Victor Valley Wastewater Reclamation Authority

# Adopted Annual Budget FY 21/22

A Joint Powers Authority

Town of Apple Valley

HESPERIA 1988

SAN BERNARDINO COUNTY

CITY OF VICTORVILLE INCORPORATED SEPT. 21, 1962 HOME OF THE SAN BERNARDINO COUNTY FAIR CALIFORNIA

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**Victor Valley Wastewater Reclamation Authority**
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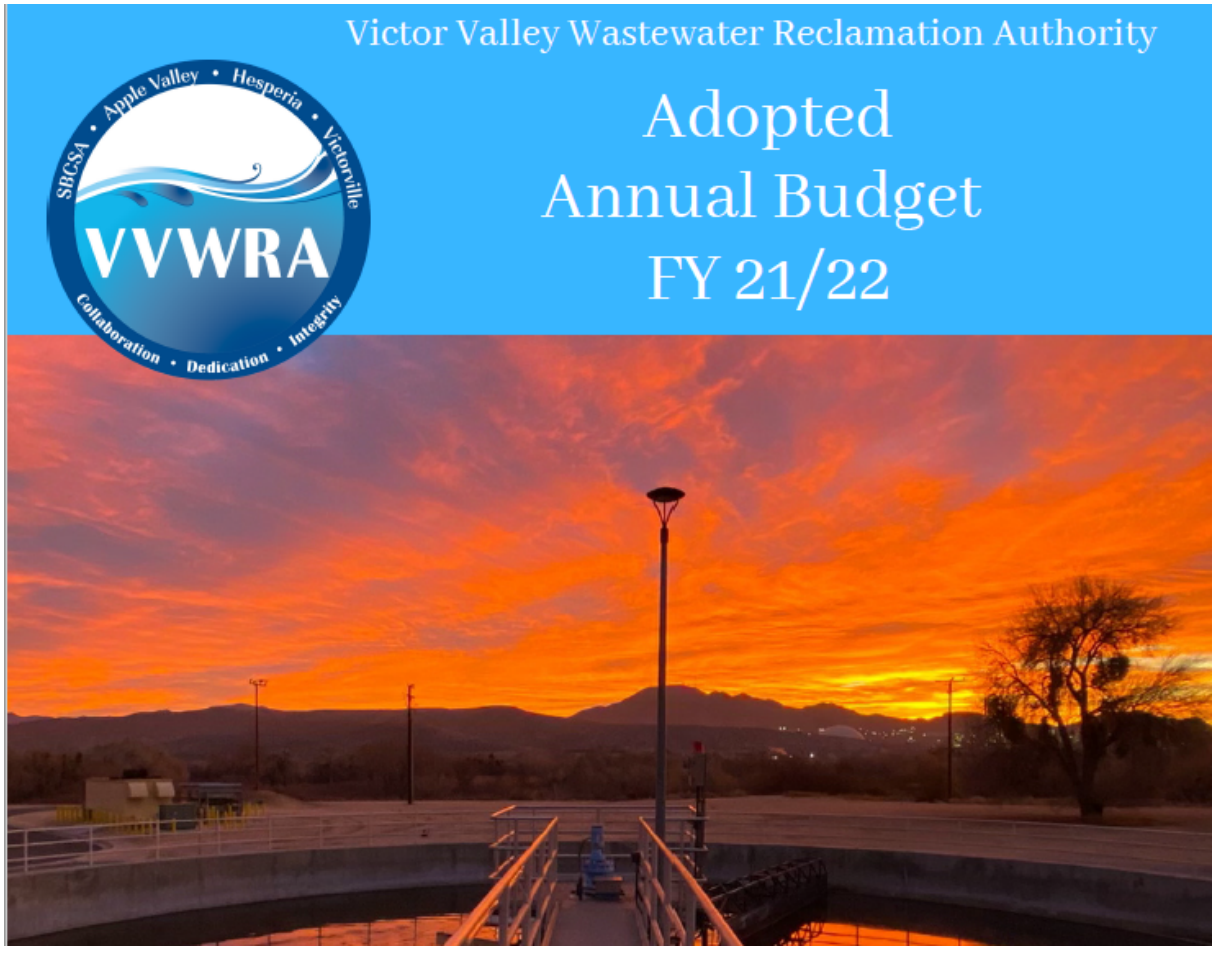
# 1 Budget Executive Summary

## 1.1 General Manager Budget Message




**TO THE BOARD OF COMMISSIONERS AND MEMBER AGENCIES OF THE VICTOR VALLEY WASTEWATER RECLAMATOIN AUTHORITY: THE TOWN OF APPLE VALLEY, THE CITY OF HESPERIA, THE SAN BERNARDINO COUNTY SPECIAL DISRICTS, 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 2021-2022 Operating and Capital Budget. Preparation for these Budget calculations and supporting documents began on February 22, 2021. Preparing for my second budget season as the VVWRA General Manager, myself and the staff evaluated the changes we made last fiscal year and discussed further changes to improve our budgeting process and reporting. We reaffirmed our primary goal 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 further improvement to provide greater clarity with fewer line items, elimination of line-item duplications and more a definitive separation of Department fiscal responsibility.

There are three key VVWRA staff members who are fiscally responsible for developing their own independent budgets. The Plant Superintendent, Brad Adams, manages twenty-two staff members, including Operators, Mechanics and Electricians, who are responsible for the operations of the regional and sub-regional facilities. He is responsible for developing the Operations portion of the fiscal year budget. The Director of Administration, Robert Coromina, manages six employees who perform the environmental compliance, information technology, human resources, and safety functions within the Authority. The Controller, Chieko Keagy oversees development of the overall budget with her staff of four employees. Mr. Coromina and Ms. Keagy jointly develop the Administrative portion of the fiscal year 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 again shortened to eliminate budgeting difficulties and overlap. The management team continues to improve their budgeting skills through 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 and consolidation of certain line items has allowed the management team to further sharpen their pencils on the more general line items this budget year. Each manager went through the task of eliminating worst case scenarios from the individual line items and to budget as close to normal expected operating costs for every element of their budget. The projected worst case scenario funds were placed once again in one contingency fund that they can draw upon should any out of the ordinary situations arise. This process has 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

This last year was a struggle to build on stronger working relationships due to the COVID 19 Pandemic. We had numerous staff members working from home and necessary operational people were split into 2 specific schedules to avoid interaction. Through all those significant changes we still were able to accomplish a great deal with regards to capital projects and internal enhancements to our operations and procedures. We continued to grow our understanding and implementation of the Mission of the Authority and we further dedicated ourselves to the core values of Collaboration, Dedication and Integrity. The VVWRA staff and the management team have heightened our efforts to continue our growth 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 our decision and planning efforts.

The budget presented to you this June 17, 2021 provides for a surplus in revenues that will be used to fund our 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 (FY 2021) budget had a debt ratio of .84. The current year (FY 2022) budget has a 1.16 debt ratio and an operating surplus budget of $878,341. Operating revenues increased by 12% attributed to increased wastewater flows, new industrial waste fees, increased recycled water sales and an increase in FOG and ADM tipping fees. Operating expenses went up 10% mostly attributed to the Sub-Regional facilities that are expected be online next fiscal year. The Sub-Regional facilities will require new operations staff and increased chemical costs. Increased power costs, increased sampling costs and increased maintenance costs. The team is excited to move forward with the operations of the Sub-Regional facilities and being able to serve our member agencies with recycled water.

The Victor Valley Wastewater Reclamation Authority is committed to the Mission Statement utilizing our Core Values as the guiding principles to achieve the desired goals in the coming fiscal year. The Authority strives to maintain transparency, responsiveness and good 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, Commissioners Scott Nassif and Dakota Higgins for input on the proposed budget. Special thanks to the Finance staff including Controller, Chieko Keagy; Senior Accountant, Xiwei Wang; Accountant, Kyle Parker; Accounting Technician, Anne Mazzarella; and Asset Management Technician, Daniel Enriquez.

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, 2022 (hereafter referred to as FY 2022) 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*

Following FY 2021, the Authority eliminated the Repairs and Replacements Fund and rolled the reoccurring regular operational expenses into the Operations and Maintenance Fund in the FY 2022 budget. 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, that is 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 agencies, on average of, 59% from the City of Victorville, 19% from the City of Hesperia, 16% 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 $4,414 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 2022 is projected to be $20.0 million. After the payment of the debt service, the remaining funds available for operating expenses is $17.1 million.

In addition to the user fee revenues, the Authority is also projecting the collection of $1.2 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 at Section Six of this document.

## 1.3 Overview of Operational Expenses

VVWRA has submitted a proposed operating expense budget of $19.1 million consisting of $2.9 million in debt service and $16.2 million for operations and maintenance expenses for FY 2022. 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 continue operating both sub-regional plants in Apple Valley and City of Hesperia during the FY 2022. These additional operations add extra expenses, but also add additional revenues from the sale of recycled water.

We expect the total unrestricted reserve at June 30, 2022 to be $2.4 million after applying $76 thousand to supplemental capital purchases and the remaining unrestricted reserve to proposed capital projects. These capital projects are explained in greater detail in the Capital section of this booklet. In addition, we expect to have $6.7 million for the total restricted reserve.

The $5.8 million one-time revenue associated with FEMA and Cal OES retentions we received during FY 2021 was added to the FY 2021 operating reserve during the mid-year budget review in January 2021.

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 22 staff members, including Operators, Mechanics and electricians, 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 6 employees who perform the environmental compliance, IT, human resources, and safety. Further, the Controller, Chieko Keagy, combines both department activities to develop the overall budget.

The two clear internal Departments have eliminated the complexity of budgeting, utilizing a contingency line item that each department manager could draw upon should any out of the ordinary situations arise.

## 1.4 Capital Projects Strategy Update

The Authority made good progress in completing the scheduled Capital projects slated to be completed last fiscal year. Significant improvements were made to Digesters one and two. Both assets received new mixing equipment as part of the Renewable Natural Gas (RNG) Project. Digester 2 also received a new membrane roof and new sludge, and gas lines were installed to improve operations. Work on Digesters four and five also took place. Both digesters were drained, cleaned of significant debris, and had new mixing boxes and rails installed for future installation of new propeller mixers in those digesters. The completion of the RNG project is scheduled for the FY2021-22 budget year. This public / private partnership with SoCal Biomethane will result in greater tipping fee revenues from the taking of FOG and ADM as well as increased production of methane gas which will be cleaned by SoCal Biomethane and sold to Southwest Gas as a renewable supply. The revenues generated from the sale of this gas will be shared between SoCal Biomethane and VVWRA. The project is a significant benefit to the environment lessening the impacts of excess FOG and ADM as well lessening the burning of excess methane gas. In addition, the revenues will aid in keeping wastewater treatment costs lower for VWRA Member Agencies and provide an additional revenue source for much needed Capital projects.

*Regional Plant Digesters*

Another significant project completed last fiscal year was the Interceptor Risk Assessment Analysis. This project provided insight on the current condition and capacity of the Authority's interceptor piping system, which conveys Member Agency wastewater to the regional plant. Significant discoveries were made on capacity concerns during wet weather, peak flow, conditions

that will need to be addressed as part of the Authority's long term capital project planning. The project also made us aware of the concerns we have with regards to infiltration and inflow (I&I) during wet weather events. Capacity concerns can be mitigated by lowering the I&I so a new project scheduled for FY 2021-22 was developed to collaborate with Member Agencies to perform a region-wide study on how to lower I&I. By identifying and making improvements, the Authority will gain almost 10 years of capacity for peak wet weather flow before larger pipeline projects identified in the study need to be built.

Having this type of information is critical to a long-term capital improvement program. With this new information staff now knows that if I&I can be reduced then they can focus on planning and completing necessary operational projects that do not increase treatment capacity. Many of the Capital projects scheduled for the next few years will assure proper operations of exiting assets. Significant projects, such as replacing large blower motors and coating important operational assets to extend operating life, are now proposed to be completed in the FY 2021-22 Capital Budget.

A significant project that needs to be addressed in the near future is a new Administrative Building. The Authority's administrative staff are working from temporary construction trailers that have been leased for over eight years. The lease fees and the energy costs to cool and heat these temporary trailers are significant. Staff is proposing that the best and least expensive course of action is to rehabilitate and remodel the existing Administrative Building which is currently not occupied due to asbestos concerns. Staff is proposing in the FY2021-22 Capital budget that the building be mitigated for the asbestos and that a study be performed to re-utilize the building for current and future administrative needs.

The pay-as-you-go Capital Project strategy implemented last year has now been enhanced with the results of the Interceptor Risk Assessment Analysis Repot. This report provided guidance on when capacity related projects would need to be completed and it also identified and provided a cost analysis on what the capacity related projects should be. Funds beyond operating expenses are proposed to be realized in the FY 2021-22 and the RNG project promises to provide other revenues to help fund future Capital projects. Staff is gaining the necessary knowledge and experience to continue and sustain a comprehensive Capital Improvement Plan to protect and assure proper operations and capacity of all the VVWRA assets and facilities.

## 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 2022 budget will result in a debt coverage ratio of 1.16, which is close to the desired value of a 1.20 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 to cover the following year SRF loan payments. The rate study was conducted to keep the pay-as-you-go strategy for capital projects within these constraints.

VVWRA's total debt service for FY 2022 is $4,882,810. Out of this amount, $2,749,738 is funded by the user charge revenue, and $2,133,072 is supposed to be funded by the connection fee revenue. VVWRA's debt service amount will decrease in future years as the agency continues to pay off debts. Please see the following pages for future loan payments.

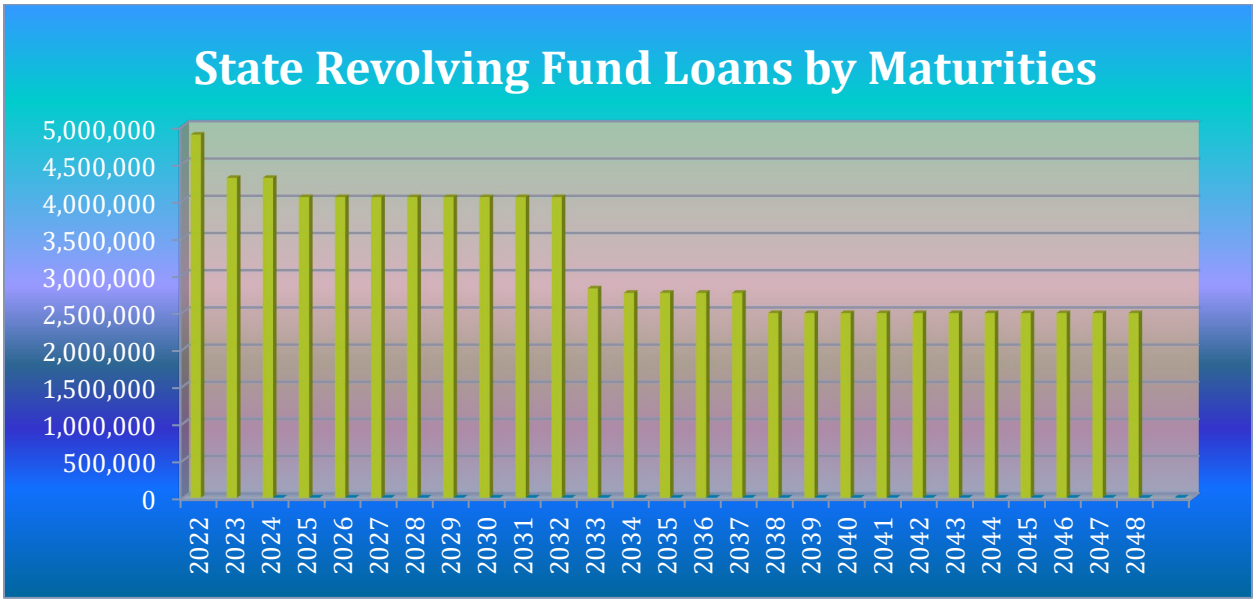
Based on the Board consensus to pay back the loans timely, the Board has approved the user fee and connection fee rate adjustments during FY 2020. The new user fee was effective October 1, 2019 that will continue increasing by 8% annually throughout FY 2024. The adjusted connection fee rate was effective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

*Inside a Regional Plant Digester*

The table below represents our debt service payments for the Clean Water State Revolving Fund (SRF) loans. As of July 1, 2022, 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.

| Fiscal Year | 11 MGD Expansion | North Apple Valley Interceptor | Phase IIIA Regulatory Upgrades | Upper Narrows Replacement | Nanticoke Bypass | Apple Valley Sub-Regional | Hesperia Sub-Regional | Total |
|---|---|---|---|---|---|---|---|---|
| **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** | **579,870** | **774,453** | **11,303,710** | **2,895,588** | **4,346,128** | **27,673,677** | **39,496,950** | **87,070,376** |

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.

| 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 |

| 2023 | North Apple Valley Interceptor | Phase IIIA Regulatory Upgrades | Upper Narrows Replacement Project | Nanticoke Bypass Project | Apple Valley Sub-Regional Project | Hesperia Sub-Regional Project | 2023 Total |
|---|---|---|---|---|---|---|---|
| SRF Loan Amount | $ 4,084,688 | $ 15,717,668 | $ 4,286,380 | $ 4,459,190 | $ 26,455,229 | $ 37,758,385 | $ 92,761,540 |
| Annual Payment | $ 258,151 | $ 1,027,610 | $ 257,745 | $ 271,633 | $ 1,024,951 | $ 1,462,850 | $ 4,302,940 |
| Payment Date | February 13 | June 30 | December 31 | June 30 | February 28 | February 28 | |
| 1. Operations | 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 | $ - | $ 590,453 | $ 212,592 | $ 153,614 | $ 482,700 | $ 688,930 | $ 2,128,289 |
| Interest | $ - | $ 180,255 | $ 45,153 | $ 50,111 | $ 142,520 | $ 203,410 | $ 621,449 |
| Annual Payment | $ - | $ 770,708 | $ 257,745 | $ 203,725 | $ 625,220 | $ 892,340 | $ 2,749,738 |
| 2. Capital | 100.00% | 25.00% | 0.00% | 25.00% | 39.00% | 39.00% | |
| Original Loan | $ 4,084,688 | $ 3,929,417 | $ - | $ 1,114,798 | $ 10,317,539 | $ 14,725,770 | |
| Principal | $ 245,712 | $ 196,818 | $ - | $ 51,205 | $ 308,611 | $ 440,461 | $ 1,242,807 |
| Interest | $ 12,439 | $ 60,085 | $ - | $ 16,704 | $ 91,120 | $ 130,049 | $ 310,397 |
| Annual Payment | $ 258,151 | $ 256,903 | $ - | $ 67,909 | $ 399,731 | $ 570,510 | $ 1,553,204 |
| Total Principal | $ 245,712 | $ 787,270 | $ 212,592 | $ 204,819 | $ 791,311 | $ 1,129,391 | $ 3,371,096 |
| Total Interest | $ 12,439 | $ 240,340 | $ 45,153 | $ 66,814 | $ 233,640 | $ 333,459 | $ 931,846 |
| Annual Payment | $ 258,151 | $ 1,027,610 | $ 257,745 | $ 271,633 | $ 1,024,951 | $ 1,462,850 | $ 4,302,942 |

*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 sub-regional 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 WRP's. All three facilities produce disinfected tertiary recycled water available for member agencies' use. Under the NDPES and WDR permits, VVWRA manages several environmental programs.

**Pre-treatment program**:

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

VVWRA plants are not designed to treat most toxic or non-conventional pollutants that are present in industrial waste. Consequently, discharges from both industrial and commercial sources can cause problems at these plants and can have detrimental effects on the water quality of the Mojave River.

The undesirable effects of those discharges can be prevented by using treatment techniques or management practices to reduce or eliminate the discharge of the contaminants. The act of treating wastewater before discharge to a POTW is commonly referred to as pretreatment. The National Pre-treatment Program, published in 40 CFR Part 403, provides the regulatory basis to require nondomestic dischargers to comply with pre-treatment standards to ensure that the goals of the Clean Water Act (CWA) are attained. The objectives of the National Pre-treatment Program are stated in 40 CFR 403.2, as follows:

- Prevent the introduction of pollutants into a POTW that will interfere with the operation of the POTW, including interference with its use or disposal of municipal sludge.
- Prevent the introduction of pollutants into a POTW that will pass through the treatment works or otherwise be incompatible with such works.

- Improve opportunities to recycle and reclaim municipal and industrial wastewaters and sludges.

**Recycled water program:**

To augment and optimize its water recycling capabilities, VVWRA has elected to design and construct sub-regional WRP's 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

During the year ended June 30, 2021, the VVWRA staff were successful in developing and getting an approval on new pretreatment and industrial user permits and fees, an increase to the FOG and ADM tipping fee, and new recycled water rates for all Member Agencies. All of these changes were put into place to assure that individual programs were self-funded and not being subsidized by the wastewater treatment user fees. The RNG project scheduled to be completed next Fiscal year will add an additional revenue stream that will lessen future user fee increases and will also help fund future capital projects. All these changes were developed in an effort to create greater fiscal security and strength to provide a solid base for the future fiscal planning for the Authority. The FY 2022 budget predicts the Authority will achieve a 1.16 debt ratio up from a 0.84 debt ratio in FY 2021. The new budget format and more interaction with the staff resulted in an increase in revenues in excess of the increase in operating expenses. All these factors are proposed to produce a surplus that has been allocated to the pay-as-you-go CIP strategy. Overall, the VVWRA Budget Team is excited to share the fiscal planning for the FY 2022 budget and looks forward to working with the Board to get approval and implement the FY 2022 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 64 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 2018 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 2022 and will treat between .5 and .75 MGD. The effluent recycled water will be sold to the local Member Agencies to provide an additional revenue stream and relieve capacity at the regional plant.

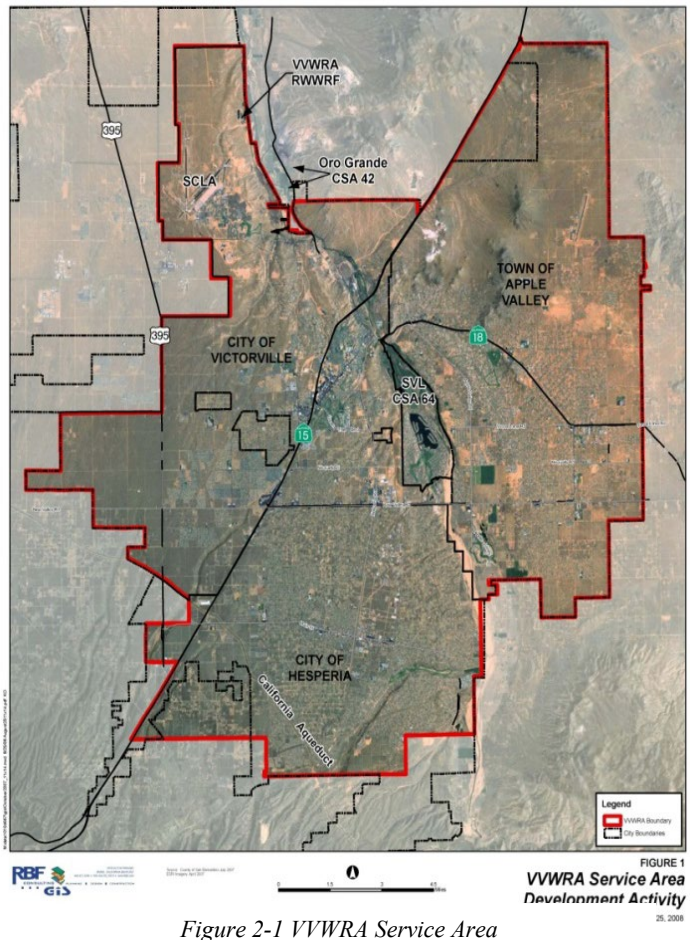



*Figure 2-1 VVWRA Service Area*

## 2.2 Local Demographics

The service area has a population of 297,273 in 2020 with a slow but steady population growth in recent years.

Unemployment in the San Bernardino County is 9.4% in 2020 due to the economic downturn that was mainly affected by the global pandemic. The unemployment rate has decreased from 13.2% in 2011 to 3.8% in 2019 but increased to 9.4% in 2020.

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

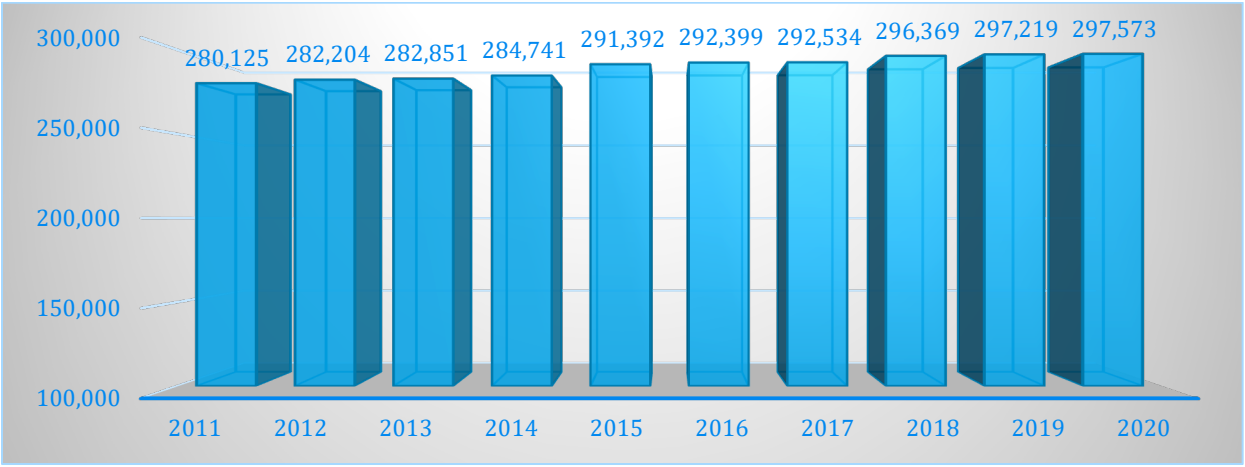



Figure 2-2: Unemployment Rate

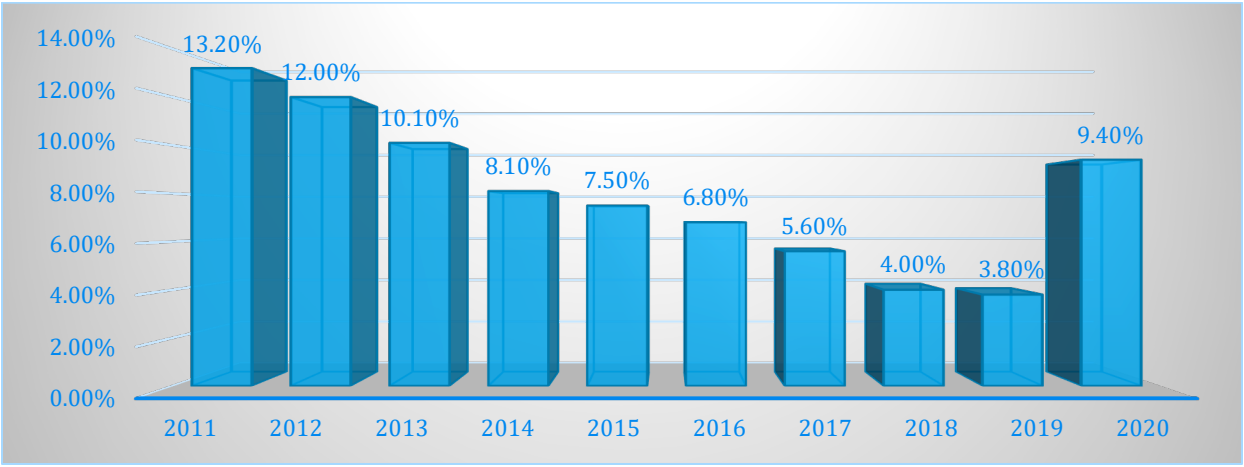
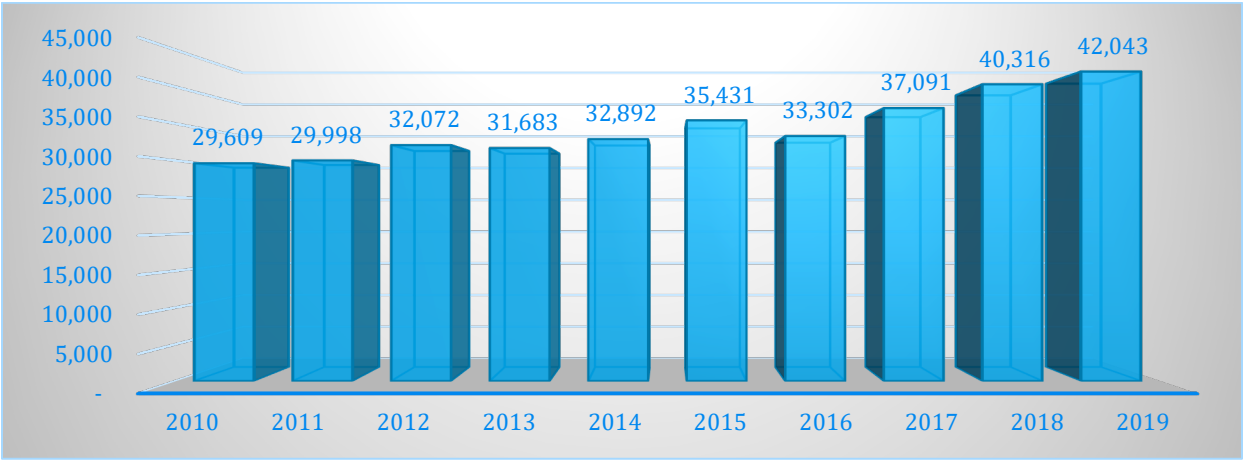


Figure 2-3: Personal Income Per Capita




## 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 (JPA) 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. 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, 2021

|  |  |  |  |
|---|---|---|---|
| Bill Holland | Paul Cook | Scott Nassif | Debra Jones |
| **Vice-Chair** | **Secretary** | **Treasurer** | **Chair** |
| City of Hesperia | San Bernardino County Special Districts | 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, 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 together with the Member Agencies to plan for community growth and to monitor the environmental and regulatory requirements that determine the number 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 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

The existing Mission statement was developed by VVWRA staff and approved by the Board in April of 2020. The Mission Statement is meant to provide purpose and guidance to the Authority's essential services of collecting, treating, and recycling wastewater for the benefit of the Member Agencies and the communities they serve. During this last fiscal year, the VVWRA leadership team continued their efforts to make an internal cultural change focusing on improving the employee morale and committing to a renewed commitment to better service to the Member Agency's needs.

**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 is 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**

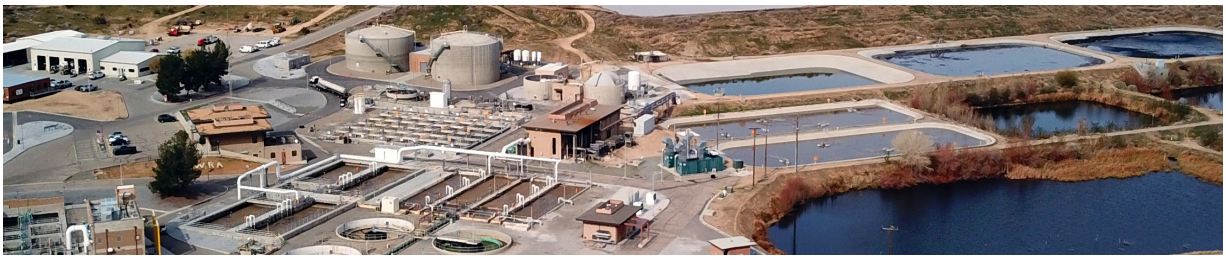
Dedication is a quality we look for in our staff. As an organization, we are dedicated to working with our Member Agencies to create a symbiotic relationship which benefits us all. To meet this value, we must cultivate an environment which generates passion, loyalty, and a shared vision. By being dedicated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

In June of 2021, as a part of the service awards ceremony, the VVWRA leadership team nominated and awarded staff who best represented the Core Values during the current year operations. Three employees were awarded Core Value Awards for Collaboration, Dedication, and Integrity.

## 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:

## 1. 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 meet or exceed regulatory requirements.

## 2. 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.

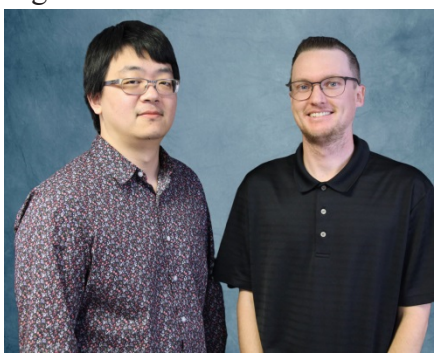
*Operational Support* – VVWRA will support operational needs by sustaining and operating vital waste disposal facilities for sewer and storm water operations performed by the operational units of the Member Agencies. Other services that Member Agencies desired VVWRA to operate include receiving local 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.

### 3. 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 a 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.



### 4. 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.

### 5. 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. Ensured 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.

### 6. 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 level 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 level of customer service to our Member Agencies and to our staff with the priorities and goals of the VVWRA and the Member Agencies.

### 7. 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.

### 8. 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. In collaboration with partners such as public and private utilities, vendors, local governments, and regulatory bodies, we 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, we show VVWRA's commitment to these core values.

### 9. 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 requirement, while 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 new knowledge through training.

### 10. 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 that 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.

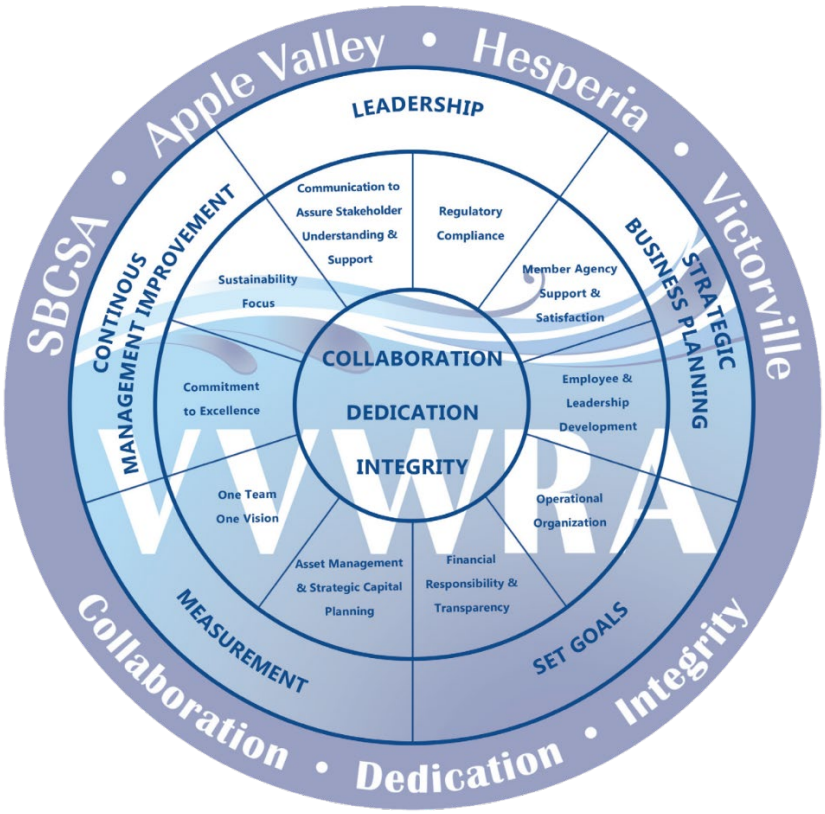
### Keys to Management Success

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 that we set the example. And as such, we must endeavor to practice our core values without compromise. We do this by demonstrating an unwavering resolve in our all 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 Agencies' 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 efficient wastewater utility management (EWUM) 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 current conditions, goals, and specific directives to staff to stimulate change, 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 (1) the capacity, (2) the proper performance efficiency, and (3) 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.

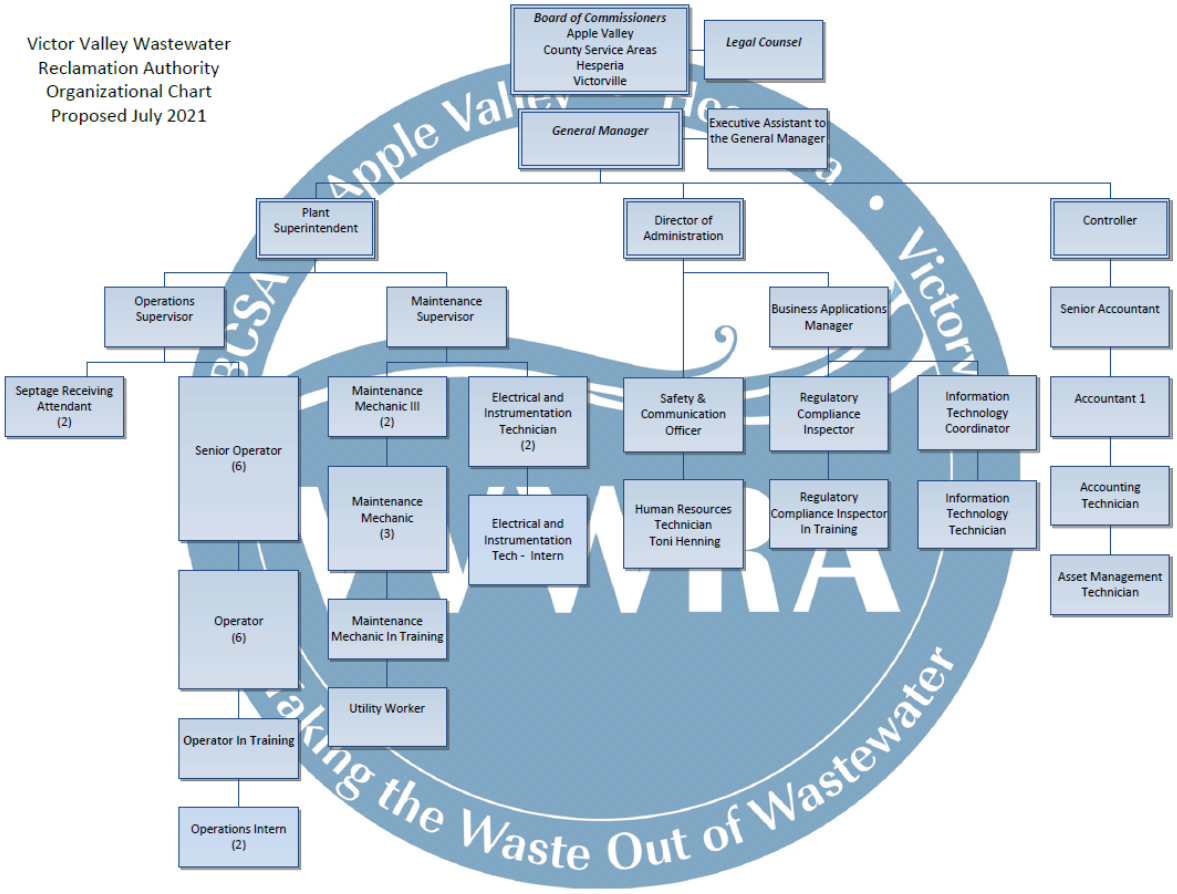
Continual improvements to VVWRA infrastructure and processes play a central role in effective utility management and are necessary to ensure proper treatment and to maintain regulatory compliance. To ensure treatment goals are always met, VVWRA defines roles and responsibilities to staff members at all 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 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 |
| General Manager | 1 | 1 | 1 | 1 | 1 |
| Director of Administration | 1 | 1 | 1 | 1 | 1 |
| Director of Finance | 1 | 0 | 0 | 0 | 0 |
| Controller | 0 | 1 | 1 | 1 | 1 |
| Accounting Supervisor | 1 | 0 | 0 | 0 | 0 |
| Project Construction Manager | 1 | 1 | 1 | 0 | 0 |
| Administrative Aide | 0 | 0 | 0 | 0 | 0 |
| Asset Management Technician | 0 | 1 | 1 | 1 | 1 |
| Business Applications Manager | 0 | 1 | 1 | 1 | 1 |
| EC/IT Supervisor | 1 | 0 | 0 | 0 | 0 |
| Accountant | 1 | 1 | 1 | 1 | 1 |
| Account Technician | 1 | 0 | 0 | 1 | 1 |
| Regulatory Compliance Inspector In Training | 0 | 0 | 0 | 1 | 1 |
| Regulatory Compliance Inspector | 1 | 1 | 1 | 1 | 1 |
| Executive Assistant to the GM | 0 | 0 | 0 | 1 | 1 |

| DESCRIPTION | FISCAL YEAR ENDING JUNE 30 | | | | |
|---|---|---|---|---|---|
| | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 |
| Human Resource/Payroll Coordinator | 1 | 1 | 1 | 1 | 1 |
| Information Technology Coordinator | 1 | 1 | 1 | 1 | 1 |
| Information Technology Technician | 0 | 1 | 1 | 1 | 1 |
| IT Supervisor | 0 | 0 | 0 | 0 | 0 |
| Lead Environmental Compliance Inspector | 0 | 0 | 0 | 0 | 0 |
| Safety & Communication Officer | 1 | 1 | 1 | 1 | 1 |
| Secretary - GM/Board | 1 | 1 | 1 | 0 | 0 |
| Senior Accountant | 0 | 1 | 1 | 1 | 1 |
| **Total Positions - Administration** | **13** | **14** | **14** | **15** | **15** |

**Operations**

| DESCRIPTION | FISCAL YEAR ENDING JUNE 30 | | | | |
|---|---|---|---|---|---|
| | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 |
| Director of Operations | 1 | 0 | 0 | 0 | 0 |
| Plant Superintendent | 0 | 0 | 0 | 1 | 1 |
| Operations/Maintenance Manager | 0 | 1 | 1 | 0 | 0 |

| DESCRIPTION | FISCAL YEAR ENDING JUNE 30 | | | | |
|---|---|---|---|---|---|
| | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 |
| Operations Supervisor | 1 | 0 | 0 | 1 | 1 |
| Lead Operator | 1 | 1 | 1 | 0 | 0 |
| Operator-in-Training | 1 | 0 | 0 | 0 | 1 |
| Operator I/II | 4 | 4 | 6 | 5 | 6 |
| Operator III | 0 | 0 | 0 | 0 | 0 |
| Operator III/V | 5 | 6 | 6 | 6 | 6 |
| Operator Intern | 0 | 0 | 0 | 0 | 2 |
| Electrical / Instrumentation Tech I | 0 | 0 | 0 | 2 | 2 |
| Electrical / Instrumentation Tech | 0 | 0 | 1 | 0 | 0 |
| Electrical / Instrumentation Tech III | 0 | 1 | 1 | 0 | 0 |
| Electrical / Instrumentation Tech IV | 1 | 0 | 0 | 0 | 0 |
| Electrical / Instrumentation Intern | 0 | 0 | 0 | 0 | 1 |
| Septage Receiving Attendant | 1 | 1 | 1 | 1 | 2 |
| **Total Positions - Operations** | **15** | **14** | **17** | **16** | **22** |

## Maintenance

| DESCRIPTION | FISCAL YEAR ENDING JUNE 30 | | | | |
|---|---|---|---|---|---|
| | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 |
| Maintenance Supervisor | 0 | 0 | 0 | 1 | 1 |
| Lead Mechanic | 1 | 1 | 1 | 0 | 0 |
| Maintenance Mechanic | 1 | 0 | 5 | 0 | 0 |
| Maintenance Mechanic in Training | 3 | 3 | 0 | 0 | 1 |
| Mechanical Tech I/II | 0 | 1 | 0 | 2 | 3 |
| Mechanical Tech III | 0 | 1 | 1 | 0 | 0 |
| Maintenance Mechanic III | 0 | 0 | 0 | 2 | 2 |
| Utility Worker II | 1 | 1 | 1 | 1 | 1 |
| **Total Positions – Maintenance** | **6** | **7** | **8** | **6** | **8** |

# 4 Department Overview and Performance Measures

## 4.1 Operations and Maintenance Department Overview

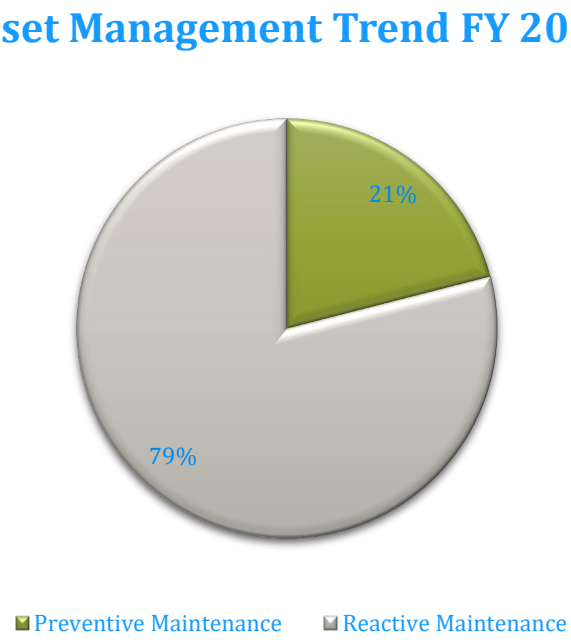
The Operations Department's main goal is to protect the environment, wildlife and recreational uses of the Mojave River and Downstream Mojave River Basin. By cost-effectively treating incoming wastewater to the highest level, this water can be returned to the environment directly to the Mojave River, or through groundwater rejuvenation via percolation ponds. This effluent is also sold as recycled water, to offset potable water use in the area. The Operations department provides high-quality treated effluent that complies with all local, State, and Federal requirements.

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

| Description | Fiscal Year Ending June 30 | | | | |
|---|---|---|---|---|---|
| | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020[2] |
| **Removal Efficiency[1]** | | | | | |
| **Biochemical Oxygen Demand** | 99.00% | 99.07% | 98.78% | 98.32% | 98.47% |
| **Total Suspended Solids** | 99.50% | 99.45% | 99.46% | 99.34% | 99.45% |
| **Wastewater Processed** | | | | | |
| **Total Effluent Flow (MG)** | 3,983.54 | 4,003.17 | 3,965.47 | 4,093.50 | 3,573.40 |
| **Total Flow to Percolation Ponds (MG)** | 1,582.23 | 1,927.97 | 2,523.49 | 1,995.41 | 2,053.71 |
| **Total Flow to Mojave River (MG)** | 2,288.66 | 2,265.15 | 1,425.04 | 2,071.15 | 1,496.65 |
| **Average Influent (MGD)** | 10.54 | 10.65 | 10.59 | 10.80 | 11.01 |
| **Recycled Water** | | | | | |
| **Total Recycled Water Sold (MG)** | 221.51 | 97.31 | 46.24 | 9.69 | 17.71 |
| **Recycled Water Sold to Victorville (MG)** | 181.26 | 91.93 | 40.63 | 7.25 | 9.73 |
| **Recycled Water Sold to Hesperia (MG)** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Recycled Water Sold to Apple Valley (MG)** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Recycled Water Sold to A.O. (MG)** | 4.98 | 6.43 | 7.61 | 3.81 | 9.23 |
| **Material Received** | | | | | |
| **Total Septage Received (MG)** | 6.93 | 6.57 | 6.62 | 6.72 | 5.96 |
| **Total ADM/FOG Received (MG)** | 6.51 | 7.71 | 6.81 | 4.49 | 0.73 |

***1:*** Removal efficiency refers to the average removal percentage of certain waste through the treatment process.
**2:** FY 2020 Data is accurate up to the date this document is produced.

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.

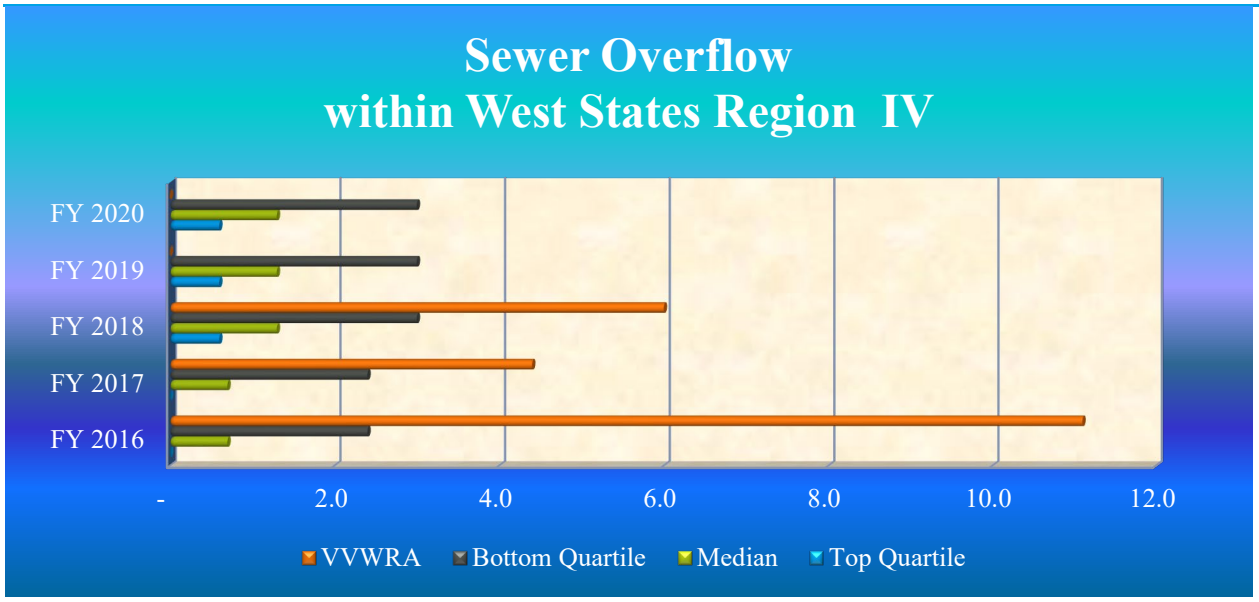
## 4.2 Operational Statistics Benchmarked Against Industry

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

VVWRA had zero sanitary sewer overflow during year ended June 30, 2020. VVWRA places above median quartile both in the West States and nationally.

**Sewer Overflow-West States Region IV Benchmark**

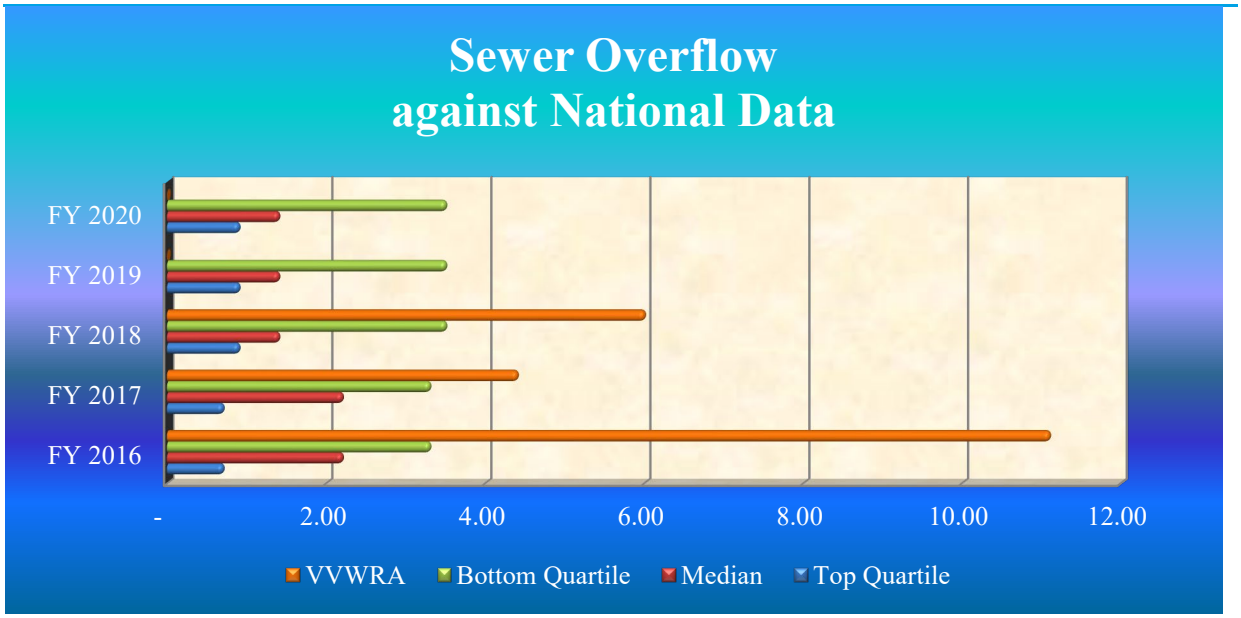
| | Top Quartile | Median | Bottom Quartile | VVWRA |
|---|---|---|---|---|
| **FY 2020** | 0.60 | 1.30 | 3.00 | 0.00 |
| **FY 2019** | 0.60 | 1.30 | 3.00 | 0.00 |
| **FY 2018** | 0.60 | 1.30 | 3.00 | 6.00 |
| **FY 2017** | *Data Not Available* | 0.70 | 2.40 | 4.40 |
| **FY 2016** | *Data Not Available* | 0.70 | 2.40 | 11.10 |




*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 2020** | 0.90 | 1.40 | 3.50 | 0.00 |
| **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 |




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

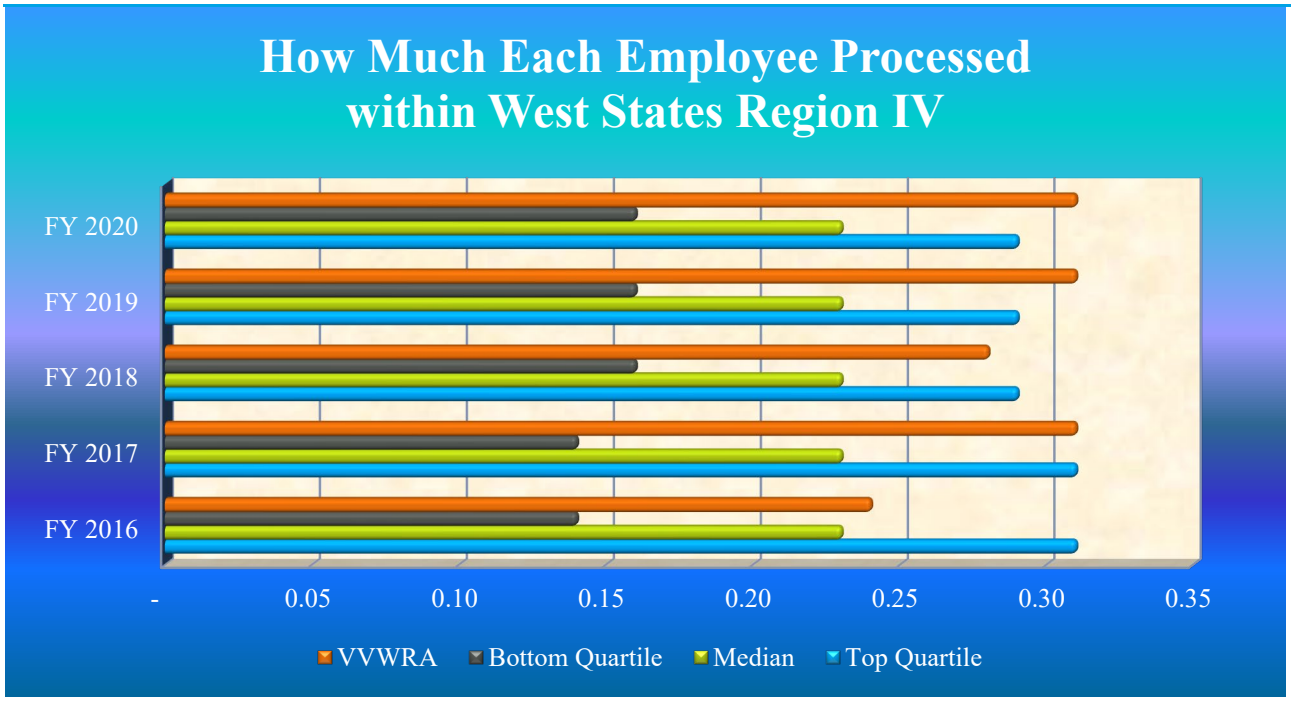
### How Much Each Employee Processed

The quantity of wastewater processed by each employee has increased from 0.24 MGD in FY 2016 to 0.31 MGD in FY 2020. The total amount of wastewater that VVWRA has processed is 3,951 MG in FY 2020, which is above the top quartile. The total number of employees that VVWRA employed has decreased by 20%, from 44 in FY 2016 to 35 in FY 2020 during the comparative period per CAFR's.

Compared to West States Region IV, VVWRA has remained at the top quartile since FY 2019. Compared nationally, the quantity of wastewater processed by each employee has also remained at the top quartile since FY 2018.

**How Much Each Employee Processed-West States Region IV Benchmark**

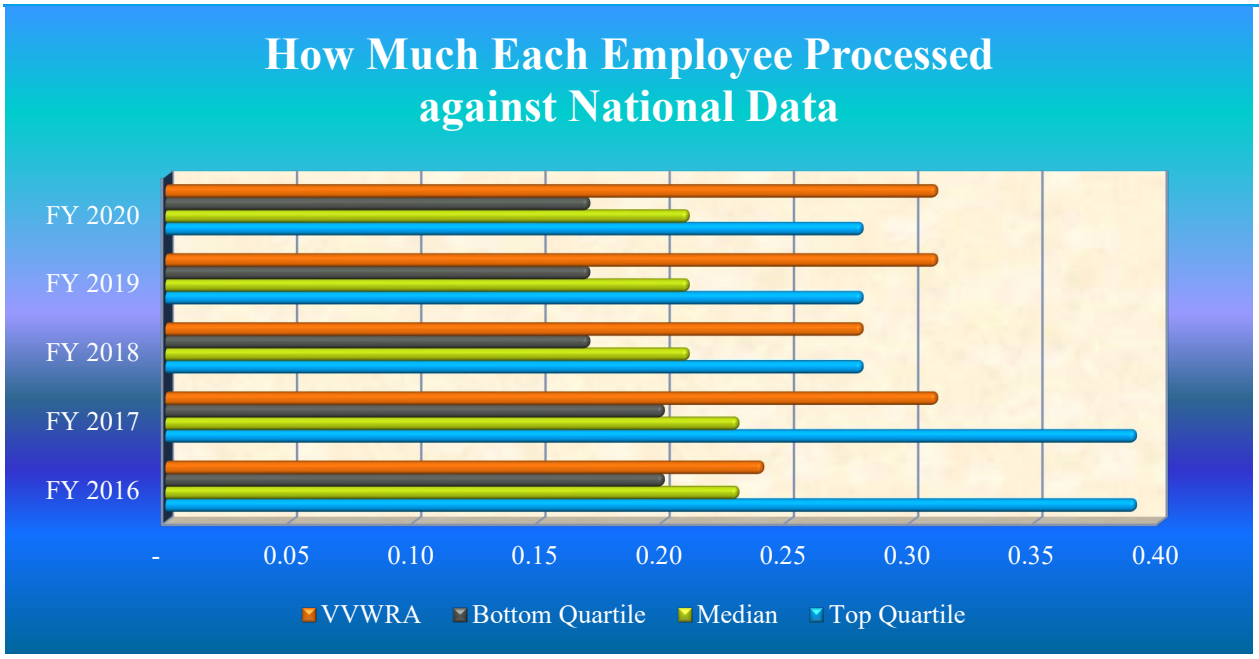
| | Top Quartile | Median | Bottom Quartile | VVWRA |
|---|---|---|---|---|
| **FY 2020** | 0.29 | 0.23 | 0.16 | 0.31 |
| **FY 2019** | 0.29 | 0.23 | 0.16 | 0.31 |
| **FY 2018** | 0.29 | 0.23 | 0.16 | 0.28 |
| **FY 2017** | 0.31 | 0.23 | 0.14 | 0.31 |
| **FY 2016** | 0.31 | 0.23 | 0.14 | 0.24 |




*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 2020** | 0.28 | 0.21 | 0.17 | 0.31 |
| **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 |




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

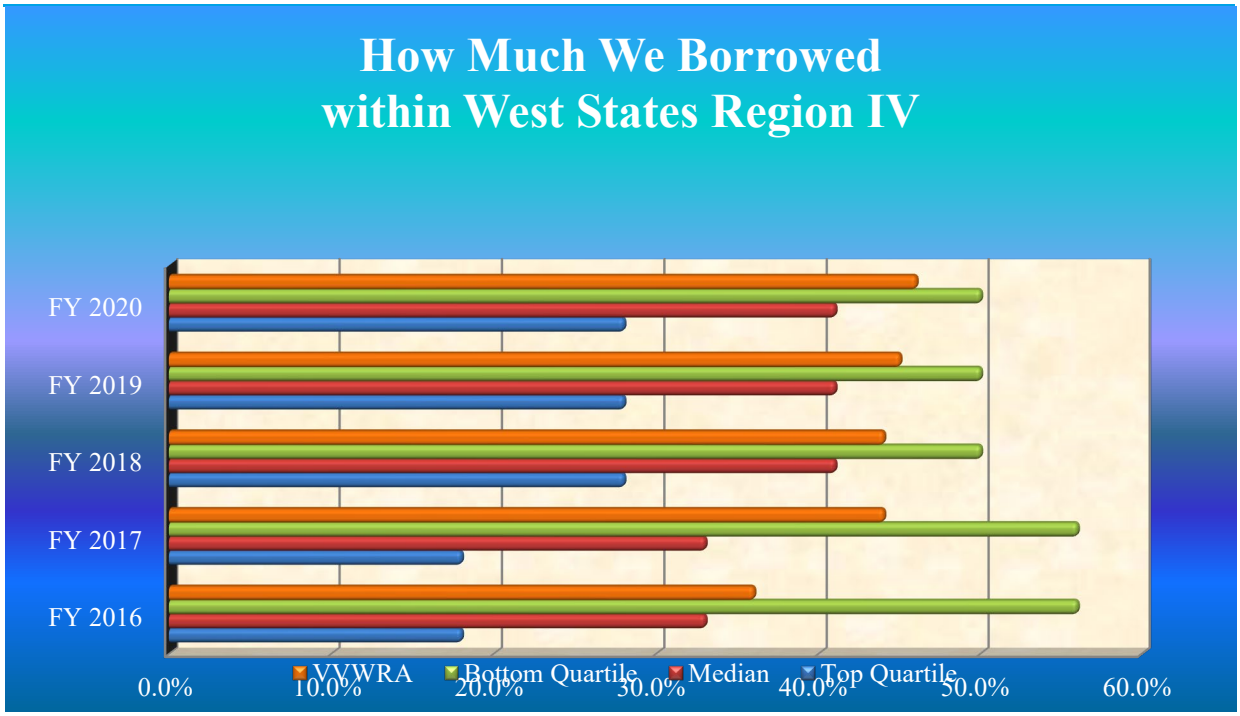
**How Much VVWRA Borrowed**

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. A higher debt ratio indicates that more 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 36.00% in FY 2016 to 46.00% in FY 2020 due to the increase in the amount of State Revolving Fund loans for the construction projects.

VVWRA is ranked between the medium and bottom quartile of the West States Region IV from FY 2016 to FY 2020.

**How Much We Borrowed-West States Region IV Benchmark**

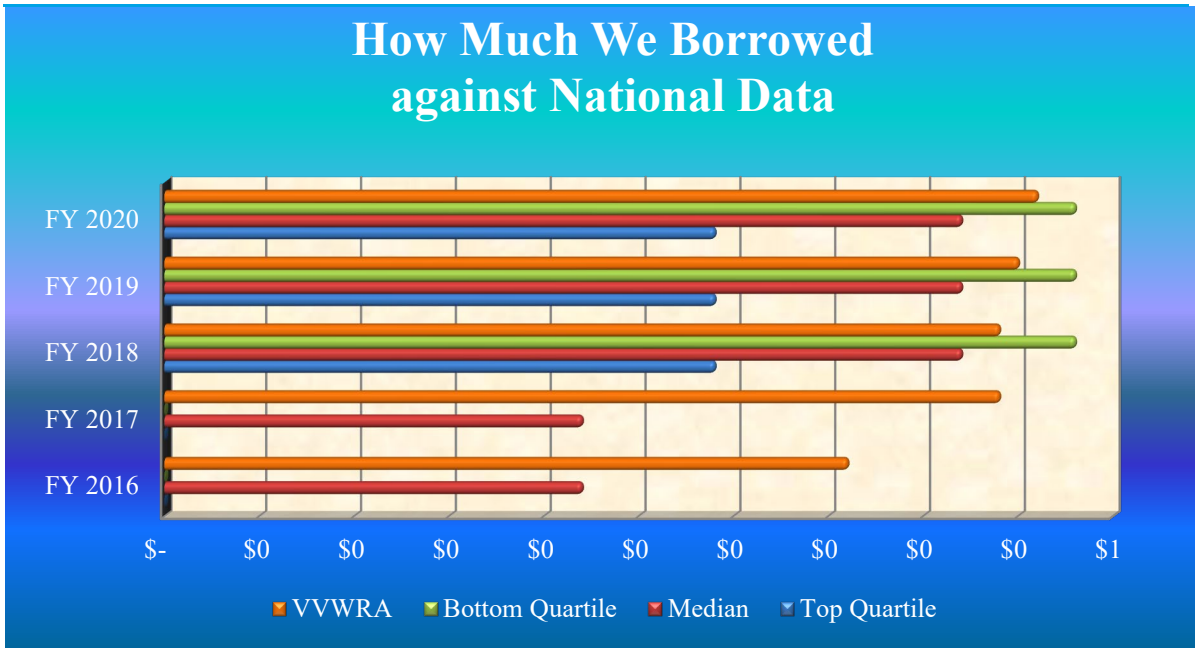
| | Top Quartile | Median | Bottom Quartile | VVWRA |
|---|---|---|---|---|
| **FY 2020** | 28.0% | 41.0% | 50.0% | 46.0% |
| **FY 2019** | 28.0% | 41.0% | 50.0% | 45.0% |
| **FY 2018** | 28.0% | 41.0% | 50.0% | 44.0% |
| **FY 2017** | 18.0% | 33.0% | 56.0% | 44.0% |
| **FY 2016** | 18.0% | 33.0% | 56.0% | 36.0% |




*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 2020** | 29.0% | 42.0% | 48.0% | 46.00% |
| **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% |



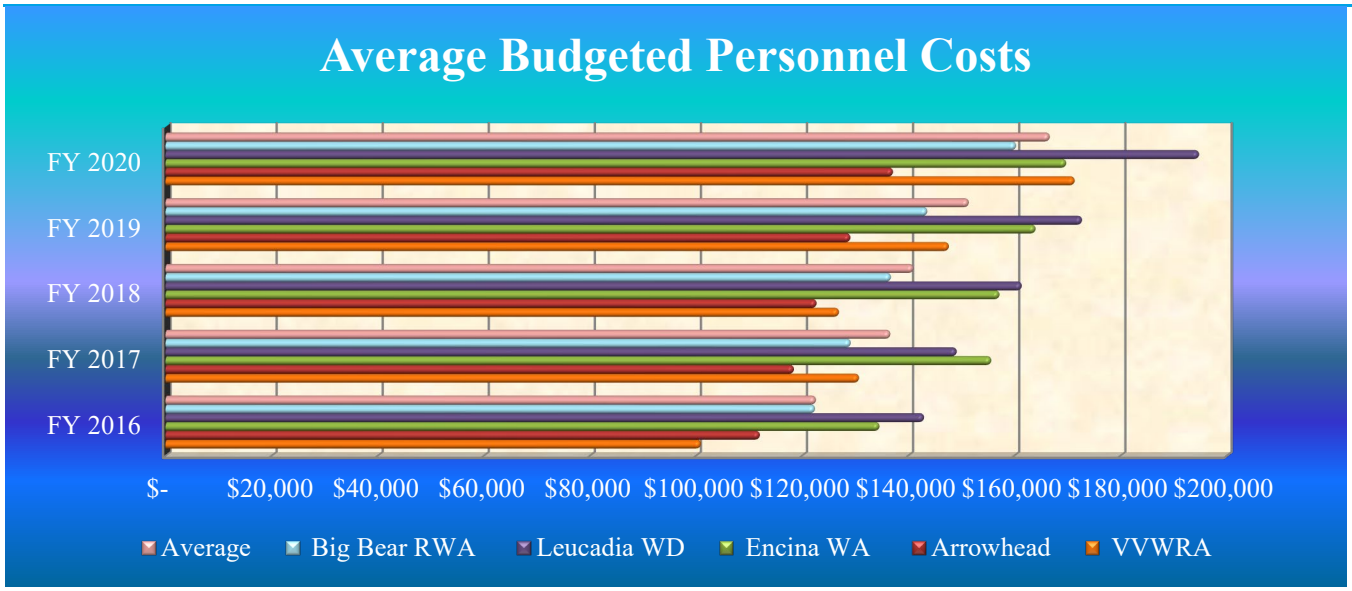

*Source: 2019 American Water Works Association Benchmarking analysis* *FY = Fiscal Year ended June 30*

### 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 been lower than the median from FY 2016 to FY 2019 but slightly above the median during FY 2020 compared to other wastewater treatment agencies with similar size in the Southern California.

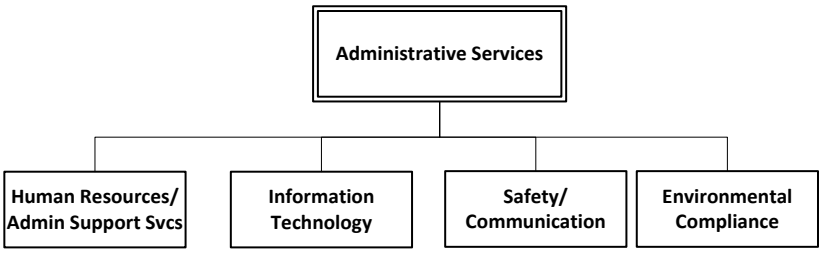
## Average Budgeted Personnel Cost

| | VVWRA | Arrowhead | Encina WA | Leucadia WD | Big Bear RWA | Average |
|---|---|---|---|---|---|---|
| **FY 2020** | $ 171,098 | $ 136,876 | $ 169,508 | $ 194,532 | $ 160,059 | **$ 166,415** |
| **FY 2019** | $ 147,403 | $ 128,841 | $ 163,731 | $ 172,493 | $ 143,344 | **$ 151,162** |
| **FY 2018** | $ 126,681 | $ 122,463 | $ 156,933 | $ 161,137 | $ 136,475 | **$ 140,738** |
| **FY 2017** | $ 130,464 | $ 118,190 | $ 155,394 | $ 148,888 | $ 128,896 | **$ 136,366** |
| **FY 2016** | $ 100,670 | $ 111,767 | $ 134,317 | $ 142,734 | $ 122,160 | **$ 122,330** |




*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, Safety and Communications, and Environmental Compliance departments. The Department is directly responsible for providing support for both internal and external customers and maintaining the integrity of the organization.

The Human Resources (HR) department contributes to Authority goals through the enchantment and support of Authority operations. By providing administrative services and the development of effective HR systems, the Human Resources department contributes to the Authority's overall strategy by basing its consideration on human capital, authority capabilities, readiness, and the development of HR practices as strategic differentiators.

The Safety department is responsible for the health and wellbeing of the staff, contractors, and visitors for all the Authorities facilities. This is accomplished by diligently reviewing safety standards and monitoring changes in all safety related areas of responsibility.

Under the guidance of the Administrative Director, both department work in conjunction with each other to continuously evaluate and implement current trends and training to enhance the skills, abilities, and safety of all staff members.

The goal of Environmental Compliance and Management Information System (EC/MIS) is to ensure that the agency is in compliance with all environmental laws and regulations, 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 (CMMS) that keep track of the maintenance inventory more efficiently and of Supervisory control and data acquisition (SCADA) systems that provide many advantages including automation, increased reliability, reduced costs, improved worker safety and improved utilization of resources. The EC department implements and enforces VVWRA's Industrial Pretreatment Program to prevent upset, interference, and pass-through at the wastewater treatment facilities, ensure beneficial reuse of plant effluents and biosolids, protect the structure and integrity of the sewerage collection system, ensure the safety of personnel working in the system and protect the health and safety of the public and environment. The EC department is also responsible for the following environmental programs: Air permits management, Recycled water programs administration and enforcement, and drinking water system. 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 provides 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 agencies, 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 2020** | |
|---|---|
| Positions Hired | 2 |
| Evaluations Completed | 25 |
| Overtime Cost | $14,903 |
| Board Meeting held | 15 |
| Board Action Items | 77 |
| Board Presentations | 14 |
| Public Hearings | 2 |

| **Regulatory Compliance FY 2020** | |
|---|---|
| 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 | 1 |
| **Information Technology** | |
| Desktop systems replaced | 25 |
| Servers replaced/implemented | 2 |

| **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 a certified public accountant.

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, 2021 and

2. Comprehensive Annual Financial Reports: Certificate of Achievement for Excellence in Financial Reporting for the years ended June 30, 2010 through June 30, 2020.

*****

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 two types of restricted reserves: Operations and Maintenance reserve

including repairs and replacements, and 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. The SRF loan reserve is funded by both operating revenues (such as user fees) and non-operating revenues (such as connection fees) 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 $4.5 million as of March 31, 2021. The SRF loan reserve for the year ending June 30, 2021 is $4.9 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 payment 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. The policy states that commissioners must approve all construction contracts and any 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 (*Cal TRUST)*; San Bernardino County Local Agency Investment Fund; United States Treasury Bills, Notes and Bonds; insured Certificates of Deposits; and Money Market Mutual Funds.

*The majority of VVWRA's investments is in Cal TRUST and some in the LAIF.*

## Other Policies

### Debt Coverage:

VVWRA maintains a cash reserve at least equal to the annual debt principal and interest payment amounts required by State Water Resources Control Board for the existing SRF loans specified as:

1. The financing agreements bind the net revenue for the recipient's repayments of the SRF loan amounts due. This pledged revenue source shall be subject to lien 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.

3. The recipient shall establish rates and charges sufficient to generate net revenues to support at least 1.2 of debt coverage ratio.

*The FY 2022 budget includes the $3.4 million principal and $.9 million interest, which is one year's debt service outstanding on June 30, 2022.*

*Hesperia Lift Station*

### Revenues – Rate Ordinance:

VVWRA specifies fees in Fee Ordinances to meet operational 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 2020 actual to FY 2020 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 2022 overall budget shows a balanced budget with $0 surplus.

### 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 2022 | REQUIRED BY DATE |
|---|---|
| Budget Kickoff Meeting | 02/22/21 |
| Update actual numbers and prepare for new budget cycle | 03/08/21 |
| Present the budget draft at Managers' meeting | 03/15/21 |
| Present the first draft budget to General Manager (GM) for review | 03/22/21 |
| Hold a preliminary staff budget review meeting with Supervisors and GM | 04/05/21 |
| Provide the draft changes to Controller | 04/12/21 |
| Finalize the draft budget | 04/14/21 |
| Present the budget recommendations to Internal and External Finance Committee | 04/21/21 |
| Present the second recommendations to Internal and External Finance Committee | 05/05/21 |
| Place a public notice on local newspaper to invite public participation | 05/08/21 |
| Circulate the budget document to the Board | 05/13/21 |
| Board Meeting - Present the budget | 05/20/21 |
| Board budget hearing and adoption | 06/17/21 |
| The second Board budget hearing and adoption | 06/24/21 |
| Apply for GFOA Award for Excellence in Budget Reporting. | 06/29/21 |

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 01, 2020**

Christopher P. Morrill

**Executive Director**

# 5 Financial Information Operations

## 5.1 Consolidated Budget Statement of All Funds

| | 2020 Actual $3,783/MG | 2020 Budget $3,783/MG | 2021 Actual as of 4/30/2021 | 2021 Projected to the Year End | 2021 Budget $4,087/MG | 2022 Budget $4,414/MG |
|---|---|---|---|---|---|---|
| **Operations & Maintenance Fund Revenues** | | | | | | |
| User Charges | $ 14,447,156 | $ 14,480,700 | $ 13,629,577 | $ 16,355,492 | $ 16,065,997 | $ 17,699,907 |
| Allocate Resource to Repairs and Replacements Fund | - | (2,666,326) | - | - | - | - |
| VVIWWTP Sludge | 122,952 | 120,000 | 106,448 | 127,738 | 108,000 | 144,000 |
| High Strength Waste Surcharges | 22,839 | 20,000 | 27,072 | 32,486 | 20,004 | 38,400 |
| ADM FOG Tipping Fee Revenue | 181,788 | 250,000 | 29,650 | 35,580 | 200,000 | 605,000 |
| Septage Receiving Facility Charges | 633,420 | 600,000 | 543,095 | 651,714 | 600,000 | 671,767 |
| Reclaimed Water Sales | 15,564 | 25,000 | 10,856 | 13,027 | 99,552 | 228,552 |
| Interest | 664 | - | 1,160 | 1,392 | - | - |
| Pretreatment Fees | 49,600 | 50,000 | 43,600 | 52,320 | 50,400 | 115,000 |
| Miscellaneous | 13,553 | 1,200 | 113,519 | 136,223 | 1,596 | 14,220 |
| Settlement Revenue | - | - | 2,200,000 | 2,200,000 | - | 440,000 |
| Grant - Title 16 | - | - | - | - | - | - |
| Grant - FEMA CalOES Grant | 536,624 | - | 2,745,775 | 2,745,775 | - | - |
| | $ 16,024,160 | $ 12,880,574 | $ 19,450,752 | $ 22,351,747 | $ 17,145,549 | $ 19,956,846 |
| **Other Operating Financing Sources** | | | | | | |
| SRF Loan Funding | $ - | $ - | $ - | $ - | $ - | $ - |
| | $ - | $ - | $ - | $ - | $ - | $ - |
| **Repairs and Replacements Fund Financing Sources** | | | | | | |
| Transferred from Operations & Maintenance Fund | $ - | $ 2,666,326 | $ - | $ - | $ - | $ - |
| | $ - | $ 2,666,326 | $ - | $ - | $ - | $ - |
| **Capital Fund Revenues** | | | | | | |
| Connection Fees | $ 2,302,221 | $ 2,254,625 | $ 940,139 | $ 1,128,167 | $ 2,339,500 | $ 1,174,731 |
| Interest | 270,439 | 50,000 | 25,256 | 30,307 | 180,000 | 80,000 |
| Grant - FEMA/Cal-OES | - | - | - | - | - | - |
| Grant - CEC Microgrid | (3,134) | - | - | - | - | - |
| | $ 2,569,526 | $ 2,304,625 | $ 965,395 | $ 1,158,474 | $ 2,519,500 | $ 1,254,731 |
| **Other Capital Financing Sources** | | | | | | |
| SRF Loan Funding | $ - | $ - | $ - | $ - | $ - | $ - |
| | $ - | $ - | $ - | $ - | $ - | $ - |
| **Total Revenues and Other Financing Sources** | **$ 18,593,686** | **$ 17,851,525** | **$ 20,416,147** | **$ 23,510,221** | **$ 19,665,049** | **$ 21,211,577** |
| **Operations and Maintenance Fund Expenses** | | | | | | |
| Personnel and Benefits | $ 5,643,985 | $ 4,589,786 | $ 4,742,119 | $ 5,694,037 | $ 5,675,417 | $ 5,966,267 |
| Maintenance | 1,428,968 | 2,236,156 | 1,123,476 | 1,348,170 | 2,424,560 | 3,507,600 |
| Operations | 3,172,584 | 3,433,513 | 2,848,136 | 3,417,764 | 3,778,233 | 4,066,284 |
| Administration | 1,718,528 | 1,823,605 | 1,580,677 | 1,871,084 | 1,868,800 | 2,271,087 |
| Construction | 1,900,012 | - | 22,032 | 29,376 | - | - |
| Contingency and Capital Purchases | - | - | 73,772 | 720,000 | 721,670 | 517,529 |
| | $ 13,864,077 | $ 12,083,060 | $ 10,390,212 | $ 13,080,431 | $ 14,468,680 | $ 16,328,767 |
| **Repairs and Replacements Fund Expenses** | | | | | | |
| Personnel and Benefits | $ - | $ - | $ - | $ - | $ - | $ - |
| Maintenance | 379,538 | 1,896,326 | - | - | - | - |
| Operations | 3,592 | - | - | - | - | - |
| Administration | 150,611 | 145,000 | - | - | - | - |
| Construction | 347,821 | 625,000 | - | - | - | - |
| | $ 881,562 | $ 2,666,326 | $ - | $ - | $ - | $ - |
| **Capital Fund Expenses** | | | | | | |
| Personnel and Benefits | $ 344,438 | $ 384,912 | $ - | $ - | $ - | $ - |
| Maintenance | - | - | - | - | - | - |
| Operations | - | 170 | - | - | - | - |
| Administration | (2,054) | 50,000 | - | - | - | - |
| Construction | 9,800 | 550,000 | - | - | - | - |
| Contingency and Capital Purchases | - | - | - | - | - | - |
| | $ 352,184 | $ 985,082 | $ - | $ - | $ - | $ - |
| **Debt Services** | | | | | | |
| SRF Principal | $ 4,020,810 | $ 4,020,810 | $ 2,880,422 | $ 3,824,093 | $ 3,824,093 | $ 3,889,139 |
| SRF Interest | 1,115,747 | 1,127,051 | 703,144 | 1,058,717 | 1,058,717 | 993,671 |
| | $ 5,136,557 | $ 5,147,861 | $ 3,583,566 | $ 4,882,810 | $ 4,882,810 | $ 4,882,810 |
| **Total Expenses and Debt Services** | **$ 20,234,380** | **$ 20,882,329** | **$ 13,973,778** | **$ 17,963,241** | **$ 19,351,490** | **$ 21,211,577** |
| **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)** | **$ (1,640,694)** | **$ (3,030,804)** | **$ 6,442,369** | **$ 5,546,980** | **$ 313,559** | **$ -** |

Our goals, objectives and strategies are transformed into numbers for the budgets with a projection for the rest of FY 2021. The consolidated budget on the previous page shows all functions of the entire organization. The section 5.2 demonstrates a reconciliation of FY 2020 actual to CAFR for the year ended June 30, 2020. 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 starting 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, 2020

| | 2020 Actual | Reconciliation to CAFR | 2020 Per CAFR |
|---|---|---|---|
| **Operating Revenues** | | | |
| User Charges | $ 14,447,156 | $ - | $ 14,447,156 |
| Adelanto User Charges | 122,952 | - | 122,952 |
| High Strength Waste Surcharges | 22,839 | - | 22,839 |
| Septage Receiving Facility Charges | 633,420 | - | 633,420 |
| ADM FOG Tipping Fee Revenue | 181,788 | - | 181,788 |
| Reclaimed Water Sales | 15,564 | - | 15,564 |
| Pretreatment Fees | 49,600 | - | 49,600 |
| Grant - FEMA/Cal-OES | 536,624 | | 536,624 |
| Grant - Proposition 1 | - | | - |
| Grant - Title 16 | - | | - |
| Miscellaneous | 13,553 | - | 13,553 |
| | $ 16,023,496 | $ - | $ 16,023,496 |
| **Capital Revenues** | | | |
| Connection Fees | $ 2,302,221 | $ - | $ 2,302,221 |
| Interest | 271,103 | - | 271,103 |
| Grant - FEMA/Cal-OES | - | - | - |
| Grant - CEC Microgrid | (3,134) | - | (3,134) |
| | $ 2,570,190 | $ - | $ 2,570,190 |
| **Other Financing Sources** | | | |
| SRF Loan Funding | $ - | $ - | $ - |
| | $ - | $ - | $ - |
| **Total Revenues and Other Financing Sources** | **$ 18,593,686** | **$ -** | **$ 18,593,686** |
| **Operating Expenses** | | | |
| Personnel and Benefits | $ 5,643,985 | $ - | $ 5,643,985 |
| Maintenance | 1,428,968 | - | 1,428,968 |
| Operations | 3,172,584 | - | 3,172,584 |
| Administration | 1,718,528 | - | 1,718,528 |
| Construction | 1,900,012 | - | 1,900,012 |
| | $ 13,864,077 | $ - | $ 13,864,077 |
| **Depreciation Expense** | $ - | $ 11,565,945 | $ 11,565,945 |
| **Repair and Replacement Expense** | | | |
| Personnel and Benefits | $ - | $ - | $ - |
| Maintenance | 379,538 | - | 379,538 |
| Operations | 3,592 | - | 3,592 |
| Administration | 150,611 | - | 150,611 |
| Construction | 347,821 | - | 347,821 |
| | $ 881,562 | $ - | $ 881,562 |
| **Capital Expenses** | | | |
| Personnel and Benefits | $ 344,438 | $ - | $ 344,438 |
| Maintenance | - | - | - |
| Operations | - | - | - |
| Administration | (2,054) | - | (2,054) |
| Construction | 9,800 | - | 9,800 |
| | $ 352,184 | $ - | $ 352,184 |
| **Debt Services** | | | |
| SRF Principal | $ 4,020,810 | $ (4,020,810) | $ - |
| SRF Interest | 1,115,747 | - | 1,115,747 |
| | $ 5,136,557 | $ (4,020,810) | $ 1,115,747 |
| **Total Expenses with Debt Services** | **$ 20,234,380** | **$ 7,545,135** | **$ 27,779,515** |
| **Total Net Surplus or (Deficit)** | **$ (1,640,694)** | **$ (7,545,135)** | **$ (9,185,829)** |

# 5.3 Budget Statement of Operations and Maintenance Fund

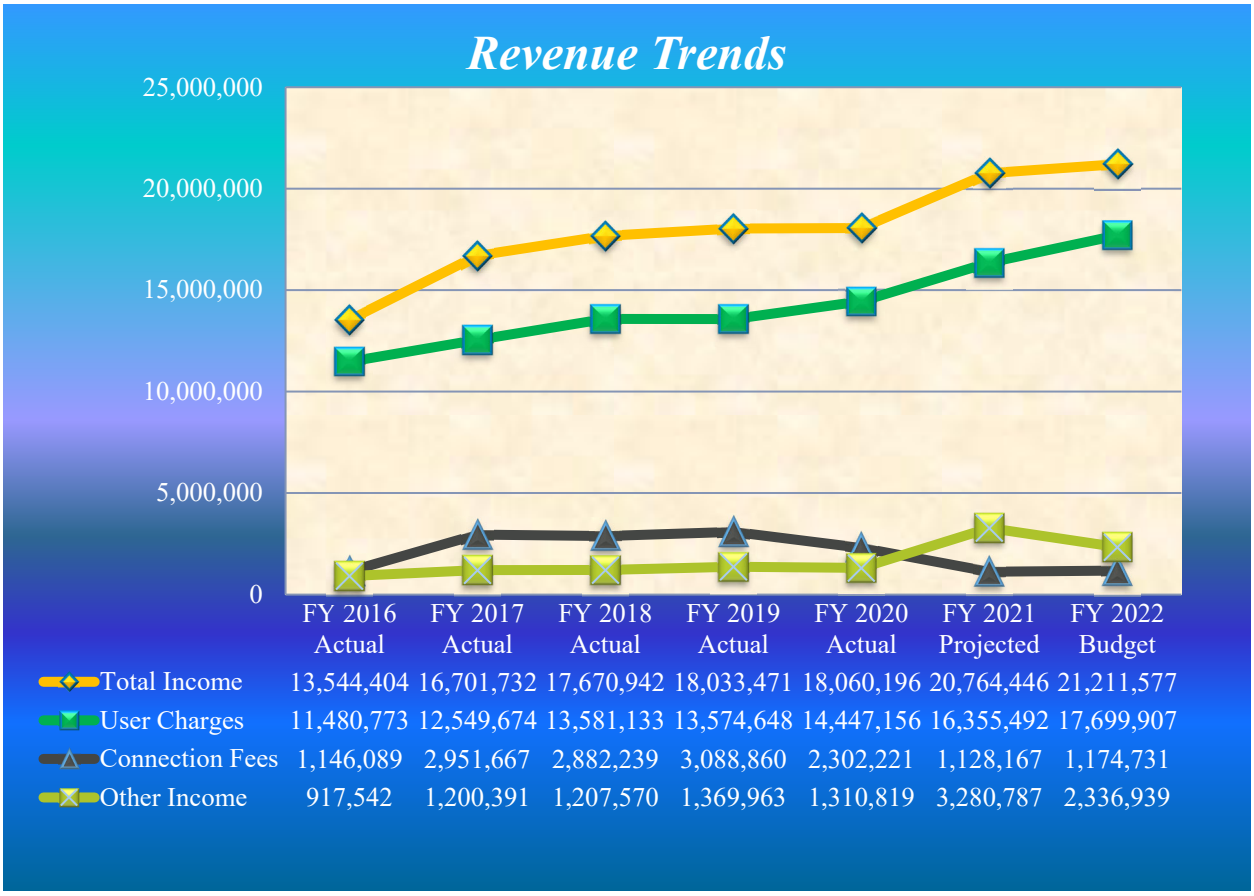
| | 2020 Actual $3,783/MG | 2020 Budget $3,783/MG | 2021 Actual as of 4/30/2021 | 2021 Projected to the Year End | 2021 Budget $4,087/MG | 2022 Budget $4,414/MG |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| User Charges | $ 14,447,156 | $ 14,480,700 | $ 13,629,577 | $ 16,355,492 | $ 16,065,997 | $ 17,699,907 |
| Allocate Resource to Repairs and Replacements Fund | - | (2,666,326) | - | - | - | - |
| VVIWWTP Sludge | 122,952 | 120,000 | 106,448 | 127,738 | 108,000 | 144,000 |
| High Strength Waste Surcharges | 22,839 | 20,000 | 27,072 | 32,486 | 20,004 | 38,400 |
| ADM FOG Tipping Fee Revenue | 181,788 | 250,000 | 29,650 | 35,580 | 200,000 | 605,000 |
| Septage Receiving Facility Charges | 633,420 | 600,000 | 543,095 | 651,714 | 600,000 | 671,767 |
| Reclaimed Water Sales | 15,564 | 25,000 | 10,856 | 13,027 | 99,552 | 228,552 |
| Interest | 664 | - | 1,160 | 1,392 | - | - |
| Pretreatment Fees | 49,600 | 50,000 | 43,600 | 52,320 | 50,400 | 115,000 |
| Miscellaneous | 13,553 | 1,200 | 113,519 | 136,223 | 1,596 | 14,220 |
| Settlement Revenue | - | - | 2,200,000 | 2,200,000 | - | 440,000 |
| Grant - Title 16 | - | - | - | - | - | - |
| Grant - FEMA CalOES Grant | 536,624 | - | 2,745,775 | 2,745,775 | - | - |
| | **$ 16,024,160** | **$ 12,880,574** | **$ 19,450,752** | **$ 22,351,747** | **$ 17,145,549** | **$ 19,956,846** |
| **Other Financing Sources** | | | | | | |
| SRF Loan Funding | $ - | $ - | $ - | $ - | $ - | $ - |
| | $ - | $ - | $ - | $ - | $ - | $ - |
| **Total Operating Revenues and Other Financing Sources** | **$ 16,024,160** | **$ 12,880,574** | **$ 19,450,752** | **$ 22,351,747** | **$ 17,145,549** | **$ 19,956,846** |
| **Expenses** | | | | | | |
| Personnel and Benefits | $ 5,643,985 | $ 4,589,786 | $ 4,742,119 | $ 5,694,037 | $ 5,675,417 | $ 5,966,267 |
| Maintenance | 1,428,968 | 2,236,156 | 1,123,476 | 1,348,170 | 2,424,560 | 3,507,600 |
| Operations | 3,172,584 | 3,433,513 | 2,848,136 | 3,417,764 | 3,778,233 | 4,066,284 |
| Administration | 1,718,528 | 1,823,605 | 1,580,677 | 1,871,084 | 1,868,800 | 2,271,087 |
| Construction | 1,900,012 | - | 22,032 | 29,376 | - | - |
| Contingency and Capital Purchases | - | - | 73,772 | 720,000 | 721,670 | 517,529 |
| | $ 13,864,077 | $ 12,083,060 | $ 10,390,212 | $ 13,080,431 | $ 14,468,680 | $ 16,328,767 |
| **Debt Services** | | | | | | |
| SRF Principal | $ 2,039,479 | $ 2,039,479 | $ 1,353,282 | $ 2,061,035 | $ 2,061,035 | $ 2,094,337 |
| SRF Interest | 729,692 | 721,656 | 422,023 | 688,703 | 688,703 | 655,401 |
| | $ 2,769,171 | $ 2,761,135 | $ 1,775,305 | $ 2,749,738 | $ 2,749,738 | $ 2,749,738 |
| **Total Operations & Maintenance Expenses with Debt Services** | **$ 16,633,248** | **$ 14,844,195** | **$ 12,165,517** | **$ 15,830,169** | **$ 17,218,418** | **$ 19,078,505** |
| **Interfund Loan from the Capital Fund** | **-** | **1,963,621** | **-** | **-** | **-** | **-** |
| **Operations & Maintenance Net Surplus or (Deficit)** | **$ (609,088)** | **$ -** | **$ 7,285,235** | **$ 6,521,578** | **$ (72,869)** | **$ 878,341** |

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

| | 2020 Actual $3,783/MG | 2020 Budget $3,783/MG | 2021 Actual as of 4/30/2021 | 2021 Projected to the Year End | 2021 Budget $4,087/MG | 2022 Budget $4,414/MG |
|---|---|---|---|---|---|---|
| **Personnel Expenses Allocations** | | | | | | |
| Allocation to Operations and Maintenance | 3,310,840 | 3,347,987 | 2,483,803 | 2,984,058 | 3,708,720 | 3,529,899 |
| Allocation to Administrations | 2,333,145 | 1,241,799 | 2,258,316 | 2,709,979 | 1,966,697 | 2,436,368 |
| | $ 5,643,985 | $ 4,589,786 | $ 4,742,119 | $ 5,694,037 | $ 5,675,417 | $ 5,966,267 |
| **Maintenance Expenses** | | | | | | |
| Maintenance Equipment | $ 631,622 | $ 1,188,036 | $ 506,807 | $ 608,168 | $ 1,220,877 | $ 1,020,000 |
| Instrumentation | 297,780 | 308,286 | 287,067 | 344,480 | 478,492 | 755,000 |
| Total Grounds Maintenance & Landscaping | 281,694 | 406,500 | 189,935 | 227,922 | 451,767 | 1,399,100 |
| Vehicle Repairs | 87,632 | 208,334 | 83,982 | 100,778 | 135,924 | 190,000 |
| Interceptor Sewer Maintenance | 103,623 | 90,000 | 52,329 | 62,795 | 100,000 | 120,000 |
| Maintenance Safety Equipment | 1,661 | 3,000 | 2,070 | 2,484 | 5,500 | 8,500 |
| Misc. Maintenance Expense | 24,956 | 32,000 | 1,286 | 1,543 | 32,000 | 15,000 |
| | $ 1,428,968 | $ 2,236,156 | $ 1,123,476 | $ 1,348,170 | $ 2,424,560 | $ 3,507,600 |
| **Operations Expenses** | | | | | | |
| Process Chemicals | $ 353,655 | $ 331,780 | $ 306,785 | $ 368,142 | $ 550,500 | $ 640,000 |
| Utilities | 1,875,982 | 1,771,252 | 1,775,360 | 2,130,432 | 2,064,558 | 2,287,259 |
| Trash and Sludge | 69,078 | 210,000 | 127,705 | 153,246 | 95,000 | - |
| Fuel and Lubricants | 101,906 | 108,000 | 48,691 | 58,429 | 70,000 | 85,000 |
| Lab Supplies and Services | 63,814 | 112,700 | 28,423 | 34,108 | 102,500 | 25,000 |
| Outside Lab Services | 411,318 | 497,300 | 269,338 | 323,206 | 504,500 | 517,000 |
| Safety Equipment | 106,508 | 153,181 | 97,687 | 117,224 | 204,675 | 250,025 |
| Custodial Services and Supplies | 46,237 | 48,000 | 39,704 | 47,645 | 54,000 | 88,000 |
| Equipment Rental | 74,953 | 117,300 | 78,858 | 94,630 | 47,500 | 55,500 |
| Uniforms | 29,039 | 28,000 | 31,376 | 37,651 | 28,000 | 28,000 |
| Security | 10,698 | 26,000 | 14,180 | 17,016 | 27,000 | 30,500 |
| Permits | 29,396 | 30,000 | 30,029 | 36,035 | 30,000 | 60,000 |
| Misc. Operating Expense | - | - | - | - | - | - |
| | $ 3,172,584 | $ 3,433,513 | $ 2,848,136 | $ 3,417,764 | $ 3,778,233 | $ 4,066,284 |
| **Administrations Expenses** | | | | | | |
| Telephone and Communications | $ 153,281 | $ 192,981 | $ 148,640 | $ 178,368 | $ 320,268 | $ 327,500 |
| Computer Supplies | 118,073 | 102,000 | 52,183 | 62,620 | 78,051 | 79,000 |
| Office Supplies | 53,769 | 106,300 | 29,862 | 35,834 | 80,200 | 66,200 |
| Travel, Meeting, Training | 58,562 | 107,800 | 18,820 | 22,584 | 119,630 | 157,350 |
| Employee and Community Events | 4,073 | 14,400 | 15,206 | 18,247 | 34,100 | 35,696 |
| Membership, Fees, Licenses | 41,717 | 73,630 | 29,979 | 35,975 | 76,160 | 65,650 |
| Professional Services | 399,637 | 385,394 | 336,524 | 403,829 | 416,600 | 475,400 |
| Legal Services and Fees | 391,511 | 340,000 | 301,883 | 362,260 | 300,000 | 300,000 |
| Temporary Labor | 5,530 | 72,143 | 13,225 | 15,870 | - | 23,500 |
| Bond & Liability Insurance | 208,730 | 130,000 | 228,178 | 273,814 | 240,000 | 265,000 |
| Finance Fees | 2,825 | - | 54 | 65 | - | - |
| Misc. Administration Expense | 9,589 | - | (4,972) | (5,966) | - | - |
| Permit Fees | 260,274 | 288,000 | 282,444 | 338,933 | 100,000 | 272,000 |
| Vehicle Lease Program | - | - | - | - | - | 100,000 |
| Lease Expenses | 10,957 | 10,957 | 128,651 | 128,651 | 103,791 | 103,791 |
| | $ 1,718,528 | $ 1,823,605 | $ 1,580,677 | $ 1,871,084 | $ 1,868,800 | $ 2,271,087 |
| **Construction Expenses** | $ 1,900,012 | $ - | $ 22,032 | $ 29,376 | $ - | $ - |
| **Contingency and Capital Purchases** | $ - | $ - | $ 73,772 | $ 720,000 | $ 721,670 | $ 517,529 |
| **Total Operations and Maintenance Fund Expenses Before Emergency** | **$ 13,864,077** | **$ 12,083,060** | **$ 10,390,212** | **$ 13,080,431** | **$ 14,468,680** | **$ 16,328,767** |

## 5.4 User Fee Revenue Trend Analysis

The Victor Valley Wastewater Reclamation Authority (VVWRA) has been recovering from the decreased operating revenues since FY 2016. We have used connection fee revenue $1.2 million for FY 2022 budget to reflect the connection fee rate of $4,679/EDU at 251 EDUs. To further mitigate the impact of the reduced revenues, we are increasing the user charge rate from $4,087/MG in FY 2021 to $4,414/MG in FY 2022.




| | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual | FY 2020 Actual | FY 2021 Projected | FY 2022 Budget |
|---|---|---|---|---|---|---|---|
| Total Income | 13,544,404 | 16,701,732 | 17,670,942 | 18,033,471 | 18,060,196 | 20,764,446 | 21,211,577 |
| User Charges | 11,480,773 | 12,549,674 | 13,581,133 | 13,574,648 | 14,447,156 | 16,355,492 | 17,699,907 |
| Connection Fees | 1,146,089 | 2,951,667 | 2,882,239 | 3,088,860 | 2,302,221 | 1,128,167 | 1,174,731 |
| Other Income | 917,542 | 1,200,391 | 1,207,570 | 1,369,963 | 1,310,819 | 3,280,787 | 2,336,939 |

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

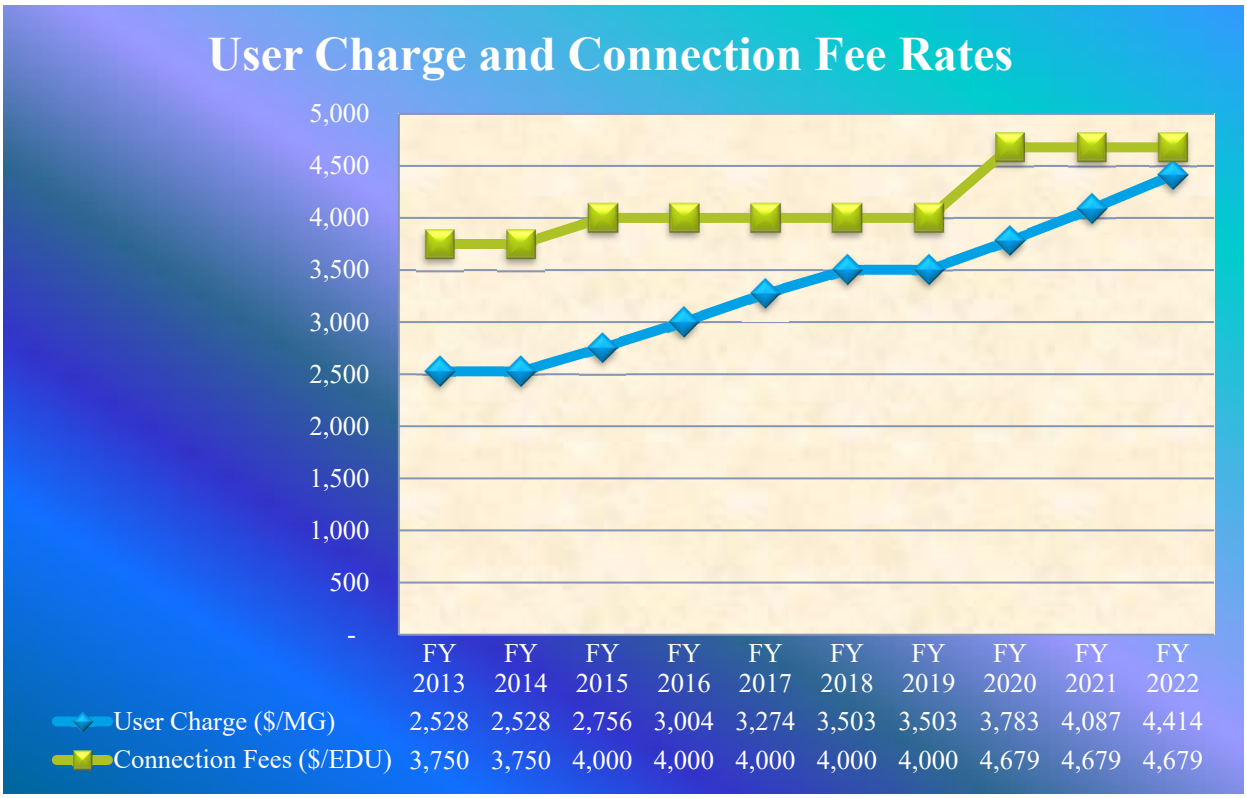
The other income also includes high strength surcharges for high contents of certain chemical, reclaimed water sales from the processed water, industrial pretreatment permits charged to businesses, and interest income. Grants are excluded in this revenue analysis for the period from FY 2016 to FY 2022.

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 ($4,414/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 2022 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.




| | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| User Charge ($/MG) | 2,528 | 2,528 | 2,756 | 3,004 | 3,274 | 3,503 | 3,503 | 3,783 | 4,087 | 4,414 |
| Connection Fees ($/EDU) | 3,750 | 3,750 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,679 | 4,679 | 4,679 |

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

This page shows high strength surcharge rates for FY 2022 and the calculation worksheet.

## Worksheet

| | |
|---|---|
| User Charges from Member Agencies | $ 17,699,907 |
| Unit User Charge per MG | **$4,414.00** |
| Estimated Treatment Flow (MG) | 4,010 |

| | 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 | 300.00 | 27,487 | 0.00 | 0 | 27,487 | 10,032,888 | 35.0% | $6,194,967 | $0.6175 |
| TSS | 412.00 | 37,749 | 0.00 | 0 | 37,749 | 13,778,499 | 25.0% | $4,424,977 | $0.3212 |
| NH3 | 32.00 | 2,932 | 0.00 | 0 | 2,932 | 1,070,175 | 30.0% | $5,309,972 | $4.9618 |
| Annual Flow - MG per Day | | | | | | | | | |
| | | 10.99 | MGD | | | | 10.0% | $1,769,991 | |
| | | | | | | | 100.0% | $17,699,907 | |

| | BOD $/lb | TSS $/lb | NH3 $/lb |
|---|---|---|---|
| Surcharge Rates: | **$0.6175** | **$0.3212** | **$4.9618** |
| 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 2020)

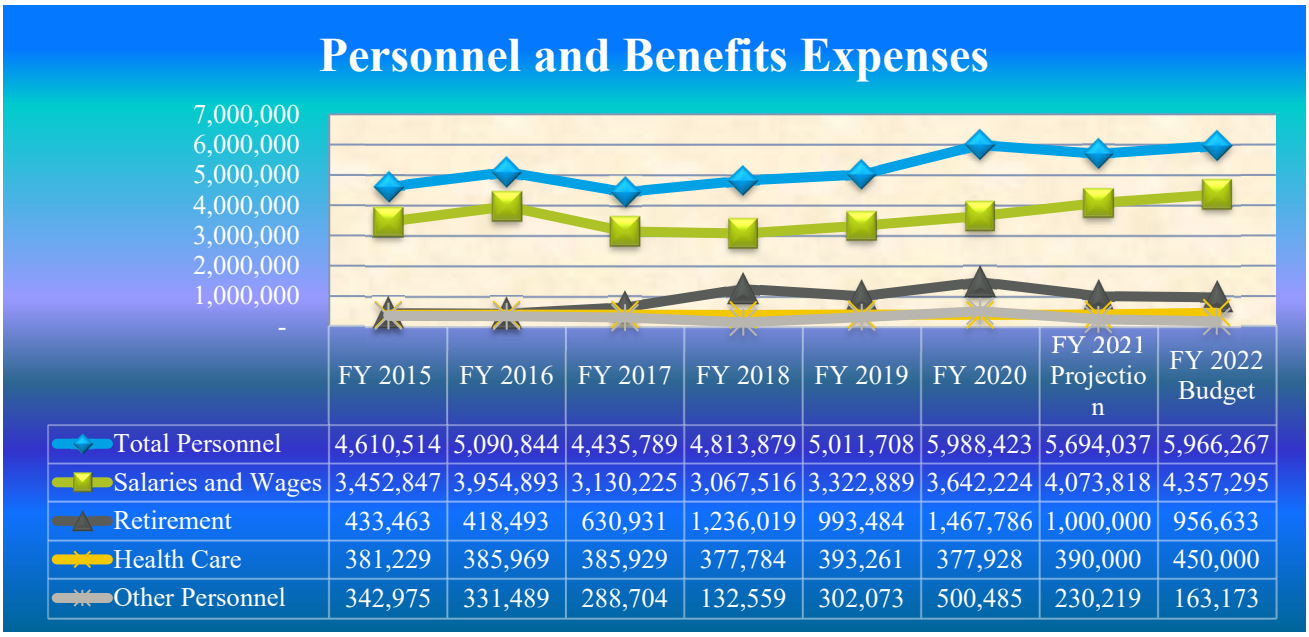
## 5.5 Allocations of Personnel Expenses

| | 2020 Actual $3,783/MG | 2020 Budget $3,783/MG | 2021 Actual as of 4/30/2021 | 2021 Projected to the Year End | 2021 Budget $4,087/MG | 2022 Budget $4,414/MG |
|---|---|---|---|---|---|---|
| **Operations and Maintenance Salary Expenses** | | | | | | |
| Regular Salaries | $ 3,382,260 | $ 3,187,537 | $ 3,194,848 | $ 3,833,818 | $ 3,963,657 | $ 4,092,735 |
| Overtime | 263,229 | 164,000 | 236,107 | 240,000 | 208,000 | 264,560 |
| Call-Out Pay | (3,265) | 72,120 | - | - | 14,560 | - |
| | $ 3,642,224 | $ 3,423,657 | $ 3,430,955 | $ 4,073,818 | $ 4,186,217 | $ 4,357,295 |
| **Operations and Maintenance Benefit Expenses** | | | | | | |
| Longevity | $ - | $ 39,685 | $ - | $ - | $ - | $ - |
| Vehicle Allowance | - | 18,139 | - | - | - | - |
| Sick Leave Buy Back | - | - | - | - | - | - |
| Medicare | 68,633 | 46,564 | 55,284 | 66,341 | 66,556 | 62,995 |
| Social Security Expense | (351) | - | - | - | - | - |
| PERS / Health Insurance | 305,285 | 315,462 | 341,334 | 390,000 | 332,543 | 450,000 |
| Dental / Vision Insurance | 4,010 | 27,960 | - | - | - | - |
| Workers Comp Insurance | 106,096 | 116,915 | 76,010 | 91,212 | 62,000 | 62,000 |
| PERS / Retirement | 288,633 | 303,035 | 777,981 | 850,000 | 993,484 | 956,633 |
| PERS / Retirement - GASB 68 | 477,790 | - | - | - | - | - |
| PERS / Retirement-EUL | 399,721 | 436,059 | - | - | - | - |
| Life Insurance | 15,623 | 16,807 | 28,506 | 34,207 | 15,521 | 39,814 |
| Unemployment Insurance | 17,628 | 11,431 | 18,580 | 22,296 | 19,096 | 19,530 |
| Disability Insurance | 2,926 | 25,583 | 11,919 | 14,303 | - | 15,000 |
| Misc Personnel Expense | 14,125 | 13,750 | 1,550 | 1,860 | - | 3,000 |
| OPEB Expense | 301,642 | 30,000 | - | 150,000 | - | - |
| | $ 2,001,761 | $ 1,401,390 | $ 1,311,164 | $ 1,620,219 | $ 1,489,200 | $ 1,608,972 |
| **Capital Salary and Benefits Expenses** | | | | | | |
| Salaries | $ 298,865 | $ 123,510 | $ - | $ - | $ - | $ - |
| Benefits | 45,573 | 26,141 | - | - | - | - |
| | $ 344,438 | $ 149,651 | $ - | $ - | $ - | $ - |
| **Total Personnel Expenses** | **$ 5,988,423** | **$ 4,974,698** | **$ 4,742,119** | **$ 5,694,037** | **$ 5,675,417** | **$ 5,966,267** |
| **Allocations of Personnel Expenses** | | | | | | |
| *1. Allocations to Operations and Maintenance Fund* | | | | | | |
| To Operations and Maintenance | (3,310,840) | (3,347,987) | (2,483,803) | (2,984,058) | (3,708,720) | (3,529,899) |
| To Administration | (2,333,145) | (1,241,799) | (2,258,316) | (2,709,979) | (1,966,697) | (2,436,368) |
| | $ (5,643,985) | $ (4,589,786) | $ (4,742,119) | $ (5,694,037) | $ (5,675,417) | $ (5,966,267) |
| *2. Allocation To Capital Fund* | | | | | | |
| To Construction | $ (344,438) | $ (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 2022 total personnel budget reflects an increase in the total number of employees and Consumer Price Index adjustments.

The health care cost has been kept at about the same level throughout the period from FY 2016 to FY 2022.

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 | FY 2021 Projection | FY 2022 Budget |
|---|---|---|---|---|---|---|---|---|
| Total Personnel | 4,610,514 | 5,090,844 | 4,435,789 | 4,813,879 | 5,011,708 | 5,988,423 | 5,694,037 | 5,966,267 |
| Salaries and Wages | 3,452,847 | 3,954,893 | 3,130,225 | 3,067,516 | 3,322,889 | 3,642,224 | 4,073,818 | 4,357,295 |
| Retirement | 433,463 | 418,493 | 630,931 | 1,236,019 | 993,484 | 1,467,786 | 1,000,000 | 956,633 |
| Health Care | 381,229 | 385,969 | 385,929 | 377,784 | 393,261 | 377,928 | 390,000 | 450,000 |
| Other Personnel | 342,975 | 331,489 | 288,704 | 132,559 | 302,073 | 500,485 | 230,219 | 163,173 |

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

## 5.6 Budget Statement of Repairs and Replacement Fund

| | 2020 Actual $3,783/MG | 2020 Budget $3,783/MG | 2021 Actual as of 4/30/2021 | 2021 Projected to the Year End | 2021 Budget $4,087/MG | 2022 Budget $4,414/MG |
|---|---|---|---|---|---|---|
| **Repairs and Replacements Financing Sources** | | | | | | |
| Transferred from Operations & Maintenance Fund | $ - | $ 2,666,326 | $ - | $ - | $ - | $ - |
| | **$ -** | **$ 2,666,326** | $ - | $ - | $ - | **$** - |
| **Expenses** | | | | | | |
| Personnel and Benefits | $ - | $ - | $ - | $ - | $ - | $ - |
| Maintenance | 379,538 | 1,896,326 | - | - | - | - |
| Operations | 3,592 | - | - | - | - | - |
| Administration | 150,611 | 145,000 | - | - | - | - |
| Construction | 347,821 | 625,000 | - | - | - | - |
| | $ 881,562 | $ 2,666,326 | $ - | $ - | $ - | $ - |
| **Debt Services** | | | | | | |
| SRF Principal | $ - | $ - | $ - | $ - | $ - | $ - |
| SRF Interest | - | - | - | - | - | - |
| | $ - | $ - | $ - | $ - | $ - | $ - |
| **Total Repairs and Replacements Expenses with Debt Services** | **$ 881,562** | **$ 2,666,326** | **$ -** | **$ -** | **$ -** | **$ -** |
| **Repairs and Replacements Net Surplus or (Deficit)** | **$ (881,562)** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** |

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

| | 2020 Actual $3,783/MG | 2020 Budget $3,783/MG | 2021 Actual as of 4/30/2021 | 2021 Projected to the Year End | 2021 Budget $4,087/MG | 2022 Budget $4,414/MG |
|---|---|---|---|---|---|---|
| **Personnel Expenses Allocations** | | | | | | |
| Allocation to Operations and Maintenance | $ - | $ - | $ - | $ - | $ - | $ - |
| Allocation to Administrations | - | - | - | - | - | - |
| | $ - | $ - | $ - | $ - | $ - | $ - |
| **Maintenance Expenses** | | | | | | |
| Maintenance Equipment | $ 187,749 | $ 424,000 | $ - | $ - | $ - | $ - |
| Instrumentation | 108,322 | 747,326 | - | - | - | - |
| Total Grounds Maintenance & Landscaping | 83,467 | 725,000 | - | - | - | - |
| Vehicle Repairs | - | - | - | - | - | - |
| Interceptor Sewer Maintenance | - | - | - | - | - | - |
| Maintenance Safety Equipment | - | - | - | - | - | - |
| Misc. Maintenance Expense | - | - | - | - | - | - |
| | $ 379,538 | $ 1,896,326 | $ - | $ - | $ - | $ - |
| **Operations Expenses** | | | | | | |
| Process Chemicals | $ - | $ - | $ - | $ - | $ - | $ - |
| Utilities | - | - | - | - | - | - |
| Trash and Sludge | - | - | - | - | - | - |
| Fuel and Lubricants | - | - | - | - | - | - |
| Lab Supplies and Services | - | - | - | - | - | - |
| Outside Lab Services | - | - | - | - | - | - |
| Safety | - | - | - | - | - | - |
| Custodial Services and Supplies | - | - | - | - | - | - |
| Equipment Rental | 3,592 | - | - | - | - | - |
| Uniforms | - | - | - | - | - | - |
| Security | - | - | - | - | - | - |
| Permits | - | - | - | - | - | - |
| Misc. Operating Expense | - | - | - | - | - | - |
| | $ 3,592 | $ - | $ - | $ - | $ - | $ - |
| **Administrations Expenses** | | | | | | |
| Telephone and Communications | $ - | $ - | $ - | $ - | $ - | $ - |
| Computer Supplies | - | - | - | - | - | - |
| Office Supplies | - | - | - | - | - | - |
| Travel, Meeting, Training | - | - | - | - | - | - |
| Professional Services / Cons | - | 145,000 | - | - | - | - |
| Membership, Fees, Licenses | - | - | - | - | - | - |
| Professional Services | 150,611 | - | - | - | - | - |
| Legal Services and Fees | - | - | - | - | - | - |
| Temporary Labor | - | - | - | - | - | - |
| Bond & Liability Insurance | - | - | - | - | - | - |
| Finance Fees | - | - | - | - | - | - |
| Misc. Administration Expense | - | - | - | - | - | - |
| Permit Fees | - | - | - | - | - | - |
| Rent | - | - | - | - | - | - |
| Supplemental Environmental Project Payment | - | - | - | - | - | - |
| | $ 150,611 | $ 145,000 | $ - | $ - | $ - | $ - |
| **Construction Expenses** | $ 347,821 | $ 625,000 | $ - | $ - | $ - | $ - |
| **Total Repairs and Replacements Fund Expenses** | **$ 881,562** | **$ 2,666,326** | **$ -** | **$ -** | **$ -** | **$ -** |

## 5.7 Budget Statement of Capital Fund

| | 2020 Actual $4,679/EDU① | 2020 Budget $4,679/EDU① | 2021 Actual as of 4/30/2021 | 2021 Projected to the Year End | 2021 Budget $4,679/EDU① | 2022 Budget $4,679/EDU① |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| Connection Fees | $ 2,302,221 | $ 2,254,625 | $ 940,139 | $ 1,128,167 | $ 2,339,500 | $ 1,174,731 |
| Interest | 270,439 | 50,000 | 25,256 | 30,307 | 180,000 | 80,000 |
| Grant - FEMA/Cal-EMA | - | - | - | - | - | - |
| Grant - CEC Microgrid | (3,134) | - | - | - | - | - |
| | $ 2,569,526 | $ 2,304,625 | $ 965,395 | $ 1,158,474 | $ 2,519,500 | $ 1,254,731 |
| **Other Financing Sources** | | | | | | |
| SRF Loan Funding | $ - | $ - | $ - | $ - | $ - | $ - |
| | $ - | $ - | $ - | $ - | $ - | $ - |
| **Total Capital Revenues and Other Financing Sources** | **$ 2,569,526** | **$ 2,304,625** | **$ 965,395** | **$ 1,158,474** | **$ 2,519,500** | **$ 1,254,731** |
| **Expenses** | | | | | | |
| Personnel and Benefits | $ 344,438 | $ 384,912 | $ - | $ - | $ - | $ - |
| Maintenance | - | - | - | - | - | - |
| Operations | - | 170 | - | - | - | - |
| Administration | (2,054) | 50,000 | - | - | - | - |
| Construction | 9,800 | 550,000 | - | - | - | - |
| Contingency and Capital Purchases | - | - | - | - | - | - |
| | $ 352,184 | $ 985,082 | $ - | $ - | $ - | $ - |
| **Debt Services** | | | | | | |
| SRF Principal | $ 1,981,331 | $ 1,981,331 | $ 1,527,140 | $ 1,763,058 | $ 1,763,058 | $ 1,794,802 |
| SRF Interest | 386,055 | 405,395 | 281,121 | 370,014 | 370,014 | 338,270 |
| | $ 2,367,386 | $ 2,386,726 | $ 1,808,261 | $ 2,133,072 | $ 2,133,072 | $ 2,133,072 |
| **Total Capital Expenses with Debt Services** | **$ 2,719,570** | **$ 3,371,808** | **$ 1,808,261** | **$ 2,133,072** | **$ 2,133,072** | **$ 2,133,072** |
| **Interfund Loan to the Operations & Maintenance Fund** | **-** | **(1,963,621)** | **-** | **-** | **-** | **-** |
| **Capital Net Surplus or (Deficit)** | **$ (150,044)** | **$ (3,030,804)** | **$ (842,866)** | **$ (974,598)** | **$ 386,428** | **$ (878,341)** |

① EDU = Equivalent Dwelling Unit (250 gallons/day or 20 fixture units)

### 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 $77.1 million outstanding as of April 30, 2021, whose annual payments become due throughout the year. The principal payment due for FY 2022 is $3.9 million and the corresponding interest due is $.9 million. The agency has considered the operation portion of these debt payments is $2.1 million and the corresponding interest of $.7 million for FY 2022. 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 the loans that would bind some of user fees and connection fees. Additional constraint 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 comply, 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

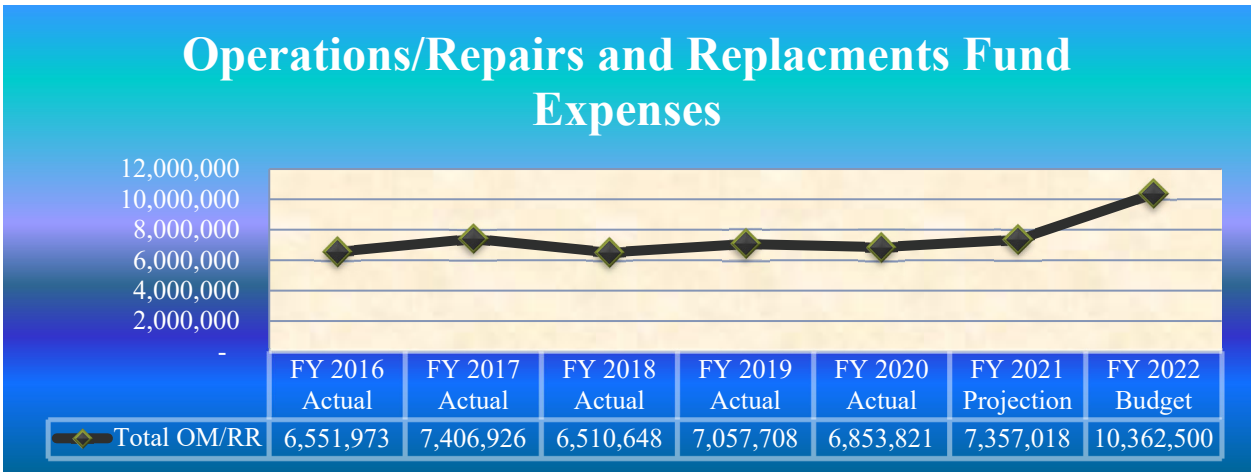
| Supplemental Capital | |
|---|---|
| **21-22 Budget Amount** | **Description** |
| $35,000 | ESRI Project - GIS Enhancements |
| $40,529 | Firewall Replacement Project |
| **$75,529** | **Total Supplemental Capital** |

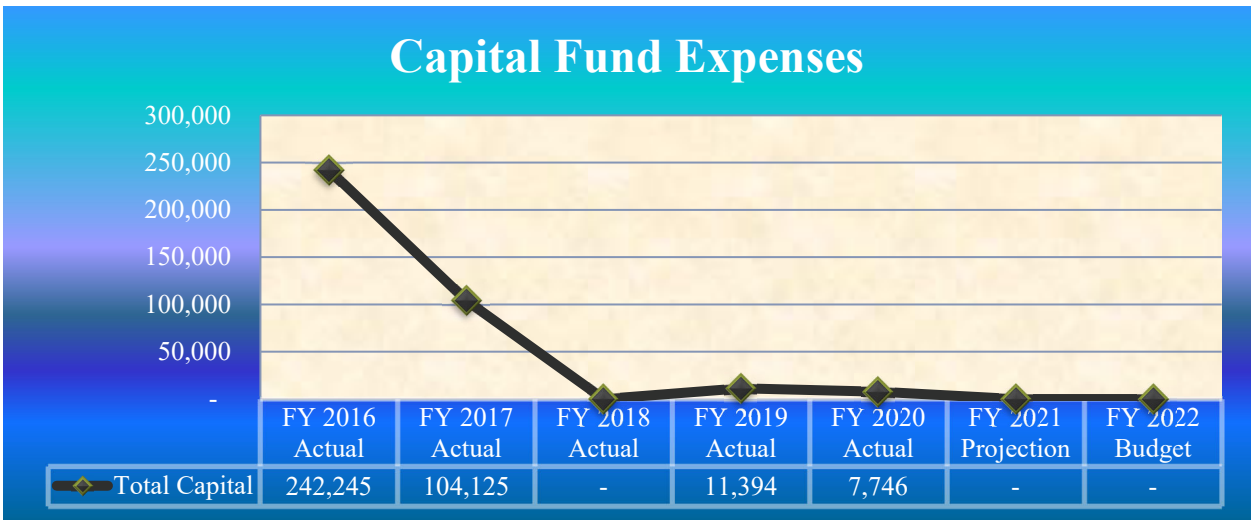
For FY 2021 and FY 2022, the Authority eliminated the Repairs and Replacements Fund and rolled the reoccurring regular operational expenses into the Operations and Maintenance Fund. Significant capital assets that need replacement on an as-needed basis are now within the Operations and Maintenance Fund 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 2022 are presented in the list above and further details below:

- ESRI Project – the GIS Enhancements will include Smart Mapping Transparency, better workflows and design, more adaptable map viewer, an improved 3D scene viewer, enhanced analysis, and wastewater plants GIS solution.
- Firewall Replacement Project will improve the following: monitoring of network traffic to all VVWRA locations, virus attacks elimination, prevention of hacking, elimination of spyware, the promotion of privacy, and replacement of obsolete existing technology.

## 5.9 Operational Overview of Expenses

The operations and repairs/replacements expenses were at about the same level from FY 2016 to FY 2020. Up to FY 2021, such costs were kept low forced by a low cash flow level. FY 2022'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 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 2022 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 |
| **2020** | $ 15,457,755 | $ 3,109,947 | $ 18,567,702 |
| **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 | 2,864,532 | 14,580,845 |
| **2012** | 10,667,026 | 3,858,401 | 14,525,427 |
| **2011** | 10,873,678 | 4,784,712 | 15,658,390 |

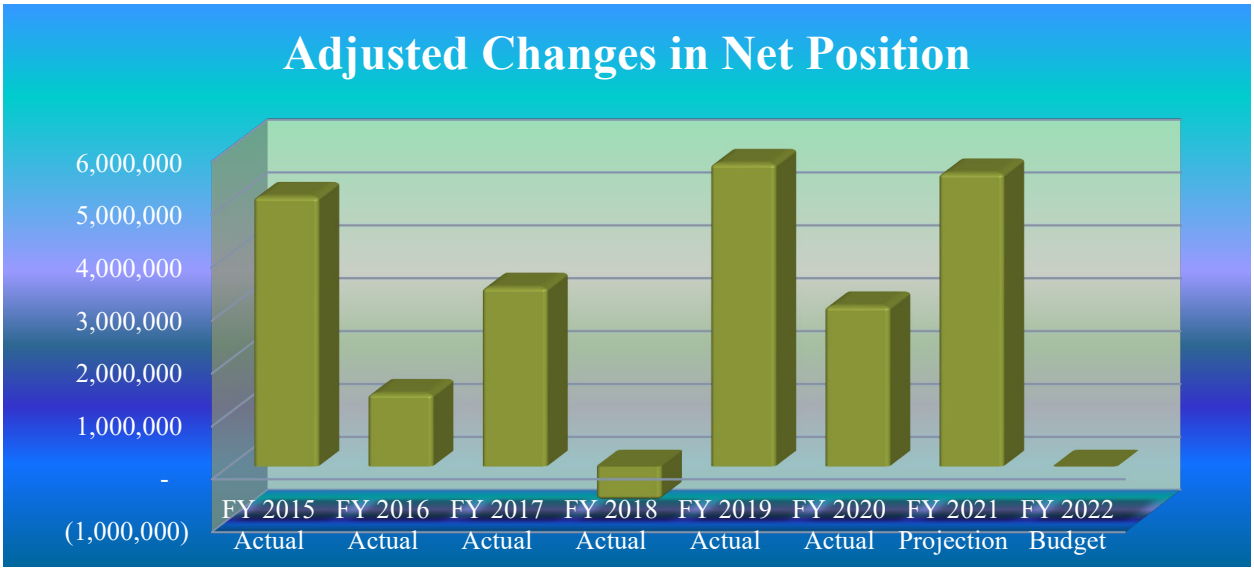
| | Operating Expenses | | | | | | Total Non-Operating Expenses | Combined Expenses |
|---|---|---|---|---|---|---|---|---|
| **June 30** | Personnel | Maintenance | Operations | Administration | Depreciation | Total Operating Expenses | | |
| **2020** | $ 5,988,422 | $ 1,808,505 | $ 3,176,174 | $ 2,478,592 | $ 11,565,945 | $ 25,017,638 | $ 2,735,887 | $ 27,753,525 |
| **2019** | 5,011,708 | 1,880,448 | 2,928,704 | 2,162,267 | 11,519,264 * | 23,502,391 | 1,255,633 | 24,758,024 |
| **2018** | 4,813,879 | 1,654,791 | 2,877,169 | 1,783,254 | 9,429,914 * | 20,559,007 | 1,937,435 | 22,496,442 |
| **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 | 14,302,713 | 572,285 | 14,874,998 |

## 5.11 Changes in Net Position and Reserves

The table below shows *adjusted changes in net position* whose amounts are shown in a bold type in the table. The graph below shows the fluctuation of adjusted changes in net position during FY 2016 through FY 2022, 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 show an increase of 170% from $1,146,089 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. Connection fee revenues has decreased from $3,088,860 in FY 2019 to $2,302,221 in FY 2020. On the other hand, the operating expenses have increased by 20%, from $11,174,660 in FY 2016 to $13,451,693 in FY 2020. 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 2016 to 2020 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 2022 at sections 6.1, 6.2, and 6.3.

| FY = Fiscal Year | Beginning Net Position | Changes in Net Position per CAFR<br>*=Per Budget | Ending Net Position | Grants CIP/Interest Amortization and Depreciations Expense | Adjusted Changes in Net Position | Adjusted Ending Net Position* |
|---|---|---|---|---|---|---|
| **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 | (3,500,967) | 126,265,966 | 2,849,811 | **(651,156)** | 129,115,777 |
| **FY 2019 Actual** | 126,265,966 | (6,443,257) | 119,822,709 | 12,173,196 | **5,729,939** | 131,995,905 |
| **FY 2020 Actual** | 119,822,709 | (9,185,823) | 110,636,886 | 12,219,064 | **3,033,241** | 122,855,950 |
| **FY 2021 Projection** | 110,636,886 | 5,546,980* | 116,183,866 | - | **5,546,980** | 116,183,866 |
| **FY 2022 Budget** | 116,183,866 | -* | 116,183,866 | - | **-** | 116,183,866 |

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




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

The summary below illustrates the FY 2022 projected reserve balances for the Operations and Maintenance Fund and Capital Fund.

| | O&M Fund | Capital Fund | Total |
|---|---|---|---|
| **FY 2022 Reserve Beginning Balance** | **$ 7,537,675** | **$ 6,437,564** | **$ 13,975,239** |
| One Time Revenue (FEMA) | - | - | - |
| Total Revenues | 19,956,846 | 1,254,731 | 21,211,577 |
| Total SRF Loan Payments | (2,858,857) | (2,133,072) | (4,991,929) |
| Total Operating Expense | (16,219,648) | - | (16,219,648) |
| **FY 2022 Budget Surplus** | **878,341** | **(878,341)** | **(0)** |
| **Total Reserve** | **8,416,016** | **5,559,224** | **13,975,239** |
| Total Restricted Reserve | (5,196,606) | (1,553,202) | (6,749,808) |
| **Total Unrestricted Reserve** | **3,219,410** | **4,006,022** | **7,225,431** |
| Total Capital Projects ① | (3,219,410) | (1,629,500) | (4,848,910) |
| Unused Project Portion | - | - | - |
| **Available Unrestricted Reserve** | **$ (0)** | **$ 2,376,522** | **$ 2,376,521** |
| | | | |
| **Total Restricted Reserve** | **$ 5,196,606** | **$ 1,553,202** | **$ 6,749,808** |

① Please refer to Section 6.2 for more details on Capital Projects.

# 6 Financial Information Capital Projects

## 6.1 Capital Project Pay-As-You-Go Strategy

In FY 2022 VVWRA staff continues to build upon the pay as you go Capital Improvement Program (CIP) started in FY 2020. Careful consideration and analysis were put into the development of the proposed capital project list being presented in the FY 2022 budget. Required and unrestricted reserve balances were presented as part of the operating and capital budgets this FY in order to more accurately show where and how excess reserves and funding proposed capital projects. Utilizing these funds 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 2022 includes $3.2 million maintenance projects and $1.6 million capacity related capital projects. These projects will be funded by the FY 2022 revenues and unrestricted operation and capital cash reserves.

*Regional Plant Digesters*

The new rates put in place in 2020 were designed with a pay-as-you-go strategy for capital projects. In the proposed FY 2022 budget all available funds above debt service, operational expense, and mandatory reserves are now being allocated or left in unrestricted reserves 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 or funds in reserve reach the level of the proposed project cost.

## 6.2 Capital Improvement Program FY 2022

The Capital Improvement Program (CIP) lists the new capital projects funded, partially funded and unfunded in the fiscal year 2022 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 required reserves were allocated to projects or left in unrestricted reserves for future allocation. Revenues for the purpose of funding capital projects come from regular user fees, to maintain and replace existing assets, and connection fees, which are allocated to projects to improve operational capacity.

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

| Priority | Funding | Project Title | Connection Fee % | User Fee % | Projected Cost | Connection fees | User Fees |
|---|---|---|---|---|---|---|---|
| 1 | Fully Fund | RNG Project Lyles Extras and Digester 3 Upgrades | 80% | 20% | 1,378,560 | $1,040,000 | $338,560 |
| 1 | Fully Fund | Subregional Bioassays | 39% | 61% | 200,000 | $78,000 | $122,000 |
| 1 | Fully Fund | Infiltration and Inflow (I&I) Study | 25% | 75% | 250,000 | $62,500 | $187,500 |
| 1 | Fully Fund | PLC Replacement Project Phase 3 | 50% | 50% | 536,000 | $268,000 | $268,000 |
| 1 | Fully Fund | 2G Catalyst Replacement | | 100% | 100,000 | $0 | $100,000 |
| 1 | Fully Fund | Rehabilitation of South Apple Valley Manholes Hwy 18 Phase I | | 100% | 360,000 | $0 | $360,000 |
| 1 | Fully Fund | Network Stabilization-Upgrade Project | | 100% | 150,000 | $0 | $150,000 |
| 1 | Fully Fund | Old Blower Building Electric Blower Conversion | | 100% | 425,000 | $0 | $425,000 |
| 1 | Fully Fund | New Blower Building Electric Blower Conversion | | 100% | 425,000 | $0 | $425,000 |
| 1 | Fully Fund | MSB Retrofit | | 100% | 250,000 | $0 | $250,000 |
| 1 | Fully Fund | Old Admin Building Remediation | | 100% | 150,000 | $0 | $150,000 |
| 1 | Fully Fund | MCC A Replacement | | 100% | 143,000 | $0 | $143,000 |
| 1 | Fully Fund | MCC EB Replacement | | 100% | 143,000 | $0 | $143,000 |
| 1 | Fully Fund | Septage Grit Trap | 10% | 90% | 60,000 | $6,000 | $54,000 |
| 1 | Fully Fund | Firewall Replacement / Network Communicatoins | | 100% | 103,350 | $0 | $103,350 |
| 1 | Partially Fund | Oro Grande Interceptor Relocation Project | 100% | | 2,600,000 | $175,000 | $0 |
| 2 | Unfunded | Coating for UV ( Both Channels ) | | | 155,000 | | |
| 2 | Unfunded | Coating for Septage EQ basin | | | 135,000 | | |
| 2 | Unfunded | Coating for DAF's | | | 135,000 | | |
| 2 | Unfunded | Regional Plant Boiler Planning | | | 20,000 | | |
| 2 | Unfunded | Regional Plant Storm Water Containment System | | | 200,000 | | |
| 2 | Unfunded | Rehabilitate Old Administrative Building and Construct New Work Space | | | 2,500,000 | | |
| 3 | Unfunded | Ossum Wash Interceptor Project | | | 1,000,000 | | |
| 3 | Unfunded | UV Generator Tie-in to South Perc Pond Pump Station | | | 375,000 | | |
| 3 | Unfunded | Digester 4 and 5 Supernatant Line | | | $200,000 | | |
| 3 | Unfunded | Main Switch Board Upgrade Replacement & Generator | | | 2,000,000 | | |
| 4 | Unfunded | Design and build dewatering systems pre and post digestion | | | 22,000,000 | | |
| 4 | Unfunded | Headworks Replacement | | | 10,000,000 | | |
| 4 | Unfunded | Lower Narrows and Lift Station | | | $44,200,000 | | |
| 4 | Unfunded | Upper Narrows Parallel | | | $44,100,000 | | |
| 4 | Unfunded | Hesperia Parallel Upper and Lower | | | $32,200,000 | | |
| 4 | Unfunded | Mojave Narrow Regional Facility | | | $80,000,000 | | |
| | | | | | $246,493,910 | **$1,629,500** | **$3,219,410** |

## 6.3 Capital Project Details from the FY 2022 CIP

The table below provides greater project details for all of the Capital Projects identified in the FY 2022 Budget:

| Fully Funded Projects FY 2022 | | |
|---|---|---|
| **Project No.** | **Project Title** | **Project Descriptions** |
| **1** | RNG Project Lyles Extras and Digester 3 Upgrades | This is the final phase of the Renewable Natural Gas (RNG) project to complete the reconstruction of Digester 3 and to complete the installation of all the supporting assets that will supply and ultimately produce the RNG. |
| **2** | Subregional Bioassays | To receive the Department of Drinking Water approval to operate the two Sub-Regional facilities, and deliver Title 22 quality water, a Bioassay test must be completed at each facility. This test is done to measure the effectiveness of the UV systems to assure they can disinfect the water to an appropriate level. A positive test result must be achieved before the Sub-Regional facilities can be put on-line. |
| **3** | Infiltration and Inflow (I&I) Study | During the development of the Risk Assessment Analysis on the VVWRA interceptor lines, that was completed in FY 20-21 it was determined that a regional I&I study followed by mitigation measures could gain significant capacity in the interceptor system. This study will be a collaboration of VVWRA with all Member Agencies to evaluate where improvements can be made in the Member Agency's Collection systems to lessen I&I impacts on the VVWRA interceptor system and to gain greater capacity during significant rain events. |
| **4** | 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 |
| **5** | 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 |

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| | | 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. |
| **6** | Rehabilitation of South Apple Valley Manholes Hwy 18 Phase I | 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. |
| **7** | Network Stabilization-Upgrade Project | This project will improve the reliability and resiliency of the backbone of the VVWRA network by implementing a new network design and installing several redundant systems based on modern IT standards. |
| **8** | Old Blower Building Electric Blower Conversion | The existing electric blower in the Old Blower Building has reached the end of its useful life. Costs to rebuild the blowers are almost as much to replace them with newer more energy efficient and reliable equipment. For those reasons, this project will look to replace the existing blower with a new more effective and efficient model blower. |
| **9** | New Blower Building Electric Blower Conversion | The existing electric blower in the New Blower Building has reached the end of its useful life. Costs to rebuild the blowers are almost as much to replace them with newer more energy efficient and reliable equipment. For those reasons, this project will look to replace the existing blower with a new more effective and efficient model blower. |
| **10** | MSB Retrofit | The MSB retrofit will consist of PLC upgrades, removing old panel boards and obsolete wiring, new power quality metering, new generator and utility protective relays, new HMI, and modern SCADA integration. The project will provide better interactive SCADA control, preparation for future emergency generator replacement, updating |

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| | | antiquated functions, removing obsolete load schemes, and provide local manual. The contractor will provide accurate as built schematics and a non-proprietary open architecture PLC program. |
| **11** | Old Admin Building Remediation | 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 and asbestos material identified in the flowing materials. This project will look to fund the necessary clean-up and demolition of the internal walls of the facility. Other funds will be used to develop a feasibility study for future repurposing the building for a new Administrative facility. |
| **12** | MCC A Replacement | The Motor Control Center (MCC) A was installed as part of the original plant design. It operates critical functions in the Old Blower Building. Due to its age and lack of replacement parts it is now time to replace the MCC. Within the project scope a contractor will replace multiple components which are outdated and no longer supported and electrical buckets which no longer meet NEC standards. By replacing the MCC operations will gain bucket space and increase ampacity to meet today's demands as well future expansion if necessary. |
| **13** | MCC EB Replacement | The Motor Control Center (MCC) EB was installed as part of the original plant design. It operates other critical functions in the Old Blower Building. Due to its age and lack of replacement parts it is now time to replace the MCC. Within the project scope a contractor will replace multiple components which are outdated and no longer supported and electrical buckets which no longer meet NEC standards. By replacing the MCC operations will gain bucket space and increase ampacity to meet today's demands as well future expansion if necessary. |
| **14** | Septage Grit Trap | While performing scheduled maintenance to clean Digesters 4 and 5 staff discovered a great deal of grit material that needed to be removed during the cleaning process. This material we determined to be |

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| | | coming from septage receiving. To mitigate future issues with the build-up of grit within the digesters this project will look to enhance the operations at the septage receiving area by expanding the holding tanks and building a clarifier weir and sump system to collect grit before it is sent to the digesters. |
| **15** | Firewall Replacement / Network Communications | This project will replace existing end-of-life firewalls, which will yield better visibility of the network and improve the security of the network. |
| **Partially Funded Projects FY 2022** | | |
| **16** | 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. |
| **Unfunded Projects FY 2022** | | |
| **17** | 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. |
| **18** | 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. |
| **19** | Coating for DAF's | 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 |

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| | | tank will need to be rented to store ADM/FOG during the coating of DAF's 2 and 3. |
| **20** | Regional Plant Boiler Planning | This project will study the feasibility of moving away from engine cooling systems to generate hot water to a boiler system to provide the necessary hot water for the operations of the wastewater treatment systems. |
| **21** | 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. |
| **22** | Rehabilitate old Administrative building and Construct New Work Space | 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 eight years, the VVWRA staff have been operating out of a temporary office structure that is leased at a cost of $100,000 per 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. |
| **23** | 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 |

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| | | Mojave River. A new liner will provide greater protection from this occurring. |
| **24** | 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. |
| **25** | Digester 4 and 5 Supernatant 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. |
| **26** | 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. |
| **27** | 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 |

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| | | 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. |
| **28** | 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. |
| **29** | Lower Narrows and Lift Station | During the development of the Risk Assessment Analysis on the VVWRA interceptor lines, that was completed in FY 20-22, three major pipeline projects were recommended for future construction to deal with capacity issues in the VVWRA interceptor system. The first, and most environmentally critical project, is the relocation and upsizing of the existing interceptor currently located within the lower narrows. To mitigate the environmental concerns a new pump station will need to be built to convey the wastewater around the lower narrows area and reconnect back to the VVWRA interceptor system at the beginning of the double barrel pipeline on Turner Road. |
| **30** | Upper Narrows Parallel | During the development of the Risk Assessment Analysis on the VVWRA interceptor lines, that was completed in FY 20-22, three major pipeline projects were recommended for future construction |

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| | | to deal with capacity issues in the VVWRA interceptor system. The second most critical project is the construction of a parallel line beginning at the ending point of the Upper Narrows project and running a second parallel pipeline connecting the lower narrows project. |
| **31** | Hesperia Parallel Upper and Lower | During the development of the Risk Assessment Analysis on the VVWRA interceptor lines, that was completed in FY 20-22, three major pipeline projects were recommended for future construction to deal with capacity issues in the VVWRA interceptor system. The third project identified was a parallel pipe installation up-stream of the Upper Narrows by-pass. A new parallel pipe would need to be installed starting above the interconnection point with CSA 64 and run to the beginning of the Upper Narrows project. |
| **32** | Mojave Narrow Regional Facility | During the development of the Risk Assessment Analysis on the VVWRA interceptor lines, that was completed in FY 20-22, a evaluation of the treatment capacity was also performed based on the projected growth analysis. It was determined that by 2050 the two subregional facilities would need to be expanded and a new Sub-Regional facility would need to be considered around the Mojave Narrows regional park to capture all flows down-stream of VSD 2. This facility would capture all City of Hesperia Flows, one flow from the City of Victorville and the CSA 64, Spring Valley Lake, flow. This facility would also look to connect to a regional recycled water system. |

# 7 Conclusion

## 7.1 Budget Conclusion

The Victor Valley Wastewater Reclamation Authority is committed to satisfying the Mission Statement utilizing our approved and proven Core Values and our Model for Efficient Wastewater Utility Management as the road map to achieving those goals in the coming fiscal year. 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 Nassif and Cook 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 17, 2021 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 .84. The budget we are asking you to approve has a 1.16 debt ratio and an overall zero deficit. Overall operating expense increases were offset by greater projected revenues, and we have fully budgeted 15 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; |

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| | 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. |