,663,976	$ 5,140,375	$ 1,277,871	$ 1,703,828	$ 2,304,625	$ 2,519,500
Other Capital Financing Sources						
SRF Loan Funding	$ 44,970	$ -	$ -	$ -	$ -	$ -
	$ 44,970	$ -	$ -	$ -	$ -	$ -
Total Revenues and Other Financing Sources	**$ 18,443,686**	**$ 20,515,309**	**$ 12,885,143**	**$ 16,915,572**	**$ 17,851,525**	**$ 19,665,049**
Operations and Maintenance Fund Expenses						
Personnel and Benefits	$ 4,610,776	$ 4,080,784	$ 3,330,575	$ 4,446,899	$ 4,589,786	$ 5,675,417
Maintenance	1,620,395	2,194,767	989,174	1,318,899	2,236,156	2,424,560
Operations	2,908,272	3,151,072	2,450,954	3,267,939	3,433,513	3,778,233
Administration	2,082,349	2,183,749	1,308,865	1,741,501	1,823,605	1,772,967
Construction	93,207	-	5,333	7,111	-	817,503
	$ 11,314,999	$ 11,610,372	$ 8,084,901	$ 10,782,349	$ 12,083,060	$ 14,468,680
Repairs and Replacements Fund Expenses						
Personnel and Benefits	$ -	$ -	$ -	$ -	$ -	$ -
Maintenance	260,052	1,204,326	456,476	608,635	1,896,326	-
Operations	20,433	25,000	3,592	4,789	-	-
Administration	73,000	150,000	82,024	109,365	145,000	-
Construction	1,888,524	1,370,000	251,481	796,308	625,000	-
	$ 2,242,009	$ 2,749,326	$ 793,573	$ 1,519,097	$ 2,666,326	$ -
Capital Fund Expenses						
Personnel and Benefits	$ 400,937	$ 378,554	$ 289,615	$ 386,153	$ 384,912	$ -
Maintenance	-	-	-	-	-	-
Operations	-	170	-	-	170	-
Administration	(2,054)	-	-	-	50,000	-
Construction	342,519	430,000	31,888	42,517	550,000	-
	$ 741,402	$ 808,724	$ 321,503	$ 428,670	$ 985,082	$ -
Debt Services						
SRF Principal	$ 3,962,976	$ 4,097,480	$ 3,100,439	$ 4,020,810	$ 4,020,810	$ 3,824,093
SRF Interest	1,171,564	1,200,061	756,214	1,127,051	1,127,051	1,058,717
	$ 5,134,540	$ 5,297,541	$ 3,856,653	$ 5,147,861	$ 5,147,861	$ 4,882,810
Total Expenses and Debt Services	**$ 19,432,950**	**$ 20,465,963**	**$ 13,056,630**	**$ 17,877,977**	**$ 20,882,329**	**$ 19,351,490**
Interfund Loan						
Interfund Loan to the Operations & Maintenance Fund	$ -	$ -	$ -	$ -	$ (1,963,621)	$ -
Interfund Loan from the Capital Fund	-	-	-	-	1,963,621	-
	$ -	$ -	$ -	$ -	$ -	$ -
Total Agency Net Surplus or (Deficit)	**$ (989,264)**	**$ 49,346**	**$ (171,487)**	**$ (962,405)**	**$ (3,030,804)**	**$ 313,559**

Our goals, objectives and strategies are transformed into numbers for the budgets with a projection for the rest of FY 2020. The consolidated budget on the previous page shows all functions of the entire organization. The section 5.2 demonstrates a reconciliation of FY 2019 actual to CAFR for the year ended June 30, 2019. The section 5.3 describes a budget for the Operations and Maintenance Fund, and the section 5.7 shows a budget for the Capital Fund. We show Repairs and Replacement Fund for a reference, as the agency has eliminated this fund for FY 2021 budget that combines the repairs and replacement activities in Operations and Maintenance Fund.

VVWRA Regional Plant

5.2 Reconciliation from Actual to CAFR for FY Ending June 30, 2019

	2019 Actual	Reconciliation to CAFR	2019 Per CAFR
Operating Revenues			
User Charges	$ 13,574,648	$ -	$ 13,574,648
Adelanto User Charges	105,190	-	105,190
High Strength Waste Surcharges	27,139	-	27,139
Septage Receiving Facility Charges	614,617	-	614,617
ADM FOG Tipping Fee Revenue	274,186	-	274,186
Reclaimed Water Sales	7,253	-	7,253
Pretreatment Fees	53,600	-	53,600
Grant - Water Recycling	-		-
Grant - Proposition 1	-		-
Grant - Title 16	-		-
Miscellaneous	6,357	-	6,357
	$ 14,662,990	$ -	$ 14,662,990
Capital Revenues			
Connection Fees	$ 3,088,860	$ -	$ 3,088,860
Interest	281,621	-	281,621
Grant - Title 16	-	-	-
Grant - FEMA/Cal-OES	-	-	-
Grant - Water Recycling	-	-	-
Grant - Proposition 1		-	-
Grant - Proposition 8		-	-
Grant - CEC Microgrid	294,907	-	294,907
	$ 3,665,388	$ -	$ 3,665,388
Other Financing Sources			
SRF Loan Funding	$ 115,308	$ (115,308)	$ -
	$ 115,308	$ (115,308)	$ -
Total Revenues and Other Financing Sources	**$ 18,443,686**	**$ (115,308)**	**$ 18,328,378**
Operating Expenses			
Personnel and Benefits	$ 4,610,776	$ -	$ 4,610,776
Maintenance	1,620,395	-	1,620,395
Operations	2,908,272	-	2,908,272
Administration	2,082,349	-	2,082,349
Construction	93,207	-	93,207
	$ 11,314,999	$ -	$ 11,314,999
Depreciation Expense	$ -	$ 12,468,103	$ 12,468,103
Repair and Replacement Expense			
Personnel and Benefits	$ -	$ -	$ -
Maintenance	260,052	-	260,052
Operations	20,433	-	20,433
Administration	73,000	-	73,000
Construction	1,888,524	(1,888,528)	(4)
	$ 2,242,009	$ -	$ 353,481
Capital Expenses			
Personnel and Benefits	$ 400,937	$ -	$ 400,937
Maintenance	-	-	-
Operations	-	-	-
Administration	(2,054)	-	(2,054)
Construction	342,519	(329,071)	13,448
	$ 741,402	$ -	$ 412,331
Debt Services			
SRF Principal	$ 3,962,976	$ (3,962,976)	$ -
SRF Interest	1,171,564	-	1,171,564
	$ 5,134,540	$ (3,962,976)	$ 1,171,564
Total Expenses with Debt Services	**$ 19,432,950**	**$ 8,505,127**	**$ 25,720,478**
Total Net Surplus or (Deficit)	**$ (989,264)**	**$ (8,620,435)**	**$ (7,392,100)**

VVWRA Regional Plant

5.3 Budget Statement of Operations and Maintenance Fund

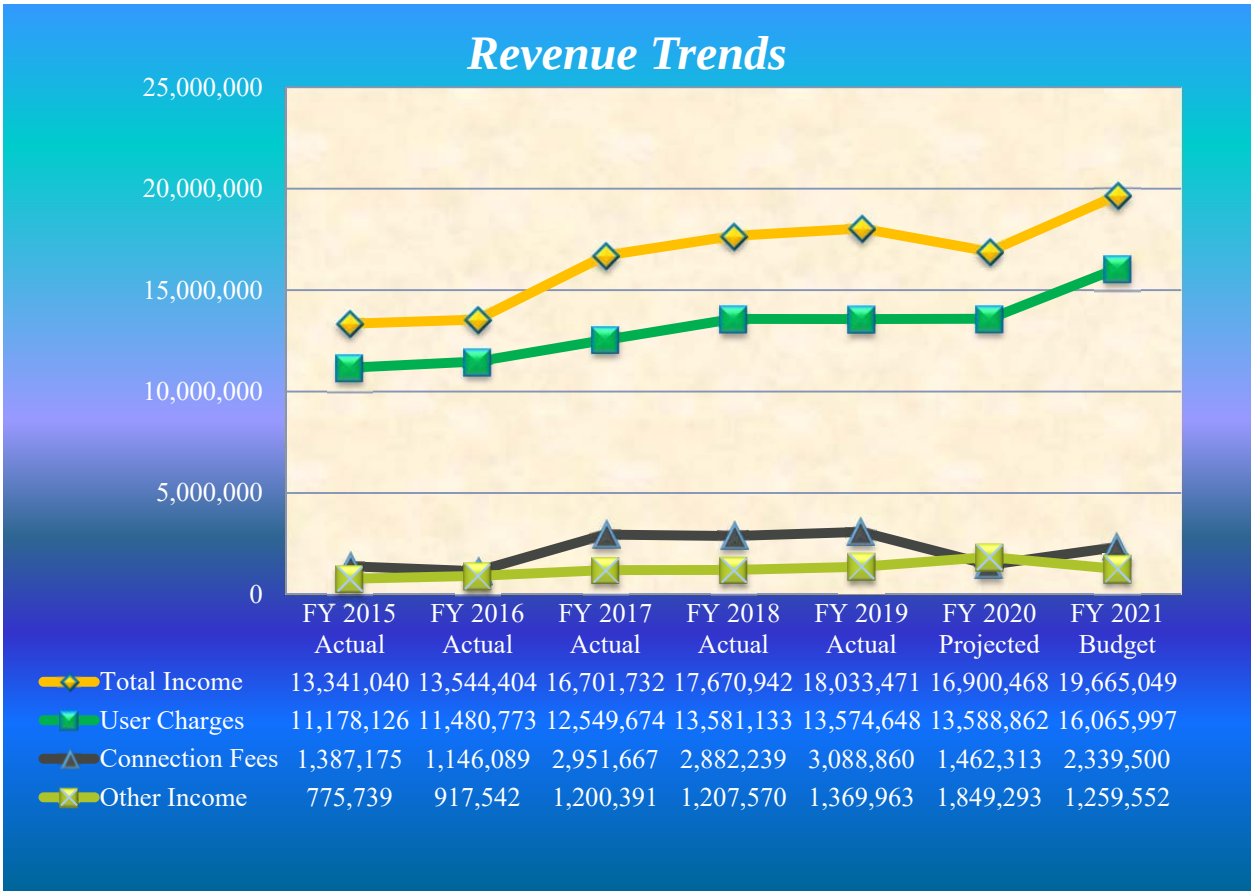
	2019 Actual $3,503/MG	2019 Budget $3,503/MG	2020 Actual as of 3/31/2020	2020 Projected to the Year End	2020 Budget $3,783/MG	2021 Budget $4,087/MG
Revenues						
User Charges	$ 13,574,648	$ 13,661,700	$ 10,726,519	$ 12,871,823	$ 14,480,700	$ 16,065,997
Allocate Resource to Repairs and Replacements Fund	(2,242,009)	(2,749,326)	(793,573)	(1,058,097)	(2,666,326)	-
VVIWWTP Sludge	105,190	120,000	84,714	101,657	120,000	108,000
High Strength Waste Surcharges	27,139	20,000	13,464	16,157	20,000	20,004
ADM FOG Tipping Fee Revenue	274,186	200,000	168,390	202,068	250,000	200,000
Septage Receiving Facility Charges	614,617	550,000	454,664	545,597	600,000	600,000
Reclaimed Water Sales	7,253	25,000	8,827	10,592	25,000	99,552
Interest	1,412	-	1,010	1,212	-	-
Pretreatment Fees	53,600	50,000	43,700	52,440	50,000	50,400
Miscellaneous	6,357	1,200	105,984	127,181	1,200	1,596
Grant - Proposition 1	-	-	-	-	-	-
Grant - Title 16	-	-	-	-	-	-
Grant - FEMA CalOES Grant	-	747,034	-	1,283,017	-	-
	$ 12,422,393	**$ 12,625,608**	**$ 10,813,699**	**$ 14,153,647**	**$ 12,880,574**	**$ 17,145,549**
Other Financing Sources						
SRF Loan Funding	**$** 70,338	$ -	$ -	$ -	$ -	$ -
	$ 70,338	$ -	$ -	$ -	$ -	$ -
Total Operating Revenues and Other Financing Sources	**$ 12,492,731**	**$ 12,625,608**	**$ 10,813,699**	**$ 14,153,647**	**$ 12,880,574**	**$ 17,145,549**
Expenses ①						
Personnel and Benefits	$ 4,610,776	$ 4,080,784	$ 3,330,575	$ 4,446,899	$ 4,589,786	$ 5,675,417
Maintenance	1,620,395	2,194,767	989,174	1,318,899	2,236,156	2,424,560
Operations	2,908,272	3,151,072	2,450,954	3,267,939	3,433,513	3,778,233
Administration	2,082,349	2,183,749	1,308,865	1,741,501	1,823,605	1,772,967
Construction	93,207	-	5,333	7,111	-	817,503
	$ 11,314,999	$ 11,610,372	$ 8,084,901	$ 10,782,349	$ 12,083,060	$ 14,468,680
Debt Services						
SRF Principal	$ 2,012,745	$ 2,094,805	$ 1,180,231	$ 2,039,479	$ 2,039,479	$ 2,061,035
SRF Interest	748,388	762,842	445,537	721,656	721,656	688,703
	$ 2,761,133	$ 2,857,647	$ 1,625,768	$ 2,761,135	$ 2,761,135	$ 2,749,738
Total Operations & Maintenance Expenses with Debt Services	**$ 14,076,132**	**$ 14,468,019**	**$ 9,710,669**	**$ 13,543,484**	**$ 14,844,195**	**$ 17,218,418**
Interfund Loan from the Capital Fund	-	-	-	-	**1,963,621**	-
Operations & Maintenance Net Surplus or (Deficit)	**$ (1,583,401)**	**$ (1,842,411)**	**$ 1,103,030**	**$ 610,163**	**$ -**	**$ (72,869)**

Please see next page for Operations and Maintenance Fund expenses in detail.

	2019 Actual $3,503/MG	2018 Budget $3,503/MG	2020 Actual as of 3/31/2020	2020 Projected to the Year End	2019 Budget $3,503/MG	2021 Budget $4,087/MG
Personnel Expenses Allocations ①						
Allocation to Operations and Maintenance	3,307,728	2,928,398	2,461,729	3,286,838	3,347,987	3,708,720
Allocation to Administrations	1,303,044	1,152,386	868,846	1,160,061	1,241,799	1,966,697
	$ 4,610,772	$ 4,080,784	$ 3,330,575	$ 4,446,899	$ 4,589,786	$ 5,675,417
Maintenance Expenses						
Maintenance Equipment	$ 662,357	$ 1,141,560	$ 448,640	$ 598,187	$ 1,188,036	$ 1,220,877
Instrumentation	296,443	318,169	238,174	317,565	308,286	478,492
Total Grounds Maintenance & Landscaping	369,235	358,900	208,847	278,463	406,500	451,767
Vehicle Repairs	139,201	241,638	49,569	66,092	208,334	135,924
Interceptor Sewer Maintenance	134,699	90,000	35,600	47,467	90,000	100,000
Maintenance Safety Equipment	6,890	3,000	3,075	4,100	3,000	5,500
Misc. Maintenance Expense	11,570	41,500	5,269	7,025	32,000	32,000
	$ 1,620,395	$ 2,194,767	$ 989,174	$ 1,318,899	$ 2,236,156	$ 2,424,560
Operations Expenses						
Process Chemicals	$ 262,336	$ 346,850	$ 289,202	$ 385,603	$ 331,780	$ 550,500
Utilities	1,745,271	1,528,431	1,383,822	1,845,096	1,771,252	2,064,558
Trash and Sludge	114,821	156,000	57,656	76,875	210,000	95,000
Fuel and Lubricants	102,713	110,000	82,299	109,732	108,000	70,000
Lab Supplies and Services	42,831	107,700	52,521	70,028	112,700	102,500
Outside Lab Services	326,920	461,500	341,774	455,699	497,300	504,500
Safety Equipment	150,141	169,291	90,762	121,016	153,181	204,675
Custodial Services and Supplies	49,710	51,500	36,925	49,233	48,000	54,000
Equipment Rental	48,909	120,300	58,232	77,643	117,300	47,500
Uniforms	27,078	11,000	22,207	29,609	28,000	28,000
Security	10,990	28,500	7,968	10,624	26,000	27,000
Permits	26,507	60,000	27,586	36,781	30,000	30,000
Misc. Operating Expense	45	-	-	-	-	-
	$ 2,908,272	$ 3,151,072	$ 2,450,954	$ 3,267,939	$ 3,433,513	$ 3,778,233
Administrations Expenses						
Telephone and Communications	$ 142,694	$ 297,500	$ 114,079	$ 152,105	$ 192,981	$ 320,268
Computer Supplies	89,154	60,000	74,206	98,941	102,000	78,051
Office Supplies	57,455	103,800	43,363	57,817	106,300	80,200
Travel, Meeting, Training	115,307	186,550	49,553	66,071	107,800	119,630
Employee and Community Events	10,719	25,000	3,500	4,667	14,400	34,100
Membership, Fees, Licenses	56,409	54,005	33,165	44,220	73,630	76,160
Professional Services	699,294	636,894	310,170	413,560	385,394	416,600
Legal Services and Fees	352,169	440,000	263,499	351,332	340,000	300,000
Temporary Labor	82,748	40,000	2,903	3,871	72,143	-
Bond & Liability Insurance	205,409	130,000	183,839	245,119	130,000	240,000
Finance Fees	245	-	2,773	3,697	-	-
Misc. Administration Expense	4,065	-	-	-	-	-
Permit Fees	252,819	210,000	216,858	289,144	288,000	100,000
Interest Accrual	-	-	-	-	-	-
Brown Bear Lease Interest	13,862	-	10,957	10,957	10,957	7,958
	$ 2,082,349	$ 2,183,749	$ 1,308,865	$ 1,741,501	$ 1,823,605	$ 1,772,967
Construction Expenses	$ 93,207	$ -	$ 5,333	$ 7,111	$ -	$ 817,503
Total Operations and Maintenance Fund Expenses Before Emergency	**$ 11,314,995**	**$ 11,610,372**	**$ 8,084,901**	**$ 10,782,349**	**$ 12,083,060**	**$ 14,468,680**

5.4 User Fee Revenue Trend Analysis

The Victor Valley Wastewater Reclamation Authority (VVWRA) has been recovering from the decreased operating revenues since FY 2015. We have used connection fee revenue $2.3 million for FY 2021 budget to reflect the connection fee rate of $4,679/EDU at 500 EDUs. To further mitigate the impact of the reduced revenues, we are increasing the user charge rate from $3,783/MG to $4,087/MG in FY 2021.



	FY 2015 Actual	FY 2016 Actual	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Projected	FY 2021 Budget
Total Income	13,341,040	13,544,404	16,701,732	17,670,942	18,033,471	16,900,468	19,665,049
User Charges	11,178,126	11,480,773	12,549,674	13,581,133	13,574,648	13,588,862	16,065,997
Connection Fees	1,387,175	1,146,089	2,951,667	2,882,239	3,088,860	1,462,313	2,339,500
Other Income	775,739	917,542	1,200,391	1,207,570	1,369,963	1,849,293	1,259,552

Source: VVWRA *FY = Fiscal Year ended June 30*

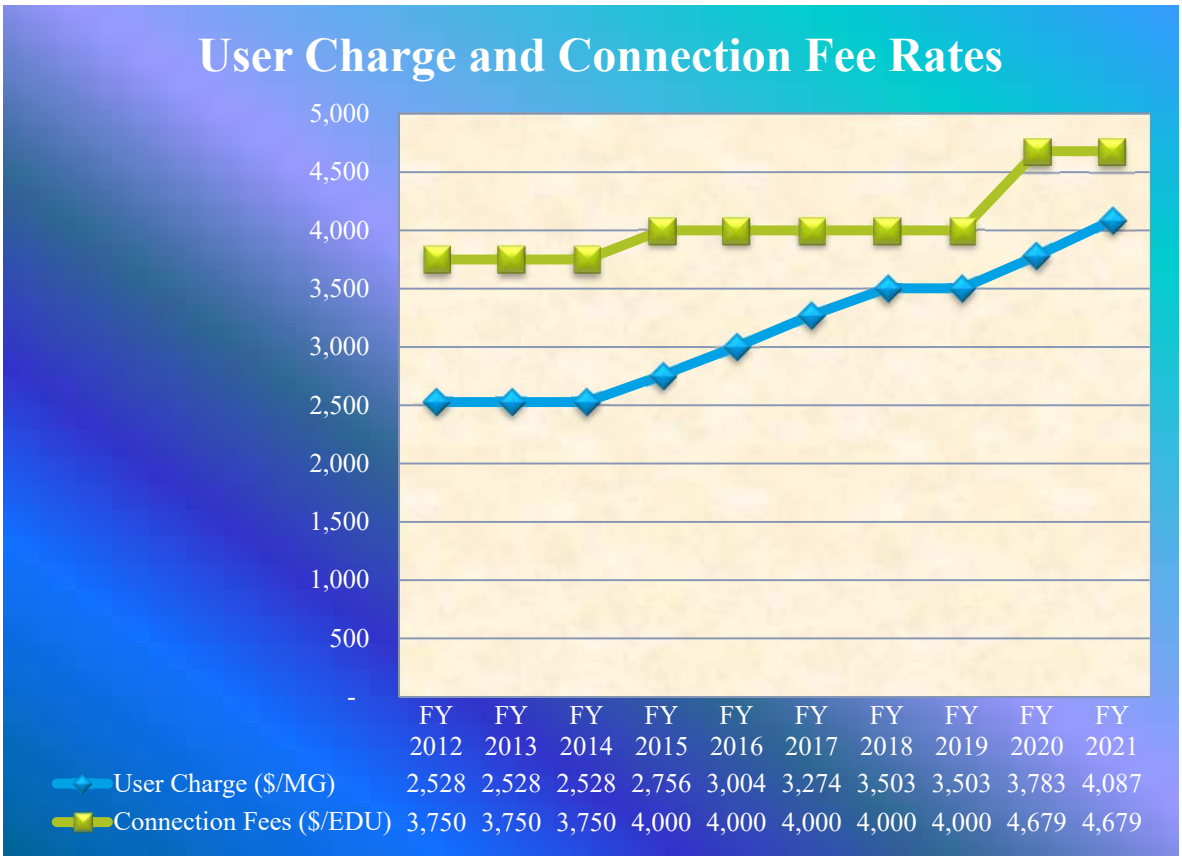
The other income also includes high strength surcharges for high contents of certain chemical, reclaimed water sales from the processed water, industrial pretreatment permits charged to businesses, and interest income. Grants are excluded in this revenue analysis for the period from FY 2015 to FY 2021.

Both user charges and connection fees are determined multiplying quantity expected to receive by unit prices; multiplying the flow quantity of million gallons (MG) by the user fee rate ($4,087/MG) for the user fee revenue and by multiplying the Equivalent Dwelling Unit (EDU) by the connection fee rate ($4,679/EDU). The four member agencies determined these rates be incorporated in the revenue

ordinances to absorb the operating and construction costs. The graph below shows rate changes up to FY 2021 based on the five–year financial plan.

The connection fees are calculated based on sewage quantity discharged by a single family home for a period of twenty-four hours. This single family home unit is referred to as one equivalent dwelling unit (EDU).

The Board of Commissioners reserves the right to change the rates of user fee and connection fee from time to time as necessary to fund its operations, maintenance, repairs, replacements, and expansion of the regional system.



Source: VVWRA FY = Fiscal Year ended June 30

This page shows high strength surcharge rates for FY 2021 and the calculation worksheet.

Worksheet

User Charges from Member Agencies				$ 15,788,081					
Unit User Charge per MG				**$4,087.00**					
Estimated Treatment Flow (MG)				3,863	15,788,081.00	3863			
					$ -				
	① Influent mg/l	Influent lbs/day	① Effluent mg/l	Effluent lbs/day	Removal lbs/day	Removal lbs/year	Percent of Cost	Removal Cost/lb	Unit Cost $
BOD	343.00	30,276	0.00	0	30,276	11,050,575	35.0%	$5,525,828	$0.5000
TSS	426.00	37,602	0.00	0	37,602	13,724,621	25.0%	$3,947,020	$0.2876
NH3	32.00	2,825	0.00	0	2,825	1,030,957	30.0%	$4,736,424	$4.5942
Annual Flow - MG per Day									
3,900 MG / 365 days		10.58					10.0%	$1,578,808	
							100.0%	$15,788,081	

	BOD $/lb	TSS $/lb	NH3 $/lb
Surcharge Rates:	**$0.5000**	**$0.2876**	**$4.5942**
Applied to Concentrations Above:	**200 mg/l**	**250 mg/l**	**20 mg/l**

FORMULAS

lbs/day = flow (mgd) x concentration (mg/l) x weight of water (8.34 lbs/gal)

BOD

Influent (flow mgd) x (influent mg/l) x 8.34 lbs/gal = lbs/day
Effluent (flow mgd) x (effluent mg/l) x 8.34 lbs/gal = lbs/day

TSS

Influent (flow mgd) x (influent mg/l) x 8.34 lbs/gal = lbs/day
Effluent (flow mgd) x (effluent mg/l) x 8.34 lbs/gal = lbs/day

NH3

Influent (flow mgd) x (influent mg/l) x 8.34 lbs/gal = lbs/day
Effluent (flow mgd) x (effluent mg/l) x 8.34 lbs/gal = lbs/day

REMOVAL

Per day: Influent lb/day - Effluent lb/day = Removal lbs/day
Per year: Removal lb/day x 365 = Removal lb/year

REMOVAL COST

Per lb: Total user cost x 35% = Removal cost/lb
Per unit: Removal cost/lb / Removal lb/year

① Fiscal year basis. From VVWRA Wastewater Data Program (OPS10 in FY 2019)

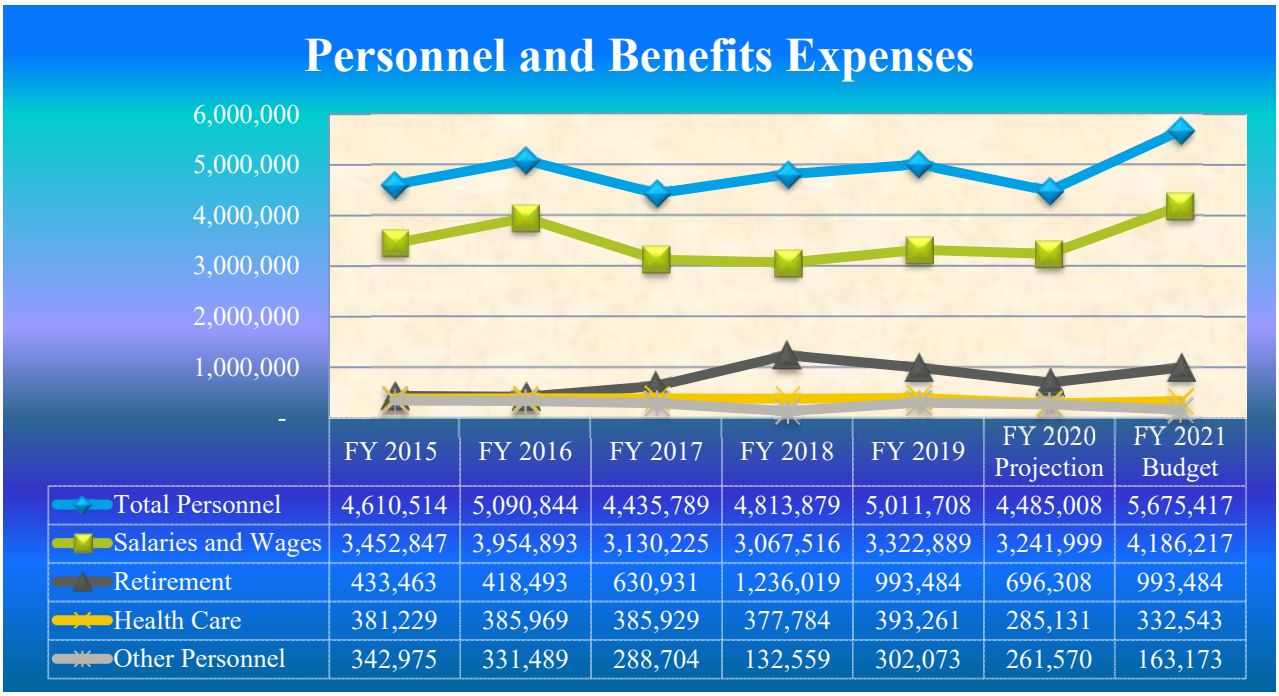
5.5 Allocations of Personnel Expenses

	2019 Actual $3,503/MG	2019 Budget $3,503/MG	2020 Actual as of 3/31/2020	2020 Projected to the Year End	2020 Budget $3,783/MG	2021 Budget $4,087/MG
Operations and Maintenance Salary Expenses						
Regular Salaries	$ 3,054,260	$ 2,884,301	$ 2,254,599	$ 3,006,132	$ 3,187,537	$ 3,963,657
Overtime	167,435	156,500	176,900	235,867	164,000	208,000
Call-Out Pay	68,481	66,120	(3,265)	-	72,120	14,560
Salaries Expense - Capital	(263,214)	-	-	-	-	-
	$ 3,026,962	$ 3,106,921	$ 2,428,234	$ 3,241,999	$ 3,423,657	$ 4,186,217
Operations and Maintenance Benefit Expenses						
Longevity	$ 32,714	$ 33,209	$ -	$ -	$ 39,685	$ -
Vehicle Allowance	-	18,000	-	-	18,139	-
Sick Leave Buy Back	-	-	-	-	-	-
Medicare	46,750	42,083	37,818	50,424	46,564	66,556
Social Security Expense	5,997	-	(351)	-	-	-
PERS / Health Insurance	358,402	232,969	213,848	285,131	315,462	332,543
Dental / Vision Insurance	34,859	22,436	(1,383)	-	27,960	-
Workers Comp Insurance	54,723	88,291	106,096	141,461	116,915	62,000
PERS / Retirement	624,437	252,000	231,525	308,700	303,035	993,484
PERS / Retirement - GASB 68	369,047	-	-	-	-	-
PERS / Retirement-EUL	-	366,667	290,706	387,608	436,059	-
Life Insurance	15,783	15,370	21,539	28,719	16,807	15,521
Unemployment Insurance	18,669	10,948	16,606	22,141	11,431	19,096
Disability Insurance	30,367	20,331	8,005	10,673	25,583	-
Misc Personnel Expense	6,769	11,500	6,114	8,152	13,750	-
OPEB Expense	123,016	85,000	-	-	30,000	-
Benefits Expense - Capital	(137,723)	-	-	-	-	-
	$ 1,583,810	$ 1,198,804	$ 930,523	$ 1,243,009	$ 1,401,390	$ 1,489,200
Capital Salary and Benefits Expenses						
Salaries	$ 263,214	$ 129,872	$ 226,838	$ 302,451	$ 123,510	$ -
Benefits	137,723	23,741	34,595	46,127	26,141	-
	$ 400,937	$ 153,613	$ 261,433	$ 348,578	$ 149,651	$ -
Total Personnel Expenses	**$ 5,011,709**	**$ 4,459,338**	**$ 3,620,190**	**$ 4,833,586**	**$ 4,974,698**	**$ 5,675,417**
Allocations of Personnel Expenses						
1. Allocations to Operations and Maintenance Fund						
To Operations and Maintenance	(3,307,728)	(2,928,398)	(2,461,729)	(3,286,838)	(3,347,987)	(3,708,720)
To Administration	(1,303,044)	(1,152,386)	(868,846)	(1,160,061)	(1,241,799)	(1,966,697)
	$ (4,610,772)	$ (4,080,784)	$ (3,330,575)	$ (4,446,899)	$ (4,589,786)	$ (5,675,417)
2. Allocation To Capital Fund						
To Construction	$ (400,937)	$ (378,554)	$ (289,615)	$ (386,687)	$ (384,912)	$ -
Personnel Expenses After Allocations	$ -	$ -	$ -	$ -	$ -	$ -

The personnel costs have remained stable with a slight increase over the years and a jump during FY 2016 when more staff was employed in anticipation of operating those two plants in Hesperia and Apple Valley. However, the personnel costs declined in FY 2017 through FY 2019 to reflect 1/3 lay-off during FY 2017 under the scenario where the agency will not operate those two plants without a sufficient operating fund. The FY 2021 total personnel budget reflects an increase in Cal PERS retirement projected costs and Consumer Price Index adjustments.

The health care cost has been kept at about the same level throughout the period from FY 2015 to FY 2021.

Other personnel costs include OPEB costs, Medicare, workers comp insurance, life insurance, unemployment insurance, and disability insurance. We have eliminated other personnel expense of payroll processing fees by switching processing payroll internally.



	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020 Projection	FY 2021 Budget
Total Personnel	4,610,514	5,090,844	4,435,789	4,813,879	5,011,708	4,485,008	5,675,417
Salaries and Wages	3,452,847	3,954,893	3,130,225	3,067,516	3,322,889	3,241,999	4,186,217
Retirement	433,463	418,493	630,931	1,236,019	993,484	696,308	993,484
Health Care	381,229	385,969	385,929	377,784	393,261	285,131	332,543
Other Personnel	342,975	331,489	288,704	132,559	302,073	261,570	163,173

Source: VVWRA. FY = Fiscal Year ended June 30

5.6 Budget Statement of Repairs and Replacement Fund

	2019 Actual $3,503/MG	2018 Budget $3,274/MG	2020 Actual as of 3/31/2020	2020 Projected to the Year End	2020 Budget $3,783/MG	2021 Budget $4,087/MG
Repairs and Replacements Financing Sources						
Transferred from Operations & Maintenance Fund	$ 2,242,009	$ 2,749,326	$ 793,573	$ 1,058,097	$ 2,666,326	$ -
	$ 2,242,009	**$ 2,749,326**	$ 793,573	$ 1,058,097	$ 2,666,326	$ -
Expenses						
Personnel and Benefits	$ -	$ -	$ -	$ -	$ -	$ -
Maintenance	260,052	1,204,326	456,476	608,635	1,896,326	-
Operations	20,433	25,000	3,592	4,789	-	-
Administration	73,000	150,000	82,024	109,365	145,000	-
Construction	1,888,524	1,370,000	251,481	796,308	625,000	-
	$ 2,242,009	$ 2,749,326	$ 793,573	$ 1,519,097	$ 2,666,326	$ -
Debt Services						
SRF Principal	$ -	$ -	$ -	$ -	$ -	$ -
SRF Interest	-	-	-	-	-	-
	$ -	$ -	$ -	$ -	$ -	$ -
Total Repairs and Replacements Expenses with Debt Services	**$ 2,242,009**	**$ 2,749,326**	**$ 793,573**	**$ 1,519,097**	**$ 2,666,326**	**$ -**
Repairs and Replacements Net Surplus or (Deficit)	**$ -**	**$ -**	**$ -**	**$ (461,000)**	**$ -**	**$ -**

This Repairs and Replacement (R&R) Fund has been a part of Operations and Maintenance (O&M) Fund in the past-year budget presentations. For budget year FY 2021, we are combining the R&R fund expenses into the O&M fund expenses. As a reference, we show the past R&R fund expenses in detail in the next page.

	2019 Actual $3,503/MG	2019 Budget $3,503/MG	2020 Actual as of 3/31/2020	2020 Projected to the Year End	2020 Budget $3,783/MG	2021 Budget $4,087/MG
Personnel Expenses Allocations						
Allocation to Operations and Maintenance	$ -	$ -	$ -	$ -	$ -	$ -
Allocation to Administrations	-	-	-	-	-	-
	$ -	$ -	$ -	$ -	$ -	$ -
Maintenance Expenses						
Maintenance Equipment	$ 108,609	$ 353,000	$ 245,858	$ 327,811	$ 424,000	$ -
Instrumentation	151,443	394,326	134,560	179,413	747,326	-
Total Grounds Maintenance & Landscaping	-	425,000	76,058	101,411	725,000	-
Vehicle Repairs	-	32,000	-	-	-	-
Interceptor Sewer Maintenance	-	-	-	-	-	-
Maintenance Safety Equipment	-	-	-	-	-	-
Misc. Maintenance Expense	-	-	-	-	-	-
	$ 260,052	$ 1,204,326	$ 456,476	$ 608,635	$ 1,896,326	$ -
Operations Expenses						
Process Chemicals	$ -	$ -	$ -	$ -	$ -	$ -
Utilities	-	-	-	-	-	-
Trash and Sludge	-	-	-	-	-	-
Fuel and Lubricants	-	-	-	-	-	-
Lab Supplies and Services	-	-	-	-	-	-
Outside Lab Services	-	-	-	-	-	-
Safety	20,433	25,000	-	-	-	-
Custodial Services and Supplies	-	-	-	-	-	-
Equipment Rental	-	-	3,592	4,789	-	-
Uniforms	-	-	-	-	-	-
Security	-	-	-	-	-	-
Permits	-	-	-	-	-	-
Misc. Operating Expense	-	-	-	-	-	-
	$ 20,433	$ 25,000	$ 3,592	$ 4,789	$ -	$ -
Administrations Expenses						
Telephone and Communications	$ -	$ -	$ -	$ -	$ -	$ -
Computer Supplies	820	50,000	-	-	-	-
Office Supplies	-	-	-	-	-	-
Travel, Meeting, Training	-	-	-	-	-	-
Professional Services / Cons	-	100,000	-	-	145,000	-
Membership, Fees, Licenses	-	-	-	-	-	-
Professional Services	72,180	-	82,024	109,365	-	-
Legal Services and Fees	-	-	-	-	-	-
Temporary Labor	-	-	-	-	-	-
Bond & Liability Insurance	-	-	-	-	-	-
Finance Fees	-	-	-	-	-	-
Misc. Administration Expense	-	-	-	-	-	-
Permit Fees	-	-	-	-	-	-
Rent	-	-	-	-	-	-
Supplemental Environmental Project Payment	-	-	-	-	-	-
	$ 73,000	$ 150,000	$ 82,024	$ 109,365	$ 145,000	$ -
Construction Expenses	$ 1,888,524	$ 1,370,000	$ 251,481	$ 796,308	$ 625,000	$ -
Total Repairs and Replacements Fund Expenses	**$ 2,242,009**	**$ 2,749,326**	**$ 793,573**	**$ 1,519,097**	**$ 2,666,326**	**$ -**

5.7 Budget Statement of Capital Fund

	2019 Actual $4,000/EDU ①	2019 Budget $4,000/EDU ①	2020 Actual as of 3/31/2020	2020 Projected to the Year End	2020 Budget $4,679/EDU ①	2021 Budget $4,679/EDU ①
Revenues						
Connection Fees	$ 3,088,860	$ 2,000,000	$ 1,096,735	$ 1,462,313	$ 2,254,625	$ 2,339,500
Interest	280,209	35,000	169,808	226,411	50,000	180,000
Grant - FEMA/Cal-EMA	-	3,105,375	-	-	-	-
Grant - Water Recycling	-	-	-	-	-	-
Grant - Proposition 1	-	-	-	-	-	-
Grant - Proposition 84	-	-	-	-	-	-
Grant - Title 16	-	-	-	-	-	-
Grant - CEC Microgrid	294,907	-	11,328	15,104	-	-
	$ 3,663,976	$ 5,140,375	$ 1,277,871	$ 1,703,828	$ 2,304,625	$ 2,519,500
Other Financing Sources						
SRF Loan Funding	$ 44,970	$ -	$ -	$ -	$ -	$ -
	$ 44,970	$ -	$ -	$ -	$ -	$ -
Total Capital Revenues and Other Financing Sources	**$ 3,708,946**	**$ 5,140,375**	**$ 1,277,871**	**$ 1,703,828**	**$ 2,304,625**	**$ 2,519,500**
Expenses						
Personnel and Benefits	$ 400,937	$ 378,554	$ 289,615	$ 386,153	$ 384,912	$ -
Maintenance	-	-	-	-	-	-
Operations	-	170	-	-	170	-
Administration	(2,054)	-	-	-	50,000	-
Construction	342,519	430,000	31,888	42,517	550,000	-
	$ 741,402	$ 808,724	$ 321,503	$ 428,670	$ 985,082	$ -
Debt Services						
SRF Principal	$ 1,950,231	$ 2,002,675	$ 1,920,208	$ 1,981,331	$ 1,981,331	$ 1,763,058
SRF Interest	423,176	437,219	310,677	405,395	405,395	370,014
	$ 2,373,407	$ 2,439,894	$ 2,230,885	$ 2,386,726	$ 2,386,726	$ 2,133,072
Total Capital Expenses with Debt Services	**$ 3,114,809**	**$ 3,248,618**	**$ 2,552,388**	**$ 2,815,396**	**$ 3,371,808**	**$ 2,133,072**
Interfund Loan to the Operations & Maintenance Fund	-	-	-	-	**(1,963,621)**	-
Capital Net Surplus or (Deficit)	**$ 594,137**	**$ 1,891,757**	**$ (1,274,517)**	**$ (1,111,568)**	**$ (3,030,804)**	**$ 386,428**

Impact of Capital Project Funding on Operations

The agency has seven outstanding Clean Water State Revolving Fund loans from the California State Water Resources Control Board (SWRCB) with the total principal $80.6 million outstanding as of April 30, 2020 whose annual payments become due throughout the year. The principal payment due for FY 2021 is $3.82 million and the corresponding interest due is $1.06 million. The agency has considered the operation portion of these debt payments is $2.06 million and the corresponding interest of $.69 million for FY 2021. In addition to the actual payments, the loan agreements require that VVWRA set up a loan reserve to cover one-year payment of principal and interest for all of the loans that would bind some of user fees and connection fees. Additional constrain in the operation revenues is that SWRCB sets a legal binding on user and collection fees in case of a default. Further, the loan agreements require the agency maintain debt coverage ratio of 1.2 throughout the year. In order to be in compliance, the member agencies have agreed to rate increases over the period of five years that are a basis for the five-year financial plan.

5.8 Department Supplemental Capital Purchases

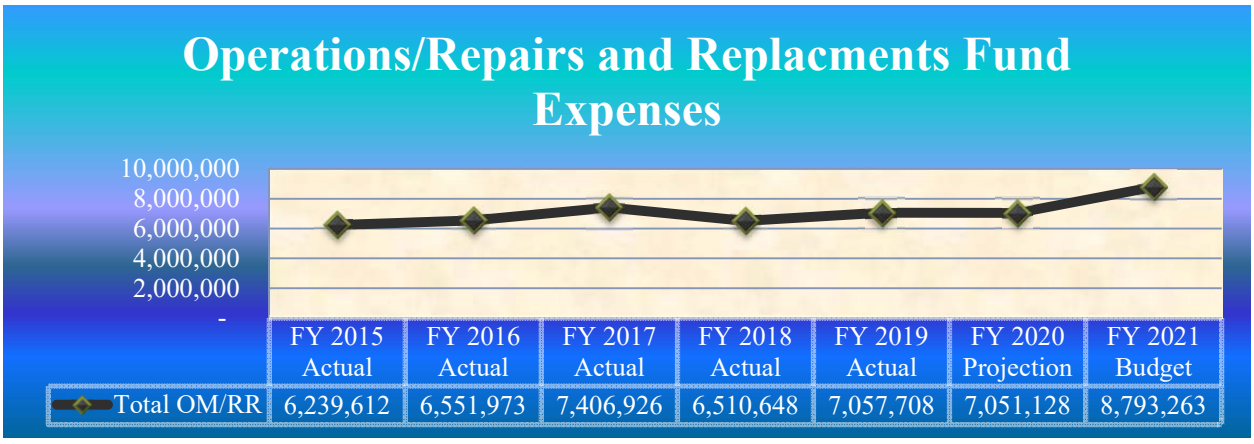
Supplemental Capital	
20-21 Budget Amount	**Description**
$50,000.00	Bar Screen Rebuild
$12,000.00	Primary Sludge Pumps 5-8 Replacement
$30,000.00	Digesters 1-3 Equipment Rebuilds / Purchases
$15,000.00	Grit Pump and Check Valve life Replacement
$50,000.00	Gas Scrubber Media Replacement
$100,000.00	2G Heads Replacement
$100,000.00	Vehicles
$357,000.00	**Total Supplemental Capital**

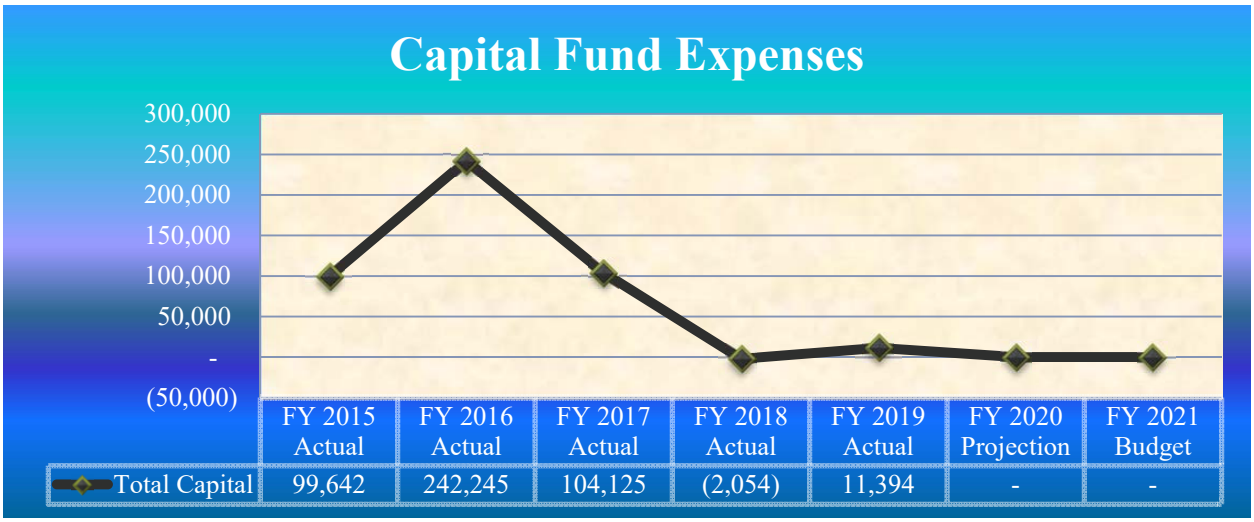
For FY 2021, the Authority eliminated the Repairs and Replacements Fund and rolled the reoccurring regular operational expenses into the Operations and Maintenance Fund. Significant capital assets that need replacement on an as-needed basis are now within the Operations and Maintenance Fund as supplemental capital purchases. These assets are not normally critical to operations and can be budgeted only when funds are available. The list of supplemental purchases requested for FY 2021 are presented in the list above and further details below:

- Bar Screen Rebuild – One of the two bar screens was replaced with a new unit last year. To save money the removed unit will be rebuilt, as opposed to purchasing a new unit to keep on the shelf as a critical spare.
- Primary Sludge pumps 5-8 Replacement – Purchasing of parts to have on the shelf to rebuild these critical pumps and alleviate any long leave times.
- Digesters 1-3 Equipment Rebuilds / Purchases – Funding for the continuing work on the rehabilitation of Digesters 1-3. Covers unexpected items not covered in the Anaergia contract.
- Grit Pump and Check Valve Life Replacement – Equipment is at the end of service life and need to be replaced.
- Gas Scrubber Media Replacement – Funding for media replacement in two of the four treatment vessels. Media in the other two vessels was accomplished in FY 19.
- 2G Heads Replacement – The cylinder heads on the 2G CHP units are at the end of service life and need to be replaced.
- Vehicles – Several vehicles in the VVWRA fleet are inoperable or have reached a point in their life cycle that they are no longer worth investing further repair dollars to keep them running. This FY VWRA staff will identify which vehicles need replacement and an appropriate scope will be developed to be competitively bid for replacement vehicles.

5.9 Operational Overview of Expenses

The operations and repairs/replacements expenses were at about the same level from FY 2015 to FY 2019. Up to FY 2020, such costs were kept low forced by a low cash flow level. FY 2021's expenses increase significantly when necessary repairs and replacements can no longer wait without causing alarming level of loss in pipeline and equipment integrity. In addition, these expenses continue to show the high electricity costs for the UV system throughout the period. During FY 2020, VVWRA has continued its micro-grid project to cope with such high electricity costs and unpredictable loss of steady energy level. The capital fund expenses excluding construction in progress (CIP) increased significantly from FY 2015 to FY 2016 due to minor projects that contribute to the regional plant's capacity growth. Between FY 2018 and FY 2021, the capital fund expenses remain low. One major difference for the capital expenses for FY 2021 is that the capital expenses for operations are excluded in the capital costs but rather included in operations costs.





Source: VVWRA - The graphs excludes personnel costs. *FY = Fiscal Year ended June 30*

5.10 Historical Comparison of Operational Revenues to Expenses

The following graphs show actual revenues and expenses during the last ten years.

	Total Revenues		
June 30	Total Operating Revenues	Total Non-Operating Revenues	Total Revenues
2019	$ 14,649,380	$ 3,665,387	$ 18,314,767
2018	14,696,537	5,317,638	20,014,175
2017	13,655,631	9,797,819	23,453,450
2016	12,305,439	14,416,430	26,721,869
2015	11,850,841	27,703,303	39,554,144
2014	11,134,994	8,091,504	19,226,498
2013	11,716,313	5,864,532	17,580,845
2012	10,667,026	4,944,099	15,611,125
2011	10,873,678	4,784,712	15,658,390
2010	9,994,967	3,356,309	13,351,276

	Operating Expenses						Total Non-Operating Expenses	Combined Expenses
June 30	Personnel	Maintenance	Operations	Administration	Depreciation	Total Operating Expenses		
2019	$ 5,011,708	$ 1,880,448	$ 2,928,704	$ 2,162,267	$ 12,468,103	$ 24,451,230	$ 1,255,633	$ 25,706,863
2018	4,813,879	1,654,791	2,877,169	1,783,254	9,226,174	20,355,267	1,937,435	22,292,702
2017	4,435,790	1,936,625	2,444,093	2,087,840	7,900,370	18,804,718	1,555,468	20,360,186
2016	5,090,845	1,892,127	2,359,892	1,831,796	6,645,579	17,820,239	1,214,952	19,035,191
2015	4,610,511	1,902,719	1,865,289	1,734,702	6,788,528	16,901,749	1,335,646 *	18,237,395
2014	4,475,438	1,647,896	2,183,544	1,784,021	6,612,402	16,703,301	1,535,497 *	18,238,798
2013	4,386,713	1,377,024	2,169,317	2,044,400	5,760,766	15,738,220	1,356,772	17,094,992
2012	4,398,077	3,041,988	2,828,368	1,788,697	5,620,847	17,677,977	2,389,888	20,067,865
2011	4,356,129	883,688	2,521,414	1,498,077	5,674,684	14,933,992	572,285	15,506,277
2010	4,596,477	652,862	2,023,628	1,365,467	5,664,279	14,302,713	304,779	14,607,492

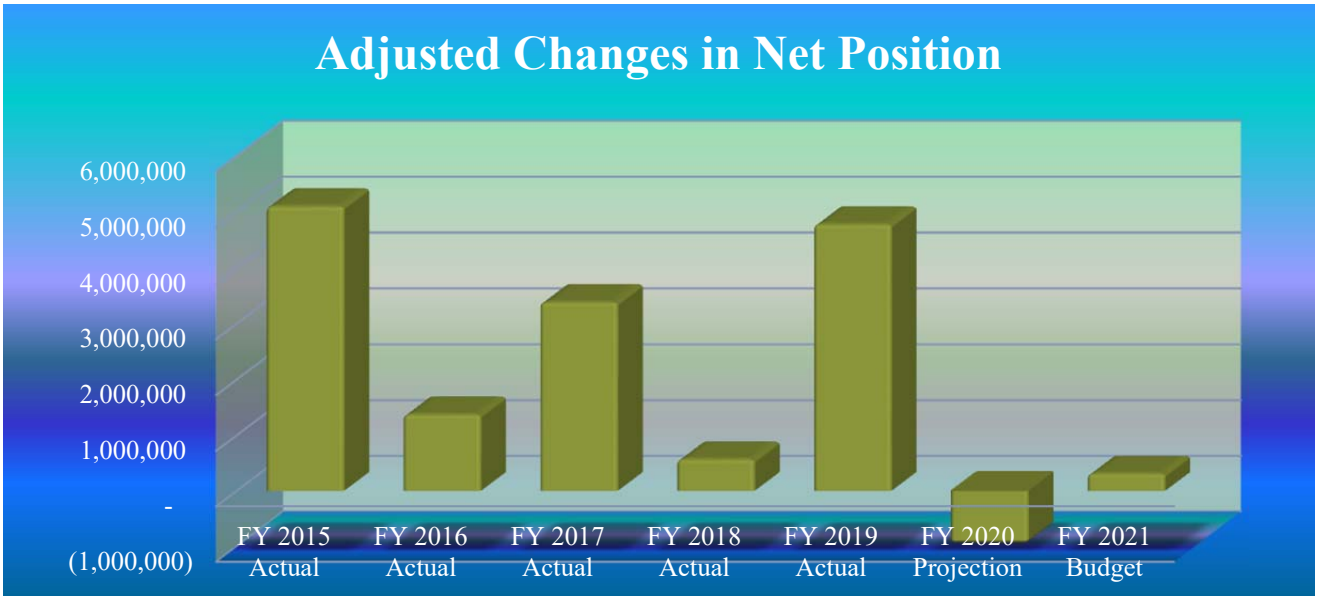
*Per prior year adjustment

5.11 Changes in Net Position

The table below shows *adjusted changes in net position* whose amounts are highlighted in navy blue in the table. The graph below shows the fluctuation of adjusted changes in net position during FY 2015 through FY 2021, or the total revenues over total expenses. The decrease is mostly due to the sharp decline of connection fee revenues from member agencies. Although the connection fee revenues shows an increase of 123% from $1,387,175 in FY 2015 to $3,088,860 in FY 2019, $1.2 million out of the $3.1 million connection fees accrued during FY 2019 was from the uncollected revenues. On the other hand, the operating expenses have increased by 18%, from $10,113,221 in FY 2015 to $11,983,127 in FY 2019. Grant revenues are recorded in CAFR but most of related construction costs are recorded in a construction in progress, excluded from expenses. For fair comparison purpose, the above actual net positions from FY 2015 to 2019 are adjusted by adding back the grant related capitalized expenses and adding non-cash depreciation and amortized interest expenses. Please see detailed discussions on capital improvement projects anticipated during FY 2021 at sections 6.1, 6.2, and 6.3.

FY = Fiscal Year	Beginning Net Position	Changes in Net Position per CAFR *=Per Budget	Ending Net Position	Grants CIP/Interest Amortization and Depreciations Expense	Adjusted Changes in Net Position	Adjusted Ending Net Position*
FY 2015 Actual	98,508,205	21,316,749	119,824,954	(16,212,939)	**5,103,810**	103,612,015
FY 2016 Actual	119,824,954	7,686,678	127,511,632	(6,308,679)	**1,377,999**	121,202,953
FY 2017 Actual	127,511,632	2,255,301	129,766,933	1,132,183	**3,388,114**	130,899,746
FY 2018 Actual	129,766,933	(2,278,527)	127,488,406	2,849,811	**571,284**	130,338,217
FY 2019 Actual	129,766,933	(7,392,096	120,096,310	12,173,196	**4,781,100**	132,269,506
FY 2020 Projection	120,096,310	(962,405)*	119,133,905	-	**(962,405)**	119,133,905
FY 2021 Budget	119,133,905	313,559*	119,447,464	-	**313,559**	119,447,464

**Note: Adjusted Ending Net Position = Beginning Net Position + Adjusted Changes in Net Position*



Source: VVWRA *FY = Fiscal Year ended June 30*

6 Financial Information Capital Projects

6.1 Capital Project Pay As You Go Strategy

Upon starting its five-year major capital improvement programs during FY 2020, the agency has redefined those capital projects for the FY 2021, utilizing the FY 2021 surplus funds excess funds from previous years the VVWRA team has specifically allocated dollars to fully fund and partially fund the proposed capital projects. The projects are diverse in scope and cost. Smaller maintenance projects as well as specific capacity improvement projects are proposed to be fully funded. Larger maintenance and capacity related projects have been partially funded to potentially allow for preliminary studies or design work to be completed. The total proposed funding for the capital projects in FY 2021 includes $1.2 million maintenance projects and $2.3 million capacity related capital projects. These projects will be funded by the FY 2021 revenues and operation and capital cash reserves.

Regional Plant Digesters

In FY 2021 the total debt service to the VVWRA for these projects and other smaller projects was just under $5 million dollars. This number represents about 20% of the overall proposed revenues for the authority.

The new rate study approved in FY 2020 designed rates to move away from significant debt service for capital projects in the future. The new rates were designed with a pay-as-you-go strategy for capital projects. In the proposed FY 2021 budget all available funds above debt service, operational expense, and mandatory reserves are now being allocated to fund future capital projects. The new capital improvement program (CIP) will now annually use this practice to fully fund or partially fund projects until such time that annual budget allocations reach the level of the proposed project cost.

6.2 Capital Improvement Program FY 2021

The Capital Improvement Program (CIP) lists the new capital projects funded, partially funded and unfunded in the fiscal year 2021 budget. The projects proposed in this budget were evaluated and prioritized by VVWRA staff to address immediate maintenance and capacity needs within the Operations and Administrative Departments. All available funds above operating expenses, debt service, and reserves were allocated to projects to demonstrate complete transparency of the proposed use of public funds. Revenues for the purpose of funding capital projects come from regular user fees to maintain existing assets and connection fees which are to be used for the purpose of improving capacity.

The following table is a detailed list of projects and their proposed funding schedule:

Project No.	Funding	Project Title	Projected Cost	Connection Fees	User Fees	Grants/Loans	FY 2021	FY 2022	FY 2023
1	Fully Fund	Digester 4-5 feed line Modifications	$800,000	$400,000	$400,000		$800,000		
2	Fully Fund	Intercepor Risk Assessment Analysis Report by Dudek	$172,000	$172,000			$172,000		
3	Fully Fund	PLC Replacement Project Phase 2	$400,000	$200,000	$200,000		$400,000		
4	Fully Fund	AV Sub-Regional Recycled Water By-Pass Line	$60,000	$60,000			$60,000		
5	Fully Fund	Hesperia Sub-Regional Recycled Water By-Pass Line	$60,000	$60,000			$60,000		
6	Fully Fund	2G Catalyst Replacement	$100,000		$100,000		$100,000		
7	Fully Fund	UV Generator Tie-in to South Perc Pond Pump Station	$375,000	$375,000			$375,000		
8	Fully Fund	Administration Building Roof	$120,000		$120,000		$120,000		
9	Fully Fund	New Golf Cart Barn	$25,000		$25,000		$25,000		
10	Fully Fund	ADM FOG Receiving Area Improvements and Expansion	$117,995	$67,995	$50,000		$117,995		
11	Fully Fund	Coating for UV (Both Channels)	$155,000		$155,000		$155,000		
12	Fully Fund	Coating for Septage EQ basin	$135,000		$135,000		$135,000		
13	Partially Fund	Oro Grande Interceptor Relocation Project	$2,600,000				$200,000	$1,000,000	$1,400,000
14	Partially Fund	Ossum Wash Interceptor Project	$1,000,000		$1,000,000		$100,000	$900,000	
15	Partially Fund	Design and build dewatering systems pre and post digestion	$22,000,000	$11,000,000	$11,000,000		$257,468		
16	Partially Fund	Hesperia relief sewer parallel line installation	$10,000,000	$10,000,000			$200,000		
17	Partially Fund	Regional Plant Storm Water Containment System	$200,000	$20,000	$180,000		$20,000	$180,000	
18	Partially Fund	Rehabilitate and remodel old Administrative building for staff	$5,000,000	$2,500,000	$2,500,000		$200,000		
19	Unfunded	PLC Replacement Project Phase 3	$400,000	$200,000	$200,000			$400,000	
20	Unfunded	Coating Daft 1-3 including Baker Tank Rental	$135,000		$135,000			$135,000	
21	Unfunded	Rehabilitation of South Apple Valley Manholes Hwy 18	$100,000		$100,000			$100,000	
22	Unfunded	Headworks Replacement	$10,000,000	$9,000,000	$1,000,000			$300,000	
23	Unfunded	Main Switch Board Upgrade Replacement & Generator	$2,000,000	$1,200,000	$800,000				
24	Unfunded	R4A North Lower Narrows MH 3-1 to MH 3-3	$1,877,000	$656,950	$1,220,050			$270,000	$1,607,000
25	Unfunded	R7 Old Town VV MH 4-24 to MH 4-25A	$1,500,000	$585,000	$915,000			$150,000	
26	Unfunded	R5 Cemex MH 4-7 to 4-14	$6,840,000	$2,872,800	$3,214,800				
27	Unfunded	R4B South Lower Narrows	$492,370	$260,956	$231,414				$492,370
28	Unfunded	PLC Replacement Project Phase 4	$480,000	$240,000	$240,000				$480,000
29	Unfunded	Relocation and update to the Server Room	$100,000	$100,000					
30	Unfunded	Digester 4 and 5 Supernate Line	$200,000		$200,000				
TOTALS			$67,444,365	$39,970,701	$24,121,264		$3,497,463	$3,435,000	$3,979,370

6.3 Capital Project Details from the FY 2021 CIP

The table below provides greater project details for all of the Capital Projects identified in the FY 2021 Budget:

Fully Funded Projects FY 2021		
Project No.	**Project Title**	**Project Descriptions**
1	Digester 4-5 feed line Modifications	This project will add separate feedlines for ADM/FOG and TWAS to Digesters 4 and 5 to allow different materials to be metered and fed individually to all digesters. This will allow greater control over the digestion process and tighten up volume calculations, freeing up digestion capacity.
2	Interceptor Risk Assessment Analysis Report by Dudek	The nature of wastewater interceptors includes deterioration of concrete structures by the gas that build in the system. VVWRA has an ongoing program that evaluates and repairs those structures. This Risk Assessment is a tool that helps us identify the priority areas that require repair.
3	PLC Replacement Project Phase 2	The Regional Plant used PLCs to control the treatment equipment. These vary in age, capacity, and manufacturers. Many of them are old enough that no replacement parts are available. This replacement project updates these PLCs to newer readily repairable systems.
4	AV Sub-Regional Recycled Water By-Pass Line	During the testing of the Sub-Regional facilities a temporary line was connected from the recycled water discharge point back to the VVWRA interceptors to move the water back to the Regional Plant. This temporary piping was installed to test the plant's ability to produce recycled water during a time when the percolation ponds and end-users were not prepared to receive the water. Staff has determined that a permanent line be installed to allow this operation to happen should the percolation ponds and end-users not be able to take the recycled water once the plant is fully operational and there is no location available to send the water.

5	Hesperia Sub-Regional Recycled Water By-Pass Line	During the testing of the Sub-Regional facilities a temporary line was connected from the recycled water discharge point back to the VVWRA interceptors to move the water back to the Regional Plant. This temporary piping was installed to test the plant's ability to produce recycled water during a time when the percolation ponds and end-users were not prepared to receive the water. Staff has determined that a permanent line be installed to allow this operation to happen should the percolation ponds and end-users not be able to take the recycled water once the plant is fully operational and there is no location available to send the water.
6	2G Catalyst Replacement	The SCR (Selective Catalytic Reduction) catalyst is nearing the end of its life cycle. The SCR system must be maintained and kept in good operating condition at all times as part of our MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT permit. The preventative maintenance recommendation is from manufacturer Hug Engineering which is the service provider for the SCR system.
7	UV Generator Tie-in to South Perc Pond Pump Station	This project will allow backup power from the UV generator to keep the Aqua Diamond Filters and the South Percolation Pond Pump Station energized during power interruptions at the plant. These areas have been identified as most overflow prone areas of the plant when there is no power. This will allow operations to keep the filters clean during an outage, so they will not backup and overflow. It also gives staff the ability to send tertiary water to the south perc ponds to avoid overflow during extended power outages.
8	Administration Building Roof	The Od Administration building has had multiple spot roof repairs completed over the last few years. This last fiscal year there was a major roof failure that now requires a complete roof replacement. The building \ is not currently being used for the purpose of housing staff, but a great deal of the critical file storage is located in this building. In addition to the important files the computer servers and communication hubs that serve the entire plant are located in this building. During the last storm event the roof leaks caused a power and communication failure. The permanent replacement of the roof will allow the Authority to protect critical files and computer servers that are vitally important to the operations at the Regional Plant.

9	New Golf Cart Barn	This project will be a 71ft by 20ft open front steel building used for golf cart storage and maintenance. Moving the carts out of their current location in the maintenance shop will allow the maintenance staff to be more productive and increase the service life of the carts by having a dedicated area for all carts to be stored out of the elements and be charged nightly.
10	ADM FOG Receiving Area Improvements and Expansion	This project includes grading the hill behind the gas scrubber which will create a new traffic flow lane and staging area for the increased volume of ADM/FOG delivery trucks associated with the gas project. The new traffic flow also alleviates the safety concern of tanker trucks driving back and forth through the treatment plant to access the ADM/FOG receiving station.
11	Coating for UV (Both Channels)	The concrete surfaces in these structures need to be coated to extend their working life. This project was identified three years ago and has been repeatedly delayed due to more critical issues. The concrete surfaces are being broken down at the air/water surface interface and need to be addressed.
12	Coating for Septage EQ basin	The concrete surfaces in these structures need to be coated to extend their working life. This project was identified three years ago and has been repeatedly delayed due to more critical issues. The concrete surfaces are being broken down at the air/water surface interface and need to be addressed.
Partially Funded Projects FY 2021		
Project No.	**Project Title**	**Project Descriptions**
13	Oro Grande Interceptor Relocation Project	The line will replace the existing Oro Grande interceptor. The existing line runs across the Mojave River with several manholes out in the channel. The replacement would put a pump station on the Oro Grande side of the river and a force main installed in a micro-tunneled pipe below the river. There would be no manholes and the pipe would be below the scour depth of the river to minimize the risk of failure and spill.
14	Ossum Wash Interceptor Project	This project will install a liner in the double barrel interceptor that crosses Ossum Wash. During significant storm events this pipeline location could be compromised in an environmentally sensitive area where a pipe rupture could flow directly to the Mojave River. A new liner will provide greater protection from this occurring.

15	Design and build dewatering systems pre and post digestion	The liquid side of the Regional Plant has been addressed in several projects in the past 10 years. Water conservancy in the collection system has benefitted the liquid side of the plant. Conversely the solids side has fallen behind. While liquid flows have reduced the solids have increased. Even the Sub-regional plants have helped reduce the liquid flow, but all the solids are still conveyed to the Regional Plant. Septage and ADM flows have also increased the volume of solids we treat. One of the main benefits our site is that we have a large amount of land. Our main dewatering is using solar drying beds, completely at the mercy of the weather. We are currently at a point that the drying beds cannot keep up. VVWRA has a Gravity Belt Thickener (GBT) that helps by mechanically removing water. While this helps it cannot fully solve the problem with expansion of the mechanical dewatering. Also this generates a side stream that is very high in ammonia and needs to be evaporated or treated before running back into the normal flow. This Study would identify options that VVWRA can use in preparing projects to fully address this need.
16	Hesperia relief sewer parallel line installation	The Hesperia Interceptor located between Bear Valley Rd and the Mojave Narrows Regional Park was identified as over capacity, this new relief sewer will ensure VVWRA will remain compliant with its WDR requirements by increasing capacity to help avoid potential sanitary sewer overflows.
17	Regional Plant Storm Water Containment System	Several instances have occurred which allowed partially treated wastewater to inadvertently enter the storm drain system. Not all of it was able to be returned to the headworks thus reportable spills occurred. This project will create a valve and a pipeline to redirect flows from the storm water system to the backwash basin.

18	Rehabilitate and remodel old Administrative building for staff use	The original Administrative building has not been used as an office space for VVWRA staff since 2007. This move was made due to the poor condition of the original building. From 2007 to 2013 the VVWRA administrative operations were moved to a leased office in Hesperia. Since that time, over seven years, the VVWRA staff have been operating out of a temporary office structure that is leased at a cost of $100,000 / Year. These temporary offices sit on jacks that are placed directly on native soil which over time are now sinking causing structure concerns. In addition to the lease costs and structural concerns the thin walled building is very expensive to heat and cool. It would be a better use of public money to refurbish the original Administrative building to meet the Authority's needs rather than trying to sustain the temporary facilities that are costly and whose life span may be reaching a usable end.
Unfunded Projects FY 2021		
Project No.	**Project Title**	**Project Descriptions**
19	PLC Replacement Project Phase 3	The Regional Plant used PLCs to control the treatment equipment. These vary in age, capacity, and manufacturers. Many of them are old enough that no replacement parts are available. This replacement project updates these PLCs to newer readily repairable systems
20	Coating Daft 1-3 including Baker Tank Rental	The concrete surfaces in these structures need to be coated to extend their working life. This project was identified three years ago and has been repeatedly delayed due to more critical issues. The concrete surfaces are being broken down at the air/water surface interface and need to be addressed. A baker tank will need to be rented to store ADM/FOG during the coating of Dafts 2 and 3.
21	Rehabilitation of South Apple Valley Manholes Hwy 18	In 2019 , VVWRA performed a CCTV condition assessment of 61 manholes along Highway 18 in Apple Valley , the results show severe corrosion of a large number of manholes due to high Sewer Gas H2S, this project will repair or replace any damaged manholes in order to continue maintaining this important interceptor.

22	Headworks Replacement	The existing headworks is the original installation from 1980. The concrete has deteriorated to an extent that stop plates used to isolate for service cannot be full installed and makeshift sandbag walls have to be used to limit leakage. It is intended to analyze the extent of required repairs. Evaluate options to improve the situation and present budgetary concepts to evaluate in-place repair versus new location installation.
23	Main Switch Board Upgrade Replacement & Generator	The Main Switch Board (MSB) upgrade will include an Automatic Transfer Switch(ATS) which would increase power transfer reliability, uptime and improved performance during normal operational tests and outages. The upgrade of the generator up to 1.2 Mega-watt will allow a true emergency generator redundancy, allow a greater capacity, increase reliability and uptime.
24	R4A North Lower Narrows MH 3-1 to MH 3-3	This project was identified in the 2018 Dudek Interceptor Capacity Study where it was recommended for replacement due to the under capacity in this section of the interceptor.
25	R7 Old Town VV MH 4-24 to MH 4-25A	This project was identified in the 2018 Dudek Interceptor Capacity Study where it was recommended for replacement due to the under capacity in this section of the interceptor.
26	R5 Cemex MH 4-7 to 4-14	This project was identified in the 2018 Dudek Interceptor Capacity Study where it was recommended for replacement due to the under capacity in this section of the interceptor.
27	R4B South Lower Narrows	This project was identified in the 2018 Dudek Interceptor Capacity Study where it was recommended for replacement due to the under capacity in this section of the interceptor.
28	PLC Replacement Project Phase 4	The Regional Plant used PLCs to control the treatment equipment. These vary in age, capacity, and manufacturers. Many of them are old enough that no replacement parts are available. This replacement project updates these PLCs to newer readily repairable systems
29	Relocation and update to the Server Room	The current server room is located in the garage area of the old administration building, this space was converted from the old maintenance inventory shop, it lacks adequate communications and is prone to flooding due upstairs roof leaks.

30	Digester 4 and 5 Supernate Line	this project will require installing gravity line from the Digesters 4 and 5 supernate boxes out to the sludge lagoons to allow digestate to flow to the lagoons without being pumped. There is a significant energy saving associated with this as well as lower maintenance costs by reducing struvite formation caused by the high velocity of the centrifugal pump currently used to pump this material from a wet well out to the sludge lagoons.

7 Conclusion

7.1 Budget Conclusion

The Victor Valley Wastewater Reclamation Authority is committed to satisfying the new Mission Statement utilizing our new Core Values and Model for Efficient Wastewater Utility Management as the road map to achieving those goals in the coming FY. The Authority strives to maintain transparency, responsiveness and stewardship toward our Board of Commissioners, our Member Agencies, our stakeholders, and our employees. I would like to take this opportunity to thank the external Finance Committee made up of financial staff from the Member Agencies and the internal Finance Committee of Commissioners Bird and Lovingood for input on the proposed budget. Special thanks to the Finance staff including Controller, Chieko Keagy, Senior Accountant, Xiwei Wang, and Accountant, Kyle Parker.

The budget presented to the Board this June 18, 2020 provides for a surplus in revenues that will be used to fund a new strategy of pay-as-you-go Capital projects. This new budget is moving us closer to our desired debt ratio coverage of 1.2. Last year's budget was a deficit budget with a debt ratio of .76. The budget we are asking you to approve has a 1.16 debt ratio and a surplus budget over $300,000. Overall operating expenses were lowered almost 3% from last year and we have fully budgeted 12 capital projects.

In conclusion the VVWRA staff is proud to submit this proposed budget document for consideration by the Board of Commissioners. The team has worked diligently to develop a new budget format and to deliver a plan that is accurate and well thought out. With the Board's approval of this budget the VVWRA staff is excited to move forward with the designed plan to achieve the fiscal and operational goals as set by the Board, the Member Agencies and the VVWRA team of employees.

8 Glossary of Terms

8.1 Glossary of Terms

Term	Definition
Ammonia Nitrogen	The soluble ionized and unionized ammonia nitrogen component in wastewater that can be measured using the procedure described in the current edition of "*Standard Methods for the Examination of Water and Wastewater*" published by the American Public Health Association.
Biochemical oxygen demand (BOD)	The measure of decomposable organic material in wastewater as represented by the oxygen utilized as determined by the procedure described in the current edition of "*Standard Methods for the Examination of Water and Wastewater*" published by the American Public Health Association.
Cal-OES	The California Governor's Office of Emergency Services (Cal-OES) serves the public through effective collaboration in preparing for, protecting against, responding to, recovering from, and mitigating the impacts of all hazards and threats.
Cash Basis	Revenues and expenses are recognized when cash is received or paid out.
Connection Fee	A fee paid by a new discharger for the costs of capacity in the regional wastewater system.
Effluent	The liquid outflow discharged from the Publicly Owned Treatment Works (POTW) facility or the nondomestic wastewater discharged by industrial users to the POTW.
Enterprise accounting	Uses an accrual basis of accounting method to account for the activities of a government agency that provides goods or services to the public on a fee basis.
Enterprise Accounting System	An accrual accounting system that is similar to a regular business accounting method, where revenues and expenses are recorded when they incur. VVWRA employs two funds, (1) Operations and Maintenance Fund and (2) Capital Fund. Both of the funds employ the Enterprise Accounting System.
FEMA	The Federal Emergency Management Agency (FEMA) coordinates the federal government's role in preparing for, preventing, mitigating the effects of, responding to, and recovering from all domestic disasters, whether natural or man-made, including acts of terror.
Interceptor	A pipeline that conveys wastewater from the sewer collection facilities of a Member Agency to the VVWRA's wastewater treatment facilities.
Member Agencies	The four government agencies who participate in the joint power agreement with VVWRA. They are the City of Victorville; Town of

	Apple Valley; Hesperia Water District; and County of San Bernardino Service Areas, #42 Oro Grande and #64 Spring Valley Lake.
MG	Million Gallons.
MGD	Million Gallons per Day.
POTW	The Publicly Owned Treatment Works is sewage treatment plants that are owned and usually operated by local government agencies.
Industrial Pretreatment	The reduction and elimination of pollutants or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into the POTW.
Reclaimed Water	Water that, as a result of waste treatment, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource.
Septage	Any wastewater or sludge removed from cesspools, septic tanks, holding tanks, or chemical toilets that is trucked or hauled to the point of discharge.
SRF	State Revolving Fund.
High Strength Surcharge	An assessment, in addition to the service charge, which may be levied on those users whose waste are greater in strength than threshold concentration values established.
User	Any person who contributes, causes, or permits the contribution of wastewater into the POTW, including households, private residences, nonresidential users, and Member Agencies.
VVWRA	The Victor Valley Wastewater Reclamation Authority.
Wastewater	The domestic or nondomestic liquid wastes discharged from dwellings, or commercial buildings, industrial facilities, and institutions, together with any ground water, surface water, and storm water that may be present, whether treated or untreated, which is contributed into or permitted to enter the POTW.