

Fiscal Year **2018 - 2019**

**Operations & Capital  
Approved Budget**

**Victor Valley Wastewater  
Reclamation Authority**



*Taking the Waste Out of Wastewater*

**Administration Office and Treatment Plant**  
20111 Shay Road  
Victorville, CA 92394  
(760) 246-8638  
(760) 246-2898 Fax

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# VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY

## Table of Contents Fiscal Year 2018-2019

**Note: Hyperlinks are active. Please click on any line to go to the page. Please click on a blue circle icon at the bottom of each page to come back to the Table of Contents.**

### ***Section I: Introduction and Overview***

Budget Summary and Message from General Manager.....	3
GFOA Distinguished Budget Presentation Award for the Fiscal Year Beginning July 1, 2017.....	8

### ***Section II: Financial Structure, Policy and Process***

Governance.....	9
The Mission of Victor Valley Wastewater Reclamation Authority.....	10
Organizational Chart.....	11
Our Organization.....	12
Budgeted Positions.....	14
Policies.....	15
Budget Preparation and Review Process.....	17

### ***Section III: Goals and Performance***

Goals, Objectives and Strategies.....	19
Operations Performance Measure.....	21

### ***Section IV: Financial Information and Trend Analyses***

Consolidated Budget Statement of All Funds.....	28
Reconciliation from Actual to CAFR for the Year Ended June 30, 2017.....	29
Budget Statement of Operations and Maintenance Fund.....	30
Operations and Maintenance Fund – Expenses Other Than Emergency Expenses.....	31
Budget Statement of Repairs and Replacements Fund.....	32
Repairs and Replacements Fund Expenses.....	33
Budget Statement of Capital Fund.....	34
Allocations of Personnel Expenses.....	36
High Strength Surcharges.....	37
Revenue Trend Analysis.....	38
Expense Trend Analysis.....	40
History of Changes in Net Position.....	42

### ***Section V: Capital Projects and Debts***

Capital Improvement Programs – Overview and Project Descriptions.....	43
Capital Improvement Programs – Expenditures by Projects.....	46
Capital Improvement Programs – Summary.....	47
Existing State Revolving Fund Loan Payments by Maturities.....	49
State Revolving Fund Loans for FY 2019 and FY 2020.....	51

### ***Section VI: History and Demographics***

History and Demographics.....	52
Performance Benchmarked against Industry.....	55

### ***Section VII: Glossary***

Glossary.....	62
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## *Section I: Introduction and Overview*

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## Victor Valley Wastewater Reclamation Authority

*A Joint Powers Authority and Public Agency of the State of California*

Administrative Offices

20111 Shay Road, Victorville, CA 92394

Telephone: (760) 246-8638

Fax: (760) 948-9897

E-mail: [mail@vwwra.com](mailto:mail@vwwra.com)

### *Budget Summary and Message from General Manager*

#### *Overview – Revenues and Expenses*



*VVWRA Percolation Pond*

This document includes the budget information for the fiscal year ending June 30, 2019 (hereafter referred to as FY 2019) for Victor Valley Wastewater Reclamation Authority (VVWRA or Authority). The Authority hopes the table of contents and glossary will help you locate information.

VVWRA uses enterprise accounting to account for three divisions, (1) Operations and Maintenance Fund for daily activities, (2) Repairs and Replacements Fund for periodical repair and replacement work, and (3) Capital Fund for capital projects. VVWRA provides wastewater processing services to four member agencies; City of Victorville, Town of Apple Valley, City of Hesperia, and two areas of San Bernardino County Special Districts. Among the total operating revenue of \$15.4 million budgeted for FY 2019, \$13.7 million represents user fee revenue. We process wastewater, on the average, of 59% from City of Victorville, 17% from Town of Apple Valley, 18% from City of Hesperia and the remaining 6% from the two areas of San Bernardino County Special Districts. Other

income includes septage processing fees; tipping fees for anaerobically digestible materials, fats, oils, and grease; sludge flow; industrial pretreatment fees; and reclaimed water sales; and high strength surcharge fees. The new high strength surcharge rates for FY 2019 are shown at page 37. In addition, we estimated the connection fee revenue of \$2,000,000 for the construction of capital projects stated at page 34. VVWRA has estimated the connection fee revenues based on actual connections fees received during the year ended June 30, 2017 and projected connections fees for the year ending June 30, 2018.

The FY 2019 budget includes a one-time retention receipt of \$3.9 million from the Federal Emergency Management Agency (FEMA) and the California Governor's Office of Emergency Services (Cal OES) for the Upper Narrows Replacement and Emergency Projects that VVWRA did not receive during the year ending June 30, 2018. As the Authority has completed the construction of Sub-regional Wastewater Reclamation Plants in the Town of Apple Valley and the City of Hesperia during April 2018, it does not anticipate any more grant revenues or loan proceeds during the year ending June 30, 2019.

## *Overview – Revenues and Expenses (Continued)*



*Apple Valley Wastewater Reclamation Plant*

VVWRA has budgeted expenses of \$14.7 million for operations and maintenance, \$2.8 million for repairs and replacements, and \$3.0 million for capital projects. These expenses and expenditures exclude non-cash item, such as depreciation expense. With the total expense of \$20.5 million, the Authority predicts the total budgeted surplus for FY 2019 is \$49,347 under the assumption that the Authority will not operate the two sub-regional plants during FY 2019. A balanced budget remains our challenge where the operating and capital revenues roughly equal the total expenses.

### *Capital Projects and their Expenditures*

VVWRA has nearly completed its five-year capital improvement program with some projects remaining during the FY 2019 to utilize technologies to continue providing quality wastewater treatment services to the service areas.

These projects, classified into three general categories: Wastewater Treatment, Interceptor, and Energy Efficiency are listed in the *Capital Projects and Debts at Section V* on pages 43 through 51 with one or more funding sources: a grant from California Energy Commission; and repair and replacement cash reserve if available. These capital projects are listed in the order of priority, often overlapping several categories during the year.

### **Wastewater Treatment Plants:**

Although VVWRA had predicted that the agency's entire wastewater capacity would increase with less hydraulic load on the Hesperia and Apple Valley interceptors, while continuing providing quality wastewater treatment services for the community, it does not have a choice to postpone the operation



### *Capital Projects and their Expenditures (Continued)*

of these plants due to insufficient operating funds. The water reclamation plant in the City of Hesperia would provide reclaimed water to residential communities and commercial businesses along the I-15 corridor.



*Hesperia Wastewater Reclamation Plant*

Another facility located in the Town of Apple Valley will provide reclaimed water to the Town's public parks. In addition to the SRF loan, the Apple Valley plant construction costs are funded through Title 16 grant from Bureau of Reclamation, United States Department of the Interior, and grants by Propositions 1, 13, 50, and 84 of Department of Water Resources, State of California.

### **Interceptor Projects:**

The gravity interceptors transport a majority of the wastewater from the surrounding cities in the service areas to VVWRA's wastewater treatment plant. While VVWRA continues to upgrade its treatment facilities to handle the increased flow, the agency has successfully increased its interceptor capacity by completing the construction of the sub-regional plants, associated pipelines, and the Nanticoke-interceptor pipeline. In addition, the Upper Narrows Interceptor Replacement Project was completed in 2016.

## Energy Efficiency Projects:

As a result of the Phase III-A ultraviolet treatment project coming online, VVWRA has been experiencing major increases in power consumption. The agency is in process of implementing a series of energy efficiency projects in order to alleviate the high cost of power consumption. For example, VVWRA is building a micro-grid battery storage project during the year ending June 30, 2019. The California Energy Commission has funded this project that can safeguard the agency from unavoidably receiving low voltage electricity from Southern California Edison and increasing onsite generation.



*Primus Power Energy Pod 2*

## *Environmental and Regulatory*

The State Water Code authorizes VVWRA, the regional sewer service provider, to implement a regional reclaimed water permit program similar to the existing Industrial Pretreatment Program. Under this Master Permit, VVWRA will be responsible for permitting and monitoring reclaimed water users, expediting a more efficient permit process rather than relying on individual permits obtained through Lahontan Regional Water Quality Control Board.

## *Debts – State Revolving Fund (SRF) Loans*

The agency has continuously attempted through numerous discussions, with member agencies to obtain a solution for a loss of income due to the City of Victorville's diversion of 1.7 million gallons per day and further reduction of its connection fees to a current average monthly fees of \$75,000. Another factor affecting VVWRA's cash flow is non-payment by the City of Hesperia that has been outstanding at approximately \$2.3 million. A solution has not yet been reached among the member agencies, which will address cash flow issues to ensure sufficient cash reserve to meet the SRF loan contractual reserve and repayment obligations.

Since the flow diversion issue remains unsolved, the Authority has not been able to conduct new financial planning to replace the 2014 adopted financial plan. The reduced income, lower connection fee receipts from Victorville, and non-payment from Hesperia may result in insufficient cash, forcing the agency not to operate the completed Sub-regional plants and not to meet the SRF loan reserve requirements. Reflecting member agencies' comments, our challenge includes a balanced budget where the collected fees sufficiently cover the operational expenses without relying on capital revenues, i.e. connection fees, which are exclusively earmarked for capital projects. This FY 2019 budget reflects the challenges the Authority faces.

Although there are no applicable legal debt limits for VVWRA to adhere to, the agency is challenged with the loan contractual obligation of maintaining the annual debt service reserve for the SRF loans for the Hesperia and Apple Valley facility construction.

### *Debts – State Revolving Fund (SRF) Loans (Continued)*

Under the circumstances, VVWRA has postponed the implementation of its vital and required several repair and replacement projects during the year ending June 30, 2018. Please see the proposed projects for the year ending June 30, 2019 on pages 46 and 47.

### *Long Term Financial Plans*

The management of VVWRA seriously considers impacts of flow diversion by the City of Victorville and its 30 year notice of withdrawal from the joint venture in 2046 that Victorville announced on April 6, 2016. Under these circumstances, a new financial plan needs to be conducted and related cash flow assumptions should be revised unless other measures are agreed to by the member agencies.

As the agency has not created a new five-year financial plan, this budget does not include a cash flow prediction and analysis over the next five years.

### *Conclusion*

The significant financial issue for the year ending June 30, 2019 is first to find a means to supplement the loss of user fee and connection fee revenues and to resolve the non-payment of fees. Second, the Authority needs to conduct financial planning with new projections based on the current situation to address the lack of growth in the service areas.



Logan Olds, General Manager



**Victor Valley Wastewater Reclamation Authority  
GFOA Distinguished Budget Presentation Award for the Fiscal Year Beginning July 1, 2017  
Fiscal Year 2018-2019**



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished  
Budget Presentation  
Award*

PRESENTED TO

**Victor Valley Wastewater Reclamation Authority  
California**

For the Fiscal Year Beginning

**July 1, 2017**

*Christopher P. Morrill*

Executive Director

## ***Section II: Financial Structure, Policy and Process***

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# *Victor Valley Wastewater Reclamation Authority*

## Governance

VVWRA is governed by a four-member Governing Board represented by  
an elected official of member agencies.

### **Board of Commissioners** As of June 30, 2018



Larry Bird

**Chair**

City of  
Hesperia



Jeffrey Rigney

**Vice Chair**

County of  
San Bernardino



Scott Nassif

**Secretary**

Town of Apple  
Valley



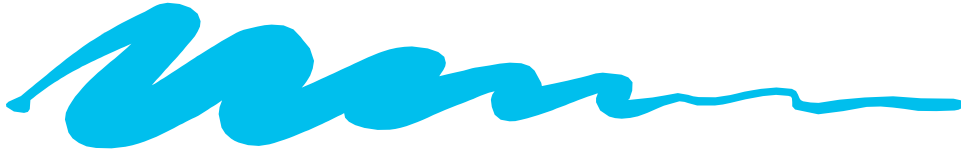
James Kennedy, CPA

**Treasurer**

City of  
Victorville

Prepared by

Logan Olds, General Manager  
*and* Finance Department



**The mission of  
Victor Valley Wastewater Reclamation Authority**

**Is...**

To cost-effectively provide professional, competent wastewater treatment, reclamation, recycling, and reuse,  
To maintain the environment by providing clean effluent to the community,  
To provide a service to our customers, and  
To keep the public informed.

**By...**

Selecting quality employees,  
Effectively communicating at all levels,  
Providing effective training,  
Encouraging participation in water and wastewater organizations,  
Working together as a 'TEAM', and  
Providing the budget for projects and personnel.

**Motivated by...**

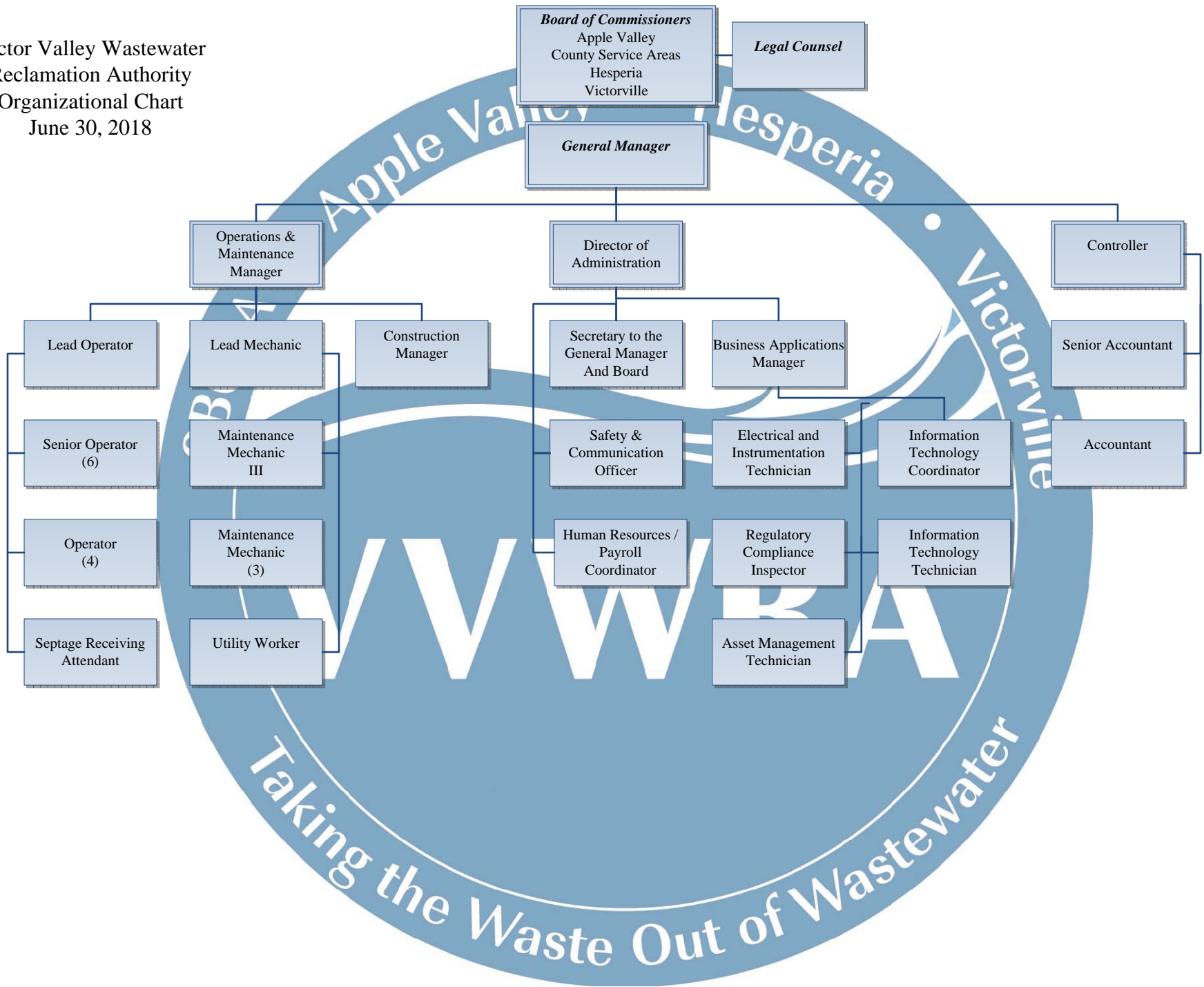
Creating and maintaining a positive work environment,  
Recognizing individual and group efforts, and  
Providing competitive pay and benefits.

**Measured by...**

Meeting budgetary goals,  
Meeting the standards for regulatory compliance,  
The successful completion of projects,  
Employee retention, and  
A cooperative effort during emergencies.



Victor Valley Wastewater  
 Reclamation Authority  
 Organizational Chart  
 June 30, 2018

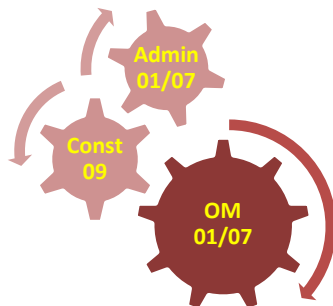


**Victor Valley Wastewater Reclamation Authority**  
**Our Organization**  
**Fiscal Year 2018-2019**

*We are here to serve you.*

The Board of Commissioners consists of four elected officials representing each member agency from the Town of Apple Valley, City of Hesperia, City of Victorville, and County of San Bernardino Two Service Areas.

The main function of Victor Valley Wastewater Reclamation Authority (VWVRA) is to receive wastewater from four member agencies and to process the wastewater then to discharge the cleaned water to the Mojave River. The VWVRA conducts its businesses based on an **Enterprise Accounting System** that is an accrual accounting system, similar to a regular business accounting method, by recording revenues and expenses as incurred instead of recognizing transactions when cash is received or paid. The enterprise accounting system is established based on three funds, (1) Operations and Maintenance Fund, (2) Repairs and Replacement Fund, and (3) Capital Fund. Please see how each department uses these funds as shown at the illustration below. The Repairs and Replacement Fund is to show periodical repairs and replacement costs separately from normal operations and maintenance. Our main revenues are ‘user fees’ generated from processing (cleaning) wastewater that the member agencies send and connection fees charged to connect to the agency’s system. The main distinction between the user fees and connection fees is that the user fees are associated with daily operations, while the connection fees are used for capital projects as new users will hook up to the system that may require further expansion of our infrastructure. In addition to operation expenses, we normally incur large sums of capital expenditures to improve and expand the infrastructure to fulfill member agencies’ needs.



**The main functions for each department** are explained below.

- **Operations (OM – Fund 01 and 07)** adheres to State and Federal rules and regulations with no or minimum overflow incidences. The OM includes the operations, maintenance, and laboratory functions, which are to perform repairs and maintenance of equipment and to enforce regulatory compliance by testing samples utilizing a third party laboratory vendor.
- **Construction (Const – Fund 09)** meets the member agency’s expansion needs within the limited budget with one staff.
- **Administration (Adm – Fund 01 and 07))** encompasses Environmental Compliance, Management Information System, Finance, and Human Resources with 12 staff.
  - Environmental Compliance and Management Information System (EC/MIS) enforces regulatory compliance including safety compliance and maintenance of computer integrity.
  - Finance compiles and publishes Comprehensive Annual Financial Reports and annual budgets. The agency maintains high accounting standards that are evidenced by consecutively winning GFOA awards.

***Goals and objectives of each function***

Here are goals and objectives of each function. See performance information at pages 21 through 27.

*The goal of **Operations** is to protect Victor Valley’s environment and quality of life while creating reusable resources cost-effectively to the residents of the Victor Valley community. The Operations*

**Victor Valley Wastewater Reclamation Authority**  
**Our Organization**  
**Fiscal Year 2018-2019**

department provides effective and efficient advanced wastewater treatment, high-quality treated effluent that complies with 100% of all local, state and Federal requirements. Consistent with VVWRA's goals, the Operations' goal is summed up to improve water quality to protect the environment, wildlife and recreational uses of the waters from the nearby Mojave River and Downstream Mojave River Basin beneficial uses. The Operations department is staffed 24 hours a day 365 days per year by 14 highly trained wastewater treatment plant operators.

*The goal of **Construction** is to manage infrastructure construction projects to ensure that the scope of work is budgeted and completed to the appropriate quality standards in a safe manner to meet the member agencies' expansion and repair needs.*

*The goal of **Maintenance** is to provide a high level of cost effective services to all sections of the agency. This cost effectiveness is accomplished based on preventive maintenance approaches resulting in control of wasteful maintenance and in the planning of all work activities with the skilled eight staff. The maintenance department maintains the 300 plus acre wastewater treatment plant, in addition to two newly constructed reclamation plants with adjacent pump stations, vehicle fleet, portable auxiliary equipment, and 40 miles of sewer pipeline. The maintenance department consists of eight highly skilled craftsmen who are responsible for maintaining the agency's capital assets worth of 199 million dollars, working effectively and efficiently to comply with local, state and Federal requirements.*

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

The MIS department envisions an electronic network capable of distributing voice and data technology to all VVWRA staff. In this vision, VVWRA staff becomes users of the global information network with direct access to information and resources around the world. All of our effort is dedicated to provide 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 of our staff.

*The goal of **Finance** is to record approved revenues and expenses in a proper period based on the enterprise accounting and in compliance with the Commissioners-Approved budget and to create the Comprehensive Annual Financial Reports. In addition, its responsibilities include billing timely, collecting fees, establishing and monitoring internal control systems, preparing annual budgets and various financial reports, and administering general accounting including payroll. The Finance department has skilled professionals with certifications of certified public accountants.*

*The goal of **Administration** is to ensure a fair and equitable employment selection process, as well as to maintain, administer and implement VVWRA's policies and programs.*

**Victor Valley Wastewater Reclamation Authority**  
**Budgeted Positions**  
**Fiscal Year 2018- 2019**

Department	Position	2012 Budget	2013 Budget	2014 Budget	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget
<b>Administration</b>									
Administrative	Director of Administrative Services	0	0	0	0	1	1	1	1
Administrative	General Manager	1	1	1	1	1	1	1	1
Administrative	Administrative Aide	1	1	1	1	1	1	0	0
Administrative	Management Technician to General Manager	0	0	0	0	0	0	0	0
Administrative	Secretary - GM/Board	1	1	1	1	1	1	1	1
Administrative	Administrative Assistant	0	0	0	0	0	0	0	0
Administrative	Public Information Officer	1	1	1	1	1	1	1	1
Finance	Director of Finance	1	1	1	1	0	1	1	0
Finance	Controller	0	0	0	0	0	0	0	1
Finance	Accounting Supervisor	1	1	1	1	1	1	1	0
Finance	Senior Accountant	0	0	0	0	0	0	0	1
Finance	Accountant I	1	1	1	1	1	1	1	1
Finance	Account Technician	1	1	1	1	1	1	1	0
Finance	Purchasing Technician	0	0	0	0	0	0	0	0
Finance	Fiscal Clerk	1	1	0	0	0	0	0	0
Human Resource	Human Resource Technician	1	1	1	1	1	1	1	1
Human Resource	Director of Human Resource	0	0	0	0	0	0	0	0
IT/Env Comp	IT Supervisor	1	1	1	1	1	1	0	0
IT/Env Comp	IS Coordinator	1	1	1	1	1	1	1	1
IT/Env Comp	IT Technician	0	0	0	0	0	1	0	1
IT/Env Comp	IT/Env Comp Supervisor	0	0	0	0	0	1	0	0
IT/Env Comp	Lead Environmental Compliance Inspector	0	1	1	1	1	0	0	0
IT/Env Comp	Environmental Compliance Safety Admin Aide	1	1	1	1	1	1	1	0
IT/Env Comp	Environmental Compliance Inspector-in-Training	1	1	1	1	1	1	0	0
IT/Env Comp	Environmental Compliance Inspector	0	0	0	0	0	1	1	1
IT/Env Comp	Environmental Compliance Supervisor	0	0	0	0	0	0	0	0
IT/Env Comp	EC/IT Supervisor	0	0	0	0	0	0	1	0
IT/Env Comp	Business Applications Manager	0	0	0	0	0	0	0	1
Safety	Environmental Health Safety/Risk Coordinator	0	0	0	0	0	0	0	0
		14	15	14	14	14	15	13	12
<b>Operations</b>									
Operations	Director of Operations	1	1	1	1	1	1	1	0
Operations	Operations/Maintenance Manager	0	0	0	0	0	0	0	1
Operations	Operations & Maintenance Supervisor	1	1	1	1	1	1	1	0
Operations	Lead Operator	1	1	1	1	1	1	1	1
Operations	Operator I	3	2	2	2	0	0	0	0
Operations	Operator II	0	0	0	0	0	0	0	0
Operations	Operator III	3	5	5	5	6	6	0	0
Operations	Operator IV	2	0	0	0	0	0	0	0
Operations	Operator V	0	1	1	1	0	0	0	0
Operations	Operator-in-Training	2	2	2	2	2	2	1	0
Operations	Operator	0	0	0	0	4	4	4	4
Operations	Senior Operator	0	0	0	0	0	0	5	6
Operations	Septage Receiving Attendant	0	0	0	0	1	1	1	1
Operations	O&M Clerk	0	0	1	1	1	1	0	0
Operations	Asset Management Technician	0	0	0	0	0	0	0	1
Lab/Env Comp	Lab & Environmental Compliance Supervisor	1	1	1	1	1	1	0	0
Lab/Env Comp	Lab Tech I	0	1	2	2	1	2	0	0
Lab/Env Comp	Lab Tech II	1	1	0	0	1	0	0	0
Lab/Env Comp	Lab Tech	0	0	0	0	0	0	0	0
		15	16	17	17	20	20	14	14
<b>Maintenance</b>									
Maintenance	Maintenance Supervisor	1	1	1	1	1	1	0	0
Maintenance	Electrical / Instrumentation Tech	3	3	2	2	2	1	0	0
Maintenance	Electrical / Instrumentation Tech II	0	0	0	0	0	1	0	0
Maintenance	Electrical / Instrumentation Tech II	0	0	0	0	0	0	0	1
Maintenance	Electrical / Instrumentation Tech IV	0	0	1	1	1	1	1	0
Maintenance	Maintenance Planner	1	1	1	1	1	1	0	0
Maintenance	Mechanical Tech I	1	1	1	1	1	1	0	1
Maintenance	Mechanical Tech III	0	2	2	2	2	2	0	1
Maintenance	Plant Maintenance Tech IV	3	0	0	0	0	0	0	0
Maintenance	Lead Mechanic	0	0	0	0	0	0	1	1
Maintenance	Maintenance Mechanic	0	0	0	0	0	0	1	0
Maintenance	Maintenance Mechanic in Training	1	1	1	1	3	3	3	3
Maintenance	Utility Worker I	0	0	0	0	0	0	0	0
Maintenance	Utility Worker II	1	1	1	1	1	1	1	1
		11	10	10	10	12	12	7	8
<b>Construction</b>									
Construction	Project Construction Manager	0	0	0	0	0	0	1	1
Construction	Construction & Energy Efficiency Manager	1	1	1	1	1	1	0	0
Construction	Construction Inspector	0	0	0	0	0	0	0	0
		1	1	1	1	1	1	1	1
<b>Total Department</b>		41	42	42	42	47	48	35	35

**Notes:** The FY 2016 and FY 2017 budget includes additional two positions each for two sub-regional plants and one for a septage

Operators	2	2
Maintenance in Training	2	2
Septage Receiving Attendant	1	1
	<u>5</u>	<u>5</u>

**Victor Valley Wastewater Reclamation Authority**  
**Policies**  
**Fiscal Year 2018-2019**

***Reserve Policy***

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

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

*The Operations and Maintenance Reserve is \$1.44 million and the Repairs and Replacement Reserve is \$2.06 million as of June 30, 2019. The SRF loan reserve for the year ending June 30, 2019 is \$5.29 million.*

***Procurement Policy***

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

Supervisors are each authorized to approve expenses up to a limit of \$5,000 on any one order or contract. The Construction Manager and the Department Directors are authorized to approve expenses up to a limit of \$10,000 on any one order or contract. The General Manager is authorized to approve expenses up to a limit of \$30,000 on any one order or contract. The VVWRA Board of Commissioners approves all expenses in excess of \$30,000, except for certain recurring expenses such as utilities, process chemicals, permit fees, and other expenses as defined in the policy, and must approve all construction contract change orders. Generally, the selection of purchases of materials, supplies, equipment, and contractual services having an estimated value of more than \$2,000 should be considered based on a minimum of three quotes. Purchases of goods and services having an estimated value of more than \$30,000 should be made through a competitive sealed bid process defined in the policy.

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

***Investment Policy***

The Investment Policy provides guidelines for the prudent investment of VVWRA's temporary idle cash with the primary objectives of safety, liquidity and yield under provisions of the California Government Code Section 53600.3. Authorized investments include California State Treasurer's Local Agency Investment Fund (LAIF); Investment Trust of California; San Bernardino County

**Victor Valley Wastewater Reclamation Authority**  
**Policies**  
**Fiscal Year 2018-2019**

***Investment Policy (Continued)***

Local Agency Investment Fund; United States Treasury Bills, Notes and Bonds; insured Certificate of Deposits; and Money Market Mutual Funds.

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

***Other Policies***

***Debt Coverage:***

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

1. The financing agreement shall pledge the net revenue of the recipient for repayment of the proposed SRF financing agreement. This pledged revenue source shall be subject to lien and pledge as security for the obligation.
2. The recipient shall establish a restricted reserve fund, held in the recipient's fund, equal to one year's debt service prior to the construction completion date of the project. The reserve fund shall be maintained for the full term of the finance agreement and shall be subject to lien and pledge as security for the obligation.
3. The recipient shall establish rates and charges sufficient to generate net revenues of at least 1.10 times the total annual debt service.

*The annual debt principal payment amounts for the year ending June 30, 2019 is \$4.10 million. As more SRF loans were added during FY 2015 for Upper Narrows Replacement, Nanticoke, and two Sub-regional projects; the annual due amount including interest payment will be more than \$5.00 million during peak years. See pages 49 through 51 for the detail payment information. As a special district, VVWRA is not subject to legal debt limits.*

***Revenues – Rate Ordinance:***

VVWRA specifies fees in Fee Ordinance to meet operation needs and most of reserve requirements. The fees, such as connection fees, user charges, high strength surcharges, and septage receiving fees are posted at [http://www.vvwra.com/depts/finance/fee\\_schedule.htm](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 several discussions with the member agencies to reflect ideas recommended by a five-year financial plan. Due to recent drastic decline in housing market in the high desert where we serve, 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, engineer consulting, and audit fees as administration costs that are a part of the operation expenses. The personnel costs are also allocated among departments based on the hours the employees spend. See page 36 for the personnel allocation.



**Victor Valley Wastewater Reclamation Authority**  
**Budget Preparation and Review Process**  
**Fiscal Year 2018-2019**

***Basis of Budgeting***

Victor Valley Wastewater Reclamation Authority (VWVRA) employs a fiscal year beginning July 1. VWVRA 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 2017 actual to FY 2017 Comprehensive Annual Financial Report at page 29.

***Balanced Budget***

A balanced budget is when VWVRA's operating revenues are equal to or exceed its operating expenses. The FY 2019 budget shows the balanced budget with a surplus for its operations and capital funds.

***Budget Process***

VWVRA managerial staff inputs budgetary estimates for the following year with their departmental goals<sup>①</sup> in mind at the beginning of the budgetary process. Based on these input, 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 in to the proposed budget. Then the Financial Committee finalizes the recommendations and the Committee presents the budget to the public hearing and Board for approval.

VWVRA 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 VWVRA's website.

① Please see pages 12 and 13 for the departmental goals.



*the Mojave River*

**Victor Valley Wastewater Reclamation Authority  
Budget Preparation and Review Process  
Fiscal Year 2018-2019**

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

*Budget Calendar*

<b>VVWRA Budget Planning FYE 06/30/2019</b>	<b>Required By Date</b>
<b>Budget Kickoff Meeting</b>	02/05/18
<b>Update actual numbers and prepare for new budget cycle.</b>	02/05/18
<b>Present the budget draft at Managers' meeting.</b>	03/08/18
<b>Present the first draft budget to General Manager (GM) for review.</b>	03/15/18
<b>Hold a preliminary staff budget review meeting with Supervisors and GM.</b>	03/29/18
<b>Provide the draft changes to Controller.</b>	04/05/18
<b>Present the budget executive summary to Internal Finance Committee.</b>	04/12/18
<b>Finalize the draft budget.</b>	04/19/18
<b>Present the budget recommendations to Internal and External Finance Committee.</b>	04/26/18
<b>Present the second recommendations to Internal and External Finance Committee.</b>	05/03/18
<b>Place a public notice on local newspaper to invite public participation.</b>	05/23/18
<b>Circulate the budget document to the Board.</b>	05/10/18
<b>Board Meeting - Present the budget.</b>	05/17/18
<b>Board budget hearing and adoption</b>	06/21/18
<b>The second Board budget hearing and adoption, if needed.</b>	-
<b>Apply for GFOA Award for Excellence in Budget Reporting.</b>	06/28/18

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.



## *Section III: Goals and Performance*

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**Victor Valley Wastewater Reclamation Authority**  
**Goals, Objectives and Strategies**  
**Fiscal Year 2018-2019**

*Strategic Goals and Strategies to Benefit the Communities*

*The goal of Victor Valley Wastewater Reclamation Authority (VWVRA) is to provide sustainable and cost effective solutions to benefit the communities we serve. The VWVRA 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 provide energy to a local cement manufacture, reducing greenhouse gas emissions.*

*Long-Term Strategies to Pay Back SRF Loans for the Sub-Regional Projects*

As the construction of Sub-regional plants was completed during the FY 2018, VWVRA's SRF loans for these projects will become due in February 2019 (one year after the completion of the construction of the project). The Board has discussed a long-term strategy to pay back these loans timely; the consensus indicates that proper rate adjustments of user fees and connection fees for the lost income from the City of Victorville are necessary. As these loan payments affect both funds, Operations (Fund 01) and Construction (Fund 09),<sup>1</sup> the rate consideration involves both user fees (for the Fund 01) and connection fees (for the Fund 09). Without such a remedy, VWVRA may not be able to operate the Sub-regional plants or risk not meeting debt service obligations.

*Strategic Measures to Attain the Objectives*

The VWVRA strives to accomplish objectives by pursuing four fundamental rules; these rules guide staff to evaluate the needs of the member agencies.

***Rule #1: Treat the wastewater to the best means possible given the resources available.***

VWVRA strives to optimize the wastewater treatment process, while utilizing the resources on hand in an efficient manner.

***Rule #2: Obtain the resources to do #1.***

VWVRA endeavors to establish reasonable rates, repair and maintain pipelines, and construct facilities to support Rule #1.

***Rule #3: Manage liability.***

It is every employee's responsibility to act professionally and be mindful of safety protocols to avoid potential liabilities.

***Rule #4: Do not confuse governing authority with managerial authority.***

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<sup>1</sup> Please see page 12 for the descriptions of the funds.

**Victor Valley Wastewater Reclamation Authority**  
**Goals, Objectives and Strategies**  
**Fiscal Year 2018-2019**

The VVWRA Board determines the actions the agency takes. The General Manager implements those actions.

As the staff evaluates each issue by these rules, the staff can prioritize the tasks and focus his or her energy on projects to meet the goals and objectives of VVWRA.

***Marketing Strategies***

The VVWRA's strategic plan incorporates integrated financial planning, successful marketing of the programs it pursues, and partnerships with a private industry.

The two driving forces behind this agency's strategic plan are community growth and regulatory requirements that determine the amount of resources required to address issues. Additionally, the industry as a whole is changing with more focus on regional watershed-based decision making.

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 Westside Plant Phase III-A, Omnivore projects, and an energy storage project allow VVWRA to improve and to expand the infrastructure at its current regional treatment facility to meet new regulatory requirements as well as to expand the plant's treatment capacity.

To expand the operations outside of this Victorville facility, the VVWRA has furthered its quest for sustainability by constructing additional sewer lines and Sub-regional water reclamation plants in the Town of Apple Valley and the City of Hesperia. In addition, a Nanticoke gravity sewer line, approximately 16,250 feet long of 30" PVC pipe, has eliminated the Nanticoke Pump Station, directly connecting to the existing Town of Apple Valley Otoe Pump Station. These Sub-regional plants would allow VVWRA to have sufficient wastewater flow to provide reclaimed water locally and reduce sewage in our over-capacity interceptors. These plants represent the first step in preparing for the people, business, and industry that would sustain regional growth; reducing the overall load on the collection system; and providing recycled water, the valuable and increasingly important 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 of the subsequent energy costs of pumping the recycled water back to the recycled water users.

Water is no longer viewed in simplistic terms of water and wastewater. There are now designer waters produced from recycled wastewater. The production of potable water can now include biological filtration. The public is more broadly aware of the direct injection of recycled water in to groundwater. The VVWRA's strategic planning incorporates the elements of sustainability, innovation, and successful marketing.

This concept is best exemplified in the publication building of a *wastewater utility brand*, which discusses how to transition from a traditional monopolistic public utility into an agency of creativity and foresight. Also given the fiscal constraints, it is important to consider opportunities to engage private partnerships and to diversify the revenue sources for the agency.

**Victor Valley Wastewater Reclamation Authority**  
**Operations Performance Measure**  
**Fiscal Year 2018-2019**

***Operations Performance:***

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

	2013	2014	2015	2016	2017
<b>Removal Efficiency</b>					
Biochemical Oxygen Demand	98.90%	98.90%	98.50%	99.00%	99.07%
Total Suspended Solids	99.40%	99.20%	99.40%	99.50%	99.45%
Ammonia Nitrogen	99.12%	98.60%	98.50%	99.20%	99.54%
<b>Number of Active Basins</b>					
Primary Treatment – Active Sedimentation Basins	6.00	6.00	6.00	6.00	6.00
Secondary Treatment – Active Aeration Basins	12.00	12.00	12.00	12.00	12.00
<b>Wastewater Processed</b>					
Percolation Ponds (MG)	2,341.36	2,303.45	1,613.97	1,889.44	1401.40
Tertiary Treatment (MG)	2,208.64	4,414.67	3,921.47	4,820.55	3,879.10
Average Influent (MGD)	12.41	12.01	10.72	10.49	10.63
Total Effluent (MG)	4,550.00	4,416.67	3,921.47	4,820.55	3,879.10
<b>Miscellaneous Operations</b>					
Septage Waste Received (MG)	2.83	5.35	6.54	6.82	7.07
Recycled Water Sold (MG)	29.52	284.20	214.66	160.78	54.8

***Notes:***

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

***Active Basins:*** VVWRA utilizes sedimentation basins for primary treatment and aeration basins for secondary treatment. From calendar year 2013 to 2017, the number of sedimentation basins has remained at six (out of existing eight basins) and the number of aeration basins has remained at twelve due to the sustained wastewater flow from the member agencies.

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

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

**Victor Valley Wastewater Reclamation Authority  
Operations Performance Measure  
Fiscal Year 2018-2019**

***Operations Department:***

The Operations Department continued to enhance injection of external feed stocks to anaerobic digesters. The 7,678,775 gallons of anaerobically digestible materials, such as food waste, fats, oil and grease were injected to the digesters, increasing the biogas productions by 262% to generate electrical energy. It also eliminated natural gas import for power production resulting in \$109,398 annual savings and annual revenue of \$307,151 from tipping fees.

Under private and public partnership with Anaergia, the department continues to operate two 2G biogas-powered heat and power generators (CHP) to provide a total of 6,033,249 kWh Renewable Energy during the reporting year, utilizing biogas from anaerobic digester, and making the facility 90% to 100% energy and carbon neutral (self-sustained). The facility CHP system produced electricity to power 585.5 homes for one-year based on US Energy Information Administration Statistics. In addition, 5.4 million British thermal unit (BTU) per hour heat, available from the exhaust was transferred to water that flows through the system heat exchangers to heat the anaerobic digesters eliminating the need for installation, operation and maintenance of external sources such as boilers.

***Construction Department:***

The following are the currently known construction projects for the coming year. Depending on cash flow and urgency needs some of the schedules may be modified.

<b>Project Name</b>	<b>Project Status</b>
<b>1</b> Subregionals Projects, Apple Valley & Hesperia	Construction began February 2015. Notice of Completion was issued April 6, 2018. Staff is currently placing the facilities in operation
<b>2</b> Laboratory Building Replacement Project	Project Canceled
<b>3</b> Drying Beds Repair and Drainage	VVWRA Staff completing project. Beds 1, 2, and 3 are complete. Bed 4 will be completed this summer.
<b>4</b> Nanticoke Pump Station Bypass Sewer	Project Completed.
<b>5</b> Desert Knolls Wash, Apple Valley Interceptor Realignment	--\$1,000,000, Currently in design. Construction scheduled for November 2018 through May 2019
<b>6</b> Apple Valley Odor Control	Study will follow the operation of the Apple Valley WRP and the Desert Knolls Wash Realignment.
<b>7</b> North Hesperia Relief Interceptor	On hold until evaluation of impact from completed SubRegionals project
<b>8</b> Spring Valley Lake Relief Interceptor	On hold until evaluation of impact from completed SubRegionals project
<b>9</b> Ossum Wash Interceptor	\$650,000, on hold awaiting funding
<b>10</b> Oro Grande Crossing of Mojave River	\$5,700,000, awaiting environmental approvals and funding

**Victor Valley Wastewater Reclamation Authority  
Operations Performance Measure  
Fiscal Year 2018-2019**

<b>11</b>	Shay Plant Storm Water Retention	\$150,000, Currently in design. Anticipate construction complete December 2018
<b>12</b>	Digesters 1 - 3 Rehabilitation	\$150,000, VVWRA staff working on having operational September 2018
<b>13</b>	Digesters 4 & 5 Structural Evaluation	\$200,000, Anticipate evaluation complete by November 2018
<b>14</b>	Digesters 4 & 5 Structural Repairs	Cost will depend on what is found in evaluation. Complete March 2019
<b>15</b>	O & M Building expansion	Anticipate consultant selection and design complete September 2018



*Apple Valley Sub-regional*



*Hesperia Sub-regional*

***Regulatory Compliance and Information Systems Department:***

**Electrical and Instrumentation projects completed:**

1. Otoe Pump Station new automation controls including, new PLC, New VFDs and a New pump
2. Installation of the wet well mixing solution at the Otoe Pump Station
3. Backwash Pump Station new automation controls
4. 5 Flowmeters totalizer installation and integration into SCADA
5. Completed overhaul of the standby generators at the regional plant
6. Installation of a backup system (Temporary Tap) that allows the regional plant to run on rented generator.

**Victor Valley Wastewater Reclamation Authority**  
**Operations Performance Measure**  
**Fiscal Year 2018-2019**

**Information System Projects completed:**

**eLogger:**

In FY 2018, we achieved a significant progress in the implementation of an electronic logbook solution “eLogger”. This program has helped us see the following benefits: eLogger went Live June 14<sup>th</sup> 2017. eLogger is used across these locations: Apple Valley Sub Regional, Hesperia Sub Regional, All interceptors & collection systems structures, Industrial Dischargers, Pump Stations, Regional Plant and FOG/Septic Haulers.

- 63 different logs are now tracked
- 15284 logs as of 6/6/18
- 33 Active users capture and use important information daily to make operational and regulatory decisions
- 132 different templates were created to make logs relevant and easy to use.
- 59 saved searches and reports

**eLogger Highlights**

1. Binders and spreadsheets in the control room are disappearing one at a time
2. Green logbooks are a thing of the past
3. eLogger is now being used daily by Operations, Maintenance, E&I, MIS and Pretreatment staff across all locations
4. Information is better organized and can be found faster, we are better informed and more knowledgeable
5. New employees learning curve has also improved
6. AQMD and Storm water regulatory compliance reports are better, faster and more accurate.
7. After a 5 months testing period On January 1<sup>st</sup>, 2018, all LOTO (Lock out /Tag out) Logs will become electronic
8. Operational meetings are more focused
9. During this process we come to recognize that capturing and preserving VVWRA’s staff knowledge about plant processes, systems, procedures and more -- is critical to our long-term operational success.

**Regional Plant SCADA communication improvement project:**

A new SCADA software solutions by Ignition Software by [Inductive Automation](#) implementation started in FY 2018 and will be completed FY 2019 .The new SCADA software offers the following features:

- **Web-Based Deployment:** Cross-platform software that will let us quickly launch our SCADA system to any computer or device equipped with a web browser.
- **Rapid Development:** Powerful and intuitive rapid development tools will allow us to spend less time developing and more time innovating.
- **Unlimited Licensing:** Everything we will need for one affordable price. We will use our existing server hardware and use unlimited number of clients, connections, tags and possibilities.
- **Security and Stability:** we will create a secure, reliable control system using modern security protocols and a unified architecture with built-in redundancy.
- **Easy Expandability:** A flexible modular architecture built upon modern IT standards designed to perfectly fit VVWRA’s needs.



**Victor Valley Wastewater Reclamation Authority  
Operations Performance Measure  
Fiscal Year 2018-2019**

***Laboratory Department:***

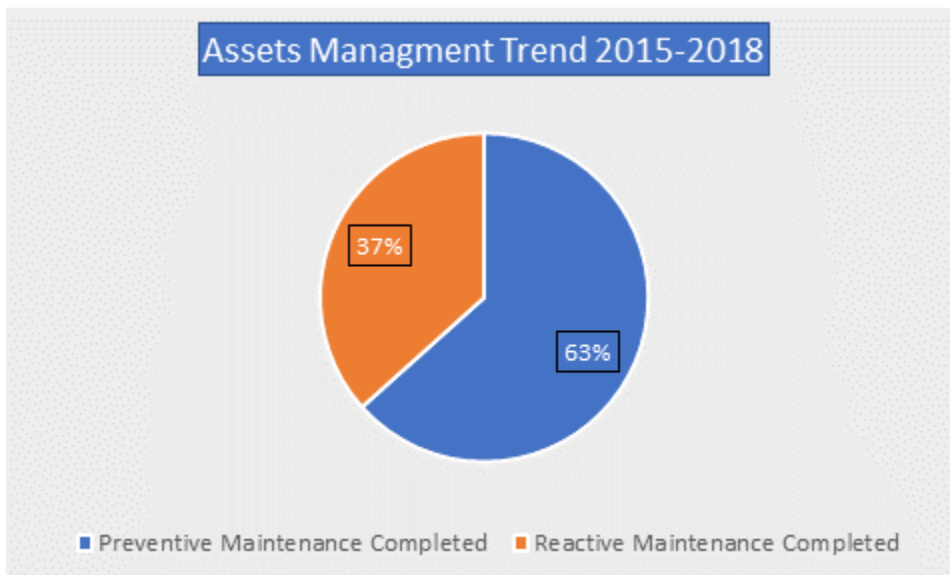
- Maintained accurate laboratory sampling and testing.
- In preparing for the Sub-regional plants becoming operational in the near future, sampling and testing of groundwater monitoring wells were initiated for four consecutive months starting in February 2015. Groundwater quality data generated from this baseline study will help determine future testing requirements.

The Laboratory/Environmental Compliance groups continued in their efforts to streamline the evaluation process of compliance of industrial permits by adapting existing software reporting features to include analytical data and specific permit requirements.

***Maintenance Department:***

**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.



**Victor Valley Wastewater Reclamation Authority  
Operations Performance Measure  
Fiscal Year 2018-2019**

<b>1. Septage Receiving station consumables</b>	<b>\$35,134.12 - complete</b>
<b>2. 2G CHP #1, service and replacements Parts</b>	<b>\$149,717.02 - complete</b>
<b>3. Waukesha #5 VGF Crankshaft replacement</b>	<b>\$39,650.75 - complete</b>
<b>4. 5000 gallon ferric tank</b>	<b>\$39,271.81 - complete</b>
<b>5. AVPS Pump #2 installation</b>	<b>\$20,150.00 - complete</b>
<b>6. AVPS pump replacement parts</b>	<b>\$11,066.47 - complete</b>
<b>7. DAFT #3 thicken primary sludge pump</b>	<b>\$19,123.00-complete</b>
<b>8. Quarterly Calibrations 3<sup>rd</sup> Party</b>	<b>\$15,000.00 - complete</b>
<b>9. UV Wiper Replacements</b>	<b>\$28,280.00 - complete</b>
<b>10. Tire Replacements, smog's &amp; Repairs Fleet</b>	<b>\$27,740.00 - complete</b>
<b>11. A/C Repairs and Service</b>	<b>\$44,093.72 - complete</b>
<b>12. Gas Scrubber Media Change-out</b>	<b>\$91,000.00- complete</b>
<b>13. Plumbing valves, piping, fittings</b>	<b>\$18,392.23 - complete</b>
<b>14. Waukesha Engine Repairs/Maintenance</b>	<b>\$47,76.23 - complete</b>
<b>15. Vactor truck repairs.</b>	<b>\$13,539.77.48 - complete</b>
<b>16. Off highway equipment</b>	<b>\$71,874.46 - complete</b>
<b>17. Digester varec, grinders, blowers</b>	<b>\$17,225.09 - complete</b>
<b>18. Grounds maintenance</b>	<b>\$7,547.45 - complete</b>
<b>19. Primary Grit removal Parts</b>	<b>\$18,086.10 - complete</b>

**Victor Valley Wastewater Reclamation Authority**  
**Operations Performance Measure**  
**Fiscal Year 2018-2019**

*Finance Department:*

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 2017 and
2. Comprehensive Annual Financial Reports: Certificate of Achievement for Excellence in Financial Reporting for the years ended June 30, 2010 through 2017.

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

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## ***Section IV: Financial Information and Trend Analyses***

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**Victor Valley Wastewater Reclamation Authority**  
**Consolidated Budget Statement of All Funds**  
**Fiscal Year 2018-2019**

Our goals, objectives and strategies are transformed into numbers for the budgets with a projection for the rest of FY 2018. The consolidated budget on this page shows all functions of the entire organization. The next page 29 demonstrates a reconciliation of FY 2017 actual to CAFR for the year ended June 30, 2017. The budget on page 30 is for the Operations and Maintenance Fund, the budget on page 32 is for the Repairs and Replacements Fund, and the page 34 shows the budget for the Capital Fund.

	2017 Actual \$3,274/MG	2017 Budget \$3,274/MG	2018 Actual as of 4/30/2018	2018 Projected to the Year End	2018 Budget \$3,503/MG	2019 Budget \$3,503/MG
<b>Operations &amp; Maintenance Fund Revenues</b>						
User Charges	\$ 12,549,674	\$ 12,768,600	\$ 9,302,637	\$ 11,163,165	\$ 13,661,700	\$ 13,661,700
Allocate Resource to Repairs and Replacements Fund	-	-	(247,500)	(247,500)	(247,500)	(2,749,326)
VVIWWTP Sludge	140,569	110,000	92,545	111,054	137,074	120,000
High Strength Waste Surcharges	29,585	20,000	15,561	18,673	25,000	20,000
ADM FOG Tipping Fee Revenue	234,160	-	257,549	309,059	205,000	200,000
Septage Receiving Facility Charges	649,362	500,000	511,586	613,903	609,000	550,000
Reclaimed Water Sales	30,870	60,000	13,999	16,799	44,000	25,000
Interest	128	-	815	978	-	-
Pretreatment Fees	52,282	45,000	46,700	56,040	51,200	50,000
Miscellaneous	25,676	1,100	9,250	11,100	1,250	1,200
Grant - Proposition 1	-	-	480,048	576,058	458,297	-
Grant - Water Recycling	-	-	260,092	312,110	246,466	-
	<u>\$ 13,712,306</u>	<u>\$ 13,504,700</u>	<u>\$ 10,743,282</u>	<u>\$ 12,941,439</u>	<u>\$ 15,191,487</u>	<u>\$ 11,878,574</u>
<b>Other Operating Financing Sources</b>						
SRF Loan Funding	\$ -	\$ -	\$ 2,178,283	\$ 3,037,733	\$ 1,684,303	\$ -
	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 2,178,283</u>	<u>\$ 3,037,733</u>	<u>\$ 1,684,303</u>	<u>\$ -</u>
<b>Repairs and Replacements Fund Financing Sources</b>						
Transferred from Operations & Maintenance Fund	\$ -	\$ -	\$ 247,500	\$ 247,500	\$ 247,500	\$ 2,749,326
	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 247,500</u>	<u>\$ 247,500</u>	<u>\$ 247,500</u>	<u>\$ 2,749,326</u>
<b>Capital Fund Revenues</b>						
Connection Fees	\$ 2,951,667	\$ 700,000	\$ 1,254,472	\$ 1,435,246	\$ 878,900	\$ 2,000,000
Interest	37,759	10,000	64,928	77,914	38,000	35,000
Grant - FEMA/Cal-OES	978,765	4,503,400	-	-	3,105,375	3,105,375
Grant - Water Recycling	1,808,434	1,267,000	166,288	199,546	157,577	-
Grant - Proposition 1	3,844,476	3,500,000	306,916	368,299	293,010	-
Grant - Proposition 84	-	-	-	-	-	-
Grant - Title 16	-	-	-	-	-	-
Grant - CEC Microgrid	135,881	-	318,727	382,472	-	-
	<u>\$ 9,756,982</u>	<u>\$ 9,980,400</u>	<u>\$ 2,111,331</u>	<u>\$ 2,463,477</u>	<u>\$ 4,472,862</u>	<u>\$ 5,140,375</u>
<b>Other Capital Financing Sources</b>						
SRF Loan Funding	\$ 34,683,136	\$ 44,750,140	\$ 1,392,672	\$ 1,794,885	\$ 593,349	\$ -
	<u>\$ 34,683,136</u>	<u>\$ 44,750,140</u>	<u>\$ 1,392,672</u>	<u>\$ 1,794,885</u>	<u>\$ 593,349</u>	<u>\$ -</u>
<b>Total Revenues and Other Financing Sources</b>	<b>\$ 58,152,424</b>	<b>\$ 68,235,240</b>	<b>\$ 16,673,068</b>	<b>\$ 20,485,034</b>	<b>\$ 22,189,501</b>	<b>\$ 19,768,275</b>
<b>Operations and Maintenance Fund Expenses</b>						
Personnel and Benefits	\$ 4,080,926	\$ 4,967,711	\$ 3,055,944	\$ 3,667,134	\$ 4,086,603	\$ 4,080,784
Maintenance	1,349,023	1,833,784	1,540,592	1,848,710	2,919,360	2,194,767
Operations	2,432,028	3,190,930	2,203,408	2,644,090	3,066,985	3,151,072
Administration	2,816,124	2,057,832	1,465,996	1,759,194	2,270,884	2,183,749
Construction	119,582	-	4,336,283	4,391,921	2,389,065	-
	<u>\$ 10,797,683</u>	<u>\$ 12,050,257</u>	<u>\$ 12,602,223</u>	<u>\$ 14,311,049</u>	<u>\$ 14,732,897</u>	<u>\$ 11,610,372</u>
<b>Emergency Expenses</b>						
Maintenance	\$ -	\$ 67,000	\$ -	\$ -	\$ -	\$ -
Operations	-	83,000	-	-	-	-
FEMA Expenses	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -
Expected FEMA/Cal-OES Grants	-	(915,474)	-	-	(747,034)	(747,034)
	<u>\$ -</u>	<u>\$ (765,474)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (747,034)</u>	<u>\$ (747,034)</u>
<b>Repairs and Replacements Fund Expenses</b>						
Personnel and Benefits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Maintenance	656,509	808,200	49,966	59,959	242,500	1,204,326
Operations	-	20,700	101,540	121,848	-	25,000
Administration	-	-	-	-	5,000	150,000
Construction	33,660	-	7,950	9,540	-	1,370,000
	<u>\$ 690,169</u>	<u>\$ 828,900</u>	<u>\$ 159,456</u>	<u>\$ 191,347</u>	<u>\$ 247,500</u>	<u>\$ 2,749,326</u>
<b>Capital Fund Expenses</b>						
Personnel and Benefits	\$ 354,863	\$ 400,477	\$ 302,236	\$ 362,683	\$ 416,716	\$ 378,554
Maintenance	3,541	-	-	-	40,000	-
Operations	12,068	171	-	-	170	170
Administration	29,205	-	(2,054)	(2,465)	140,000	-
Construction	59,311	48,111,352	2,311,540	2,347,111	2,482,435	430,000
	<u>\$ 458,988</u>	<u>\$ 48,512,000</u>	<u>\$ 2,611,722</u>	<u>\$ 2,707,329</u>	<u>\$ 3,079,321</u>	<u>\$ 808,724</u>
<b>Debt Services</b>						
SRF Principal	\$ 2,555,733	\$ 1,825,710	\$ 1,185,125	\$ 2,056,359	\$ 2,056,359	\$ 4,097,480
SRF Interest	528,814	564,205	175,691	570,419	570,419	1,200,061
	<u>\$ 3,084,547</u>	<u>\$ 2,389,915</u>	<u>\$ 1,360,816</u>	<u>\$ 2,626,778</u>	<u>\$ 2,626,778</u>	<u>\$ 5,297,541</u>
<b>Total Expenses and Debt Services</b>	<b>\$ 15,031,387</b>	<b>\$ 63,015,598</b>	<b>\$ 16,734,217</b>	<b>\$ 19,836,503</b>	<b>\$ 19,939,462</b>	<b>\$ 19,718,929</b>
<b>Total Agency Net Surplus or (Deficit)</b>	<b>\$ 43,121,037</b>	<b>\$ 5,219,642</b>	<b>\$ (61,149)</b>	<b>\$ 648,531</b>	<b>\$ 2,250,039</b>	<b>\$ 49,346</b>

Note: Please see Allocations of Personnel Expenses at page 36 and Projected Cash Allocation Per Fund at page 47.

**Victor Valley Wastewater Reclamation Authority**  
**Reconciliation from Actual to CAFR for the Year Ended June 30, 2017**  
**Fiscal Year 2018-2019**

	2017 Actual on Page 28	Reconciliation to CAFR	2017 Per CAFR
<b>Operating Revenues</b>			
User Charges	\$ 12,549,674	\$ -	\$ 12,549,674
Adelanto User Charges	140,569	-	140,569
High Strength Waste Surcharges	29,585	-	29,585
Septage Receiving Facility Charges	649,362	-	649,362
ADM FOG Tipping Fee Revenue	234,160	-	234,160
Reclaimed Water Sales	30,870	-	30,870
Pretreatment Fees	52,282	-	52,282
Miscellaneous	25,676	-	25,676
	<u>\$ 13,712,178</u>	<u>\$ -</u>	<u>\$ 13,712,178</u>
<b>Capital Revenues</b>			
Connection Fees	\$ 2,951,667	\$ -	\$ 2,951,667
Interest	37,887	-	37,887
Grant - FEMA/Cal-OES	978,765	-	978,765
Grant - Water Recycling	1,808,434	-	1,808,434
Grant - Proposition 1	3,844,476	-	3,844,476
Grant - Proposition 84	-	-	-
Grant - CEC Microgrid	135,881	-	135,881
	<u>\$ 9,757,110</u>	<u>\$ -</u>	<u>\$ 9,757,110</u>
<b>Other Financing Sources</b>			
SRF Loan Funding	\$ 34,683,136	\$ (34,683,136)	\$ -
	<u>\$ 34,683,136</u>	<u>\$ (34,683,136)</u>	<u>\$ -</u>
<b>Total Revenues and Other Financing Sources</b>	<b><u>\$ 58,152,424</u></b>	<b><u>\$ (34,683,136)</u></b>	<b><u>\$ 23,469,288</u></b>
<b>Operating Expenses</b>			
Personnel and Benefits	\$ 4,080,926	\$ -	\$ 4,080,926
Maintenance	1,349,023	-	1,349,023
Operations	2,432,028	-	2,432,028
Administration	2,816,124	-	2,816,124
Construction	119,582	-	119,582
	<u>\$ 10,797,683</u>	<u>\$ -</u>	<u>\$ 10,797,683</u>
<b>Emergency Expenses</b>			
Maintenance	\$ -	\$ -	\$ -
Operations	-	-	-
FEMA Expenses	\$ -	\$ -	\$ -
Expected FEMA/Cal-OES Grants	-	-	-
	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
<b>Depreciation Expense</b>	<u>\$ -</u>	<u>\$ 7,900,370</u>	<u>\$ 7,900,370</u>
<b>Repair and Replacement Expense</b>			
Personnel and Benefits	\$ -	\$ -	\$ -
Maintenance	656,509	-	656,509
Operations	-	-	-
Administration	-	-	-
Construction	33,660	-	33,660
	<u>\$ 690,169</u>	<u>\$ -</u>	<u>\$ 690,169</u>
<b>Capital Expenses</b>			
Personnel and Benefits	\$ 354,863	\$ -	\$ 354,863
Maintenance	3,541	-	3,541
Operations	12,068	-	12,068
Administration	29,205	-	29,205
Construction	59,311	-	59,311
	<u>\$ 458,988</u>	<u>\$ -</u>	<u>\$ 458,988</u>
<b>Debt Services</b>			
SRF Principal	\$ 2,555,733	\$ (2,555,733)	\$ -
SRF Interest	528,814	-	528,814
	<u>\$ 3,084,547</u>	<u>\$ (2,555,733)</u>	<u>\$ 528,814</u>
<b>Total Expenses with Debt Services</b>	<b><u>\$ 15,031,387</u></b>	<b><u>\$ 5,344,637</u></b>	<b><u>\$ 20,376,024</u></b>
<b>Total Net Surplus or (Deficit)</b>	<b><u>\$ 43,121,037</u></b>	<b><u>\$ (40,027,773)</u></b>	<b><u>\$ 3,093,264</u></b>



**Victor Valley Wastewater Reclamation Authority**  
**Budget Statement of Operations and Maintenance Fund**  
**Fiscal Year 2018-2019**

	2017 Actual \$3,274/MG	2017 Budget \$3,274/MG	2018 Actual as of 4/30/2018	2018 Projected to the Year End	2018 Budget \$3,503/MG	2019 Budget \$3,503/MG
<b>Revenues</b>						
User Charges	\$ 12,549,674	\$ 12,768,600	\$ 9,302,637	\$ 11,163,165	\$ 13,661,700	\$ 13,661,700
Allocate Resource to Repairs and Replacements Fund	-	-	(247,500)	(247,500)	(247,500)	(2,749,326)
VVIWWTP Sludge	140,569	110,000	92,545	111,054	137,074	120,000
High Strength Waste Surcharges	29,585	20,000	15,561	18,673	25,000	20,000
ADM FOG Tipping Fee Revenue	234,160	-	257,549	309,059	205,000	200,000
Septage Receiving Facility Charges	649,362	500,000	511,586	613,903	609,000	550,000
Reclaimed Water Sales	30,870	60,000	13,999	16,799	44,000	25,000
Interest	128	-	815	978	-	-
Pretreatment Fees	52,282	45,000	46,700	56,040	51,200	50,000
Miscellaneous	25,676	1,100	9,250	11,100	1,250	1,200
Grant - Proposition 1	-	-	480,048	576,058	458,297	-
Grant - Water Recycling	-	-	260,092	312,110	246,466	-
	<b>\$ 13,712,306</b>	<b>\$ 13,504,700</b>	<b>\$ 10,743,282</b>	<b>\$ 12,941,439</b>	<b>\$ 15,191,487</b>	<b>\$ 11,878,574</b>
<b>Other Financing Sources</b>						
SRF Loan Funding	\$ -	\$ -	\$ 2,178,283	\$ 3,037,733	\$ 1,684,303	\$ -
	\$ -	\$ -	\$ 2,178,283	\$ 3,037,733	\$ 1,684,303	\$ -
<b>Total Operating Revenues and Other Financing Sources</b>	<b>\$ 13,712,306</b>	<b>\$ 13,504,700</b>	<b>\$ 12,921,565</b>	<b>\$ 15,979,172</b>	<b>\$ 16,875,790</b>	<b>\$ 11,878,574</b>
<b>Expenses</b>						
Personnel and Benefits	\$ 4,080,926	\$ 4,967,711	\$ 3,055,944	\$ 3,667,134	\$ 4,086,603	\$ 4,080,784
Maintenance	1,349,023	1,833,784	1,540,592	1,848,710	2,919,360	2,194,767
Operations	2,432,028	3,190,930	2,203,408	2,644,090	3,066,985	3,151,072
Administration	2,816,124	2,057,832	1,465,996	1,759,194	2,270,884	2,183,749
Construction	119,582	-	4,336,283	4,391,921	2,389,065	-
	<b>\$ 10,797,683</b>	<b>\$ 12,050,257</b>	<b>\$ 12,602,223</b>	<b>\$ 14,311,049</b>	<b>\$ 14,732,897</b>	<b>\$ 11,610,372</b>
<b>Emergency Expenses</b>						
Maintenance	\$ -	\$ 67,000	\$ -	\$ -	\$ -	\$ -
Operations	-	83,000	-	-	-	-
FEMA OPERATING EXPENSES	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -
Expected FEMA/Cal-OES Grants	-	(915,474)	-	-	(747,034)	(747,034)
	\$ -	\$ (765,474)	\$ -	\$ -	\$ (747,034)	\$ (747,034)
<b>Debt Services</b>						
SRF Principal	\$ 1,427,774	\$ 697,751	\$ 204,050	\$ 857,475	\$ 857,475	\$ 2,094,805
SRF Interest	308,197	343,588	65,092	361,138	361,138	762,842
	<b>\$ 1,735,971</b>	<b>\$ 1,041,339</b>	<b>\$ 269,142</b>	<b>\$ 1,218,613</b>	<b>\$ 1,218,613</b>	<b>\$ 2,857,647</b>
<b>Total Operations &amp; Maintenance Expenses with Debt Services</b>	<b>\$ 12,533,654</b>	<b>\$ 12,326,122</b>	<b>\$ 12,871,365</b>	<b>\$ 15,529,662</b>	<b>\$ 15,204,476</b>	<b>\$ 13,720,985</b>
<b>Operations &amp; Maintenance Net Surplus or (Deficit)</b>	<b>\$ 1,178,652</b>	<b>\$ 1,178,578</b>	<b>\$ 50,200</b>	<b>\$ 449,510</b>	<b>\$ 1,671,314</b>	<b>\$ (1,842,411)</b>

Ⓢ Please see detailed expense information at page 31.

We have predicted 3,900 million gallons (MG) of wastewater inflows to process for the FY 2019 budget. The FY 2019 inflow quantity is multiplied by the rate of \$3,503 per MG. Please refer to page 36 for the personnel expenses allocated between Operations & Maintenance (O&M) and Capital Funds. The emergency projects was completed during the FY 2017. The expected FEMA and Cal OES Grant revenue \$747,034 is shown as a negative number to include the 10% retention that will be awarded at the completion of the projects. As for the State Revolving Fund (SRF) loan principal and interest payments for future years, please refer to pages 49 and 50 for the SRF loan payment schedule per maturities. Ideally the O&M Fund should cover the Repairs and Replacements Fund expenses. See Budget Statement of Repairs and Replacement Fund at page 32.

**Victor Valley Wastewater Reclamation Authority**  
**Operations and Maintenance Fund – Expenses Other Than Emergency Expenses**  
**Fiscal Year 2018-2019**

	2017 Actual \$3,274/MG	2017 Budget \$3,274/MG	2018 Actual as of 4/30/2018	2018 Projected to the Year End	2018 Budget \$3,503/MG	2019 Budget \$3,503/MG
<b>Personnel Expenses Allocations</b> <span style="color: red;">Ⓢ</span>						
Allocation to Maintenance	\$ 1,064,589	\$ 1,267,716	\$ 738,799	\$ 886,561	\$ 970,585	\$ 1,151,161
Allocation to Operations	1,641,242	2,009,414	1,242,527	1,491,032	1,661,723	1,777,237
Allocation to Administrations	1,375,095	1,690,581	1,074,618	1,289,541	1,454,295	1,152,386
	<u>\$ 4,080,926</u>	<u>\$ 4,967,711</u>	<u>\$ 3,055,944</u>	<u>\$ 3,667,134</u>	<u>\$ 4,086,603</u>	<u>\$ 4,080,784</u>
<b>Maintenance Expenses</b>						
Maintenance Equipment	\$ 459,708	\$ 584,257	\$ 602,255	\$ 722,706	\$ 1,110,560	\$ 1,141,560
Instrumentation	343,654	354,377	410,197	492,236	648,000	318,169
Total Grounds Maintenance & Landscaping	347,294	372,050	246,779	296,135	724,400	358,900
Vehicle Repairs	69,964	149,600	196,764	236,117	251,400	241,638
Interceptor Sewer Maintenance	55,925	335,500	55,100	66,120	105,500	90,000
Maintenance Safety Equipment	9,311	38,000	13,341	16,009	38,000	3,000
Misc. Maintenance Expense	63,167	-	16,156	19,387	41,500	41,500
	<u>\$ 1,349,023</u>	<u>\$ 1,833,784</u>	<u>\$ 1,540,592</u>	<u>\$ 1,848,710</u>	<u>\$ 2,919,360</u>	<u>\$ 2,194,767</u>
<b>Operations Expenses</b>						
Process Chemicals	\$ 254,998	\$ 558,970	\$ 238,425	\$ 286,110	\$ 370,540	\$ 346,850
Utilities	1,378,463	1,326,423	1,227,618	1,473,142	1,557,423	1,528,431
Trash and Sludge	99,242	124,600	114,798	137,758	148,000	156,000
Fuel and Lubricants	64,752	138,500	76,205	91,446	159,000	110,000
Lab Supplies and Services	136,952	399,813	37,934	45,521	115,100	107,700
Outside Lab Services	284,073	351,650	308,022	369,626	450,500	461,500
Safety Equipment	81,507	95,474	42,277	50,732	66,422	169,291
Custodial Services and Supplies	35,946	52,000	29,709	35,651	45,500	51,500
Equipment Rental	31,190	44,000	59,609	71,531	55,000	120,300
Uniforms	23,706	21,000	18,427	22,112	21,000	11,000
Security	6,474	18,500	24,498	29,398	18,500	28,500
Permits	34,725	60,000	25,886	31,063	60,000	60,000
Misc. Operating Expense	-	-	-	-	-	-
	<u>\$ 2,432,028</u>	<u>\$ 3,190,930</u>	<u>\$ 2,203,408</u>	<u>\$ 2,644,090</u>	<u>\$ 3,066,985</u>	<u>\$ 3,151,072</u>
<b>Administrations Expenses</b>						
Telephone and Communications	\$ 216,311	\$ 277,220	\$ 140,587	\$ 168,704	\$ 278,220	\$ 297,500
Computer Supplies	99,135	92,252	76,096	91,315	77,000	60,000
Office Supplies	55,476	122,450	47,861	57,433	109,450	103,800
Travel, Meeting, Training	87,122	199,000	83,809	100,571	188,750	186,550
Employee and Community Events	15,612	26,200	12,707	15,248	28,700	25,000
Membership, Fees, Licenses	48,342	50,855	53,428	64,114	41,705	54,005
Professional Services	496,863	561,855	355,893	427,072	729,765	636,894
Legal Services and Fees	682,036	360,000	391,017	469,220	360,000	440,000
Temporary Labor	8,356	45,000	24,532	29,438	133,294	40,000
Bond & Liability Insurance	136,410	120,000	97,564	117,077	125,000	130,000
Finance Fees	510	-	452	542	-	-
Misc. Administration Expense	802,443	-	(55)	(66)	-	-
Permit Fees	167,508	203,000	182,105	218,526	199,000	210,000
Interest Accrual	-	-	-	-	-	-
Supplemental Environmental Project Payment	-	-	-	-	-	-
	<u>\$ 2,816,124</u>	<u>\$ 2,057,832</u>	<u>\$ 1,465,996</u>	<u>\$ 1,759,194</u>	<u>\$ 2,270,884</u>	<u>\$ 2,183,749</u>
<b>Construction Expenses</b>	\$ 119,582	\$ -	\$ 4,336,283	\$ 4,391,921	\$ 2,389,065	\$ -
<b>Total Operations and Maintenance Fund Expenses Before Emergency</b>	<b>\$ 10,797,683</b>	<b>\$ 12,050,257</b>	<b>\$ 12,602,223</b>	<b>\$ 14,311,049</b>	<b>\$ 14,732,897</b>	<b>\$ 11,610,372</b>

Ⓢ Please see Allocations of Personnel Expenses at page 36.

**Victor Valley Wastewater Reclamation Authority  
Budget Statement of Repairs and Replacements Fund  
Fiscal Year 2018-2019**

	2017 Actual \$3,274/MG	2017 Budget \$3,274/MG	2018 Actual as of 4/30/2018	2018 Projected to the Year End	2018 Budget \$3,503/MG	2019 Budget \$3,503/MG
<b>Repairs and Replacements Financing Sources</b>						
Transferred from Operations & Maintenance Fund	\$ -	\$ -	\$ 247,500	\$ 247,500	\$ 247,500	\$ 2,749,326
	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 247,500</b>	<b>\$ 247,500</b>	<b>\$ 247,500</b>	<b>\$ 2,749,326</b>
<b>Expenses</b>						
Personnel and Benefits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Maintenance	656,509	808,200	49,966	59,959	242,500	1,204,326
Operations	-	20,700	101,540	121,848	-	25,000
Administration	-	-	-	-	5,000	150,000
Construction	33,660	-	7,950	9,540	-	1,370,000
	<b>\$ 690,169</b>	<b>\$ 828,900</b>	<b>\$ 159,456</b>	<b>\$ 191,347</b>	<b>\$ 247,500</b>	<b>\$ 2,749,326</b>
<b>Emergency Expenses</b>						
Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operations	-	-	-	-	-	-
FEMA OPERATING EXPENSES	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Expected FEMA/Cal-EMA Grants	-	-	-	-	-	-
	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Debt Services</b>						
SRF Principal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SRF Interest	-	-	-	-	-	-
	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Repairs and Replacements Expenses with Debt Services</b>	<b>\$ 690,169</b>	<b>\$ 828,900</b>	<b>\$ 159,456</b>	<b>\$ 191,347</b>	<b>\$ 247,500</b>	<b>\$ 2,749,326</b>
<b>Repairs and Replacements Net Surplus or (Deficit)</b>	<b>\$ (690,169)</b>	<b>\$ (828,900)</b>	<b>\$ 88,044</b>	<b>\$ 56,153</b>	<b>\$ -</b>	<b>\$ -</b>

**Note: Repair & Replacement projects are:**  
Desert Knolls Wash Project 1,340,000  
Oro Grande Interceptor 30,000  
1,370,000

This Repairs and Replacement (R&R) Fund has been a part of Operations and Maintenance (O&M) Fund in the past-year budget presentations. For FY 2017 through FY 2019, we have presented the R&R Fund separately, as we strongly believe that such presentation better describes the normal operations and maintenance results without skewing them with periodical high repairs and replacement costs. In order to sustain the R&R projects, a transfer from the O&M fund is needed.

**Victor Valley Wastewater Reclamation Authority**  
**Repairs and Replacements Fund Expenses**  
**Fiscal Year 2018-2019**

	2017 Actual \$3,274/MG	2017 Budget \$3,274/MG	2018 Actual as of 4/30/2018	2018 Projected to the Year End	2018 Budget \$3,503/MG	2019 Budget \$3,503/MG
<b>Personnel Expenses Allocations</b>						
Allocation to Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Allocation to Operations	-	-	-	-	-	-
Allocation to Administrations	-	-	-	-	-	-
	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
<b>Maintenance Expenses</b>						
Maintenance Equipment	\$ 450,252	\$ 476,000	\$ 25,374	\$ 30,449	\$ 153,000	\$ 353,000
Instrumentation	168,864	332,200	12,592	15,110	37,000	394,326
Total Grounds Maintenance & Landscaping	37,393	-	12,000	14,400	32,500	425,000
Vehicle Repairs	-	-	-	-	-	32,000
Interceptor Sewer Maintenance	-	-	-	-	-	-
Maintenance Safety Equipment	-	-	-	-	-	-
Misc. Maintenance Expense	-	-	-	-	20,000	-
	<u>\$ 656,509</u>	<u>\$ 808,200</u>	<u>\$ 49,966</u>	<u>\$ 59,959</u>	<u>\$ 242,500</u>	<u>\$ 1,204,326</u>
<b>Operations Expenses</b>						
Process Chemicals	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Utilities	-	-	-	-	-	-
Trash and Sludge	-	-	-	-	-	-
Fuel and Lubricants	-	-	-	-	-	-
Lab Supplies and Services	-	20,700	-	-	-	-
Outside Lab Services	-	-	-	-	-	-
Safety	-	-	-	-	-	25,000
Custodial Services and Supplies	-	-	-	-	-	-
Equipment Rental	-	-	101,540	121,848	-	-
Uniforms	-	-	-	-	-	-
Security	-	-	-	-	-	-
Permits	-	-	-	-	-	-
Misc. Operating Expense	-	-	-	-	-	-
	<u>\$ -</u>	<u>\$ 20,700</u>	<u>\$ 101,540</u>	<u>\$ 121,848</u>	<u>\$ -</u>	<u>\$ 25,000</u>
<b>Administrations Expenses</b>						
Telephone and Communications	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Computer Supplies	-	-	-	-	-	50,000
Office Supplies	-	-	-	-	5,000	-
Travel, Meeting, Training	-	-	-	-	-	-
Employee and Community Events	-	-	-	-	-	100,000
Membership, Fees, Licenses	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-
Legal Services and Fees	-	-	-	-	-	-
Temporary Labor	-	-	-	-	-	-
Bond & Liability Insurance	-	-	-	-	-	-
Finance Fees	-	-	-	-	-	-
Misc. Administration Expense	-	-	-	-	-	-
Permit Fees	-	-	-	-	-	-
Rent	-	-	-	-	-	-
Supplemental Environmental Project Payment	-	-	-	-	-	-
	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 5,000</u>	<u>\$ 150,000</u>
<b>Construction Expenses</b>	<u>\$ 33,660</u>	<u>\$ -</u>	<u>\$ 7,950</u>	<u>\$ 9,540</u>	<u>\$ -</u>	<u>\$ 1,370,000</u>
<b>Total Repairs and Replacements Fund Expenses</b>	<u><b>\$ 690,169</b></u>	<u><b>\$ 828,900</b></u>	<u><b>\$ 159,456</b></u>	<u><b>\$ 191,347</b></u>	<u><b>\$ 247,500</b></u>	<u><b>\$ 2,749,326</b></u>

**Victor Valley Wastewater Reclamation Authority  
Budget Statement of Capital Fund  
Fiscal Year 2018-2019**

	2017 Actual \$4,000/EDU ①	2017 Budget \$4,000/EDU ①	2018 Actual as of 4/30/2018	2018 Projected to the Year End	2018 Budget \$4,000/EDU ①	2019 Budget \$4,000/EDU ①
<b>Revenues</b>						
Connection Fees	\$ 2,951,667	\$ 700,000	\$ 1,254,472	\$ 1,435,246	\$ 878,900	\$ 2,000,000
Interest	37,759	10,000	64,928	77,914	38,000	35,000
Grant - FEMA/Cal-EMA	978,765	4,503,400	-	-	3,105,375	3,105,375
Grant - Water Recycling	1,808,434	1,267,000	166,288	199,546	157,577	-
Grant - Proposition 1	3,844,476	3,500,000	306,916	368,299	293,010	-
Grant - Proposition 84	-	-	-	-	-	-
Grant - Title 16	-	-	-	-	-	-
Grant - CEC Microgrid	135,881	-	318,727	382,472	-	-
	<u>\$ 9,756,982</u>	<u>\$ 9,980,400</u>	<u>\$ 2,111,331</u>	<u>\$ 2,463,477</u>	<u>\$ 4,472,862</u>	<u>\$ 5,140,375</u>
<b>Other Financing Sources</b>						
SRF Loan Funding	\$ 34,683,136	\$ 44,750,140	\$ 1,392,672	\$ 1,794,885	\$ 593,349	\$ -
	<u>\$ 34,683,136</u>	<u>\$ 44,750,140</u>	<u>\$ 1,392,672</u>	<u>\$ 1,794,885</u>	<u>\$ 593,349</u>	<u>\$ -</u>
<b>Total Capital Revenues and Other Financing Sources</b>	<b>\$ 44,440,118</b>	<b>\$ 54,730,540</b>	<b>\$ 3,504,003</b>	<b>\$ 4,258,362</b>	<b>\$ 5,066,211</b>	<b>\$ 5,140,375</b>
<b>Expenses</b>						
Personnel and Benefits	\$ 354,863	\$ 400,477	\$ 302,236	\$ 362,683	\$ 416,716	\$ 378,554
Maintenance	3,541	-	-	-	40,000	-
Operations	12,068	171	-	-	170	170
Administration	29,205	-	(2,054)	(2,465)	140,000	-
Construction	59,311	48,111,352	2,311,540	2,347,111	2,482,435	430,000 ②
	<u>\$ 458,988</u>	<u>\$ 48,512,000</u>	<u>\$ 2,611,722</u>	<u>\$ 2,707,329</u>	<u>\$ 3,079,321</u>	<u>\$ 808,724</u>
<b>Debt Services</b>						
SRF Principal	\$ 1,127,959	\$ 1,127,959	\$ 981,075	\$ 1,198,884	\$ 1,198,884	\$ 2,002,675
SRF Interest	220,617	220,617	110,599	209,281	209,281	437,219
	<u>\$ 1,348,576</u>	<u>\$ 1,348,576</u>	<u>\$ 1,091,674</u>	<u>\$ 1,408,165</u>	<u>\$ 1,408,165</u>	<u>\$ 2,439,894</u>
<b>Total Capital Expenses with Debt Services</b>	<b>\$ 1,807,564</b>	<b>\$ 49,860,576</b>	<b>\$ 3,703,396</b>	<b>\$ 4,115,494</b>	<b>\$ 4,487,486</b>	<b>\$ 3,248,618</b>
<b>Capital Net Surplus or (Deficit)</b>	<b>\$ 42,632,554</b>	<b>\$ 4,869,964</b>	<b>\$ (199,393)</b>	<b>\$ 142,868</b>	<b>\$ 578,725</b>	<b>\$ 1,891,757</b>

① EDU = Equivalent Dwelling Unit (245 gallons/day or 20 fixture units)

	FY 2019 O&M Fund	FY 2019 Capital Fund
<b>Capital Projects</b>		
Stormwater Pump Station	-	340,000
Miscellaneous Projects	-	90,000
<b>Construction Total</b>	<b>-</b>	<b>430,000 ②</b>

VVWRA has completed the construction of sub-regional water reclamation plants (sub-regionals) in the City of Hesperia and the Town of Apple Valley during FY 2018. The construction costs of these plants approximate \$40 million each. These projects are funded mostly by Clean Water State Revolving Fund (SRF) loans from the California State Water Resources Control Board (SWRCB) and the remaining by Title 16 Grant from the Federal Bureau of Reclamation, by Proposition One Water Quality, Supply, and Infrastructure Improvement Act of 2014 and Proposition 84 Round Two Integrated Regional Water Management Implementation Grant from the California State Department of Water Resources, and by Propositions 13 and 50 under Water Recycling Grant Program from the SWRCB. These SRF loan repayments for the sub-regionals would affect FY 2019 operation costs as the loan repayment process begins during the year. As the loan agreements require, VVWRA has set up a loan reserve to cover one-year payment of principal and interest for the sub-regional projects. In order to be in compliance, the member agencies have searched for the long-term solution how to repay the SRF loans for these projects. With the daily loss of 1.7 million gallons of wastewater flow from the City of Victorville that was a part of the flow revenue projected in our 2014 financial plan, the member agencies' consensus is to have a proper rate adjustment to either operate these two plants or pay back the loans as they become due. The FY 2019 budget is based on not-operating these sub-regional plants per the Finance Committee

**Victor Valley Wastewater Reclamation Authority  
Budget Statement of Capital Fund  
Fiscal Year 2016-2017**

recommendation. Until the agency can change the user fee rate, it will most likely face the challenge during FY 2019 when we may not have enough reserves as required for the sub-regional projects.

Please refer to pages 50 and 51 for the SRF loan payments that impact both Operations and Capital fund activities.

The long-range financial impact of these capital projects on the O&M and Capital budget is significant, as the loan repayment of principal and interest will increase from \$2.7 million in FY 2018 to \$5.3 million in FY 2019. In order to maintain the required debt payment reserve level, VVWRA has raised the user charge and connection fee rates during FY 2015 through FY 2018. Comparatively, the connection fee will remain from FY 2015 through FY 2018. The Board of Commissioners approved the rates listed below in FY 2014. In addition to the City of Victorville’s diversion of flow to its own reclamation facility and not sending a portion of connection fees to VVWRA, another member agency, the City of Hesperia stopped paying its user and connection fees in protest to Victorville’s non-payment. It is uncertain now whether VVWRA could maintain the reserve level that would have enabled the Authority to comply with the SWRCB’s debt reserve revenue requirements. Although the user charge will be gradually increased by 9% per year from FY 2015 through 2017 and by 7% in FY 2018, the offsetting loss of revenues would likely lead to financially unsustainable condition. Without user and connection fee revenues as predicted in the 2014 financial plan, these rates may not sustain the operations and maintenance costs at the water reclamation plants in future years. The agency does not have new financial plans as of the issuing date of this budget.

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
<b>User Charge (\$/MG)</b>	\$2,528.00	\$2,756.00	\$3,004.00	\$3,274.00	\$3,503.00	\$3,503.00
<b>Connection Fee (\$/EDU)</b>	\$3,750.00	\$4,000.00	\$4,000.00	\$4,000.00	\$4,000.00	\$4,000.00

**Victor Valley Wastewater Reclamation Authority**  
**Allocations of Personnel Expenses**  
**Fiscal Year 2018-2019**

	2017 Actual \$3,274/MG	2017 Budget \$3,274/MG	2018 Actual as of 4/30/2018	2018 Projected to the Year End	2018 Budget \$3,503/MG	2019 Budget \$3,503/MG
<b>Operations and Maintenance Salary Expenses</b>						
Regular Salaries	\$ 2,923,703	\$ 3,442,789	\$ 2,276,970	\$ 2,732,364	\$ 2,850,355	\$ 2,884,301
Overtime	117,292	145,100	107,476	128,971	133,400	156,500
Call-Out Pay	61,367	49,800	47,158	56,590	66,120	66,120
Salaries Expense - Capital	(248,189)	-	(218,844)	(262,613)	-	-
	<u>\$ 2,854,173</u>	<u>\$ 3,637,689</u>	<u>\$ 2,212,760</u>	<u>\$ 2,655,312</u>	<u>\$ 3,049,875</u>	<u>\$ 3,106,921</u>
<b>Operations and Maintenance Benefit Expenses</b>						
Longevity	\$ 27,863	\$ 31,984	\$ 28,722	\$ 34,466	\$ 30,895	\$ 33,209
Vehicle Allowance	-	18,069	-	-	18,000	18,000
Sick Leave Buy Back	-	25,000	-	-	-	-
Medicare	43,471	50,134	34,481	41,377	41,504	42,083
Social Security Expense	(207)	-	657	788	-	-
PERS / Health Insurance	347,281	408,579	273,838	328,606	232,969	232,969
Dental / Vision Insurance	38,648	31,134	26,868	32,242	22,436	22,436
Workers Comp Insurance	111,481	105,376	1,788	2,146	87,133	88,291
PERS / Retirement	630,931	500,624	516,419	619,703	420,942	252,000
PERS / Retirement - GASB 68	-	-	-	-	-	-
PERS / Retirement-EUL	-	266,502	-	-	308,170	366,667
Life Insurance	12,976	18,344	10,472	12,566	15,168	15,370
Unemployment Insurance	16,171	15,134	15,339	18,407	10,948	10,948
Disability Insurance	18,059	24,265	11,806	14,167	20,064	20,331
Misc Personnel Expense	(204)	9,500	6,186	7,423	9,500	11,500
OPEB Expense	86,957	85,294	-	-	85,000	85,000
Benefits Expense - Capital	(106,674)	-	(83,392)	(100,070)	-	-
	<u>\$ 1,226,753</u>	<u>\$ 1,589,939</u>	<u>\$ 843,184</u>	<u>\$ 1,011,821</u>	<u>\$ 1,302,729</u>	<u>\$ 1,198,804</u>
<b>Capital Salary and Benefits Expenses</b>						
Salaries	\$ 248,189	\$ 118,512	\$ 218,844	\$ 262,613	\$ 127,607	\$ 129,872
Benefits	106,674	22,048	83,392	100,070	23,108	23,741
	<u>\$ 354,863</u>	<u>\$ 140,560</u>	<u>\$ 302,236</u>	<u>\$ 362,683</u>	<u>\$ 150,715</u>	<u>\$ 153,613</u>
<b>Total Personnel Expenses</b>	<b><u>\$ 4,435,789</u></b>	<b><u>\$ 5,368,188</u></b>	<b><u>\$ 3,358,180</u></b>	<b><u>\$ 4,029,816</u></b>	<b><u>\$ 4,503,319</u></b>	<b><u>\$ 4,459,338</u></b>
<b>Allocations of Personnel Expenses</b>						
<i>1. Allocations to Operations and Maintenance Fund</i>						
To Maintenance Department	\$ (1,064,589)	\$ (1,267,716)	\$ (738,799)	\$ (886,561)	\$ (970,585)	\$ (1,151,161)
To Operations Department	(1,641,242)	(2,009,414)	(1,242,527)	(1,491,032)	(1,661,723)	(1,777,237)
To Administration (other departments except Construction)	(1,375,095)	(1,690,581)	(1,074,618)	(1,289,541)	(1,454,295)	(1,152,386)
	<u>\$ (4,080,926)</u>	<u>\$ (4,967,711)</u>	<u>\$ (3,055,944)</u>	<u>\$ (3,667,134)</u>	<u>\$ (4,086,603)</u>	<u>\$ (4,080,784)</u>
<i>2. Allocation To Capital Fund</i>						
To Construction Department	\$ (354,863)	\$ (400,477)	\$ (302,236)	\$ (362,683)	\$ (416,716)	\$ (378,554)
<b>Personnel Expenses After Allocations</b>	<b><u>\$ -</u></b>	<b><u>\$ -</u></b>	<b><u>\$ -</u></b>	<b><u>\$ (1)</u></b>	<b><u>\$ -</u></b>	<b><u>\$ -</u></b>

## Victor Valley Wastewater Reclamation Authority High Strength Surcharges Fiscal Year 2018-2019

This page shows high strength surcharge rates for FY 2019 and the calculation worksheet.

### Worksheet

User Charges from Member Agencies	\$ 13,661,700
Unit User Charge per MG	<b>\$3,503.00</b>
Estimated Treatment Flow (MG)	3,900

	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	402.66	35,882	3.68	328	35,554	12,977,223	35.0%	\$4,781,595	\$0.3685
TSS	427.25	38,073	2.20	196	37,877	13,825,176	25.0%	\$3,415,425	\$0.2470
NH3	30.60	2,727	0.14	12	2,714	990,742	30.0%	\$4,098,510	\$4.1368
Annual Flow - MG per Day									
3,900 MG / 365 days		10.68					10.0%	\$1,366,170	
							<u>100.0%</u>	<u>\$13,661,700</u>	

	BOD \$/lb	TSS \$/lb	NH3 \$/lb
Surcharge Rates:	<b>\$0.3685</b>	<b>\$0.2470</b>	<b>\$4.1368</b>
Applied to Concentrations Above:	<b>200 mg/l</b>	<b>250 mg/l</b>	<b>20 mg/l</b>

#### 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

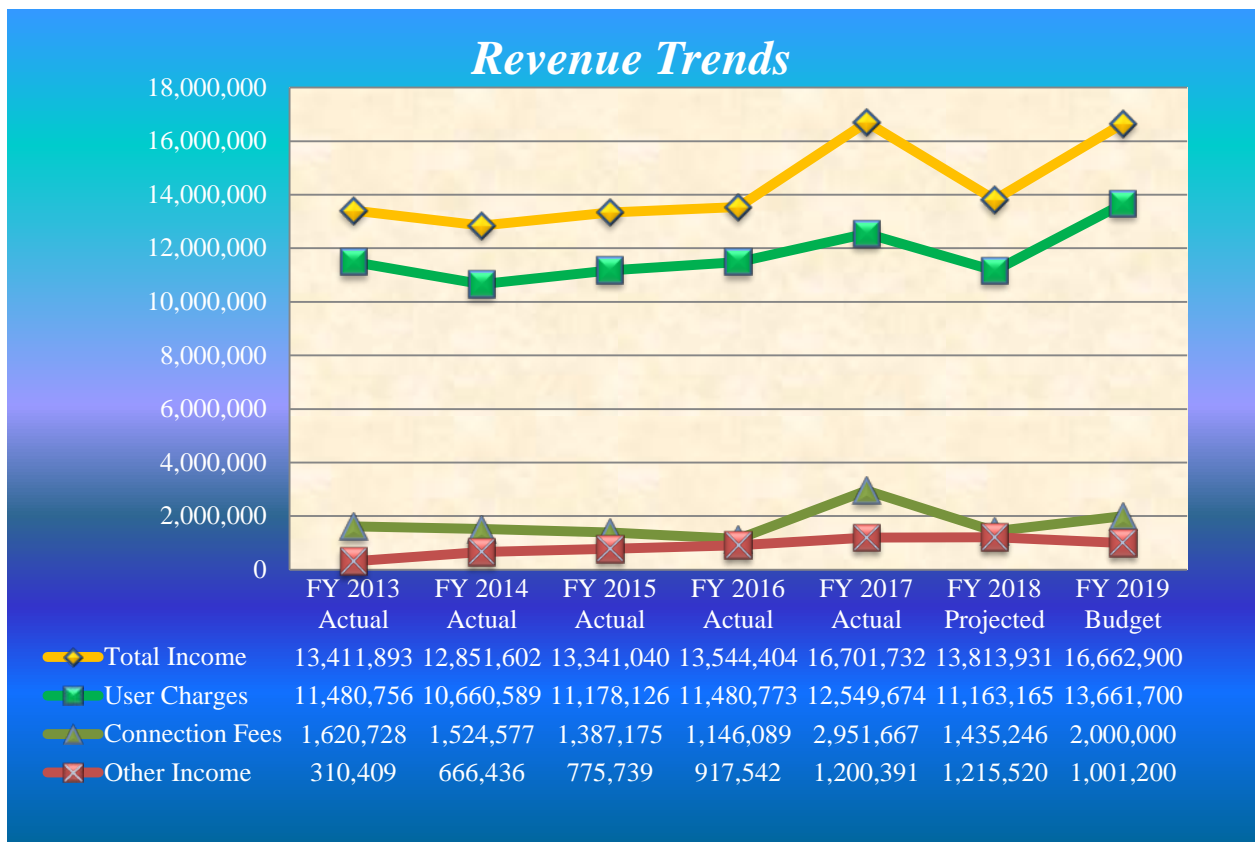
① From 2017 Annual Discharge Monitoring Report.



**Victor Valley Wastewater Reclamation Authority  
Revenue Trend Analysis  
Fiscal Year 2018-2019**

*Revenue Analysis*

Although Victor Valley Wastewater Reclamation Authority (VWVRA) has been recovering from the decreased operating revenues since FY 2013, the 6.5% user fee rate increase at the beginning of the FY 2018 cannot absorb the lost user fee revenue from the City of Victorville (Victorville). We have used connection fee revenue \$2.0 million for FY 2019 budget to maintain about the same level throughout the years since FY 2013. The Victorville’s 1.7 MGD reduction of wastewater flow and 66.67% decrease in Victorville’s connection fees further negatively affect the overall income from fewer new housing developments in the service areas. Although the overall income declines from FY 2017 to FY 2018, we predict the revenue trend would increase from \$13.8 million (projection) in FY 2018 to \$16.7 million in FY 2019 helped with other income, such as FOG/ADM and septage processing fee revenues.



*Source: VWVRA 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 2013 to FY 2019.

Due to an overall decrease of the net income in coming years, we have to solve urgently how to handle such a substantial decline of income as the decline of income will also affect net position.

Please refer to the glossary on page 62 for the term definitions.

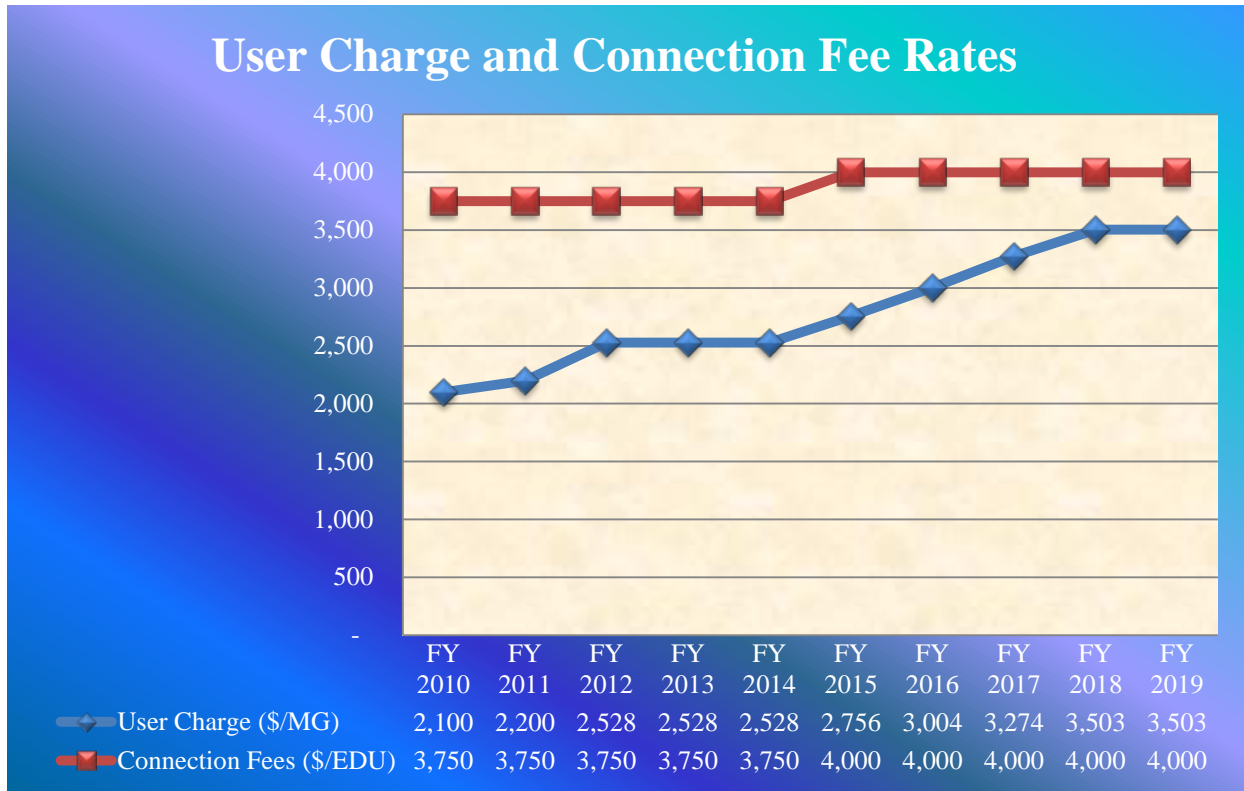
**Victor Valley Wastewater Reclamation Authority  
Revenue Trend Analysis  
Fiscal Year 2018-2019**

*Revenue Analysis (Continued)*

Both user charges and connection fees are determined multiplying quantity received by unit prices; multiplying the flow quantity of million gallons (MG) by the user fee rate (\$3,503/MG) for the user fee revenue and by multiplying the Equivalent Dwelling Unit (EDU) by the connection fee rate (\$4,000/EDU). The four member agencies determined these rates as incorporated in the revenue ordinances to absorb the operating and construction costs. The graph below shows rate changes up to FY 2019 based on the five-year financial plan.

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

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



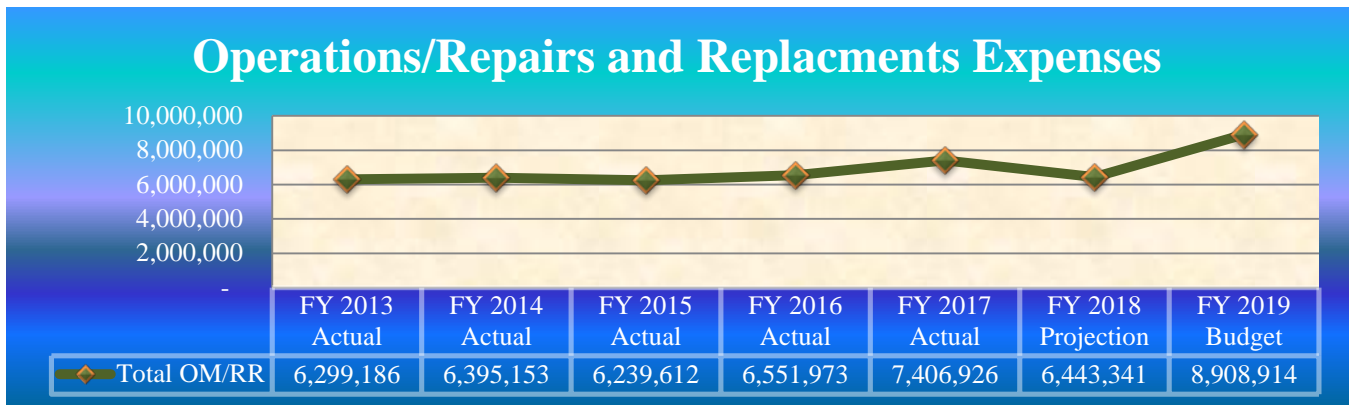
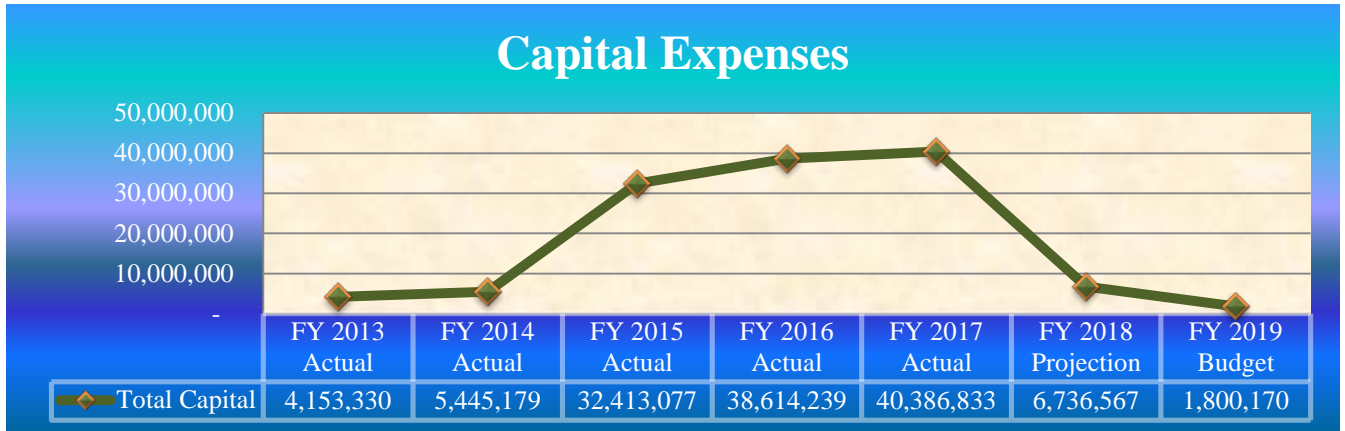
Source: VVWRA FY = Fiscal Year ended June 30

**Victor Valley Wastewater Reclamation Authority  
Expense Trend Analysis  
Fiscal Year 2018-2019**

*Expense Analysis*

**Construction Expenses:** The construction costs below reflect the actual expenses per CAFR (except FY 2018 and FY 2019) adjusted by adding the construction costs accounted for as construction in progress that were funded by the grants and loan proceeds. The capital expenditures have risen from FY 2014, as we have constructed the two sub-regional plants in the City of Hesperia and the Town of Apple Valley during the years of FY 2015 through FY 2018. We have budgeted \$1.3 million for FY 2019 (page 47) to fund the construction of the Desert Knolls Wash (DKW) pipeline to replace the existing pipeline damaged by a storm.

**Expenses Incurred by Operations and Repairs/Replacements:** The operations and repairs/replacements expenses were at about the same level except the DKW that is included in the R&R. During FY 2018, such costs were kept low forced by a low cash flow level that contradicts to the higher budget for FY 2019 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 2018, VVWRA has started its micro-grid project to cope with such high electricity costs and unpredictable loss of steady energy level.



Source: VVWRA - The graphs excludes personnel costs.

FY = Fiscal Year ended June 30

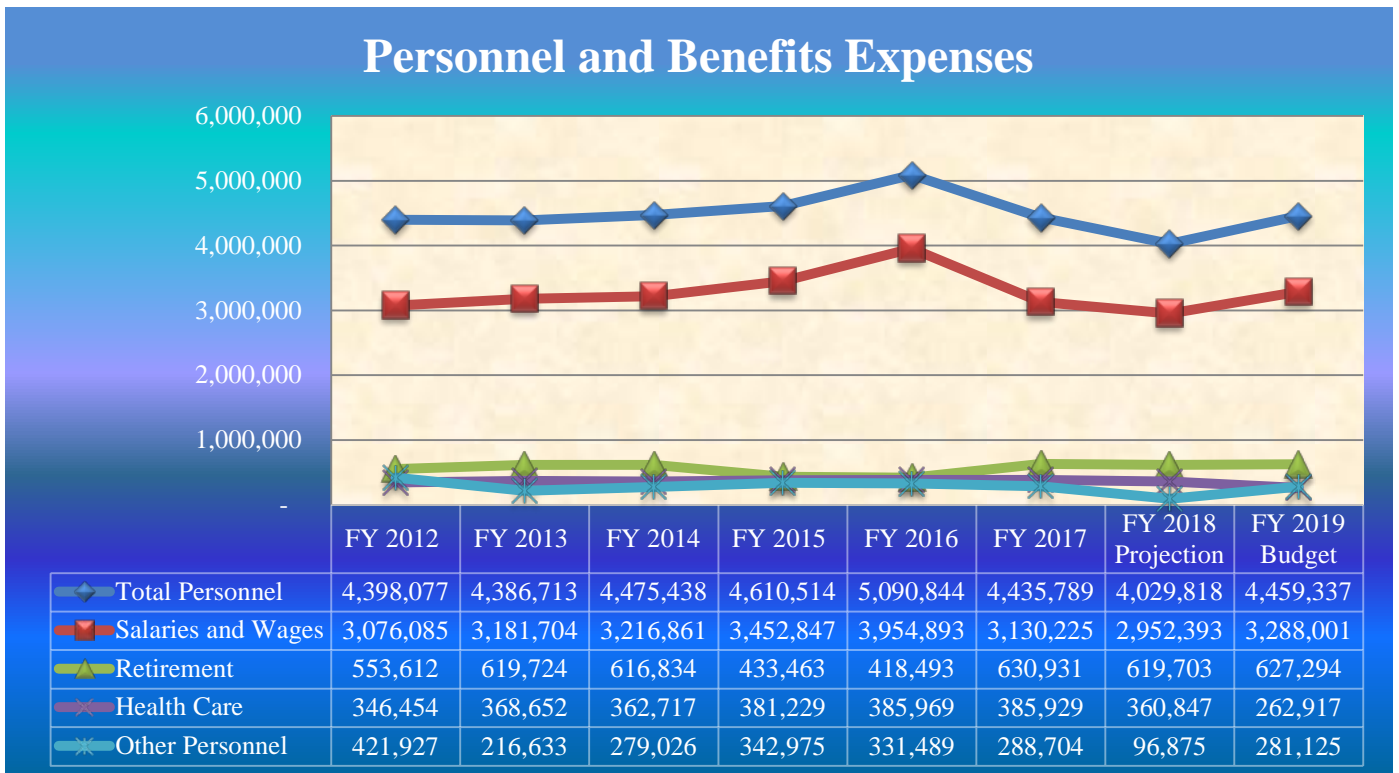
**Victor Valley Wastewater Reclamation Authority  
Expense Trend Analysis  
Fiscal Year 2018-2019**

*Expense Analysis (Continued)*

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 thru 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 health care cost has been kept at about the same level throughout the period from FY 2013 to FY 2019.

Other personnel costs include OPEB costs, Medicare, workers comp insurance, life insurance, unemployment insurance, disability insurance, and miscellaneous personnel expense, such as payroll processing fees.



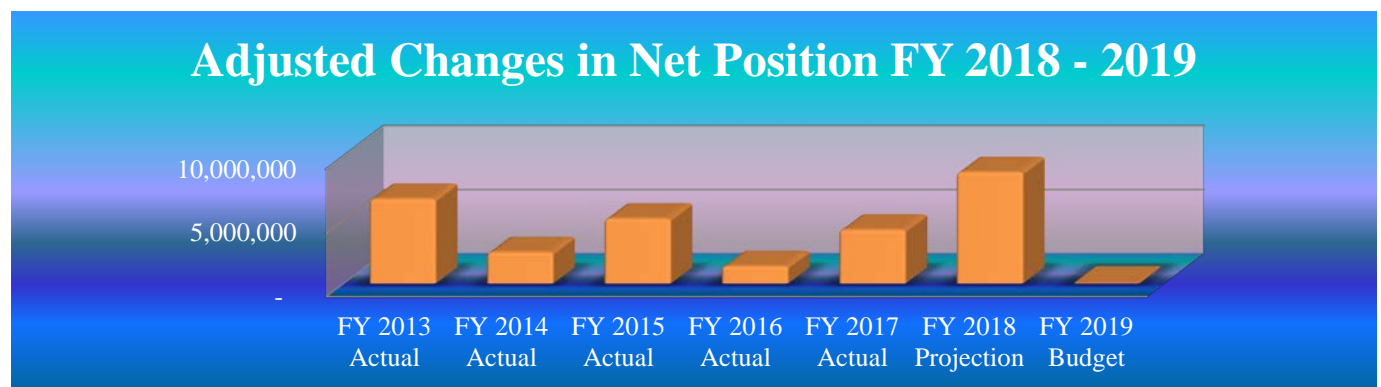
*Source: VVWRA. FY = Fiscal Year ended June 30*

**Victor Valley Wastewater Reclamation Authority  
History of Changes in Net Position  
Fiscal Year 2018-2019**

*History of changes in net position*

The table below shows *adjusted changes in net position* whose amounts are highlighted in navy blue in the table. The graph below shows the fluctuation of adjusted changes in net position during FY 2013 through FY 2019, or the total revenues over total expenses. The decrease is mostly due to the sharp decline of connection fee revenues from member agencies. Although the connection fee revenues shows an increase of 82% from \$1,620,728 in FY 2013 to \$2,951,667 in FY 2017, \$1.4 million out of the \$2.9 million connection fees collected during FY 2017 was from the City of Victorville who owed in previous years. On the other hand, the operating expenses have increased by 9%, from \$9,977,454<sup>①</sup> in FY 2013 to \$10,904,348<sup>①</sup> in FY 2017. 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 2013 to 2018 are adjusted by adding back the grant related capitalized expenses and also adding non-cash depreciation and amortized interest expenses. Please see detailed discussions on capital improvement projects anticipated during FY 2019 and beyond at page 47. The FY 2019 net position includes a one-time receipt of retention revenue from FEMA and Cal OES that were also a part of FY 2018 budget but never paid by those agencies who still have not paid as of June 30, 2018.

<b>FY = Fiscal Year</b>	<b>Beginning Net Position</b>	<b>Changes in Net Position per CAFR *=-Per Budget</b>	<b>Ending Net Position</b>	<b>Grants CIP/Interest Amortization and Depreciations Expense</b>	<b>Adjusted Changes in Net Position</b>	<b>Adjusted Ending Net Position</b>
FY 2013 Actual	100,216,259	520,654	100,736,913	6,124,656	<b>6,645,310</b>	106,861,569
FY 2014 Actual	100,736,913	(2,228,708)	98,508,205	4,699,735	<b>2,471,027</b>	103,207,940
FY 2015 Actual	98,508,205	21,316,749	119,824,954	(16,212,939)	<b>5,103,810</b>	103,612,015
FY 2016 Actual	119,824,954	7,686,678	127,511,632	(6,308,679)	<b>1,377,999</b>	121,202,953
FY 2017 Actual	127,511,632	3,093,264	130,604,896	1,132,183	<b>4,226,077</b>	131,737,709
FY 2018 Projection	130,604,896	648,531*	131,253,427	8,097,745	<b>8,446,276</b>	139,351,172
FY 2019 Budget	131,253,427	49,346 *	131,302,773	-	<b>49,346</b>	131,302,773



Source: VVWRA      FY = Fiscal Year ended June 30

① CAFR operating expenses without depreciation expense

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## *Section V: Capital Projects and Debts*

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**Victor Valley Wastewater Reclamation Authority**  
**Capital Improvement Programs – Overview and Project Descriptions**  
**Fiscal Year 2018-2019**

*Overview*

The Capital Improvement Program (CIP) on page 46 shows the new capital projects funded in the fiscal year 2019 budget. The presented budget prioritizes the projects in four categories; Wastewater Treatment, Interceptor, Energy Efficiency, and Information Technology. The level of priority of each project determines the individual timing of the project.

Page 47 focuses on the projects, the funds, and the types of project financing. This page summarizes all the capital projects and related cash flows for the FY 2019. Finally, pages 49 and 50 indicate when VVWRA's existing State Revolving Fund loans mature including annual payment amounts.

The capital expenditures are for construction projects that have an extended life of over five years. Generally, the capital expenditures include capital replacement projects that repair, replace or enhance existing facilities, equipment, or infrastructure, thus significantly expanding the life of or adding more capacity to the facilities that VVWRA owns.

*In this section, the term CIP is used to describe capital improvement programs that are in fact construction in progress.* Logically, capital expenditures for the CIP are separate from operating expenses. The operating expense items are usually under \$5,000 with less than one year of useful life.

The agency has completed its major construction projects, including the sub-regional plants and the related Nanticoke Interceptor project during FY 2018.

**Victor Valley Wastewater Reclamation Authority**  
**Capital Improvement Programs – Overview and Project Descriptions**  
**Fiscal Year 2018-2019**

*Project Descriptions*

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**Wastewater Treatment**

- 1 Operations Building Extension; Administrative staff is currently housed in temporary trailers that consume significant amounts of energy. This project has been delayed due to cash flow issues. At the Board's direction staff will begin re-evaluating the design in FY 2019
- 2 Digesters 4 & 5 Supernatant Line; Digesters 4 & 5 currently require pumping to withdraw solids that has to be timed with influent pumping and gas production/withdrawal. Replacement with a gravity system will reduce costs and improve operational reliability.
- 3 Golf Cart Recharging Station; Provides a single location to charge golf cart batteries.
- 4 Westside Plant Spill 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.
- 7 Tertiary Filter Enclosure; The enclosure to reduce the amount of filter flies, dust and debris that accumulate in the tertiary filters.
- 8 Eastside WWTP (Serving Northern Triangle, VV-TOAV); Possible construction depending on how economic development occurs that will generate sewage that will flow to the Mojave River between the upper and lower narrows

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**Interceptor**

- 9 Ossum Wash; The double barrel interceptor that crosses Ossum Wash requires lining to ensure its structural integrity.
- 10 Oro Grande Interceptor; The line will replace the existing Oro Grande interceptor.
- 11 Apple Valley Odor Control; An odor study was performed by V&A engineering in 2009. The Apple Valley Water Reclamation Plant and appurtenances completed construction in 2018. The realignment of pipelines and flow strengths will require revisions to the original odor study.
- 12 Apple Valley Interceptor Realignment, Desert Knolls Wash; San Bernardino County Flood Control intends to reconstruct desert knolls wash which will require VVWRA to realign its manholes in that area. The pipeline was damaged during a rain event in December of 2016. Construction is scheduled to begin in the fall of 2018.
- 13 North Hesperia Relief Interceptor; This project will be re-evaluated once the Hesperia Water Reclamation Plant is fully operational. Due to the reduction in flow in the interceptor it may not be necessary to replace/rebuild this interceptor. VVWRA will evaluate the flow monitoring data to determine if the project is required once the Hesperia WRP is operational.
- 14 North Hesperia Relief Interceptor; This project will be re-evaluated once the Hesperia Water Reclamation Plant is fully operational. Due to the reduction in flow in the interceptor it may not be necessary to replace/rebuild this interceptor. VVWRA will evaluate the flow monitoring data to determine if the project is required once the Hesperia WRP is operational.

**Victor Valley Wastewater Reclamation Authority  
Capital Improvement Programs – Overview and Project Descriptions  
Fiscal Year 2018-2019**



*Apple Valley Sub-regional Water Reclamation Plant*



*Hesperia Sub-regional Water Reclamation Plant*

**Victor Valley Wastewater Reclamation Authority  
Capital Improvement Programs - Expenditures by Projects  
Fiscal Year 2018-2019**

As explained at page 43, all the projects are to be completed during FY 2020. These projects are funded by one or combination of the following sources: operating cash reserve and capital cash reserve.

**Capital Improvement Programs - Expenditures by Projects**

Project Title	FY 2016 Budget	FY 2017 Budget	FY 2018 Budget	FY 2019 Budget	FY 2020 Budget
Operations Building Extension	-	-	205,000	-	205,000
Golf Cart Recharging Station	-	-	15,000	-	15,000
Microgrid/Battery Storage Project	-	-	80,000	40,000	-
Digital Information Management System (DIM)	-	-	150,000	60,000	-
Digesters 4 and 5 Supernatant Line	75,000	-	-	-	75,000
Digester 1-5 Engineering Services	-	-	-	170,000	-
Digester 1-3 Equipment	-	-	-	161,000	-
Drying Beds Repair and Drainage Improvement	150,000	-	-	-	-
Stormwater Spill Containment System	-	-	265,000	340,000	-
Hesperia Sub-regional Water Reclamation Plant	21,684,959	21,365,176	615,500	-	-
TOAV Sub-regional Water Reclamation Plant	21,684,959	21,365,176	3,301,000	-	-
Tertiary Filter Enclosure	50,000	-	-	-	-
Coating Project: UV and DAFTS	-	-	-	425,000	-
SCADA Upgrade Project (Ignition)	-	-	-	139,000	-
Eastside WWTP (Serving Northern Triangle, VV-TOAV)	-	-	-	-	-
<b>Total Wastewater Treatment Projects</b>	<b>\$ 43,644,918</b>	<b>\$ 42,730,352</b>	<b>\$ 4,631,500</b>	<b>\$ 1,335,000</b>	<b>\$ 295,000</b>
Upper Narrows Interceptor Replacement Project	2,490,738	1,191,000	-	-	-
Nanticoke PS Bypass Sewer	5,000,000	3,990,000	-	-	-
Ossum Wash	650,000	-	-	-	650,000
Oro Grande Interceptor	-	-	-	190,000	2,510,000
Desert Knolls Wash	-	-	-	1,340,000	-
Yates Road Sampling Station	84,900	-	-	-	-
Apple Valley Odor Control	100,000	100,000	-	-	-
Apple Valley Interceptor Realignment	100,000	100,000	240,000	-	-
North Hesperia Relief Interceptor	-	-	-	-	-
Spring Valley Lake Relief Interceptor	-	-	-	-	-
Shay Road Diversion Structure	75,000	-	-	-	-
<b>Total Interceptor Projects</b>	<b>\$ 8,500,638</b>	<b>\$ 5,381,000</b>	<b>\$ 240,000</b>	<b>\$ 1,530,000</b>	<b>\$ 3,160,000</b>
Aeration Energy Efficiency Project	900,000	-	-	-	-
Biogas Solids Project	500,000	-	-	-	-
<b>Total Energy Efficiency Projects</b>	<b>\$ 1,400,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
Document Management System	100,000	-	-	-	-
Nitrogen and Capacity Study	-	-	-	100,000	-
Finance Plan and Rate Study	-	-	-	50,000	-
Organizational Performance Assessment	-	-	-	47,000	-
Programmable Logic Control (PLC)	-	-	-	55,000	445,000
Accounting Software	-	-	-	100,000	-
<b>Total Information Technology Projects</b>	<b>\$ 100,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 352,000</b>	<b>\$ 445,000</b>
<b>TOTAL</b>	<b>\$ 53,645,556</b>	<b>\$ 48,111,352</b>	<b>\$ 4,871,500</b>	<b>\$ 3,217,000</b>	<b>\$ 3,900,000</b>

**Victor Valley Wastewater Reclamation Authority  
Capital Improvement Programs - Summary  
Fiscal Year 2018 - 2019**

FY 18/19	Project	Project Title	Project Financing	Account Code	Estimated Expense		
					Total	FY 18-19	Future
<b>Wastewater Treatment Projects</b>							
2	1	Golf Cart Recharging Station	Capital Cash Reserve	09-02-80-9000, 9999	15,000		15,000
1	2	Microgrid/Battery Storage Project	Capital Cash Reserve	09-02-620-9050, C130	40,000	40,000	
2	2	Digital Information Management System (DIMS) Operations Automation	Operating Cash	01-03-535-8105	60,000	60,000	
2	4	Operations Building Extension	Capital Cash Reserve	09-03-82-9050, C130	205,000		205,000
2	5	Digesters 4 and 5 Supernatant Line	Capital Cash Reserve	09-02-152-9025/9000, 9999, R132	75,000		75,000
1	6	Stormwater Spill Containment System	Capital Cash Reserve	09-02-162-9025/9000, C106	340,000	340,000	
1	7	Digester 1-5 Engineering Services	Operating Cash	07-02-152-8105	170,000	170,000	
1	8	Digester 1-3 Equipment	Operating Cash	01-02-152-6000/6010/6011	161,000	161,000	
1	9	SCADA Upgrade Project (Ignition)	Operating Cash	07-02-530-6022-9999	139,000	139,000	
1	10	Coating Project: UV and DAFTS	Operating Cash	07-02-130/151/190-6055-9999	425,000	425,000	
<b>Total Wastewater Treatment Projects</b>					<b>\$ 1,630,000</b>	<b>\$1,335,000</b>	<b>\$295,000</b>
<b>Interceptor Projects</b>							
2	11	Ossum Wash	Capital Cash Reserve	07-05-20-9000/9025, C127	650,000		650,000
2	12	Oro Grande Interceptor	USDA	09-27-05-9025/9000, C126	2,700,000	190,000	2,510,000
1	13	Desert Knolls Wash: Interceptor, pigging station, odor control, flow monitoring, grit removal	Capital Cash Reserve	09-19-20-9025/9000, C113	1,340,000	1,340,000	
3	14	North Hesperia Relief Interceptor <sup>1</sup>	TBD	09-21-20-9000			
3	15	Spring Valley Lake Relief Interceptor <sup>1</sup>	TBD	09-23-20-9000			
<b>Total Interceptor Projects</b>					<b>\$ 4,690,000</b>	<b>\$1,530,000</b>	<b>\$3,160,000</b>
<b>Administrative Projects</b>							
1	16	Nitrogen and Capacity Study	Operating Cash	01-03-535-8105	100,000	100,000	
1	17	Finance Plan and Rate Study	Operating Cash	01-03-510-9130	50,000	50,000	
1	18	Organizational Performance Assessment	Operating Cash	01-03-515-8140	47,000	47,000	
1	19	Programmable Logic Control (PLC) Replacement		01-02-530-6022-9999	500,000	55,000	445,000
1	20	Accounting Software	Operating Cash	01-02-530-8115	100,000	100,000	
<b>Total Administrative Projects</b>					<b>\$797,000</b>	<b>\$352,000</b>	<b>\$445,000</b>
<b>TOTAL</b>					<b>\$ 7,117,000</b>	<b>\$ 3,217,000</b>	<b>\$ 3,900,000</b>

Items that could be delayed: \$581,000



**Victor Valley Wastewater Reclamation Authority  
Capital Improvement Programs - Summary  
Fiscal Year 2018 - 2019**



Apple Valley – During the Construction



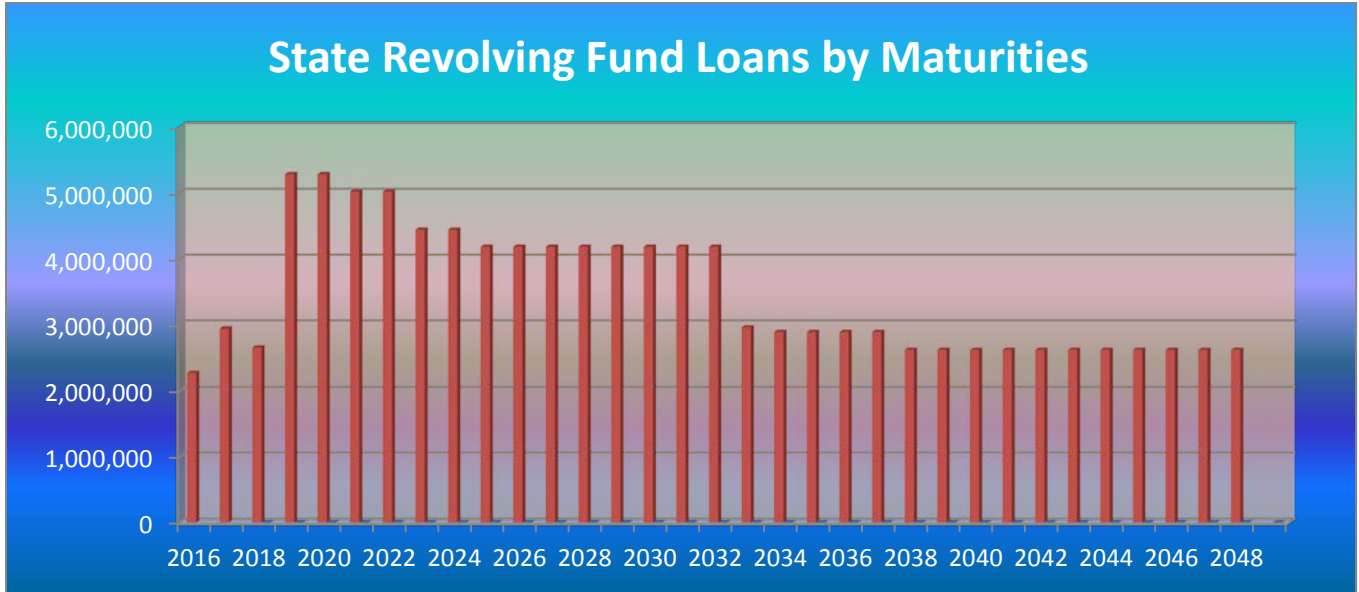
Desert Knolls Wash exposed due to the storm

**Victor Valley Wastewater Reclamation Authority**  
**Existing State Revolving Fund Loan Payments by Maturities**  
**Fiscal Year 2018-2019**

The table below represents our debt service payments for the Clean Water State Revolving Fund (SRF) loans. In addition to \$4.0 million Water Recycling grant and \$9.2 million Proposition One grant, we have obtained a \$27.1 million SRF loan for Apple Valley Sub-regional plant and \$40.7 million SRF loan for Hesperia Sub-regional plant during FY 2015. In addition, we have added a \$4.3 million SRF loan for the Upper Narrows Pipeline Replacement Project and a \$4.5 million SRF loan for the Nanticoke Pump Station Bypass Sewer Project during FY 2016. Our debts consist of the SRF loans only, as listed below. As a special district, we are not required to maintain a legal debt limit but are required to adhere to the debt coverage clauses specified at page 16. Please also refer to page 51 for the impact of the debt repayments to the Operations & Maintenance and Capital Funds. Next page shows the annual repayments in a graph.

<b>VVWRA Annual Debt Service</b>									
<b>Fiscal Year</b>	<b>9.5 MGD Capital Improvements</b>	<b>11 MGD Expansion</b>	<b>North Apple Valley Interceptor</b>	<b>Phase IIIA Regulatory Upgrades</b>	<b>Upper Narrows Replacement</b>	<b>Nanticoke Bypass</b>	<b>Apple Valley Sub-Regional</b>	<b>Hesperia Sub-Regional</b>	<b>Total</b>
2016	265,049	579,870	258,151	1,027,610	143,890	-	-	-	<b>2,274,570</b>
2017	265,049	579,870	258,151	1,027,610	810,978	-	-	-	<b>2,941,658</b>
2018	265,049	579,870	258,151	1,027,610	257,745	271,633	-	-	<b>2,660,058</b>
2019	265,049	579,870	258,151	1,027,610	257,745	271,633	1,050,521	1,574,511	<b>5,285,090</b>
2020	265,049	579,870	258,151	1,027,610	257,745	271,633	1,050,521	1,574,511	<b>5,285,090</b>
2021	-	579,870	258,151	1,027,610	257,745	271,633	1,050,521	1,574,511	<b>5,020,041</b>
2022	-	579,870	258,151	1,027,610	257,745	271,633	1,050,521	1,574,511	<b>5,020,041</b>
2023	-	-	258,151	1,027,610	257,745	271,633	1,050,521	1,574,511	<b>4,440,171</b>
2024	-	-	258,151	1,027,610	257,745	271,633	1,050,521	1,574,511	<b>4,440,171</b>
2025	-	-	-	1,027,610	257,745	271,633	1,050,521	1,574,511	<b>4,182,020</b>
2026	-	-	-	1,027,610	257,745	271,633	1,050,521	1,574,511	<b>4,182,020</b>
2027	-	-	-	1,027,610	257,745	271,633	1,050,521	1,574,511	<b>4,182,020</b>
2028	-	-	-	1,027,610	257,745	271,633	1,050,521	1,574,511	<b>4,182,020</b>
2029	-	-	-	1,027,610	257,745	271,633	1,050,521	1,574,511	<b>4,182,020</b>
2030	-	-	-	1,027,610	257,745	271,633	1,050,521	1,574,511	<b>4,182,020</b>
2031	-	-	-	1,027,610	257,745	271,633	1,050,521	1,574,511	<b>4,182,020</b>
2032	-	-	-	1,027,610	257,745	271,633	1,050,521	1,574,511	<b>4,182,020</b>
2033	-	-	-	-	60,393	271,633	1,050,521	1,574,511	<b>2,957,058</b>
2034	-	-	-	-	-	271,633	1,050,521	1,574,511	<b>2,896,665</b>
2035	-	-	-	-	-	271,633	1,050,521	1,574,511	<b>2,896,665</b>
2036	-	-	-	-	-	271,633	1,050,521	1,574,511	<b>2,896,665</b>
2037	-	-	-	-	-	271,633	1,050,521	1,574,511	<b>2,896,665</b>
2038	-	-	-	-	-	-	1,050,521	1,574,511	<b>2,625,032</b>
2039	-	-	-	-	-	-	1,050,521	1,574,511	<b>2,625,032</b>
2040	-	-	-	-	-	-	1,050,521	1,574,511	<b>2,625,032</b>
2041	-	-	-	-	-	-	1,050,521	1,574,511	<b>2,625,032</b>
2042	-	-	-	-	-	-	1,050,521	1,574,511	<b>2,625,032</b>
2043	-	-	-	-	-	-	1,050,521	1,574,511	<b>2,625,032</b>
2044	-	-	-	-	-	-	1,050,521	1,574,511	<b>2,625,032</b>
2045	-	-	-	-	-	-	1,050,521	1,574,511	<b>2,625,032</b>
2046	-	-	-	-	-	-	1,050,521	1,574,511	<b>2,625,032</b>
2047	-	-	-	-	-	-	1,050,521	1,574,511	<b>2,625,032</b>
2048	-	-	-	-	-	-	1,050,521	1,574,511	<b>2,625,032</b>
<b>Total</b>	<b>1,325,245</b>	<b>4,059,090</b>	<b>2,323,359</b>	<b>17,469,370</b>	<b>4,881,436</b>	<b>5,432,660</b>	<b>31,515,630</b>	<b>47,235,330</b>	<b>114,242,120</b>

**Victor Valley Wastewater Reclamation Authority  
Existing State Revolving Fund Loan Payments by Maturities  
Fiscal Year 2018-2019**



This graph presents the annual SRF loan repayments. At peak years, the repayment amount exceeds \$5 million. During FY 2019 the impact on Operations and Maintenance (O&M) Fund is \$2,844,845, while the effect on Capital Fund is \$2,440,247. For FY 2020, the impact on O&M Fund is also \$2,844,845 and effect on Capital Fund is \$2,440,247. Please refer to page 51 for the detail information.



**Victor Valley Wastewater Reclamation Authority  
State Revolving Fund Loans for FY 2019 and FY 2020**

Summary: VVWRA has utilized State Revolving Fund (SRF) loans through California State Water Resources Control Board to fund most capital projects. The construction of the projects below was completed during the year ended June 30, 2018. This page shows the next two years of principal and interest repayments per Operations & Maintenance and Capital Funds.

2019	9.5 MGD Capital Improvements	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	2019 Total
SRF Loan Amount	\$ 4,069,859	\$ 11,430,726	\$ 4,084,688	\$ 15,717,668	\$ 4,286,380	\$ 4,459,190	\$ 27,129,023	\$ 40,658,810	\$ 111,836,344
Annual Payment	\$ 265,050	\$ 579,870	\$ 258,151	\$ 1,027,610	\$ 257,745	\$ 270,220	\$ 1,050,521	\$ 1,574,511	\$ 5,283,678
Payment Date	September 15	April 3	February 13	June 30	December 31	June 30	February 28	February 28	
<b>1. Operations</b>	4.30%	0.00%	0.00%	75.00%	100.00%	75.00%	61.00%	61.00%	
Original Loan	\$ 175,004	\$ -	\$ -	\$ 11,788,251	\$ 4,286,380	\$ 3,344,393	\$ 16,548,704	\$ 24,801,874	
Principal	\$ 10,827	\$ -	\$ -	\$ 530,766	\$ 197,174	\$ 142,474	\$ 486,104	\$ 727,394	\$ 2,094,739
Interest	\$ 570	\$ -	\$ -	\$ 239,942	\$ 60,571	\$ 61,251	\$ 154,714	\$ 233,058	\$ 750,106
Annual Payment	\$ 11,397	\$ -	\$ -	\$ 770,708	\$ 257,745	\$ 203,725	\$ 640,818	\$ 960,452	\$ 2,844,845
<b>2. Capital</b>	95.70%	100.00%	100.00%	25.00%	0.00%	25.00%	39.00%	39.00%	
Original Loan	\$ 3,894,855	\$ 11,430,726	\$ 4,084,688	\$ 3,929,417	\$ -	\$ 1,114,798	\$ 10,580,319	\$ 15,856,936	
Principal	\$ 240,960	\$ 538,835	\$ 222,603	\$ 176,922	\$ -	\$ 47,491	\$ 310,787	\$ 465,055	\$ 2,002,653
Interest	\$ 12,693	\$ 41,035	\$ 35,548	\$ 79,981	\$ -	\$ 20,417	\$ 98,916	\$ 149,004	\$ 437,594
Annual Payment	\$ 253,653	\$ 579,870	\$ 258,151	\$ 256,903	\$ -	\$ 67,908	\$ 409,703	\$ 614,059	\$ 2,440,247
<b>Total Principal</b>	\$ 251,787	\$ 538,835	\$ 222,603	\$ 707,688	\$ 197,174	\$ 189,965	\$ 796,891	\$ 1,192,449	\$ 4,097,391
<b>Total Interest</b>	\$ 13,263	\$ 41,035	\$ 35,548	\$ 319,922	\$ 60,571	\$ 81,668	\$ 253,630	\$ 382,062	\$ 1,187,700
<b>Annual Payment</b>	\$ 265,050	\$ 579,870	\$ 258,151	\$ 1,027,610	\$ 257,745	\$ 271,633	\$ 1,050,521	\$ 1,574,511	\$ 5,285,091

2020	9.5 MGD Capital Improvements	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	2020 Total
SRF Loan Amount	\$ 4,069,859	\$ 11,430,726	\$ 4,084,688	\$ 15,717,668	\$ 4,286,380	\$ 4,459,190	\$ 27,129,023	\$ 40,658,810	\$ 111,836,344
Annual Payment	\$ 265,050	\$ 579,870	\$ 258,151	\$ 1,027,610	\$ 257,745	\$ 270,220	\$ 1,050,521	\$ 1,574,511	\$ 5,283,678
Payment Date	September 15	April 3	February 13	June 30	December 31	June 30	February 28	February 28	
<b>1. Operations</b>	4.30%	0.00%	0.00%	75.00%	100.00%	75.00%	61.00%	61.00%	
Original Loan	\$ 175,004	\$ -	\$ -	\$ 11,788,251	\$ 4,286,380	\$ 3,344,393	\$ 16,548,704	\$ 24,801,874	
Principal	\$ 11,108	\$ -	\$ -	\$ 545,097	\$ 200,921	\$ 145,181	\$ 480,192	\$ 719,708	\$ 2,102,207
Interest	\$ 289	\$ -	\$ -	\$ 225,611	\$ 56,824	\$ 58,544	\$ 160,626	\$ 240,744	\$ 742,638
Annual Payment	\$ 11,397	\$ -	\$ -	\$ 770,708	\$ 257,745	\$ 203,725	\$ 640,818	\$ 960,452	\$ 2,844,845
<b>2. Capital</b>	95.70%	100.00%	100.00%	25.00%	0.00%	25.00%	39.00%	39.00%	
Original Loan	\$ 3,894,855	\$ 11,430,726	\$ 4,084,688	\$ 3,929,417	\$ -	\$ 1,114,798	\$ 10,580,319	\$ 15,856,936	
Principal	\$ 247,225	\$ 548,803	\$ 228,168	\$ 181,699	\$ -	\$ 48,394	\$ 307,008	\$ 460,140	\$ 2,021,437
Interest	\$ 6,427	\$ 31,067	\$ 29,983	\$ 75,204	\$ -	\$ 19,515	\$ 102,695	\$ 153,919	\$ 418,810
Annual Payment	\$ 253,652	\$ 579,870	\$ 258,151	\$ 256,903	\$ -	\$ 67,909	\$ 409,703	\$ 614,059	\$ 2,440,247
<b>Total Principal</b>	\$ 258,333	\$ 548,803	\$ 228,168	\$ 726,796	\$ 200,921	\$ 193,574	\$ 787,200	\$ 1,179,848	\$ 4,123,643
<b>Total Interest</b>	\$ 6,716	\$ 31,067	\$ 29,983	\$ 300,814	\$ 56,824	\$ 78,059	\$ 263,321	\$ 394,663	\$ 1,161,448
<b>Annual Payment</b>	\$ 265,049	\$ 579,870	\$ 258,151	\$ 1,027,610	\$ 257,745	\$ 271,633	\$ 1,050,521	\$ 1,574,511	\$ 5,285,091

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## *Section VI: History and Demographics*

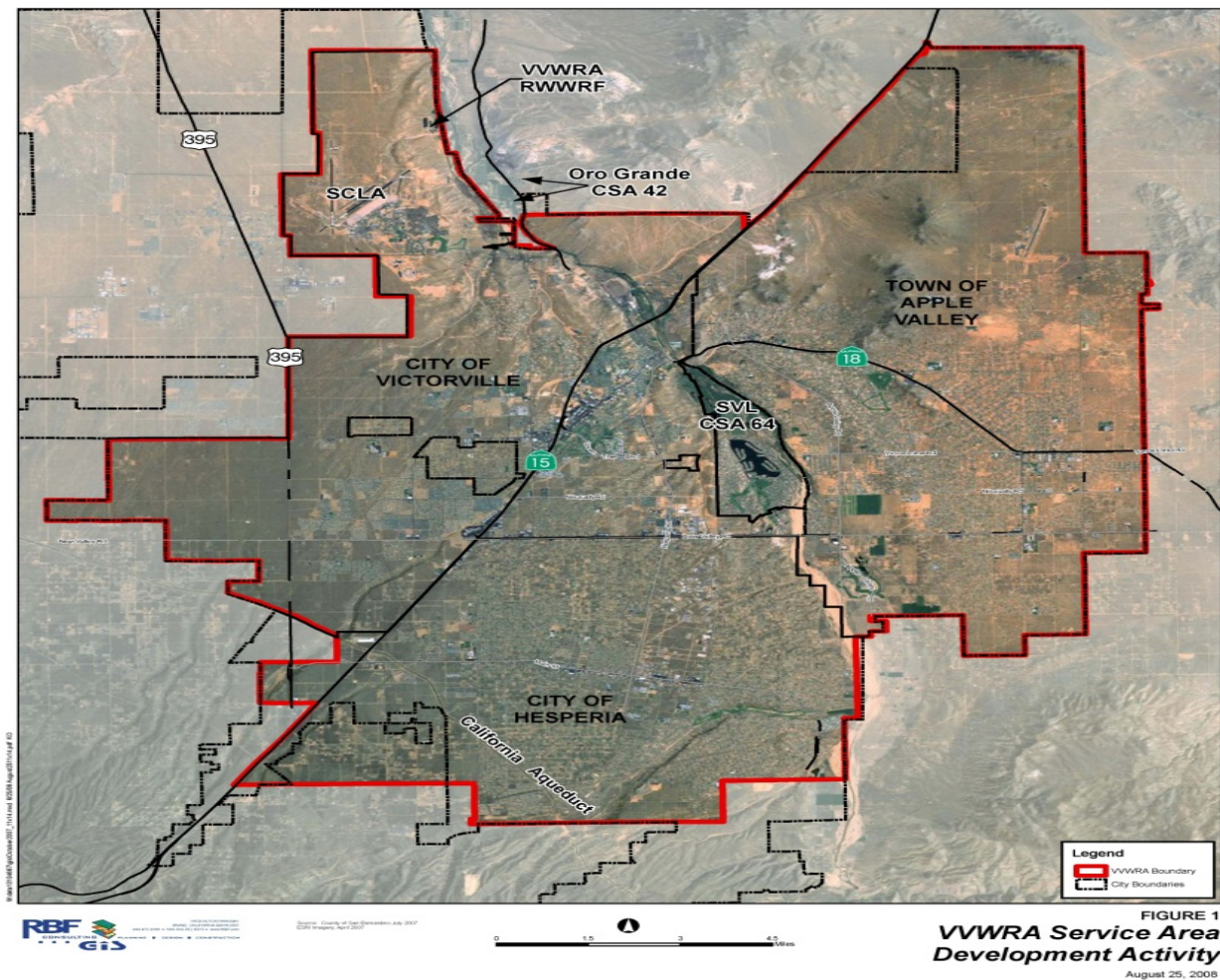
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**Victor Valley Wastewater Reclamation Authority  
History and Demographics  
Fiscal Year 2018-2019**

*History*

Victor Valley Wastewater Reclamation Authority (VWVRA) 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 growing area. Our original treatment plant, with supporting pipelines and infrastructure, began operating in 1981, providing tertiary level treatment for up to 4.5 million gallons per day. VWVRA is now a joint power public agency of the State of California handling 12.05 million gallons a day.

Over the years, VWVRA has completed treatment plant upgrades and several capacity increases. This 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.



Provided by RBF Consulting, Inc.

**Victor Valley Wastewater Reclamation Authority  
History and Demographics  
Fiscal Year 2018-2019**

*Governance*

VVWRA is a quasi-governmental agency called a Special District of the State of California. It is not regulated by California Public Utilities Commission but governed by a Board of four Commissioners who are publicly elected for a four-year term from each member agency. Our affairs are bound by a joint powers agreement between VVWRA and member local government agencies consisting of City of Victorville, City of Hesperia, Town of Apple Valley and the County of San Bernardino Service Areas No. 42 (Oro Grande) and No. 64 (Spring Valley Lake) for the purpose of construction; operation; and maintenance of sewer collection, transmission, and treatment facilities within the region. The General Manager is responsible for carrying out the policies and ordinances approved by the Board (and by the community residents) and for overseeing the day-to-day operations of VVWRA.

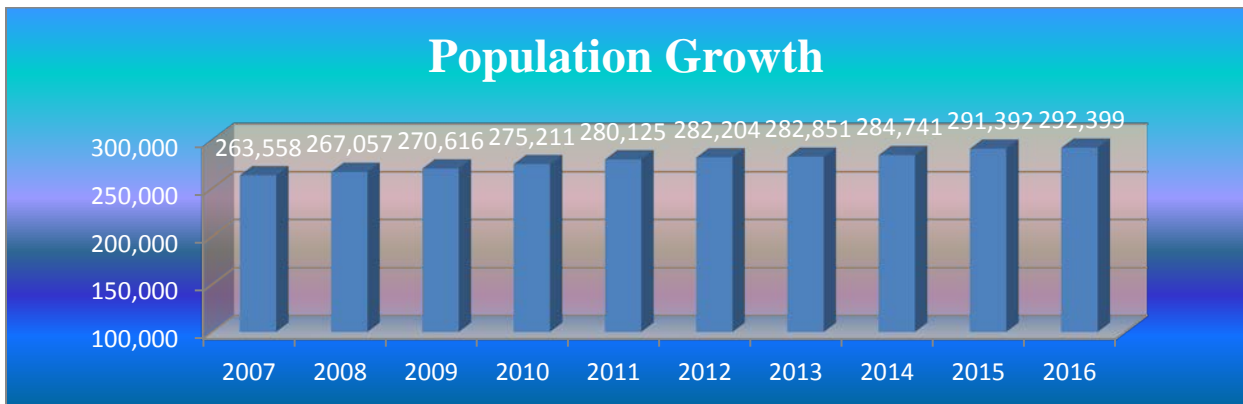
*San Bernardino County*

San Bernardino County is the largest county in the United States. According to the 2010 U.S. Census, the San Bernardino County has a population of 2,035,210. With an area of 20,160 square miles, the San Bernardino County is larger than the combined area of the four smallest states in the nation. Over 90% of this county is desert, while the remaining 10% is mountains and valleys that rest in the Inland Empire.

*Demographics*

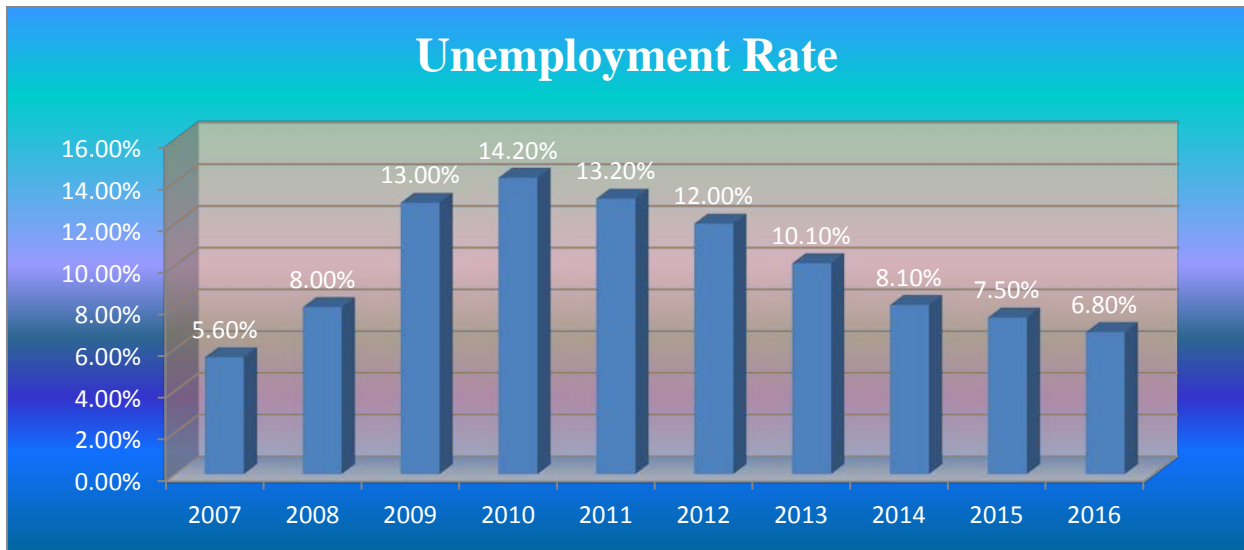
The service area has a population of 292,399 in 2016 with a slow and steady population growth from 2007 to 2016.

Unemployment in the San Bernardino County has risen from 8% in 2008 to 10.1% in 2013 due to the economic downturn that started in late 2008. The increased unemployment has also impacted the personal income per capita, which decreased from \$30,363 in 2008 to \$21,792 in 2009, then recovered to \$33,302 in 2016.

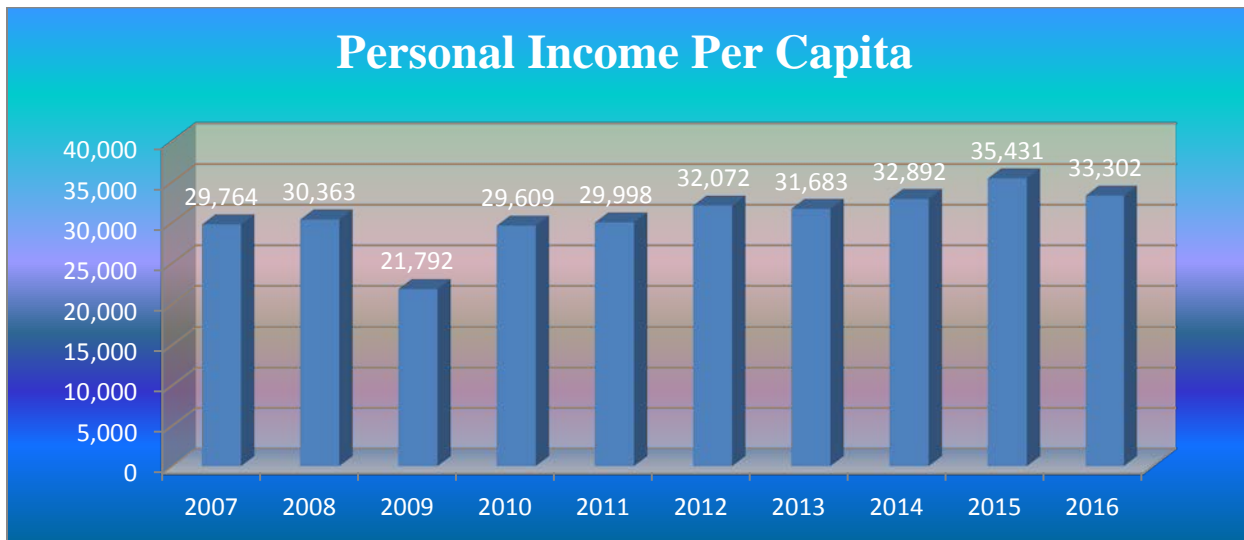


Source: California Department of Finance and U.S. Census Bureau. Years are calendar years.

**Victor Valley Wastewater Reclamation Authority  
History and Demographics  
Fiscal Year 2018-2019**



*Source: State of California Employment Development Department (Data shown is for the County of San Bernardino.) Years are calendar years.*



*Source: State of California Employment Development Department (Data shown is for the County of San Bernardino.) Years are calendar years.*



**Victor Valley Wastewater Reclamation Authority  
Performance Benchmarked against Industry  
Fiscal Year 2018-2019**

*Sewer Overflow*

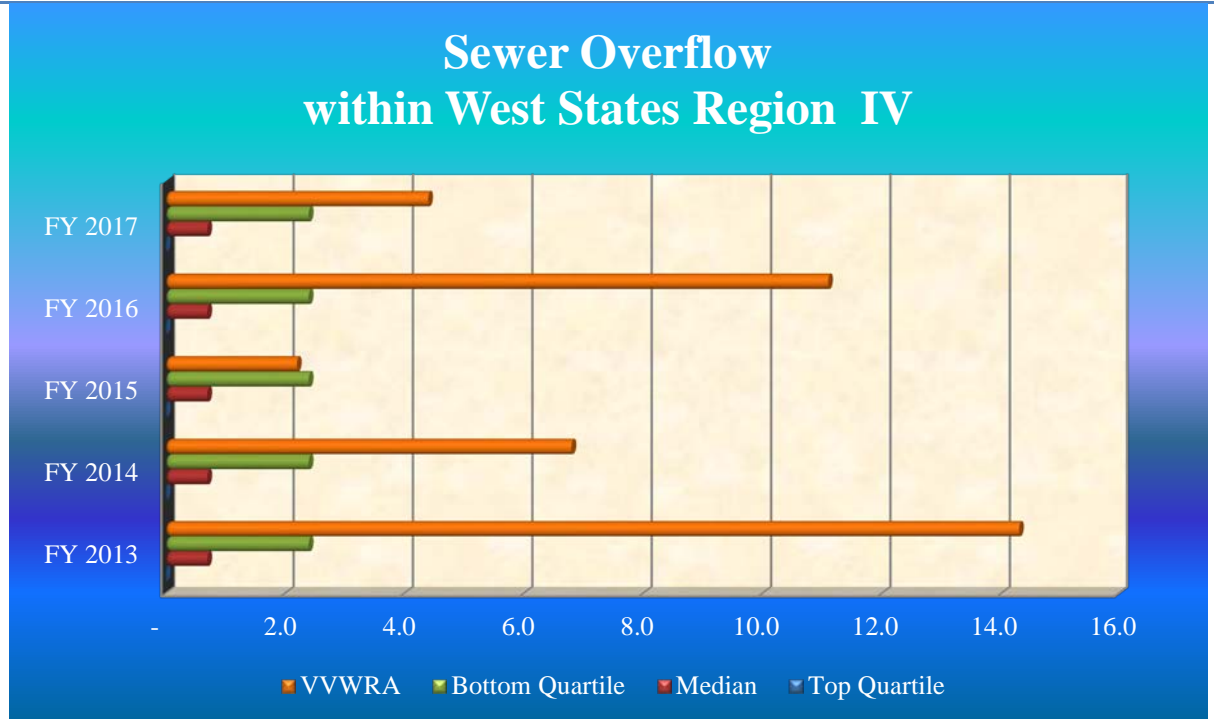
The sewer overflow rate is an indicator that tracks the condition and the effectiveness of the maintenance of the wastewater collection system.

San Bernardino County, including Upper and Lower Narrows of the Mojave River, experienced a severe rain storm during December 2010. President Obama declared this storm as a National Disaster on January 26, 2011. The flood and debris damaged pipelines that lead to an unexpectedly high sewer overflow rate of 12.2 for FY 2011. VVWRA installed an emergency temporary pipeline to divert the flow from the damaged pipeline. This rain storm caused unusual overflows including one at the ‘T’ Avenue pipeline in the City of Hesperia. To remedy overflow in this area, VVWRA constructed the Santa Fe relief pipeline during FY 2012.

VVWRA had two reported spill at the Upper Narrows Emergency Bypass Sites during FY 2017 which resulted in a sewer overflow rate of 4.40. VVWRA has completed the construction of a permanent interceptor during FY 2017 to replace the temporary bypass line.

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

	Top Quartile	Median	Bottom Quartile	VVWRA
<b>FY 2017</b>	<i>Data Not Available</i>	0.70	2.40	4.40
<b>FY 2016</b>	<i>Data Not Available</i>	0.70	2.40	11.10
<b>FY 2015</b>	<i>Data Not Available</i>	0.70	2.40	2.20
<b>FY 2014</b>	<i>Data Not Available</i>	0.70	2.40	6.80
<b>FY 2013</b>	<i>Data Not Available</i>	0.70	2.40	14.30



Source: 2012 American Water Works Association Benchmarking analysis

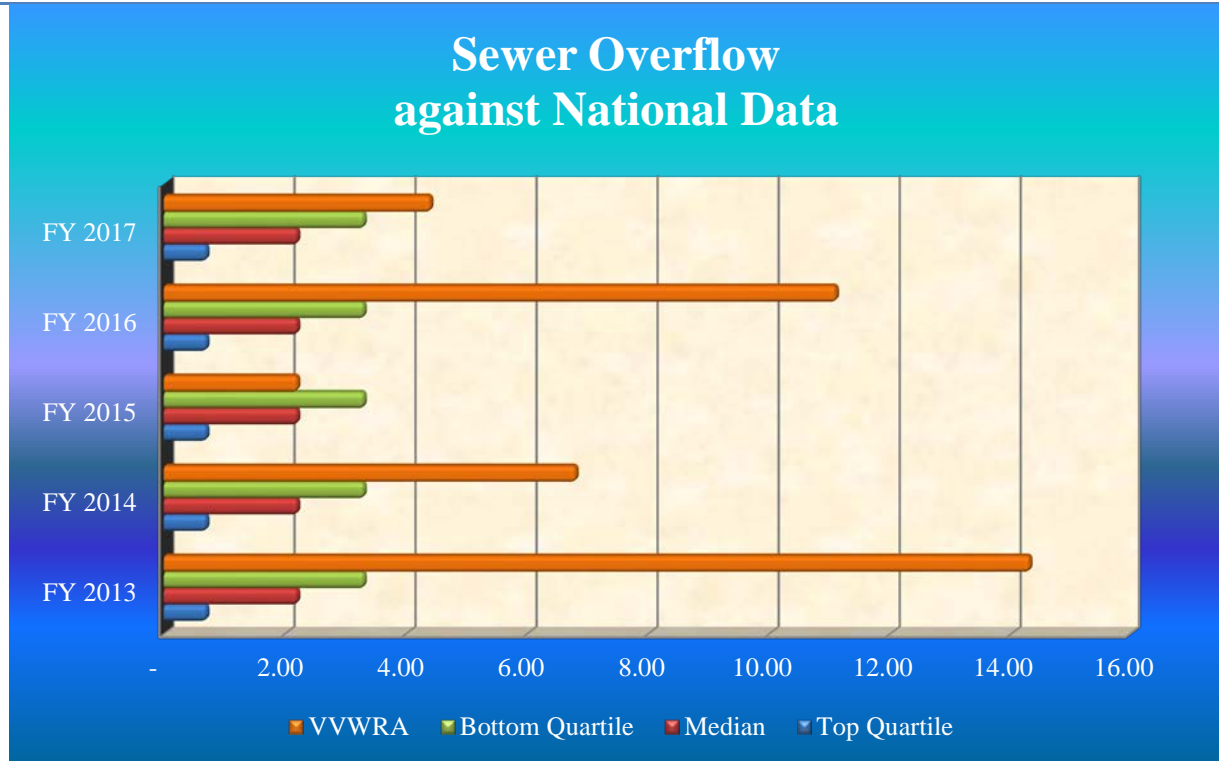
FY = Fiscal Year ended June 30



**Victor Valley Wastewater Reclamation Authority  
Performance Benchmarked against Industry  
Fiscal Year 2018-2019**

**Sewer Overflow-National Benchmark**

	Top Quartile	Median	Bottom Quartile	VVWRA
<b>FY 2017</b>	0.70	2.20	3.30	4.40
<b>FY 2016</b>	0.70	2.20	3.30	11.10
<b>FY 2015</b>	0.70	2.20	3.30	2.20
<b>FY 2014</b>	0.70	2.20	3.30	6.80
<b>FY 2013</b>	0.70	2.20	3.30	14.30



Source: 2012 American Water Works Association Benchmarking analysis

FY = Fiscal Year ended June 30

**Victor Valley Wastewater Reclamation Authority  
Performance Benchmarked against Industry  
Fiscal Year 2018-2019**

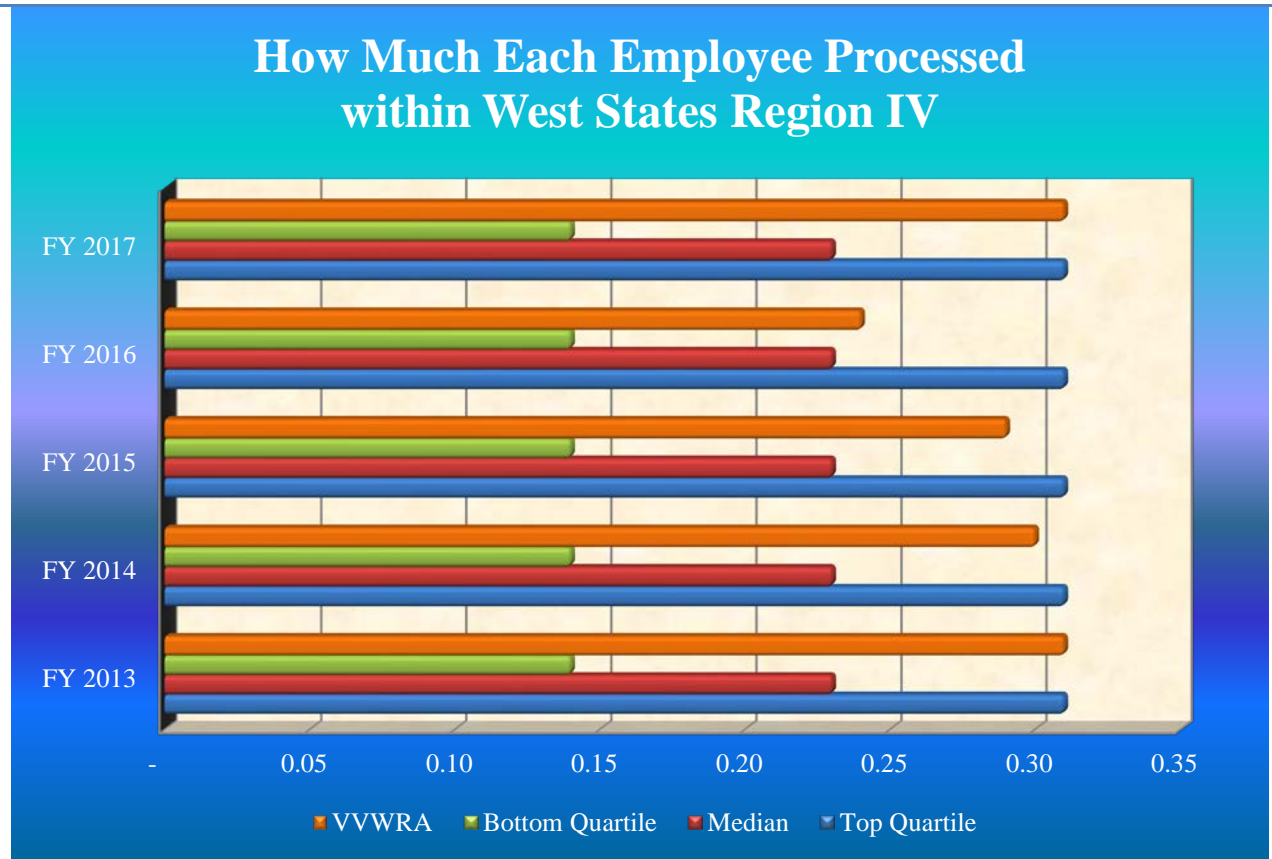
*How Much Each Employee Processed*

The quantity of wastewater processed by each employee has decreased from 0.31 million gallons per day (MGD) in FY 2013 to 0.24 MGD in FY 2016 and increased back to 0.31 MGD in FY 2017. The total amount of wastewater that VVWRA has processed has decreased by 18%, from 4,704 MG in FY 2013 to 3,845 MG in FY 2017. The total number of employees that VVWRA employed has also decreased as well by 17%, from 41 to 34 during the comparative period per CAFR's.

Compared to West States Region IV, VVWRA has almost continuously remained at the top quartile during FY 2013. Compared nationally, the quantity of wastewater processed by each employee has surpassed the median since FY 2013.

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

	Top Quartile	Median	Bottom Quartile	VVWRA
<b>FY 2017</b>	0.31	0.23	0.14	0.31
<b>FY 2016</b>	0.31	0.23	0.14	0.24
<b>FY 2015</b>	0.31	0.23	0.14	0.29
<b>FY 2014</b>	0.31	0.23	0.14	0.30
<b>FY 2013</b>	0.31	0.23	0.14	0.31



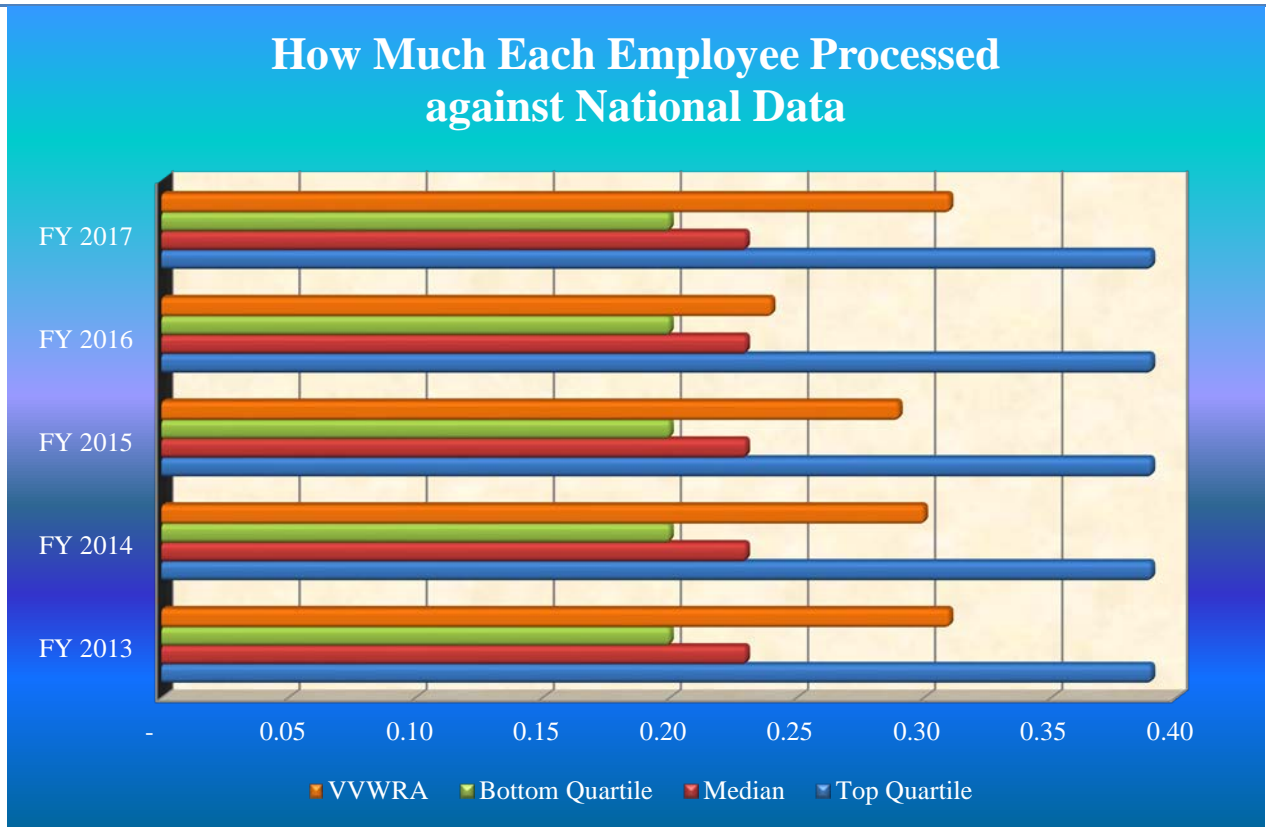
Source: 2012 American Water Works Association Benchmarking analysis

FY = Fiscal Year ended June 30

**Victor Valley Wastewater Reclamation Authority  
Performance Benchmarked against Industry  
Fiscal Year 2018-2019**

**How Much Each Employee Processed-National Benchmark**

	Top Quartile	Median	Bottom Quartile	VVWRA
<b>FY 2017</b>	0.39	0.23	0.20	0.31
<b>FY 2016</b>	0.39	0.23	0.20	0.24
<b>FY 2015</b>	0.39	0.23	0.20	0.29
<b>FY 2014</b>	0.39	0.23	0.20	0.30
<b>FY 2013</b>	0.39	0.23	0.20	0.31



Source: 2012 American Water Works Association Benchmarking analysis

FY = Fiscal Year ended June 30

**Victor Valley Wastewater Reclamation Authority  
Performance Benchmarked against Industry  
Fiscal Year 2018-2019**

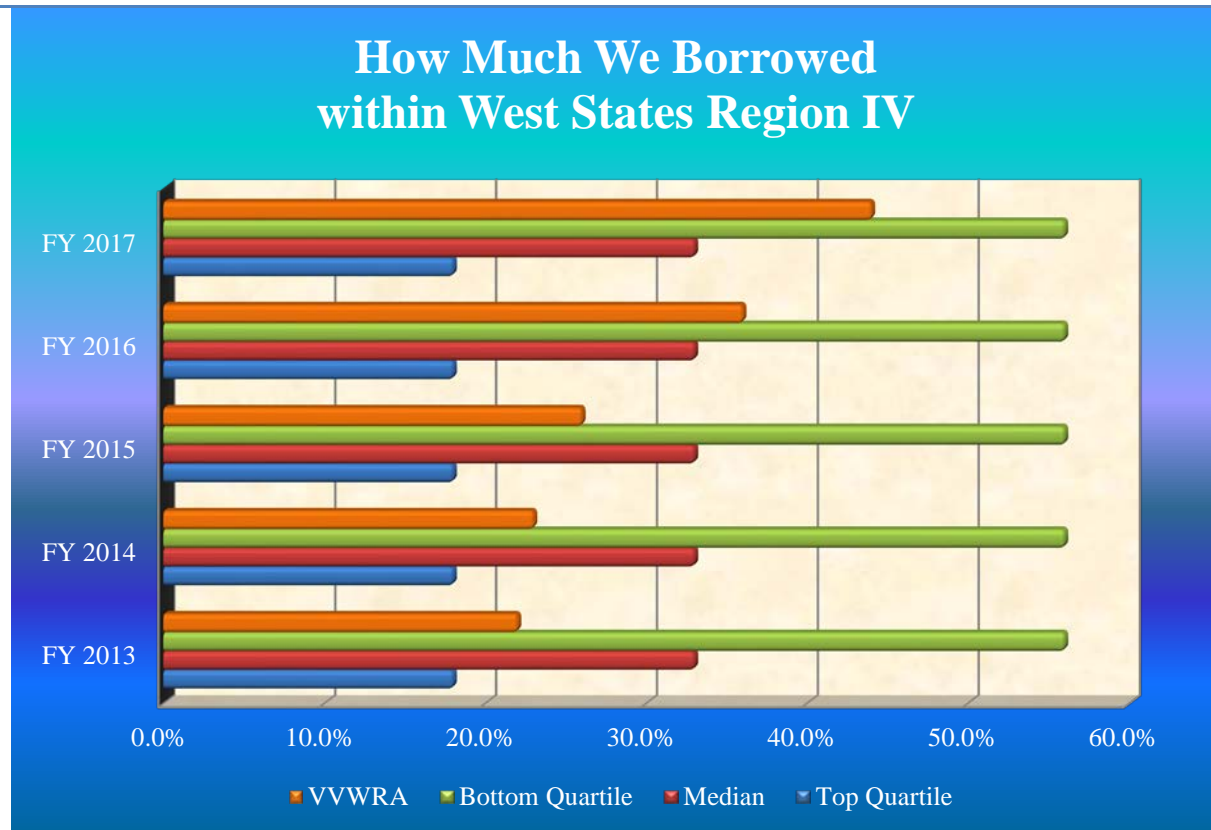
*How Much We Borrowed*

When you compare what you owe (liabilities) to what you have (assets), you will obtain a debt ratio. The debt ratio can be used to measure the health of a business. Lower value of debt ratio is favorable and a higher value indicates that a higher portion of the organization's assets are claimed by its creditors which means there is a higher risk in operation since the entity would find it difficult to obtain loans for new projects. VVWRA's debt ratio has increased from 22.00% in FY 2013 to 44.00% in FY 2017 due to the increase in the amount of State Revolving Fund loans for the construction projects.

VVWRA surpassed the median quartile in FY 2013 and performed better than the median quartile of the West States Region IV in later years. Compared nationally, VVWRA is ranked between median and top quartiles for the same period. The national data for top and bottom quartiles is not available.

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

	Top Quartile	Median	Bottom Quartile	VVWRA
<b>FY 2017</b>	18.0%	33.0%	56.0%	44.00%
<b>FY 2016</b>	18.0%	33.0%	56.0%	36.00%
<b>FY 2015</b>	18.0%	33.0%	56.0%	26.00%
<b>FY 2014</b>	18.0%	33.0%	56.0%	23.00%
<b>FY 2013</b>	18.0%	33.0%	56.0%	22.00%



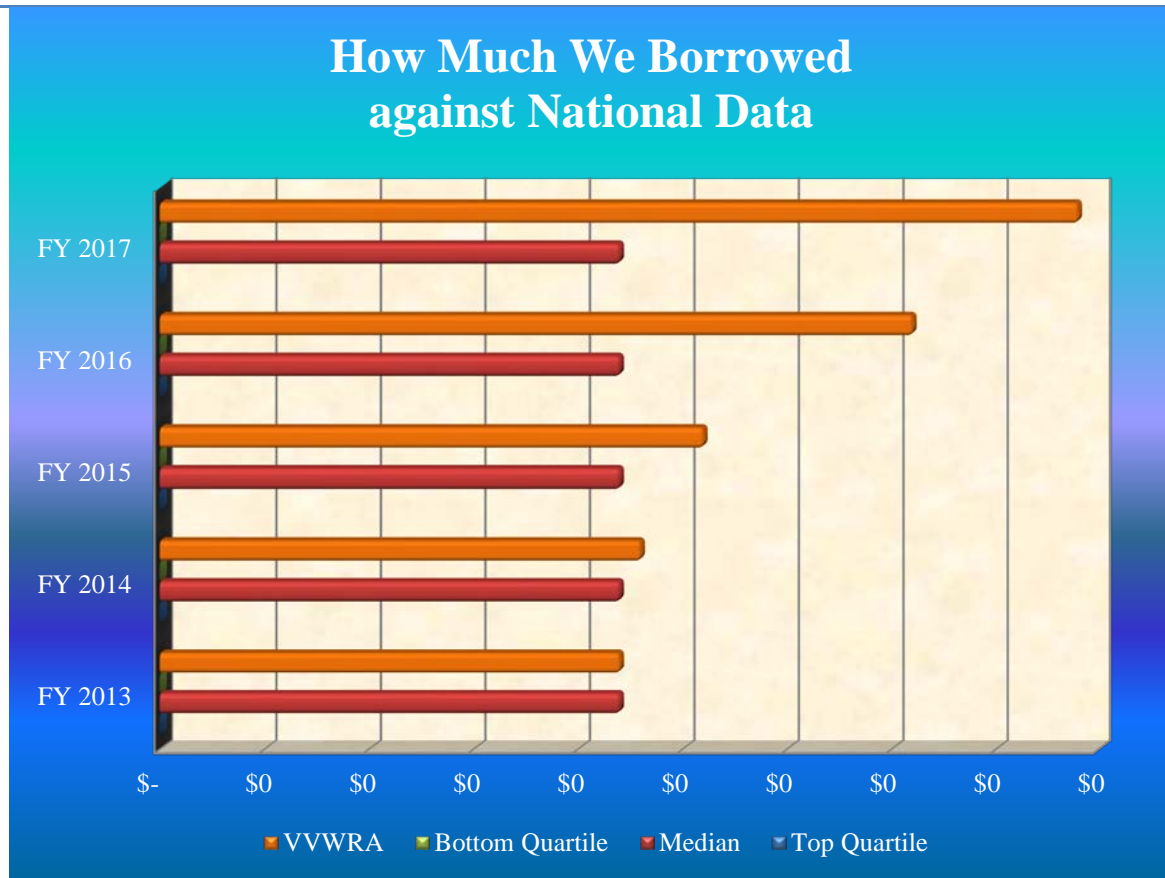
Source: 2012 American Water Works Association Benchmarking analysis

FY = Fiscal Year ended June 30

**Victor Valley Wastewater Reclamation Authority  
Performance Benchmarked against Industry  
Fiscal Year 2018-2019**

**How Much We Borrowed-National Benchmark**

	Top Quartile	Median	Bottom Quartile	VVWRA
<b>FY 2017</b>	Data Not Available	22.0%	Data Not Available	44.00%
<b>FY 2016</b>	Data Not Available	22.0%	Data Not Available	36.00%
<b>FY 2015</b>	Data Not Available	22.0%	Data Not Available	26.00%
<b>FY 2014</b>	Data Not Available	22.0%	Data Not Available	23.00%
<b>FY 2013</b>	Data Not Available	22.0%	Data Not Available	22.00%



Source: 2012 American Water Works Association Benchmarking analysis

FY = Fiscal Year ended June 30

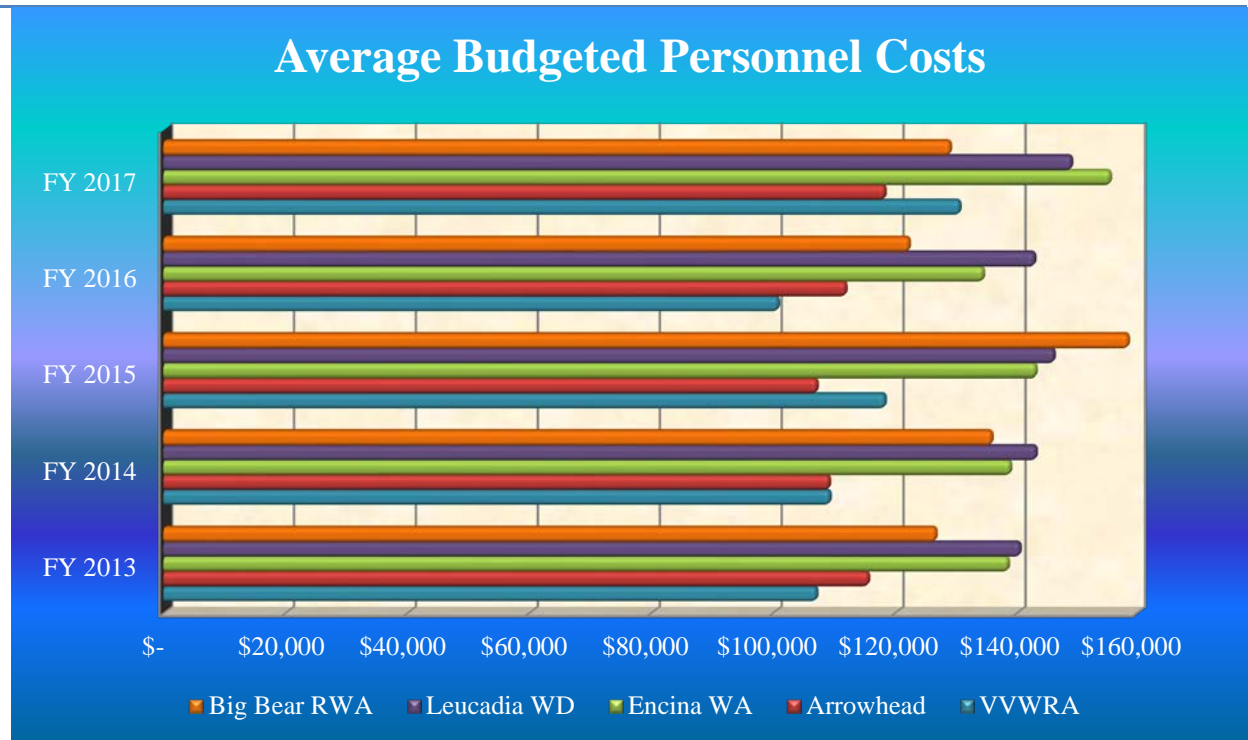
**Victor Valley Wastewater Reclamation Authority  
Performance Benchmarked against Industry  
Fiscal Year 2018-2019**

*Average Budgeted Personnel Cost*

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

**Average Budgeted Personnel Cost**

	VVWRA	Arrowhead	Encina WA	Leucadia WD	Big Bear RWA
<b>FY 2017</b>	\$ 130,464	\$ 118,190	\$ 155,394	\$ 148,888	\$ 128,896
<b>FY 2016</b>	\$ 100,670	\$ 111,767	\$ 134,317	\$ 142,734	\$ 122,160
<b>FY 2015</b>	\$ 118,218	\$ 107,039	\$ 142,968	\$ 145,960	\$ 158,417
<b>FY 2014</b>	\$ 109,157	\$ 109,058	\$ 138,791	\$ 142,991	\$ 135,720
<b>FY 2013</b>	\$ 106,993	\$ 115,469	\$ 138,421	\$ 140,339	\$ 126,547



Source: 2012 American Water Works Association Benchmarking analysis

FY = Fiscal Year ended June 30

## *Section VII: Glossary*

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**Victor Valley Wastewater Reclamation Authority**  
**Glossary**  
**Fiscal Year 2018-2019**

<b>Glossary</b>	
<b>Ammonia Nitrogen</b>	The soluble ionized and unionized ammonia nitrogen component in wastewater that can be measured using the procedure described in the current edition of “ <i>Standard Methods for the Examination of Water and Wastewater</i> ” published by the American Public Health Association.
<b>Biochemical oxygen demand (BOD)</b>	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 “ <i>Standard Methods for the Examination of Water and Wastewater</i> ” published by the American Public Health Association.
<b>Cal-OES</b>	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.
<b>Cash Basis</b>	Revenues and expenses are recognized when cash is received or paid out.
<b>Connection Fee</b>	A fee paid by a new discharger for the costs of capacity in the regional wastewater system.
<b>Effluent</b>	The liquid outflow discharged from the Publicly Owned Treatment Works (POTW) facility or the nondomestic wastewater discharged by industrial users to the POTW.
<b>Enterprise accounting</b>	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.
<b>Enterprise Accounting System</b>	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.
<b>FEMA</b>	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.
<b>Interceptor</b>	A pipeline that conveys wastewater from the sewer collection facilities of a Member Agency to the VVWRA’s wastewater treatment facilities.
<b>Member Agencies</b>	The four government agencies who participate in the joint power agreement with VVWRA. They are the City of Victorville; Town of Apple Valley; Hesperia Water District; and County of San Bernardino Service Areas, #42 Oro Grande and #64 Spring Valley Lake.
<b>MG</b>	Million Gallons.
<b>MGD</b>	Million Gallons per Day.
<b>POTW</b>	The Publicly Owned Treatment Works is sewage treatment plants that are owned and usually operated by local government agencies.
<b>Industrial Pretreatment</b>	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.
<b>Reclaimed Water</b>	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.
<b>Septage</b>	Any wastewater or sludge removed from cesspools, septic tanks, holding tanks, or chemical toilets that is trucked or hauled to the point of discharge.
<b>SRF</b>	State Revolving Fund.
<b>High Strength Surcharge</b>	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.
<b>Total Suspended Solids</b>	The insoluble solid matter suspended in wastewater that is separable by laboratory filtration in accordance with the procedure described in the current edition of “ <i>Standard Methods for the Examination of Water and Wastewater</i> ” published by the American Public Health Association.
<b>Ultraviolet Disinfection</b>	A non-chemical process whereby a pathogen, contained within the wastewater, is exposed to a dosage of ultraviolet radiation, resulting in the deactivation of the pathogen’s DNA, such that the pathogen is unable to reproduce.
<b>User</b>	Any person who contributes, causes, or permits the contribution of wastewater into the POTW, including households, private residences, nonresidential users, and Member Agencies.
<b>VVWRA</b>	The Victor Valley Wastewater Reclamation Authority.
<b>Wastewater</b>	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.

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