# Fiscal Year 2016-2017

# Operations & Capital Adopted 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**

**VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY**
**Table of Contents**
**Fiscal Year 2016-2017**

**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*

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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@vvwra.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 2016-2017 (hereafter referred to as FY 2017) for Victor Valley Wastewater Reclamation Authority (VVWRA). 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 $14.4 million budgeted for FY 2017, $12.8 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, high strength surcharge, industrial pretreatment fees, and reclaimed water sales. The new high strength surcharge rates for FY 2017 are shown at page 37. In addition, we estimated connection fee revenue of $700,000 to fund existing facility upgrades and the construction of capital projects, such as Sub-regional wastewater treatment plants in the Town of Apple Valley and the City of Hesperia. We have budgeted the connection fee revenues for FY 2017 as 64% of $1.1 million that was budgeted for FY 2016 as we expect fewer connections to the wastewater system during FY 2017 as the City of Victorville stopped sending any connection fees since January 21, 2015.

The FY 2017 budget includes a one-time retention receipt of $4 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 are expected to complete during the FY 2017. For the Sub-regional Wastewater Reclamation Plants in the Town of Apple Valley and the City of

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

Hesperia, we have budgeted $3.5 million grant under Proposition 1, $1.3 million under the Water Recycling grant, and $44.8 million of the Clean Water State Revolving Fund (SRF) loans from California State Water Resources Control Board. The FY 2017 total budgeted revenue including grants and loan proceeds is $69.2 million.

*Pipeline for the Upper Narrows Tunnel*

We have budgeted expenses of $13.2 million for operations and maintenance, $0.8 million for repairs and replacements, and $49.9 million for capital projects. These expenses and expenditures exclude non-cash item, such as depreciation expense. With total expense of $63.2 million, we predict the total budgeted surplus for FY 2017 is $5.2 million. It is our challenge to achieve a 'balanced' budget where the operating and capital revenues equal or exceed the total expenses.

## *Capital Projects and their Expenditures*

VVWRA's capital improvement program in the next three years (listed at pages 48 and 49) allows VVWRA to utilize cutting-edge technologies to continue providing quality wastewater treatment services to the service areas. The anticipated capital projects can be classified into three general categories: Wastewater Treatment, Interceptor, and Energy Efficiency.

These projects are listed in the *Capital Projects and Debts at Section V* on pages 43 through 52 with the proposed funding through one or more of four sources: federal and/or California grants; SRF loans; operating cash reserve; and capital cash reserve. These capital projects are listed in the order of priority, often overlapping several categories during the year.

**Wastewater Treatment and Other Construction Projects:**

To continue providing quality wastewater treatment services for the community, VVWRA has started the construction of two sub-regional water reclamation plants in March 2015 to increase its wastewater treatment capacity. The first and most critical project to reduce the hydraulic load on the Hesperia Interceptor will be the Hesperia Water Reclamation Plant (HWRP). This plant in the City of Hesperia will provide reclaimed water to residential communities and commercial businesses along the I-15 corridor. The second facility is the Apple Valley Water Reclamation Plant (AVWRP) located in the Town of Apple Valley. The AVWRP will provide reclaimed water to the town's public parks. In addition to Clean Water State Revolving Fund (SRF loan), the HWRP and AVWRP construction costs are funded through Title 16 grant from Bureau of Reclamation, United States Department of the Interior; and grants under State of California

*HWRP construction in progress*

Proposition one, Proposition 13, and Proposition 84. The construction of these two sub-regional plants is expected to be complete in the middle of FY 2018.

VVWRA took a step ahead to continue regulatory compliance by the Phase III-B project during 2016 with its NPDES permit following the completion of the Phase III-A upgrade project. In addition to this compliance effort, we have completed following construction: (1) a biogas renewable energy project that enables us to generate electricity from the biogas otherwise wasted, (2) an aeration efficiency project, and (3) Shay Road diversion structure.

VVWRA has started ground work for the construction of a laboratory and administration building to replace the old building as the one of top priorities. This project will be funded through an SRF loan. This laboratory and administration building will allow VVWRA staff to utilize new technologies and testing methods to monitor the wastewater treatment process, providing the staff with modern laboratory environment. The laboratory and administration building project, however, has been postponed to an unknown future period prioritizing other repair and capital projects.

**Interceptor Projects:**

The majority of the wastewater from the surrounding cities in the service areas is transported to VVWRA's wastewater treatment plant through gravity interceptors. While VVWRA continues to upgrade its treatment facilities to handle the increased influent (flow), we will also increase our influent transport capacities by constructing additional interceptors. VVWRA is near completion constructing a permanent pipeline at the Upper Narrows of the Mojave River to replace the temporary bypass line that was set up to deal with 2010 federal disaster projects. These projects have been mostly financed through FEMA and Cal OES grants and also by an SRF loan. Another interceptor that VVWRA will construct during FY 2017 is the Nanticoke interceptor. This project will be financed through another SRF loan.

**Energy Efficiency Projects:**

*Biogas treatment and storage*

As a result of the Phase III-A ultraviolet treatment project coming online, VVWRA has been experiencing major increases in power consumption. We have planned a series of energy efficiency projects in order to alleviate the high cost of power consumption. For example, VVWRA has initiated Aeration Energy Efficiency project including fat, oil and grease treatment in FY 2016. This project was and will be funded through VVWRA's capital reserve.

### *Environmental and Regulatory*

VVWRA is the regional sewer service provider, and as such, the State Water Code authorizes VVWRA to implement a regional reclaimed water permitting program similar to the existing Industrial Pretreatment Program. Once VVWRA has the Master Permit, it will be responsible for permitting and monitoring reclaimed water users. This effort will enable VVWRA to expedite the permitting process rather than relying on individual permits obtained through Lahontan Regional Water Quality Control Board, thus making our effort more efficient for our member agencies.

### *Debts – State Revolving Fund Loans*

Under the circumstances where the City of Victorville (Victorville) diverts its flow of 1.04 million gallons per day and further cutting off its connection fees in addition to the state of local housing development that directly affects the connection fee revenues, a solution needs to be reached with the close cooperation of the member agencies. VVWRA must correct these fiscal issues (1) to have a sufficient cash reserve to meet the SRF loan contractual reserve obligation and (2) to comply with the SRF loan contractual repayment obligation.

Based on the comments from the member agencies regarding how to fund reserves and the discussions on the adopted Financial Plan and associated fee structure, the user fee has been adjusted over the five-year period. The connection fee was also adjusted in FY 2015 and will remain until situations call for. The flow diversion and no connection fee payments from Victorville require further consideration to fund not only daily operations but various construction and repair projects. Reflecting member agencies' comments, our challenge includes **a balanced budget** where the operational expenses are covered by the user fees without relying on capital revenues, which are used for capital projects. We have created the FY 2017 budget with this goal in mind.

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

In addition to no connection fees coming from Victorville, a reduction of connection fee income that we have experienced during the last few years and higher operation costs, VVWRA has spread out the implementation of its vital and required capital projects focusing on a long-term horizon as shown on pages 48 and 49.

*AVWRP construction in progress*

## *Long Term Financial Plans*

The management of VVWRA seriously considers impacts of flow diversion by the City of Victorville (Victorville) and eventual withdrawal from the joint venture in 2046. Such a 30 year notice by Victorville was announced on April 6, 2016. The loss of their flow and connection fee revenues definitely give VVWRA a huge blow as Victorville's flow accounts for roughly 60% of the entire flow sent by joint venture member agencies. Under these circumstances, the new financial planning needs to be conducted and related cash flow assumptions should be revised drastically unless other measures are agreed and reinforced by the rest of the member agencies.

As the current five year financial plan has been derailed altogether, we are not showing the cash flow prediction and assumptions assumed in the five-year financial plan that the Board adopted during 2014.

## *Conclusion*

The most significant financial issue is to find means to cope with the major loss of flow processing fee and connection fee revenues.

Logan Olds, General Manager

**Victor Valley Wastewater Reclamation Authority**
**GFOA Distinguished Budget Presentation Award for the Fiscal Year Beginning July 1, 2015**
**Fiscal Year 2016-2017**

# *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, 2016

Scott Nassif
**Chair**
Town of Apple Valley

James Kennedy, CPA
**Vice Chair**
City of Victorville

Russ Blewett
**Secretary**
City of Hesperia

Jeffrey Rigney
**Treasurer**
County of San Bernardino

**Prepared by:**

Logan Olds – General Manager
and Finance Department

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

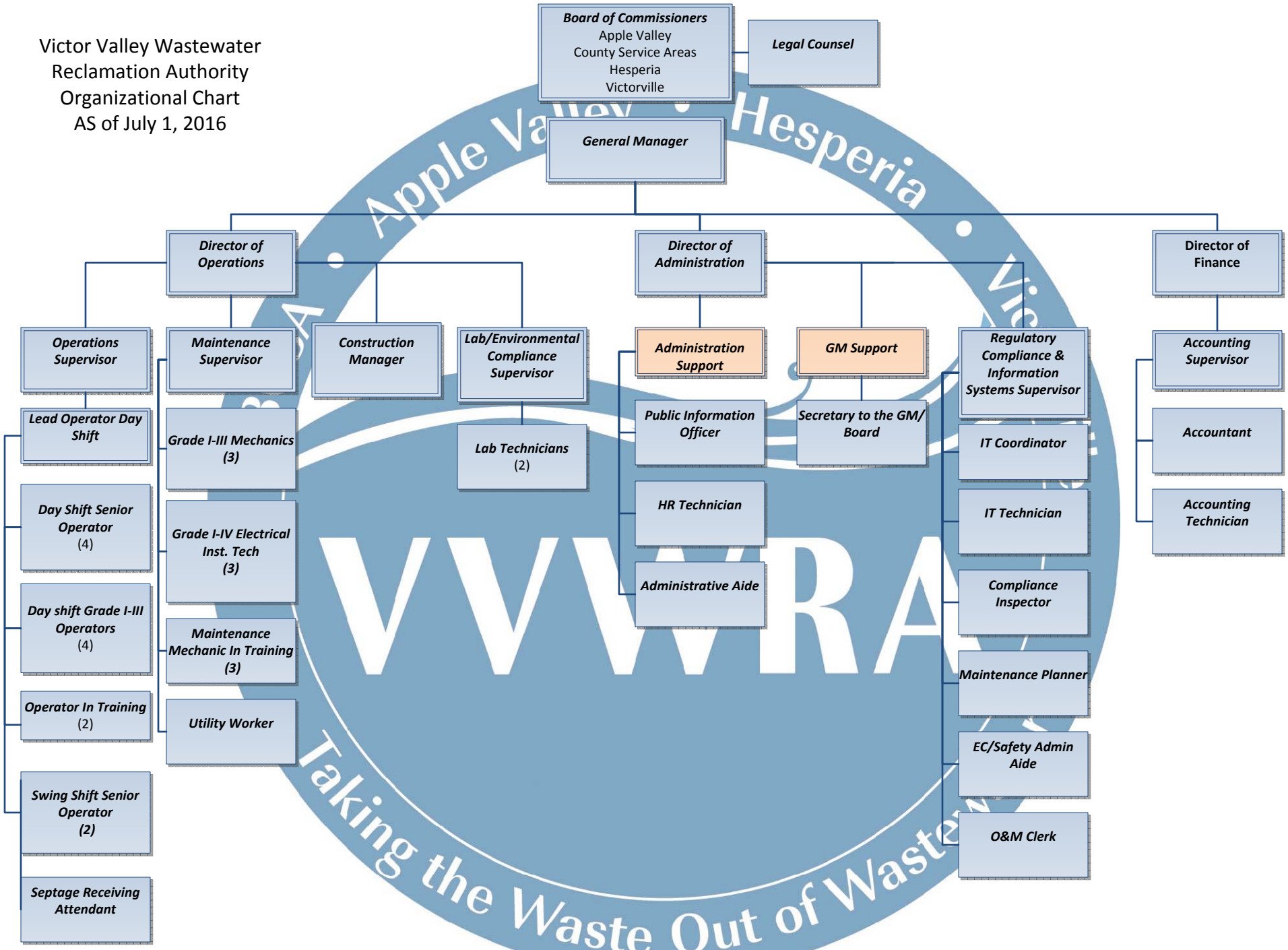
**Is…**
To cost-effectively provide professional, competent wastewater treatment, reclamation, recycling, and reuse,
To maintain the environment by providing clean effluent to the community,
To provide a service to our customers, and
To keep the public informed.

**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
AS of July 1, 2016



## *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 (VVWRA) is to receive wastewater from four member agencies and to process the wastewater then to discharge the cleaned water to the Mojave River. The VVWRA conducts its businesses based on an **Enterprise Accounting System** that is an accrual accounting system, similar to a regular business accounting method, by recording revenues and expenses as incurred instead of recognizing transactions when cash is received or paid. The enterprise accounting system is established based on three funds, (1) Operations and Maintenance Fund, (2) Repairs and Replacement Fund, and (3) Capital Fund. The Repairs and Replacement Fund we have added in FY 2016 budget is to show periodical repairs and replacement costs separately from normal operations and maintenance. Our main revenues are fees generated from offering services to process wastewater and connection fees charged to connect to an existing system. In addition to operation expenses, we incur large sums of capital expenditures to improve and expand the infrastructure to fulfill member agencies' needs.

The main functions for each department are:

- **Operations** to adhere to State and Federal rules and regulations with no overflow incidence
- **Construction** to meet the member agency's expansion needs
- **Laboratory** to enforce regulatory compliance by testing samples
- **Environmental Compliance and Management Information System** to enforce regulatory compliance including safety compliance and to maintain computer integrity
- **Maintenance** to perform repairs and maintenance of equipment
- **Finance** to compile and publish award-winning Comprehensive Annual Financial Reports and annual budgets
- **Administration** to be in charge of personnel

## *Goals and objectives of each function*

Here are goals and objectives of each function. See performances in FY 2016 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 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. VVWRA Operations staff is a highly dedicated group. The Operations department is staffed 24 hours a day 365 days per year by 15 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.*

## *Goals and objectives of each function (continued)*

*The goal of **Laboratory** is to ensure that the agency is in compliance with all local, state and Federal requirements.* The laboratory provides and coordinates all sampling, analysis and data reporting, under Environmental Laboratory Accreditation Program certification.

*The goal of **Maintenance** is to provide a high level of cost effective services to all customers in the service areas and all sections of the agency*. This cost effectiveness is accomplished through control of wasteful maintenance and operations practices and in the planning of all work activities. The maintenance department maintains the 300 plus acre wastewater treatment plant, in addition to two remote pump stations, vehicle fleet, portable auxiliary equipment and 40 miles of sewer pipeline. The maintenance department comprised of 12 highly skilled craftsmen who are responsible for maintaining the agency's capital assets worth of 149 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, we are 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 award-winning Comprehensive Annual Financial Reports.* In addition, its responsibilities include billing timely, collecting fees, establishing and monitoring internal control systems, preparing award-winning budgets and various financial reports, and administering general accounting including payroll.

*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 2016- 2017

| Department | Position | 2010 Budget | 2011 Budget | 2012 Budget | 2013 Budget | 2014 Budget | 2015 Budget | 2016 Budget | 2017 Budget |
|---|---|---|---|---|---|---|---|---|---|
| | **Administration** | | | | | | | | |
| Administrative | Director of Administrative Services | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| Administrative | General Manager | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Administrative | Administrative Aide | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Administrative | Management Technician to General Manager | 1 | 1 | 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 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Finance | Director of Finance | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |
| Finance | Accounting Supervisor | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Finance | Accountant I | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Finance | Account Technician | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 |
| Finance | Purchasing Technician | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Finance | Fiscal Clerk | 0 | 0 | 1 | 1 | 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 | 1 | 0 |
| IT/Env Comp | IS Coordinator | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| IT/Env Comp | IT Technician | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| IT/Env Comp | IT/Env Comp Supervisor | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| IT/Env Comp | Lead Environmental Compliance Inspector | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| IT/Env Comp | Environmental Compliance Safety Admin Aide | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| IT/Env Comp | Environmental Compliance Inspector-in-Training | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| IT/Env Comp | Environmental Compliance Inspector | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| IT/Env Comp | Environmental Compliance Supervisor | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Safety | Environmental Health Safety/Risk Coordinator | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 18 | 17 | 14 | 15 | 14 | 14 | 14 | 15 |
| | **Operations** | | | | | | | | |
| Operations | Director of Operations | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Operations | Operations Supervisor | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Operations | Lead Operator | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Operations | Operator I | 2 | 2 | 3 | 2 | 2 | 2 | 0 | 0 |
| Operations | Operator II | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Operations | Operator III | 4 | 4 | 3 | 5 | 5 | 5 | 6 | 6 |
| Operations | Operator IV | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| Operations | Operator V | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 |
| Operations | Operator-in-Training | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Operations | Operator | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Operations | Septage Receiving Attendant | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Operations | O&M Clerk | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| Lab/Env Comp | Lab & Environmental Compliance Supervisor | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Lab/Env Comp | Lab Tech I | 1 | 1 | 0 | 1 | 2 | 2 | 1 | 2 |
| Lab/Env Comp | Lab Tech II | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| Lab/Env Comp | Lab Tech | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 15 | 15 | 15 | 16 | 17 | 17 | 20 | 20 |
| | **Maintenance** | | | | | | | | |
| Maintenance | Maintenance Supervisor | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Maintenance | Electrical / Instrumentation Tech | 2 | 1 | 3 | 3 | 2 | 2 | 2 | 1 |
| Maintenance | Electrical / Instrumentation Tech II | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Maintenance | Electrical / Instrumentation Tech IV | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| Maintenance | Maintenance Planner | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Maintenance | Mechanical Tech I | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Maintenance | Mechanical Tech III | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 |
| Maintenance | Plant Maintenance Tech IV | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 0 |
| Maintenance | Lead Mechanic | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maintenance | Maintenance Mechanic | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maintenance | Maintenance Mechanic in Training | 0 | 0 | 1 | 1 | 1 | 1 | 3 | 3 |
| Maintenance | Utility Worker I | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maintenance | Utility Worker II | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | 10 | 9 | 11 | 10 | 10 | 10 | 12 | 12 |
| | **Construction** | | | | | | | | |
| Construction | Project Construction Manager | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Construction | Construction & Energy Efficiency Manager | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Construction | Construction Inspector | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 |
| | **Total Department** | 44 | 43 | 41 | 42 | 42 | 42 | 47 | 48 |

**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 |
| | 5 | 5 |

### *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 consists of three types of reserves: Operations and Maintenance reserve, Repairs and Replacement reserve, and SRF loan reserve. The reserve balances are to be revised annually with adoption of the budget.

The Operations and Maintenance Reserve is funded by operating revenue and equals to 10% of the budgeted total operating expenses for the prior fiscal year. 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 $1.08 million and the Repairs and Replacement Reserve is $1.67 million as of June 30, 2016. The SRF loan reserve for the year ending June 30, 2016 is $5.36 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

***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 payment amounts for the FY 2017 is $2.39 million. As more SRF loans were added during FY 2015 for Upper Narrows Replacement, Nanticoke, and two Sub-regional projects; the annual due amount will be more than $5.00 million during peak years. See pages 50 and 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://vvwra.com/index.aspx?page=69 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 and 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 2016-2017**

## *Basis of Budgeting*

Victor Valley Wastewater Reclamation Authority (VVWRA) employs a fiscal year beginning July 1. VVWRA prepares its annual budget based on an accrual accounting method (which recognizes revenues and expenses when they incur) excluding non-cash depreciation expense but including loan proceeds and the related repayments to present the fund inflows and outflows. We have included the reconciliation of FY 2015 actual to FY 2015 Comprehensive Annual Financial Report at page 23.

## *Balanced Budget*

A balanced budget is when VVWRA's operating revenues are equal to or exceed its operating expenses. The FY 2017 budget shows the balanced budget with a surplus for its operations and capital funds.

## *Budget Process*

VVWRA supervisory staff inputs budgetary estimates for the following year with their departmental goals① in mind at the beginning of the budgetary process. Based on these input, the Accounting Supervisor 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.

VVWRA reviews and compares its performance to the budget at a mid-year point at around January. If any amendments are necessary, we revise the budget accordingly then present the revised budget to the Board for approval in February. The approved budgets are posted at VVWRA'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 2016-2017**

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

***Budget Calendar***

| VVWRA Budget Planning FYE 06/30/2015 | Required By Date |
|---|---|
| **Budget Kickoff Meeting** | 02/02/16 |
| **Update actual numbers and prepare for new budget cycle.** | 02/22/16 |
| **Present the budget draft at Supervisors' meeting.** | 03/01/16 |
| **Present the first draft budget to General Manager (GM) for review.** | 03/10/16 |
| **Hold a preliminary staff budget review meeting with Supervisors and GM.** | 03/24/16 |
| **Provide the draft changes to Accounting Supervisor.** | 03/31/16 |
| **Present the budget executive summary to Internal Finance Committee.** | 04/14/16 |
| **Finalize the draft budget.** | 04/21/16 |
| **Present the budget recommendations to Internal and External Finance Committee.** | 04/28/16 |
| **Present the second recommendations to Internal and External Finance Committee.** | 05/05/16 |
| **Place a public notice on local newspaper to invite public participation.** | 05/07/16 |
| **Circulate the budget document to the Board.** | 05/12/16 |
| **Board Meeting - Present the budget.** | 05/19/16 |
| **Board budget hearing and adoption** | 06/23/16 |
| **The second Board budget hearing and adoption, if needed.** | 06/30/16 |
| **Apply for GFOA Award for Excellence in Budget Reporting.** | 06/30/16 |

To summarize the major actions, we have:

1. Initiate the budget.
2. Prepare a draft budget based on Supervisors' 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 we review 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 2016-2017**

## *Goals*


The Victor Valley Wastewater Reclamation Authority (VVWRA) serves an arid region which has historically depleted its groundwater resources. For this reason, the effluent is valued for projects as diverse as groundwater replenishment, protecting riparian habitat and power plant cooling water. The energy stored in the organic matter delivered in the wastewater can also be used to provide heat and power for the operation of the wastewater treatment plant. Finally, the organic residual resulting from the treatment process can be beneficially reused in several ways, such as a soil amendment and energy for the manufacturing of cement thereby reducing greenhouse gas emissions. It is the goal of VVWRA to provide sustainable and cost effective solutions which benefit the communities we serve.

## *Objectives*

The objectives of VVWRA are met by pursuing four fundamental rules, General Manager's Rules, which guide the process by which staff evaluate the needs of the member agencies.

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

VVWRA strives to optimize the wastewater treatment process, while at the same time utilizing the resources on hand in an efficient manner.

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

VVWRA strives to establish rates, retain personnel, and procure equipment in a manner that supports Rule #1.

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

It is every employee's responsibility to act in a professional manner and be mindful of safety protocols, thus avoiding potential liabilities.

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

The VVWRA Board determines the actions to be taken by the agency. The General Manager ensures that those actions are implemented.

By evaluating each issue to be addressed by these rules, the staff can prioritize the time and focus their energies on projects which will meet the goals of VVWRA.

## *Strategies*

The two driving forces behind VVWRA's strategic plan relate to community growth and regulatory requirements. Each of these factors influences the resources required to address those issues. Additionally, the industry as a whole is changing with more focus on regional watershed-based decision making.

Through a series of capital projects, 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 and Omnivore projects 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 handle the increasing influent from the service areas, VVWRA is boosting its ability to transport wastewater by upgrading its sewer system capacity.

VVWRA will further its quest for sustainability by constructing additional sewer lines and Sub-regional water reclamation plants (WRP's) at Apple Valley and Hesperia, two of the service areas. The Nanticoke Pump Station Bypass sewer line includes the construction of approximately 16,250 linear feet of 30" PVC sewer. It will eliminate the Nanticoke Pump Station and replace it with a gravity sewer to the existing Town of Apple Valley Otoe Pump Station. The construction of Apple Valley and Hesperia WRP's allows VVWRA to have sufficient wastewater flow handling and to provide local water supplies. These WRP's represent the first step in preparing for the people, business, and industry that are both the causes and sustainers of regional growth. The sub-regional WRP's will reduce the overall load on the collection system by creating recycled water, which is a valuable and increasingly important resource in this region. Another benefit of locating the sub-regional WRP's farther up the watershed will result in reducing recycled water infrastructure and the subsequent energy costs of pumping the recycled water back up 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. VVWRA's strategic planning incorporates the elements of sustainability, innovation and successful marketing.

This concept is best exemplified in the building of the Wastewater Utility Brand publication, 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 a utility.

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

**Victor Valley Wastewater Reclamation Authority**
**Operations Performance Measure**
**Fiscal Year 2016-2017**

## *Operations Performance*

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

| | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|
| **Removal Efficiency** | | | | | |
| Biochemical Oxygen Demand | 98.90% | 98.90% | 98.90% | 98.90% | 98.50% |
| Total Suspended Solids | 99.30% | 99.40% | 99.40% | 99.20% | 99.40% |
| Ammonia Nitrogen | 99.40% | 99.70% | 99.12% | 98.60% | 98.50% |
| **Number of Active Basins** | | | | | |
| 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 |
| **Wastewater Processed** | | | | | |
| Percolation Ponds (MG) | 1,722.10 | 1,408.88 | 2,341.36 | 2,303.45 | 1,613.97 |
| Tertiary Treatment (MG) | 3,136.04 | 3,377.37 | 2,208.64 | 4,414.67 | 3,921.47 |
| Average Influent (MGD) | 13.25 | 13.17 | 12.41 | 12.01 | 10.72 |
| Total Effluent (MG) | 4,858.14 | 4,786.25 | 4,550.00 | 4,416.67 | 3.921.47 |
| **Miscellaneous Operations** | | | | | |
| Bio-solids Storage (Tons) | 14,930.00 | 15,850.00 | 13,622.35 | 15,280.00 | 9,651.81 |
| Septage Waste Received (MG) | 2.49 | 2.15 | 2.83 | 5.35 | 6.54 |
| Recycled Water Sold (MG) | 71.19 | 5.56 | 29.52 | 284.20 | 214.66 |

***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 2011 to 2015, 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 2016-2017**

***Operations Department has:***

The Operations Department continued to enhance injection of external feed stocks to anaerobic digesters. 5,796,229 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 $140,930 annual savings and potential annual revenue of $231,849 from tipping fees.

Under private and public partnership with Anaergia, the department operated two 2G biogas-powered heat and power generators (CHP) to provide a total of 6,386,102 kWh Renewable Energy during the reporting year, utilizing biogas from anaerobic digester, 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.

VVWRA joined US Department of Energy (DOE) Better Buildings, Better Plants Program which Challenges partners strive to decrease source energy use intensity (EUI), and to increase the percent improvement compared to a set baseline year. VVWRA portfolio consists of one plant as of FY 2015. VVWRA had an internal goal of reaching energy neutrality in terms of purchased energy. VVWRA have progressed towards that goal by reducing on-site energy use as well as by using byproduct biogas to generate electricity and heat using combined heat and power (CHP), installed in 2015. With a purchased energy intensity improvement of 27.2% since its baseline year of 2012, Victor Valley has already met its initial goal of 25 percent reduction in purchased energy intensity by 2023, and is considering setting a new program goal to take them closer to their internal goal of energy neutrality.

Completed final phase of aeration system improvements by replacing aeration diffusers with new fine bubble membrane diffusers and also replacing aeration header distribution system. This project resulted in an increase in oxygen transfer, requiring less horsepower of energy. The reduced energy consumption is $160,324.00 per year. In addition, SCE awarded financial incentive in the amount of $121,919.84. Operational benefits include improved nitrification, improved denitrification and alkalinity recovery, resulting in continual $151,935 savings per year eliminating magnesium hydroxide injection. The aeration diffuser phase of the project was funded by Southern California Edison On-Bill-Financing. The fund will be paid back through energy savings.

**Victor Valley Wastewater Reclamation Authority**
**Operations Performance Measure**
**Fiscal Year 2016-2017**

***Construction Department has:***

The Construction Department has achieved the following progress during the year ended June 30, 2016.

| | Project Name | Project Status |
|---|---|---|
| **1** | Sub-Regionals Projects, Apple Valley & Hesperia | – $65,890,000, Construction started February 2015 and will continue thru September 2017 |
| **2** | Sub-Regionals Projects, Monitoring Wells | --$760,320, Construction started October 2015, completion February 2016 |
| **3** | Upper Narrows Pipeline Replacement Project | – $26,559,500, Construction started February 2014, anticipate completion July 2016 |
| **4** | Upper Narrows – Alternate BNSF Crossing | --$829.423, Completion January 2016 |
| **5** | Upper Narrows – Alternate BNSF Crossing, Phase 2 | --$915,178, NTP April 2016, anticipate completion July 2016 |
| **6** | Tao Road, Apple Valley Interceptor Realignment | – $129,200, completion August 2015 |
| **7** | Yates Road Sampling Station | – $84,900, Construction 90%, anticipate completion July 2016 |
| **8** | 2014/2015 Manhole Rehabilitation Project | – $338,840, Construction started May 2015, completion March 2016 |
| **9** | Digesters Biogas to Energy Project | – Third Party financed, completion September 2015 |
| **10** | Laboratory Building Replacement Project | – $2,100,000, Plans complete, working on City permits, anticipate construction starting 2017 |
| **11** | Drying Beds Repair and Drainage Improvements | – $850,000, Anticipate construction 2017 |
| **12** | Digesters 4 & 5 Supernatant Line | – $80,000, On hold for re-evaluation |
| **13** | Nanticoke Pump Station Bypass Sewer | – $5,700,000, Design 100%, NTP April 2016, anticipate completion December 2016 |
| **14** | Shay Road Diversion Structure | – $50,000, completion August 2015 |
| **15** | Aeration Energy Efficiency Project | – $855,428, NTP September 2015, anticipate construction complete June 2016 |
| **16** | Desert Knolls Wash, Apple Valley Interceptor Realignment | – $500,000, Delayed until Upper Narrows complete. Anticipate Design beginning November 2016 with construction complete December 2017 |
| **17** | Apple Valley Odor Control | – $650,000, Delayed until Upper Narrows complete. Anticipate Design beginning November 2016 with construction complete December 2017 |
| **18** | North Hesperia Relief Interceptor | – On hold until evaluation of impact from completed Sub-Regionals project |
| **19** | Spring Valley Lake Relief Interceptor | – On hold until evaluation of impact from completed Sub-Regionals project |
| **20** | Ossum Wash Interceptor | – $650,000, anticipate sending to bid November 2016, anticipate completion March 2017 |
| **21** | Oro Grande Crossing of Mojave River | – $5,700,000, anticipate sending to bid May 2017, anticipate completion June 2018 |

*Hesperia Subregional Water Reclamation Plant Project*

**Victor Valley Wastewater Reclamation Authority**
**Operations Performance Measure**
**Fiscal Year 2016-2017**

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

- Updated Ordinance 001 with the latest pretreatment regulations.
  In response to the requirements and recommendations from past pretreatment compliance inspections and audits performed by LRWQCB in 2011,2012,2013 and 2014, the Victor Valley Wastewater Reclamation Authority (VVWRA) has completed the required updates of its Sewer Use Ordinance (SUO) also known as VVWRA Ordinance No 001.
  All completed modifications made to the SUO are considered non-substantial pursuant to 40 CFR 403.18 because they do NOT:
  1. Relax the existing legal authority [40CFR 40.18(b)(1)]
  2. Relax the local limits [40CFR 403.18(b)(2)]
  3. Change VVWRA's control mechanism but simply establishes a new tool to ensure existing prohibitions are met [40 CFR 403.18(b)(3), 40 CFR.8(f)(1)(iii)]
  4. Decrease self-reporting frequency [40 CFR 403.18(B)(4)]
  5. Decrease inspection frequency [40 CFR 403.18(b)(5)]
  6. Change confidentiality [40CFR 403.18(b)(6)] or
  7. Have a significant impact on the existing pretreatment program.
- Updated the Pretreatment Enforcement Plant.
  After Ordinance 001 was updated, the enforcement response plan (ERP) was updated as well. The ERP allows staff to make consistent decisions when industry non-compliance occurs.
- Completed the 2nd Phase of the Manhole Rehabilitation Project.
  A condition assessment of VVWRA's Interceptors was performed by RBF Engineering during preparation of the Sewer Master Plan in 2010. VVWRA staff also performs continuous condition assessments during ongoing, routine interceptor inspections. These condition assessments have been utilized to determine rehabilitation needs and priority level for each manhole and, from this information, 50 (Fifty) manholes, in the Hesperia, South Apple Valley, and Victorville Interceptors, rehabilitation have been completed. Rehabilitation needs for each manhole included frame and cover replacement, raising manhole above grade, mortar repair, and cleaning/recoating of manhole.

- Purchased and replaced Uninterrupted Power Supply (UPS) Back-Up Modules for Servers.
  VVWRA owns and operates 30 servers, the previous UPS system was inadequately sized and did not provide near instantaneous protection from power interruption and power quality issues, the new UPS system provides more than 2 hours of interruptible power supply which allows a big improvement in the availability of all computer systems in case of utility power interruption.

- Purchased and installed three replacement servers systems.
  The current VVWRA file server and SCADA data servers have been in service since 2010. This places the system above the industry standard life cycle of three years. As a result, the aging systems have reached maximum storage capacity and are experiencing decreased performance. The new servers were purchased and will be used as a part of the SCADA redesign project to replace the aging servers. These servers are responsible for housing all administrative, operational, and data files for the entirety of the Authority and function as the foundation systems for all VVWRA daily operations data storage needs.

- There are no reportable and/or recordable injuries occurred since December 11th 2014.

***Laboratory Department has:***

- Maintained laboratory accreditation.

  After the on-site inspection on August 3, 2015 and in addition to submitting acceptable results from proficiency testing studies the laboratory was granted continued accredited status by California State Environmental Laboratory Accreditation Program until August 31, 2017.

- 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.

  Moreover, the laboratory has increased testing capacity and has increased its preventative maintenance on laboratory equipment with the increased ADM and FOG shipments.

- Updated regulatory compliance requirement reports.

  The new Industrial General Permit became effective July 1, 2015. The Laboratory group was instrumental in implementing and maintaining a new Storm Water Pollution Prevention Plan for the main facility.

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 has been:***

- ***Performing preventative maintenance on plant equipment***

| | | |
|---|---|---|
| **1.** | **UV Wiper Replacements** | **$39,00.00 - complete** |
| **2.** | **2G CHP #1 Head Replacements** | **$76,388.26 - complete** |
| **3.** | **Replaced Vaughn Horizontal Mixing** | **$31,402.52 - complete** |
| **4.** | **Spencer Blower Rebuild** | **$8,426.68 - complete** |
| **5.** | **MCC A/C Replacement** | **$7,020.00 - complete** |
| **6.** | **WILO Mixers Repaired/Replaced** | **$15,225.58 - complete** |
| **7.** | **South Percolation Pond Pump Fail to Safe** | **$48,177.00 – ECD June 20, 2016** |
| **8.** | **Replaced VFD for AVPS Pump #1** | **$6,165.00 - complete** |
| **9.** | **EQ Pump Motor Repair** | **$2,531.21 - complete** |

| | |
|---|---|
| **10. DAFT #1 & #2 Rebuild** | **$95,112.00 – ECD August 2016** |
| **11. Annual UV Sensor Verifications** | **$6,736.85 - complete** |
| **12. 2G Parasitic Load Project Parts** | **$10,096.88 - complete** |
| **13. Quarterly Calibrations 3rd Party** | **$12,000.00 - complete** |
| **14. UV Wiper Replacements** | **$39,00.00 - complete** |
| **15. Tire Replacements & Repairs Fleet** | **$10,392.25 - complete** |
| **16. A/C Repairs and Service** | **$11,430.24 - complete** |
| **17. Gas Scrubber Media Change-out** | **$81,428.56 - complete** |
| **18. Godwin Pump Rebuild** | **$13,642.87 - complete** |
| **19. Waukesha Engine Repairs/Maintenance** | **$23,589.97 - complete** |
| **20. Replacement 6" Mag Flow Meters** | **$18,176.48 - complete** |
| **21. Septage 6" Transfer Pump** | **$11,358.88 - complete** |
| **22. Tigermag Flow meter 8"** | **$4,346.07 - complete** |
| **23. Piller Parts and Service** | **$7,547.45 - complete** |
| **24. Grit Classifier Parts and Repairs** | **$10,175.97 - complete** |
| **25. Helical Skimmer Repairs** | **$4,137.88 - complete** |
| **26. Lifecon Air mask Rental/Purchase** | **$15,146.52 - complete** |

***Finance Department has:***

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 started July 1, 2012 through 2015 and

2. Comprehensive Annual Financial Reports: Certificate of Achievement for Excellence in Financial Reporting for the years ended June 30, 2010 through 2014.

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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 2016-2017**

Our goals, objectives and strategies are transformed into numbers for the budgets with a projection for the rest of FY 2016. The consolidated budget on this page shows all functions of the entire organization. The next page 29 demonstrates a reconciliation of FY 2015 actual to CAFR for the year ended June 30, 2015. 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.

| | 2015 Actual $2,756/MG | 2015 Budget $2,756/MG | 2016 Actual as of 3/31/2016 | 2016 Projected to the Year End | 2016 Budget $3,004/MG | 2017 Budget $3,274/MG |
|---|---|---|---|---|---|---|
| **Operations & Maintenance Fund Revenues** | | | | | | |
| User Charges | $ 11,178,126 | $ 12,092,298 | $ 8,652,244 | $ 11,536,325 | $ 13,157,520 | $ 12,768,600 |
| VVIWWTP Sludge | - | - | 91,080 | 121,440 | - | 110,000 |
| High Strength Waste Surcharges | 82,190 | 10,000 | 28,879 | 38,505 | 12,000 | 20,000 |
| Septage Receiving Facility Charges | 538,367 | 405,000 | 403,481 | 537,975 | 410,000 | 500,000 |
| Reclaimed Water Sales | 70,811 | 7,000 | 32,650 | 43,533 | 7,000 | 60,000 |
| Interest | 15 | - | - | - | - | - |
| Pretreatment Fees | 52,157 | 40,000 | 43,500 | 58,000 | 40,000 | 45,000 |
| Miscellaneous | 6,531 | 14,200 | 1,075 | 1,433 | 32,100 | 1,100 |
| | $ 11,928,197 | $ 12,568,498 | $ 9,252,909 | $ 12,337,211 | $ 13,658,620 | $ 13,504,700 |
| **Capital Fund Revenues** | | | | | | |
| Connection Fees | $ 1,387,175 | $ 2,040,000 | $ 685,137 | $ 913,516 | $ 1,100,000 | $ 700,000 |
| Interest | 25,668 | 12,000 | 18,487 | 24,649 | 10,000 | 10,000 |
| Grant - FEMA/Cal-OES | 23,003,366 | 17,172,344 | 2,150,333 | 2,396,510 | 6,566,688 | 4,503,400 |
| Grant - Water Recycling | 27,081 | 1,166,676 | 781,097 | 1,607,153 | - | 1,267,000 |
| Grant - Proposition 1 | - | - | 2,070,010 | 4,039,496 | - | 3,500,000 |
| Grant - Proposition 84 | - | - | 2,075,492 | 3,000,000 | - | - |
| Grant - Title 16 | 1,637,192 | 1,492,630 | 2,002,570 | 2,002,570 | 3,541,480 | - |
| | $ 26,080,482 | $ 21,883,650 | $ 9,783,126 | $ 13,983,894 | $ 11,218,168 | $ 9,980,400 |
| **Other Financing Sources** | | | | | | |
| SRF Loan Funding | $ 3,353,830 | $ 30,174,871 | $ 17,617,911 | $ 25,485,202 | $ 44,984,109 | $ 44,750,140 |
| | $ 3,353,830 | $ 30,174,871 | $ 17,617,911 | $ 25,485,202 | $ 44,984,109 | $ 44,750,140 |
| **Total Revenues and Other Financing Sources** | **$ 41,362,509** | **$ 64,627,019** | **$ 36,653,946** | **$ 51,806,307** | **$ 69,860,897** | **$ 68,235,240** |
| **Operations and Maintenance Fund Expenses** | | | | | | |
| Personnel and Benefits | $ 4,241,673 | $ 4,600,986 | $ 3,324,854 | $ 4,456,808 | $ 4,835,651 | $ 4,967,711 |
| Maintenance | 1,720,129 | 2,226,054 | 1,725,233 | 2,300,311 | 1,807,589 | 1,833,784 |
| Operations | 1,757,910 | 2,660,625 | 969,510 | 1,292,680 | 2,323,091 | 3,190,930 |
| Administration | 1,453,832 | 1,434,640 | 1,017,269 | 1,356,358 | 1,689,643 | 2,057,832 |
| Construction | 30,823 | 432,569 | 21,781 | 29,041 | - | - |
| | $ 9,204,367 | $ 11,354,874 | $ 7,058,647 | $ 9,435,198 | $ 10,655,974 | $ 12,050,257 |
| **Emergency Expenses** | | | | | | |
| Maintenance | $ 217,276 | $ 636,102 | $ 312,037 | $ 416,049 | $ 36,000 | $ 67,000 |
| Operations | 514,846 | 473,400 | 355,841 | 474,455 | 123,260 | 83,000 |
| FEMA Expenses | $ 732,122 | $ 1,109,502 | $ 667,878 | $ 890,504 | $ 159,260 | $ 150,000 |
| Expected FEMA/Cal-OES Grants | (1,541,459) | (969,498) | (246,176) | (246,176) | (927,253) | (915,474) |
| | $ (809,337) | $ 140,004 | $ 421,702 | $ 644,328 | $ (767,993) | $ (765,474) |
| **Repairs and Replacements Fund Expenses** | | | | | | |
| Personnel and Benefits | $ - | $ - | $ - | $ - | $ - | $ - |
| Maintenance | 359,776 | - | 133,426 | 177,902 | 1,215,940 | 808,200 |
| Operations | - | - | 8,842 | 11,789 | 136,650 | 20,700 |
| Administration | - | - | - | - | 24,600 | - |
| Construction | 185,020 | - | 735,587 | 980,783 | 1,625,000 | - |
| | $ 544,796 | $ - | $ 877,855 | $ 1,170,474 | $ 3,002,190 | $ 828,900 |
| **Capital Fund Expenses** | | | | | | |
| Personnel and Benefits | $ 368,841 | $ 392,862 | $ 289,118 | $ 387,549 | $ 399,194 | $ 400,477 |
| Maintenance | - | 7,000 | - | - | - | - |
| Operations | - | 171 | - | - | 171 | 171 |
| Administration | 16,447 | - | 46,073 | 61,431 | - | - |
| Construction | 83,195 | 50,083,012 | 21,034,935 | 35,427,799 | 51,790,556 | 48,111,352 |
| | $ 468,483 | $ 50,483,045 | $ 21,370,126 | $ 35,876,779 | $ 52,189,921 | $ 48,512,000 |
| **Debt Services** | | | | | | |
| SRF Principal | $ 1,565,775 | $ 1,565,775 | $ 949,838 | $ 1,603,164 | $ 1,603,164 | $ 1,825,710 |
| SRF Interest | 564,906 | 564,906 | 153,232 | 527,516 | 527,516 | 564,205 |
| | $ 2,130,681 | $ 2,130,681 | $ 1,103,070 | $ 2,130,680 | $ 2,130,680 | $ 2,389,915 |
| **Total Expenses and Debt Services** | **$ 11,538,990** | **$ 64,108,604** | **$ 30,831,400** | **$ 49,257,459** | **$ 67,210,772** | **$ 63,015,598** |
| **Total Agency Net Surplus or (Deficit)** | **$ 29,823,519** | **$ 518,415** | **$ 5,822,546** | **$ 2,548,848** | **$ 2,650,125** | **$ 5,219,642** |

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, 2015
## Fiscal Year 2016-2017

| | 2015 Actual on Page 28 | Reconciliation to CAFR | 2015 Per CAFR |
|---|---|---|---|
| **Operating Revenues** | | | |
| User Charges | $ 11,178,126 | $ - | $ 11,178,126 |
| Adelanto User Charges | - | - | - |
| High Strength Waste Surcharges | 82,190 | - | 82,190 |
| Septage Receiving Facility Charges | 538,367 | - | 538,367 |
| Reclaimed Water Sales | 70,811 | - | 70,811 |
| Pretreatment Fees | 52,157 | - | 52,157 |
| Miscellaneous | 6,531 | - | 6,531 |
| | $ 11,928,182 | $ - | $ 11,928,182 |
| **Capital Revenues** | | | |
| Connection Fees | $ 1,387,175 | $ - | $ 1,387,175 |
| Interest | 25,683 | - | 25,683 |
| Grant - FEMA/Cal-OES | 23,003,366 | - | 23,003,366 |
| Grant - Water Recycling | 27,081 | | 27,081 |
| Grant - Title 16 | 1,637,192 | - | 1,637,192 |
| | $ 26,080,497 | $ - | $ 26,080,497 |
| **Other Financing Sources** | | | |
| SRF Loan Funding | $ 3,353,830 | $ (3,353,830) | $ - |
| | $ 3,353,830 | $ (3,353,830) | $ - |
| **Total Revenues and Other Financing Sources** | **$ 41,362,509** | **$ (3,353,830)** | **$ 38,008,679** |
| **Operating Expenses** | | | |
| Personnel and Benefits | $ 4,241,673 | $ - | $ 4,241,673 |
| Maintenance | 1,720,129 | (177,189) | 1,542,940 |
| Operations | 1,757,910 | - | 1,757,910 |
| Administration | 1,453,832 | - | 1,453,832 |
| Construction | 30,823 | - | 30,823 |
| | $ 9,204,367 | $ (177,189) | $ 9,027,178 |
| **Emergency Expenses** | | | |
| Maintenance | $ 217,276 | $ - | $ 217,276 |
| Operations | 514,846 | - | 514,846 |
| FEMA Expenses | $ 732,122 | $ - | $ 732,122 |
| Expected FEMA/Cal-OES Grants | (1,541,459) | - | (1,541,459) |
| | $ (809,337) | $ - | $ (809,337) |
| **Depreciation Expense** | $ - | $ 6,788,528 | $ 6,788,528 |
| **Repair and Replacement Expense** | | | |
| Personnel and Benefits | $ - | $ - | $ - |
| Maintenance | 359,776 | - | 359,776 |
| Operations | - | - | - |
| Administration | - | - | - |
| Construction | 185,020 | - | 185,020 |
| | $ 544,796 | $ - | $ 544,796 |
| **Capital Expenses** | | | |
| Personnel and Benefits | $ 368,841 | $ - | $ 368,841 |
| Maintenance | - | - | - |
| Operations | - | - | - |
| Administration | 16,447 | - | 16,447 |
| Construction | 83,195 | - | 83,195 |
| | $ 468,483 | $ - | $ 468,483 |
| **Debt Services** | | | |
| SRF Principal | $ 1,565,775 | $ (1,565,775) | $ - |
| SRF Interest | 564,906 | - | 564,906 |
| | $ 2,130,681 | $ (1,565,775) | $ 564,906 |
| **Total Expenses with Debt Services** | **$ 11,538,990** | **$ 5,045,564** | **$ 16,584,554** |
| **Total Net Surplus or (Deficit)** | **$ 29,823,519** | **$ (8,399,394)** | **$ 21,424,125** |

# Victor Valley Wastewater Reclamation Authority
# Budget Statement of Operations and Maintenance Fund
# Fiscal Year 2016-2017

| | 2015 Actual $2,756/MG | 2015 Budget $2,756/MG | 2016 Actual as of 3/31/2016 | 2016 Projected to the Year End | 2016 Budget $3,004/MG | 2017 Budget $3,274/MG |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| User Charges | $ 11,178,126 | $ 12,092,298 | $ 8,652,244 | $ 11,536,325 | $ 13,157,520 | $ 12,768,600 |
| VVIWWTP Sludge | - | - | 91,080 | 121,440 | - | 110,000 |
| High Strength Waste Surcharges | 82,190 | 10,000 | 28,879 | 38,505 | 12,000 | 20,000 |
| Septage Receiving Facility Charges | 538,367 | 405,000 | 403,481 | 537,975 | 410,000 | 500,000 |
| Reclaimed Water Sales | 70,811 | 7,000 | 32,650 | 43,533 | 7,000 | 60,000 |
| Interest | 15 | - | - | - | - | - |
| Pretreatment Fees | 52,157 | 40,000 | 43,500 | 58,000 | 40,000 | 45,000 |
| Miscellaneous | 6,531 | 14,200 | 1,075 | 1,433 | 32,100 | 1,100 |
| | **$ 11,928,197** | **$ 12,568,498** | **$ 9,252,909** | **$ 12,337,211** | **$ 13,658,620** | **$ 13,504,700** |
| **Expenses** ① | | | | | | |
| Personnel and Benefits | $ 4,241,673 | $ 4,600,986 | $ 3,324,854 | $ 4,456,808 | $ 4,835,651 | $ 4,967,711 |
| Maintenance | 1,720,129 | 2,226,054 | 1,725,233 | 2,300,311 | 1,807,589 | 1,833,784 |
| Operations | 1,757,910 | 2,660,625 | 969,510 | 1,292,680 | 2,323,091 | 3,190,930 |
| Administration | 1,453,832 | 1,434,640 | 1,017,269 | 1,356,358 | 1,689,643 | 2,057,832 |
| Construction | 30,823 | 432,569 | 21,781 | 29,041 | - | - |
| | $ 9,204,367 | $ 11,354,874 | $ 7,058,647 | $ 9,435,198 | $ 10,655,974 | $ 12,050,257 |
| **Emergency Expenses** | | | | | | |
| Maintenance | $ 217,276 | $ 636,102 | $ 312,037 | $ 416,049 | $ 36,000 | $ 67,000 |
| Operations | 514,846 | 473,400 | 355,841 | 474,455 | 123,260 | 83,000 |
| FEMA OPERATING EXPENSES | $ 732,122 | $ 1,109,502 | $ 667,878 | $ 890,504 | $ 159,260 | $ 150,000 |
| Expected FEMA/Cal-OES Grants | (1,541,459) | (969,498) | (246,176) | (246,176) | (927,253) | (915,474) |
| | $ (809,337) | $ 140,004 | $ 421,702 | $ 644,328 | $ (767,993) | $ (765,474) |
| **Debt Services** | | | | | | |
| SRF Principal | $ 486,883 | $ 486,883 | $ 10,024 | $ 500,019 | $ 500,019 | $ 697,751 |
| SRF Interest | 295,221 | 295,221 | 1,373 | 282,085 | 282,085 | 343,588 |
| | $ 782,104 | $ 782,104 | $ 11,397 | $ 782,104 | $ 782,104 | $ 1,041,339 |
| **Total Operations & Maintenance Expenses with Debt Services** | **$ 9,177,134** | **$ 12,276,982** | **$ 7,491,746** | **$ 10,861,630** | **$ 10,670,085** | **$ 12,326,122** |
| **Operations & Maintenance Net Surplus or (Deficit)** | **$ 2,751,063** | **$ 291,516** | **$ 1,761,163** | **$ 1,475,581** | **$ 2,988,535** | **$ 1,178,578** |
| **Funds Available From Prior Year** | - | - | - | - | **1,149,488** | **4,271,566** |
| **To be Applied to Repairs & Replacement Fund** | - | - | - | - | **(2,988,535)** | **(228,900)** |
| **Operations & Maintenance Net Surplus or (Deficit)** | **$ 2,751,063** | **$ 291,516** | **$ 1,761,163** | **$ 1,475,581** | **$ 1,149,488** | **$ 5,221,244** |

① Please see detailed expense information at page 31.

We have predicted a decrease of 480 million gallons (MG) of wastewater inflows to process for the FY 2017 budget. The FY 2017 inflow quantity is multiplied by the rate of $3,274 per MG. Please refer to page 36 for the personnel expenses allocated between Operations & Maintenance (O&M) and Capital Funds. We have added five more positions to the O&M Fund as stated at Budgeted Position on page 14. We expect the emergency projects will be completed during the FY 2017. The Expected FEMA and Cal OES Grant revenue $915,474 is shown as a negative number to include the 10% retention that will be awarded at the completion of the projects. Please refer to Projected Cash Allocation per Fund at page 47 for the O&M projected cash at the end of FY 2017. As for the State Revolving Fund (SRF) loan principal and interest payments for future years, please refer to pages 50 and 51 for the SRF loan payment schedule per maturities. Based on the predicted beginning fund balance, we apply any excess O&M revenues over expenses to Repairs and Replacement Fund needs. 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 2016-2017

| | 2015 Actual $2,756/MG | 2015 Budget $2,756/MG | 2016 Actual as of 3/31/2016 | 2016 Projected to the Year End | 2016 Budget $3,004/MG | 2016 Budget $3,274/MG |
|---|---|---|---|---|---|---|
| **Personnel Expenses Allocations** ① | | | | | | |
| Allocation to Maintenance | $ 968,208 | $ 1,046,443 | $ 758,934 | $ 1,017,315 | $ 1,270,355 | $ 1,267,716 |
| Allocation to Operations | 2,120,836 | 2,300,596 | 1,662,427 | 2,228,404 | 2,306,437 | 2,009,414 |
| Allocation to Administrations | 1,152,629 | 1,253,947 | 903,493 | 1,211,089 | 1,258,859 | 1,690,581 |
| | $ 4,241,673 | $ 4,600,986 | $ 3,324,854 | $ 4,456,808 | $ 4,835,651 | $ 4,967,711 |
| **Maintenance Expenses** | | | | | | |
| Maintenance Equipment | $ 734,897 | $ 703,200 | $ 784,224 | $ 1,045,632 | $ 393,650 | $ 584,257 |
| Instrumentation | 473,659 | 568,214 | 354,666 | 472,888 | 524,489 | 354,377 |
| Total Grounds Maintenance & Landscaping | 230,299 | 488,790 | 161,687 | 215,583 | 392,950 | 372,050 |
| Vehicle Repairs | 66,497 | 141,100 | 54,213 | 72,284 | 129,500 | 149,600 |
| Interceptor Sewer Maintenance | 87,499 | 260,000 | 299,069 | 398,759 | 315,500 | 335,500 |
| Maintenance Safety Equipment | 18,647 | 54,000 | 14,895 | 19,860 | 35,500 | 38,000 |
| Misc. Maintenance Expense | 108,631 | 10,750 | 56,479 | 75,305 | 16,000 | - |
| | $ 1,720,129 | $ 2,226,054 | $ 1,725,233 | $ 2,300,311 | $ 1,807,589 | $ 1,833,784 |
| **Operations Expenses** | | | | | | |
| Process Chemicals | $ 213,803 | $ 219,900 | $ 211,960 | $ 282,613 | $ 242,892 | $ 558,970 |
| Utilities | 871,752 | 1,548,400 | 310,672 | 414,229 | 1,187,200 | 1,326,423 |
| Trash and Sludge | 100,431 | 121,050 | 74,544 | 99,392 | 131,780 | 124,600 |
| Fuel and Lubricants | 66,560 | 113,000 | 58,617 | 78,156 | 113,000 | 138,500 |
| Lab Supplies and Services | 107,597 | 164,700 | 73,420 | 97,893 | 147,040 | 399,813 |
| Outside Lab Services | 162,194 | 187,400 | 136,584 | 182,112 | 219,475 | 351,650 |
| Safety Equipment | 28,004 | 90,876 | 30,440 | 40,587 | 83,429 | 95,474 |
| Custodial Services and Supplies | 38,897 | 59,299 | 26,743 | 35,657 | 55,222 | 52,000 |
| Equipment Rental | 75,211 | 46,300 | 8,393 | 11,191 | 44,553 | 44,000 |
| Uniforms | 20,231 | 20,000 | 16,469 | 21,959 | 20,000 | 21,000 |
| Security | 11,576 | 8,500 | 4,515 | 6,020 | 18,500 | 18,500 |
| Permits | 45,909 | 81,200 | 15,725 | 20,967 | 60,000 | 60,000 |
| Misc. Operating Expense | 15,745 | - | 1,428 | 1,904 | - | - |
| | $ 1,757,910 | $ 2,660,625 | $ 969,510 | $ 1,292,680 | $ 2,323,091 | $ 3,190,930 |
| **Administrations Expenses** | | | | | | |
| Telephone and Communications | $ 130,412 | $ 134,991 | $ 90,100 | $ 120,133 | $ 143,500 | $ 277,220 |
| Computer Supplies | 70,713 | 45,000 | 45,986 | 61,315 | 99,825 | 92,252 |
| Office Supplies | 88,567 | 72,450 | 59,458 | 79,277 | 111,764 | 122,450 |
| Travel, Meeting, Training | 102,659 | 185,060 | 91,124 | 121,499 | 168,270 | 199,000 |
| Employee and Community Events | 21,323 | 14,609 | 18,272 | 24,363 | 23,445 | 26,200 |
| Membership, Fees, Licenses | 63,035 | 26,950 | 42,499 | 56,665 | 28,564 | 50,855 |
| Professional Services | 211,769 | 361,580 | 127,561 | 170,081 | 477,275 | 561,855 |
| Legal Services and Fees | 415,646 | 250,000 | 346,765 | 462,353 | 250,000 | 360,000 |
| Temporary Labor | 109,439 | 20,000 | 10,337 | 13,783 | 70,000 | 45,000 |
| Bond & Liability Insurance | 127,861 | 100,000 | 95,433 | 127,244 | 105,000 | 120,000 |
| Finance Fees | 368 | - | 66 | 88 | - | - |
| Misc. Administration Expense | 8,722 | - | 1,860 | 2,480 | - | - |
| Permit Fees | 103,318 | 224,000 | 87,808 | 117,077 | 212,000 | 203,000 |
| Interest Accrual | - | - | - | - | - | - |
| Supplemental Environmental Project Payment | - | - | - | - | - | - |
| | $ 1,453,832 | $ 1,434,640 | $ 1,017,269 | $ 1,356,358 | $ 1,689,643 | $ 2,057,832 |
| **Construction Expenses** | $ 30,823 | $ 432,569 | $ 21,781 | $ 29,041 | $ - | $ - |
| **Total Operations and Maintenance Fund Expenses Before Emergency** | **$ 9,204,367** | **$ 11,354,874** | **$ 7,058,647** | **$ 9,435,198** | **$ 10,655,974** | **$ 12,050,257** |

① Please see Allocations of Personnel Expenses at page 36.

# Victor Valley Wastewater Reclamation Authority
# Budget Statement of Repairs and Replacements Fund
# Fiscal Year 2016-2017

| | 2015 Actual $2,756/MG | 2015 Budget $2,756/MG | 2016 Actual as of 3/31/2016 | 2016 Projected to the Year End | 2016 Budget $3,004/MG | 2017 Budget $3,274/MG |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| User Charges | $ - | $ - | $ - | $ - | $ - | $ - |
| VVIWWTP Sludge | - | - | - | - | - | - |
| High Strength Waste Surcharges | - | - | - | - | - | - |
| Septage Receiving Facility Charges | - | - | - | - | - | - |
| Reclaimed Water Sales | - | - | - | - | - | - |
| Interest | - | - | - | - | - | - |
| Pretreatment Fees | - | - | - | - | - | - |
| Miscellaneous | - | - | - | - | - | - |
| | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** |
| **Expenses** ① | | | | | | |
| Personnel and Benefits | $ - | $ - | $ - | $ - | $ - | $ - |
| Maintenance | 359,776 | - | 133,426 | 177,902 | 1,215,940 | 808,200 |
| Operations | - | - | 8,842 | 11,789 | 136,650 | 20,700 |
| Administration | - | - | - | - | 24,600 | - |
| Construction | 185,020 | - | 735,587 | 980,783 | 1,625,000 | - |
| | $ 544,796 | $ - | $ 877,855 | $ 1,170,474 | $ 3,002,190 | $ 828,900 |
| **Emergency Expenses** | | | | | | |
| Maintenance | $ - | $ - | $ - | $ - | $ - | $ - |
| Operations | - | - | - | - | - | - |
| FEMA OPERATING EXPENSES | $ - | $ - | $ - | $ - | $ - | $ - |
| Expected FEMA/Cal-EMA Grants | - | - | - | - | - | - |
| | $ - | $ - | $ - | $ - | $ - | $ - |
| **Debt Services** | | | | | | |
| SRF Principal | $ - | $ - | $ - | $ - | $ - | $ - |
| SRF Interest | - | - | - | - | - | - |
| | $ - | $ - | $ - | $ - | $ - | $ - |
| **Total Repairs and Replacements Expenses with Debt Services** | **$ 544,796** | **$ -** | **$ 877,855** | **$ 1,170,474** | **$ 3,002,190** | **$ 828,900** |
| **Repairs and Replacements Net Surplus or (Deficit)** | **$ (544,796)** | **$ -** | **$ (877,855)** | **$ (1,170,474)** | **$ (3,002,190)** | **$ (828,900)** |
| **Funds Available From Prior Year** | - | - | - | - | **1,852,996** | **600,000** |
| **Applied From Operations and Maintenance to Repairs & Replacements Fund** | - | - | - | - | **2,988,535** | **228,900** |
| **Repairs and Replacements Net Surplus or (Deficit)** | **$ (544,796)** | **$ -** | **$ (877,855)** | **$ (1,170,474)** | **$ 1,839,341** | **$ -** |

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 2016 and FY 2017, 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. With the predicted beginning fund and excess O&M revenues, we estimate the positive ending balance for the R&R fund. See page 47 for further analysis of funds.

# Victor Valley Wastewater Reclamation Authority
# Repairs and Replacements Fund Expenses
# Fiscal Year 2015-2016

| | 2015 Actual $2,756/MG | 2015 Budget $2,756/MG | 2016 Actual as of 3/31/2016 | 2016 Projected to the Year End | 2016 Budget $3,004/MG | 2016 Budget $3,274/MG |
|---|---|---|---|---|---|---|
| **Personnel Expenses Allocations** | | | | | | |
| Allocation to Maintenance | $ - | $ - | $ - | $ - | $ - | $ - |
| Allocation to Operations | - | - | - | - | - | - |
| Allocation to Administrations | - | - | - | - | - | - |
| | $ - | $ - | $ - | $ - | $ - | $ - |
| **Maintenance Expenses** | | | | | | |
| Maintenance Equipment | $ 317,491 | $ - | $ 88,181 | $ 117,575 | $ 601,000 | $ 476,000 |
| Instrumentation | - | - | 45,245 | 60,327 | 464,940 | 332,200 |
| Total Grounds Maintenance & Landscaping | - | - | - | - | 150,000 | - |
| Vehicle Repairs | - | - | - | - | - | - |
| Interceptor Sewer Maintenance | 42,285 | - | - | - | - | - |
| Maintenance Safety Equipment | - | - | - | - | - | - |
| Misc. Maintenance Expense | - | - | - | - | - | - |
| | $ 359,776 | $ - | $ 133,426 | $ 177,902 | $ 1,215,940 | $ 808,200 |
| **Operations Expenses** | | | | | | |
| Process Chemicals | $ - | $ - | $ - | $ - | $ - | $ - |
| Utilities | - | - | - | - | - | - |
| Trash and Sludge | - | - | - | - | - | - |
| Fuel and Lubricants | - | - | - | - | - | - |
| Lab Supplies and Services | - | - | 8,842 | 11,789 | 26,650 | 20,700 |
| Outside Lab Services | - | - | - | - | - | - |
| Safety Equipment | - | - | - | - | - | - |
| Custodial Services and Supplies | - | - | - | - | - | - |
| Equipment Rental | - | - | - | - | - | - |
| Uniforms | - | - | - | - | - | - |
| Security | - | - | - | - | 50,000 | - |
| Permits | - | - | - | - | - | - |
| Misc. Operating Expense | - | - | - | - | 60,000 | - |
| | $ - | $ - | $ 8,842 | $ 11,789 | $ 136,650 | $ 20,700 |
| **Administrations Expenses** | | | | | | |
| Telephone and Communications | $ - | $ - | $ - | $ - | $ - | $ - |
| Computer Supplies | - | - | - | - | 24,600 | - |
| Office Supplies | - | - | - | - | - | - |
| Travel, Meeting, Training | - | - | - | - | - | - |
| Employee and Community Events | - | - | - | - | - | - |
| 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 | - | - | - | - | - | - |
| | $ - | $ - | $ - | $ - | $ 24,600 | $ - |
| **Construction Expenses** | $ 185,020 | $ - | $ 735,587 | $ 980,783 | $ 1,625,000 | $ - |
| **Total Repairs and Replacements Fund Expenses** | **$ 544,796** | **$ -** | **$ 877,855** | **$ 1,170,474** | **$ 3,002,190** | **$ 828,900** |

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

| | 2015 Actual $4,000/EDU ① | 2015 Budget $4,000/EDU ① | 2016 Actual as of 3/31/16 | 2016 Projected to the Year End | 2016 Budget $4,000/EDU ① | 2017 Budget $4,000/EDU ① |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| Connection Fees | $ 1,387,175 | $ 2,040,000 | $ 685,137 | $ 913,516 | $ 1,100,000 | $ 700,000 |
| Interest | 25,668 | 12,000 | 18,487 | 24,649 | 10,000 | 10,000 |
| Grant - FEMA/Cal-EMA | 23,003,366 | 17,172,344 | 2,150,333 | 2,396,510 | 6,566,688 | 4,503,400 |
| Grant - Water Recycling | 27,081 | 1,166,676 | 781,097 | 1,607,153 | - | 1,267,000 |
| Grant - Proposition 1 | - | - | 2,070,010 | 4,039,496 | - | 3,500,000 |
| Grant - Proposition 84 | - | - | 2,075,492 | 3,000,000 | - | - |
| Grant - Title 16 | 1,637,192 | 1,492,630 | 2,002,570 | 2,002,570 | 3,541,480 | - |
| | $ 26,080,482 | $ 21,883,650 | $ 9,783,126 | $ 13,983,894 | $ 11,218,168 | $ 9,980,400 |
| **Other Financing Sources** | | | | | | |
| SRF Loan Funding | $ 3,353,830 | $ 30,174,871 | $ 17,617,911 | $ 25,485,202 | $ 44,984,109 | $ 44,750,140 |
| | $ 3,353,830 | $ 30,174,871 | $ 17,617,911 | $ 25,485,202 | $ 44,984,109 | $ 44,750,140 |
| **Total Capital Revenues and Other Financing Sources** | **$ 29,434,312** | **$ 52,058,521** | **$ 27,401,037** | **$ 39,469,096** | **$ 56,202,277** | **$ 54,730,540** |
| **Expenses** | | | | | | |
| Personnel and Benefits | $ 368,841 | $ 392,862 | $ 289,118 | $ 387,549 | $ 399,194 | $ 400,477 |
| Maintenance | - | 7,000 | - | - | - | - |
| Operations | - | 171 | - | - | 171 | 171 |
| Administration | 16,447 | - | 46,073 | 61,431 | - | - |
| Construction | 83,195 | 50,083,012 | 21,034,935 | 35,427,799 | 51,790,556 ③ | 48,111,352 ② |
| | $ 468,483 | $ 50,483,045 | $ 21,370,126 | $ 35,876,779 | $ 52,189,921 | $ 48,512,000 |
| **Debt Services** | | | | | | |
| SRF Principal | $ 1,078,892 | $ 1,078,892 | $ 939,814 | $ 1,103,145 | $ 1,103,145 | $ 1,127,959 |
| SRF Interest | 269,685 | 269,685 | 151,859 | 245,431 | 245,431 | 220,617 |
| | $ 1,348,577 | $ 1,348,577 | $ 1,091,673 | $ 1,348,576 | $ 1,348,576 | $ 1,348,576 |
| **Total Capital Expenses with Debt Services** | **$ 1,817,060** | **$ 51,831,622** | **$ 22,461,799** | **$ 37,225,355** | **$ 53,538,497** | **$ 49,860,576** |
| **Capital Net Surplus or (Deficit)** | **$ 27,617,252** | **$ 226,899** | **$ 4,939,238** | **$ 2,243,741** | **$ 2,663,780** | **$ 4,869,964** |
| **Funds Available From Prior Year** | - | - | - | - | **6,118,806** | **2,978,167** |
| **Capital Net Surplus or (Deficit)** | **$ 27,617,252** | **$ 226,899** | **$ 4,939,238** | **$ 2,243,741** | **$ 8,782,586** | **$ 7,848,131** |

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

| **Capital Projects** | **FY 2016** | **FY 2017** |
|---|---|---|
| Tertiary Filter Enclosure | 50,000 | - |
| Anaerobic Digester | 65,000 | - |
| Naticoke Interceptor | 5,000,000 | 3,990,000 |
| Upper Narrows Replacement | 2,490,738 | 1,191,000 |
| Yates Road Sampling | 84,900 | - |
| Hesperia Subregional | 21,684,959 | 20,305,176 |
| Apple Valley Subregional | 21,684,959 | 20,305,176 |
| Lab/Admin Building | - | - |
| Biogas Solids Project | 500,000 | - |
| Misc Projects | - | 200,000 |
| **Construction Total** | **51,560,556** | **45,991,352** |
| Engineering Services | 230,000 | 2,120,000 |
| **Total** | **$ 51,790,556** ③ | **$ 48,111,352** ② |

Among the various capital projects listed above, VVWRA has begun the construction of sub-regional water reclamation plants in the City of Hesperia and the Town of Apple Valley during FY 2015. The construction costs of these plants are estimated as $41.2 million and $41.1 million, respectively. 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 Proposition 13 under Water Recycling Grant Program from the SWRCB. These SRF loan repayments for the sub-regional projects will not impact the

FY 2017 operating and maintenance budget, for the loan repayment process begins one year after the completion of the plant construction. We predict the construction will complete at the end of June 2017.

Please refer to pages 50 and 51 for the SRF loan payments that impact both Operations & Maintenance (O&M) and Capital fund activities.

With the predicted available fund balance at the beginning of FY 2016 and the SRF loan proceeds, we predict a positive ending fund balance. Please refer to further analysis of fund balances at page 47.

The future impact of these capital projects on the O&M and Capital budget is significant, as the loan repayment liability will increase from $2.1 million in FY 2016 to $5.1 million in FY 2018 and still impact the years after during the loan terms. In order to maintain the required debt payment reserve level, VVWRA has raised the user charge and connection fee rates in FY 2015. Comparatively, the connection fee will remain from FY 2015 through FY 2018. The following rates were approved by the Board of Commissioners in FY 2014. As the City of Victorville announced a portion (1.04 million gallons per day) of its flow will be diverted to its own reclamation facility and the city has stopped sending any connection fees to VVWRA, it is uncertain whether VVWRA could maintain this reserve level that could have enabled us to comply with the SWRCB's debt reserve and net 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 loss of diverted flow income and connection fee revenue may lead us to financially unstable condition. Without user fee and connection fee revenues as predicted in the 2014 financial plan, these rates may not be able to absorb the additional operation and maintenance costs at the water reclamation plants in future years.

| | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 |
|---|---|---|---|---|---|
| **User Charge ($/MG)** | $2,528.00 | $2,756.00 | $3,004.00 | $3,274.00 | $3,503.00 |
| **Connection Fee ($/EDU)** | $3,750.00 | $4,000.00 | $4,000.00 | $4,000.00 | $4,000.00 |

# Victor Valley Wastewater Reclamation Authority
## Allocations of Personnel Expenses
## Fiscal Year 2016-2017

| | 2015 Actual $2,756/MG | 2015 Budget $2,756/MG | 2016 Actual as of 3/31/2016 | 2016 Projected to the Year End | 2016 Budget $3,004/MG | 2017 Budget $3,274/MG |
|---|---|---|---|---|---|---|
| **Operations and Maintenance Salary Expenses** | | | | | | |
| Regular Salaries | $ 3,240,554 | $ 3,247,663 | $ 2,448,634 | $ 3,264,845 | $ 3,298,868 | $ 3,442,789 |
| Overtime | 169,828 | 124,250 | 98,625 | 131,500 | 131,250 | 145,100 |
| Call-Out Pay | 42,465 | 33,000 | 33,929 | 45,239 | 33,400 | 49,800 |
| Salaries Expense - Capital | (276,228) | (267,967) | (206,495) | (275,327) | - | - |
| | $ 3,176,619 | $ 3,136,946 | $ 2,374,693 | $ 3,166,257 | $ 3,463,518 | $ 3,637,689 |
| **Operations and Maintenance Benefit Expenses** | | | | | | |
| Longevity | $ - | $ 29,975 | $ 27,029 | $ 36,039 | $ 28,255 | $ 31,984 |
| Vehicle Allowance | - | 12,046 | - | - | 12,092 | 18,069 |
| Sick Leave Buy Back | - | 35,000 | - | - | 35,000 | 25,000 |
| Medicare | 50,454 | 47,321 | 40,963 | 54,617 | 48,087 | 50,134 |
| Social Security Expense | 6,951 | - | 18,192 | 24,256 | - | - |
| PERS / Health Insurance | 355,362 | 294,754 | 261,330 | 348,440 | 409,139 | 408,579 |
| Dental / Vision Insurance | 25,867 | 27,807 | (19,296) | - | 30,510 | 31,134 |
| Workers Comp Insurance | 92,279 | 99,464 | 32,249 | 42,999 | 101,143 | 105,376 |
| PERS / Retirement | 515,990 | 804,519 | 612,688 | 816,917 | 488,335 | 500,624 |
| PERS / Retirement - GASB 68 | (82,527) | - | - | - | - | - |
| PERS / Retirement-EUL | - | - | - | - | 236,999 | 266,502 |
| Life Insurance | 13,511 | 17,315 | 11,975 | 15,967 | 17,607 | 18,344 |
| Unemployment Insurance | 26,734 | 14,206 | 29,911 | 39,881 | 17,658 | 15,134 |
| Disability Insurance | 18,093 | 22,903 | 13,951 | 18,601 | 23,290 | 24,265 |
| Misc Personnel Expense | 20,629 | 7,125 | 3,792 | 5,056 | 9,140 | 9,500 |
| OPEB Expense | 114,324 | 176,500 | - | - | 176,500 | 85,294 |
| Benefits Expense - Capital | (92,613) | (124,895) | (82,623) | (112,222) | - | - |
| | $ 1,065,054 | $ 1,464,040 | $ 950,161 | $ 1,290,551 | $ 1,633,755 | $ 1,589,939 |
| **Capital Salary and Benefits Expenses** | | | | | | |
| Salaries | $ 276,228 | $ 267,967 | $ 206,495 | $ 275,327 | $ 116,137 | $ 118,512 |
| Benefits | 92,613 | 124,895 | 82,623 | 112,222 | 21,435 | 22,048 |
| | $ 368,841 | $ 392,862 | $ 289,118 | $ 387,549 | $ 137,572 | $ 140,560 |
| **Total Personnel Expenses** | **$ 4,610,514** | **$ 4,993,848** | **$ 3,613,972** | **$ 4,844,357** | **$ 5,234,845** | **$ 5,368,188** |
| **Allocations of Personnel Expenses** | | | | | | |
| *1. Allocations to Operations and Maintenance Fund* | | | | | | |
| To Maintenance Department | $ (968,208) | $ (1,046,443) | $ (758,934) | $ (1,017,315) | $ (1,270,355) | $ (1,267,716) |
| To Operations Department | (2,120,836) | (2,300,596) | (1,662,427) | (2,228,404) | (2,306,437) | (2,009,414) |
| To Administration (other departments except Construction) | (1,152,629) | (1,253,947) | (903,493) | (1,211,089) | (1,258,859) | (1,690,581) |
| | $ (4,241,673) | $ (4,600,986) | $ (3,324,854) | $ (4,456,808) | $ (4,835,651) | $ (4,967,711) |
| *2. Allocation To Capital Fund* | | | | | | |
| To Construction Department | $ (368,841) | $ (392,862) | $ (289,118) | $ (387,549) | $ (399,194) | $ (400,477) |
| **Personnel Expenses After Allocations** | $ - | $ - | $ - | $ - | $ - | $ - |

# Victor Valley Wastewater Reclamation Authority
# High Strength Surcharge
# Fiscal Year 2016-2017

| | |
|---|---|
| User Charges from Member Agencies | $ 12,768,600 |
| Unit User Charge per MG | **$3,274.00** |
| 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 | 379.20 | 33,791 | 5.78 | 515 | 33,276 | 12,145,859 | 35.0% | $4,469,010 | $0.3679 |
| TSS | 464.95 | 41,433 | 2.84 | 253 | 41,180 | 15,030,590 | 25.0% | $3,192,150 | $0.2124 |
| NH3 | 33.72 | 3,005 | 0.48 | 43 | 2,962 | 1,081,164 | 30.0% | $3,830,580 | $3.5430 |
| Annual Flow - MG per Day | | | | | | | | | |
| 3,900 MG / 365 days | | 10.68 | | | | | 10.0% | $1,276,860 | |
| | | | | | | | 100.0% | $12,768,600 | |

| | BOD $/lb | TSS $/lb | NH3 $/lb |
|---|---|---|---|
| Surcharge Rates: | **$0.3679** | **$0.2124** | **$3.5430** |
| Applied to Concentrations Above: | **200 mg/l** | **250 mg/l** | **20 mg/l** |

**FORMULAS**

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

**BOD**

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

**TSS**

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

**NH3**

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

**REMOVAL**

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

**REMOVAL COST**

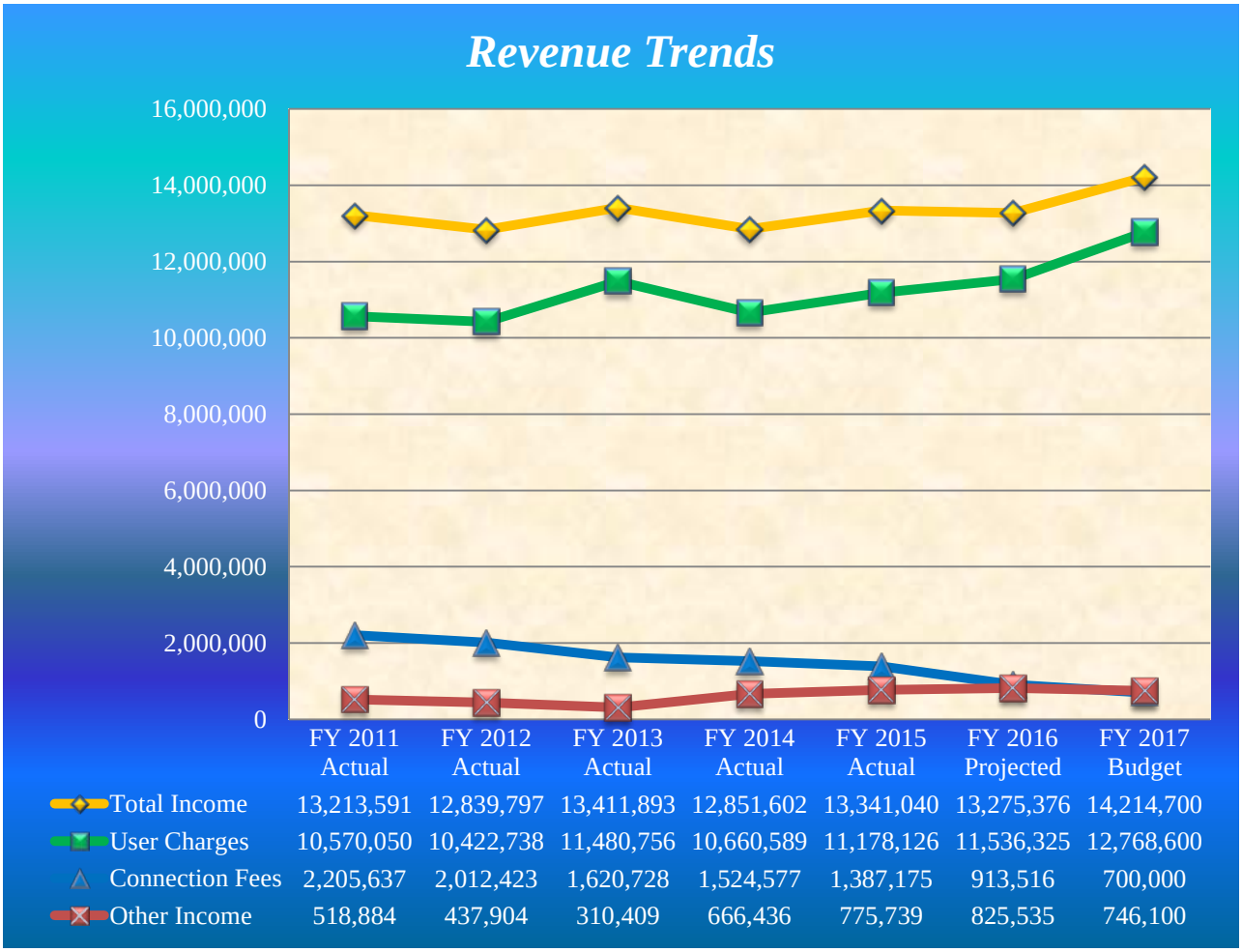
| | |
|---|---|
| Per lb: | Total user cost x 35% = Removal cost/lb |
| Per unit: | Removal cost/lb / Removal lb/year |

① From 2015 Annual Discharge Monitoring Report.

**Victor Valley Wastewater Reclamation Authority**
**Revenue Trend Analysis**
**Fiscal Year 2016-2017**

## *Revenue Analysis*

Although Victor Valley Wastewater Reclamation Authority (VVWRA) has been recovering from the decrease of operating revenues since FY 2011, the 9% user fee rate increase at the beginning of the FY 2017 cannot absorb the lost user fee revenue from the City of Victorville (Victorville). Further, connection fee revenue is also decreased from $2.2 million in FY 2011 to $700,000 budgeted for FY 2017. These decreases reflect the Victorville's 1.04 MGD diverted wastewater flow and no connection fees from Victorville on top of the overall fewer new housing developments in the service areas. Despite the hardship, the overall revenues are expected to increase from $13.2 million in FY 2011 to $14.2 million in FY 2017 helped with other income, such as sludge flow and septage processing fee revenues.




| | FY 2011 Actual | FY 2012 Actual | FY 2013 Actual | FY 2014 Actual | FY 2015 Actual | FY 2016 Projected | FY 2017 Budget |
|---|---|---|---|---|---|---|---|
| Total Income | 13,213,591 | 12,839,797 | 13,411,893 | 12,851,602 | 13,341,040 | 13,275,376 | 14,214,700 |
| User Charges | 10,570,050 | 10,422,738 | 11,480,756 | 10,660,589 | 11,178,126 | 11,536,325 | 12,768,600 |
| Connection Fees | 2,205,637 | 2,012,423 | 1,620,728 | 1,524,577 | 1,387,175 | 913,516 | 700,000 |
| Other Income | 518,884 | 437,904 | 310,409 | 666,436 | 775,739 | 825,535 | 746,100 |

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

Other income also includes high strength surcharges, reclaimed water sales, industrial pretreatment permits, and interest income. Grants are excluded in this revenue analysis for the period from FY 2011 to FY 2017.

Due to an overall decrease of the net income (net position) in coming years, how to handle such a substantial decline of income is the hurdle to face in near future.

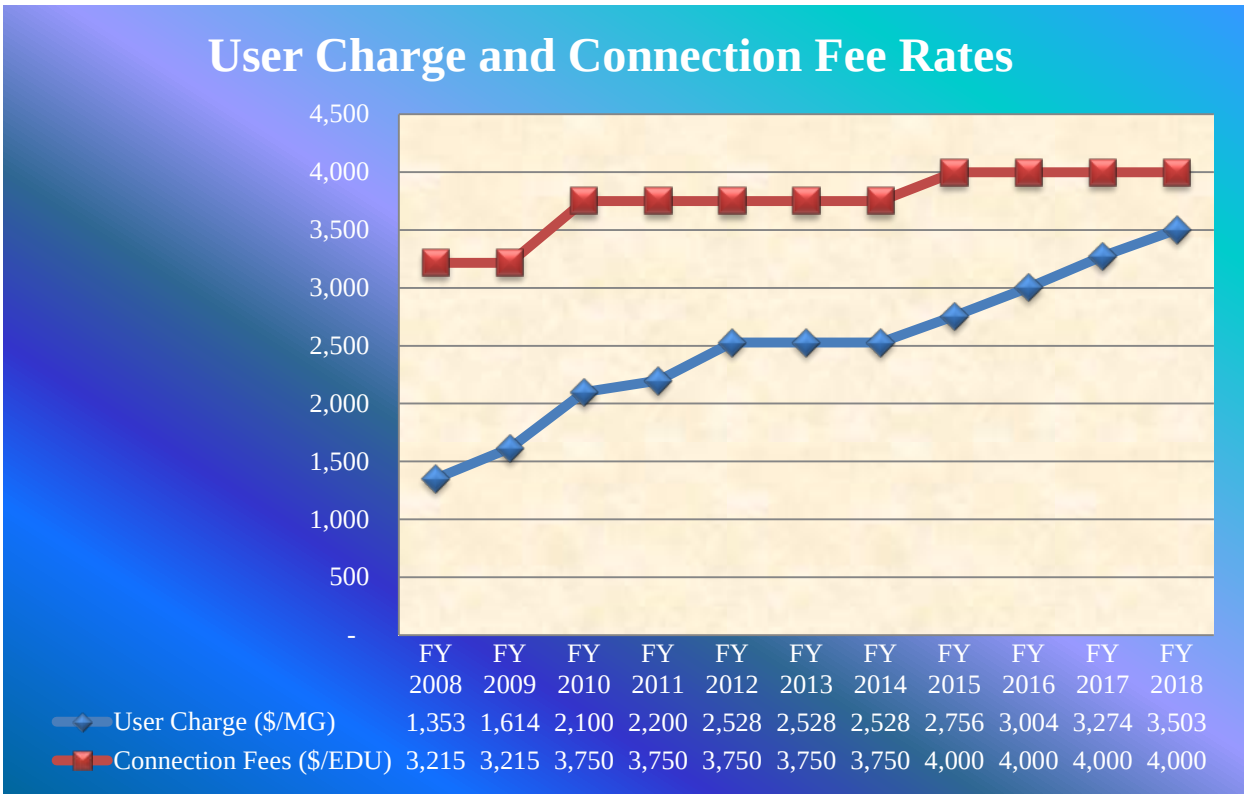
**Victor Valley Wastewater Reclamation Authority**
**Revenue Trend Analysis**
**Fiscal Year 2016-2017**

***Revenue Analysis (Continued)***

Both user charges and connection fees are determined multiplying quantity received by unit prices. The graph below shows rate changes up to FY 2018 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 charge and connection fee from time to time as necessary to fund its operations, maintenance, repairs, replacements, and expansion of the regional system.




| | FY 2008 | FY 2009 | FY 2010 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| User Charge ($/MG) | 1,353 | 1,614 | 2,100 | 2,200 | 2,528 | 2,528 | 2,528 | 2,756 | 3,004 | 3,274 | 3,503 |
| Connection Fees ($/EDU) | 3,215 | 3,215 | 3,750 | 3,750 | 3,750 | 3,750 | 3,750 | 4,000 | 4,000 | 4,000 | 4,000 |

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

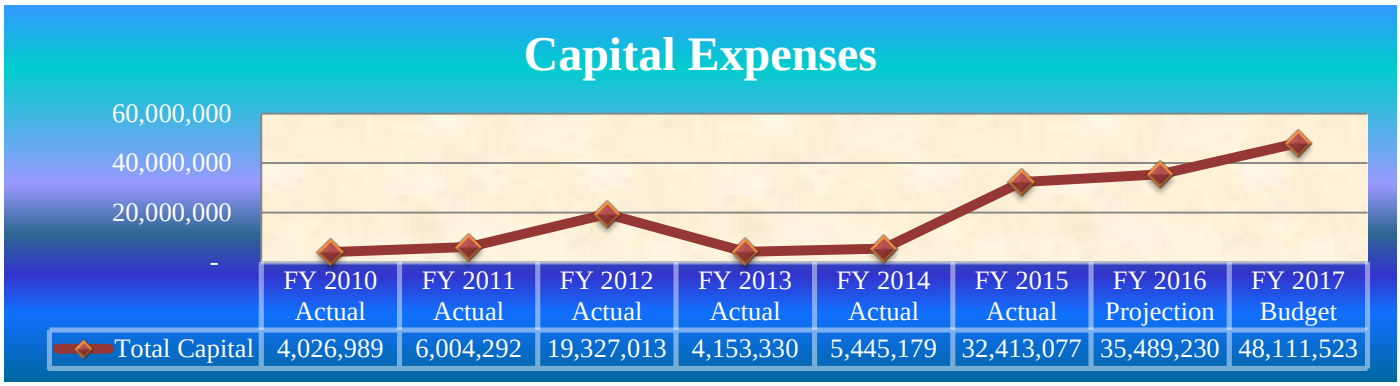
In order to fund various construction projects, VVWRA utilizes Clean Water State Revolving Fund (SRF) loans. The SRF loans are to be paid back over 20 to 30 years with a relatively low interest rate. We have budgeted anticipated SRF loans of $47.9 million (page 48) for FY 2017 for the two Sub-regional plants, Upper Narrows Replacement project change order number five, and Nanticoke project.

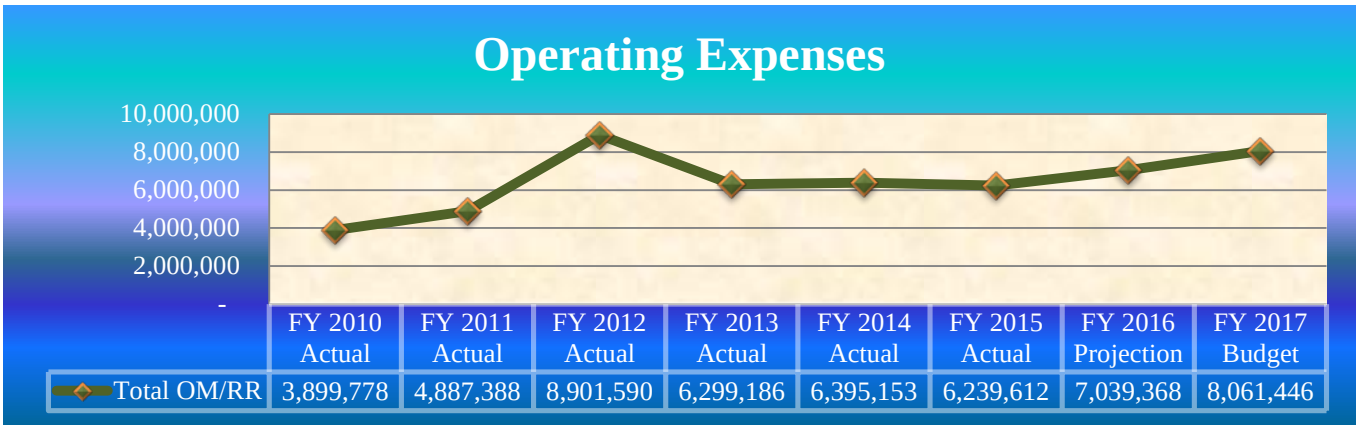
**Victor Valley Wastewater Reclamation Authority**
**Expense Trend Analysis**
**Fiscal Year 2016-2017**

## *Expense Analysis*

**Capital Expenses**: The capital expenditures have remained at a steady level in FY 2010 due to relatively low construction activities. Capital expenditures have risen during FY 2011, as the FY 2011 includes the construction costs of the Mojave River emergency temporary pipeline to remedy the damaged pipeline during the December 2010 storm. The expenses below reflect the actual expenses per CAFR adjusted by adding the portion reimbursed by the grants from Federal Emergency Management Agency and California Office of Emergency Services. The capital expenditures continued to increase during FY 2012 due to the construction of an ultraviolet light disinfection facility (UV system) for the regulatory compliance upgrade project called Phase III-A. The FY 2013 and FY 2014 capital expenditures came down to the level of 2011. The FY 2015 and FY 2016 include Sub-regional plant construction. We have projected $21.1 million for construction of Upper Narrow Replacement and Sub-regional projects for FY 2016. For FY 2017, we have budgeted $48.1 million (page 48) for the construction of the Nanticoke interceptor, Upper Narrow Replacement, and Sub-regional projects.

**Operating Expenses**: The year of FY 2010 was a period of stability prior to the facility capacity expansions coming online. The FY 2011 operating expenses increased when the UV system started operations. The FY 2012 operating expense reflects emergency operation costs without offsetting it by grants. The operating expenses continue to show the high electricity costs for the UV system during FY 2012 through FY 2017.




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

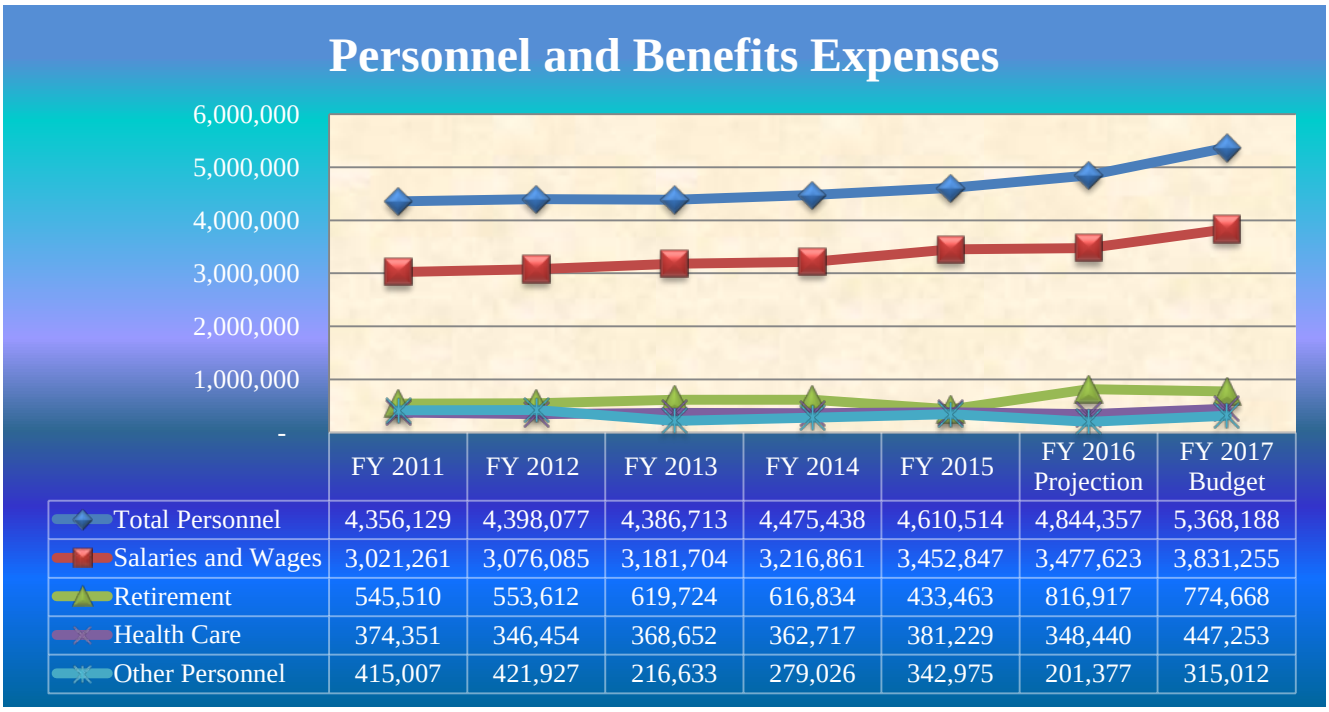
**Victor Valley Wastewater Reclamation Authority**
**Expense Trend Analysis**
**Fiscal Year 2016-2017**

***Expense Analysis (Continued)***

Although personnel costs have remained relatively stable from FY 2011 through FY 2016, they are predicted to rise in FY 2017 to include a 1.0% CPI addition and Cal PERS retirement contribution increase.

The health care cost has been kept at about the same level throughout the period from FY 2011 to FY 2017.

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.

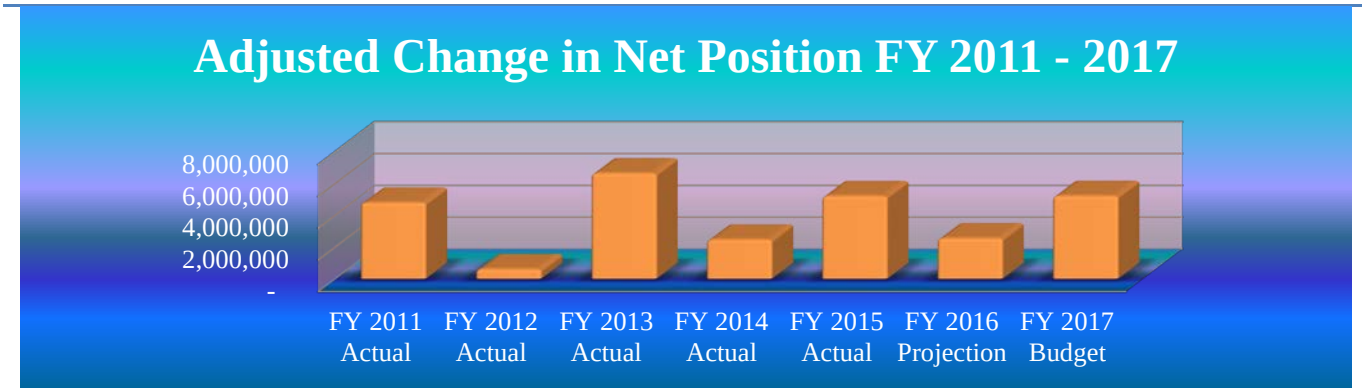



| | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 Projection | FY 2017 Budget |
|---|---|---|---|---|---|---|---|
| Total Personnel | 4,356,129 | 4,398,077 | 4,386,713 | 4,475,438 | 4,610,514 | 4,844,357 | 5,368,188 |
| Salaries and Wages | 3,021,261 | 3,076,085 | 3,181,704 | 3,216,861 | 3,452,847 | 3,477,623 | 3,831,255 |
| Retirement | 545,510 | 553,612 | 619,724 | 616,834 | 433,463 | 816,917 | 774,668 |
| Health Care | 374,351 | 346,454 | 368,652 | 362,717 | 381,229 | 348,440 | 447,253 |
| Other Personnel | 415,007 | 421,927 | 216,633 | 279,026 | 342,975 | 201,377 | 315,012 |

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

**Victor Valley Wastewater Reclamation Authority**
**History of Change in Net Position**
**Fiscal Year 2016-2017**

| FY = Fiscal Year | Beginning Net Position | Change in Net Position per CAFR *=Per Budget | Ending Net Position | Grants CIP/Interest Amortization and Depreciations Expense | Adjusted Change in Net Position | Adjusted Ending Net Position |
|---|---|---|---|---|---|---|
| FY 2011 Actual | 104,520,886 | 152,113 | 104,672,999 | 4,646,167 | 4,798,280 | 109,319,166 |
| FY 2012 Actual | 104,672,999 | (4,456,740) | 100,216,259 | 5,064,886 | 608,146 | 105,281,145 |
| FY 2013 Actual | 100,216,259 | 520,654 | 100,736,913 | 6,124,656 | 6,645,310 | 106,861,569 |
| FY 2014 Actual | 100,736,913 | (2,228,708) | 98,508,205 | 4,699,735 | 2,471,027 | 103,207,940 |
| FY 2015 Actual | 98,508,205 | 21,424,125 | 119,932,330 | (16,212,939) | 5,211,186 | 103,719,391 |
| FY 2016 Projection | 119,932,330 | 2,548,848 * | 122,481,178 | - | 2,548,848 | 122,481,178 |
| FY 2017 Budget | 122,481,178 | 5,219,642 * | 127,700,820 | - | 5,219,642 | 127,700,820 |




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

### *History of change in net position*

The above graph shows 'adjusted change in net position' whose amounts are highlighted in navy blue. VVWRA's change in net position, or the total revenues over total expenses, has decreased dramatically from FY 2011 to FY 2012. The decrease is due to the sharp decline of connection fee revenues from member agencies. The connection fee revenues are directly related to the housing market growth in the service areas as shown by a 37% decrease from $2,205,637 in FY 2011 to $1,387,175 in FY 2015. In contrast, the operating expenses have increased by 7%, from $9,327,938① in FY 2011 to $10,005,845① in FY 2015. Grant revenues are recorded in CAFR but most of related construction costs are recorded in an asset group, excluded from an expense group. For fair comparison purpose, the above actual net positions from FY 2011 to 2015 are adjusted by adding back the grant related capitalized expenses for the Upper Narrows Replacement and Emergency projects and also adding non-cash depreciation and amortized interest expenses. The FY 2016 reflects a fewer repair-construction projects, not using the entire budgeted amount. Please see detailed discussions on capital improvement projects anticipated during FY 2017 and beyond at pages 48 and 49 and also Projected Cash Allocation per Fund at page 47. The FY 2017 net position includes a one-time receipt of retention revenue from FEMA and Cal OES upon the completion of the Upper Narrows Replacement and Emergency projects.

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 2016-2017**

## *Overview*

The Capital Improvement Programs (CIP) on pages 46 start with the new and continued capital projects funded in fiscal year (FY) 2017 budget. The presented budget includes a format for the presentation of the CIP that more accurately allocates resources and prioritizes the projects in four categories. These project categories include Wastewater Treatment, Interceptor, Energy Efficiency, and Information Technology.

These pages include all the project details and cash outflows for five years starting FY 2016. These pages focus on the Projects, the Funds and the type of Project Financing. To further clarify the cash resources of VVWRA, the Cash Allocation on page 47 was developed based on the prior year cash balance from Comprehensive Annual Financial Report (CAFR). This sheet details the available cash in the capital and operating funds. The following pages 48 and 49 summarize all the capital projects and related monthly cash flows for the projected years. Finally, the pages 50 and 51 show when our existing State Revolving Fund loans mature with annual payment amounts and the page 52 describes how the funding will be applied during FY 2017 and FY 2018.

The capital expenditures include the CIP's, such as construction projects that have an extended life of over five years. In some instances, these costs also include studies undertaken related to anticipated future capital projects. 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 budget, the term CIP is used to describe capital expenditures including projects that are in fact construction in progress.* Capital expenditures for the CIP are separate from operating expenses. The operating expenses relate to the operations to provide wastewater services that are usually under $5,000 with less than one year of useful life.

To accomplish multiple goals in parallel, the prospective projects as listed below are ranked by priorities for each category. The level of priority of each project is determined by the individual timing of the project.

## *Project Descriptions*

| | **Wastewater Treatment** |
|---|---|
| 1 | Laboratory Replacement Project; Replacement of obsolete laboratory and former administration building. Construction delayed due to cash flow issues associated with the Upper Narrows Emergency and completion of Phase IIIA. |
| 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 | Drying Beds Repair and Drainage; During the summer of 2012 a heavy rainstorm caused significant damage to the bio-solids drying beds. |
| 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. |
| 5 | Hesperia Subregional Water Reclamation Plant; Construction of a new water reclamation plant in the City of Hesperia. |
| 6 | Town of Apple Valley Water Reclamation Plant; Construction of a new water reclamation plant in the Town of Apple Valley. |
| 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 situations develop. |
| **Interceptor** | |
| 9 | Upper Narrows Interceptor Replacement; Construction of a permanent pipeline to replace the temporary pipeline through the Upper Narrows. |
| 10 | Nanticoke Pump Station (PS) bypass Sewer; Construction of a gravity interceptor to replace the obsolete Nanticoke Pump Station. |
| 11 | Ossum Wash; The double barrel interceptor that crosses Ossum Wash requires lining to ensure its structural integrity. |
| 12 | Oro Grande Interceptor; The line will replace the existing Oro Grande interceptor. |
| 13 | Yates Road sampling station; The Town of Apple Valley is constructing the Nisqualli Bridge which requires that the road be widened. The existing metering site needs to be relocated to accommodate the enlarged roadway. |
| 14 | Apple Valley Odor Control; An odor study was performed by V&A engineering in 2009. Before it could be acted upon the Upper Narrows Emergency occurred. Due to FEMA requirements it is necessary to delay all activities with this project until the Upper Narrows Interceptor Replacement Project is completed. |
| 15 | 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. It is anticipated that this project will coincide with the odor control project since they occur in the same vicinity. |
| 16 | North Hesperia Relief Interceptor; If the Board chooses not to pursue construction of the Hesperia Subregional then VVWRA would construct this interceptor. The minimal funds allocated would be to initiate the environmental process. The design was completed as part of a settlement agreement with RBF Engineering. Planning costs would be paid for with Capital Cash Reserves and construction with an SRF loan. If the Hesperia Subregional is constructed it is not anticipated that this project would be built within the next ten years. |
| 17 | Spring Valley Lake Relief Interceptor; If the Board chooses not to pursue construction of the Hesperia Subregional then VVWRA would construct this interceptor. The minimal funds allocated would be to initiate the environmental process. The design was completed as part of a settlement agreement with RBF Engineering. Planning costs would be paid for with Capital Cash Reserves and construction with an SRF loan. If the Hesperia Subregional is constructed it is not anticipated that this project would be built within the next ten years. |
| 18 | Shay Road Diversion Structure; The diversion structure to replace the cover of the existing structure. |
| **Energy Efficiency** | |
| 19 | Aeration Energy Efficiency Project; The exact method for financing is to be determined however SCE's On Bill Financing Program at 0% interest appears to be the best option. This |

| | |
|---|---|
| | project will improve the oxygen transfer efficiency of the facility and reduce energy consumption. |
| 20 | Biogas Solids Project; This project is to enable VVWRA to generate electrical power from the biogas it produces from FOG, ADM and traditional waste streams. |
| **Information Technology** | |
| 21 | Document Management System; This system addresses digitalization and storage of all VVWRA files and O&M manuals as-built drawings. The solution will facilitate a secure document storage system which will be designed for the management and control of all document access in a secure and redundant format. The system is being re-designed to allow for integration into the new computerized Maintenance Management System (CMMS). |

*Apple Valley Sub-regional Water Reclamation Plant Project*

**Victor Valley Wastewater Reclamation Authority**
**Capital Improvement Programs - Expenditures by Projects**
**Fiscal Year 2016-2017**

VVWRA's capital improvement programs in the five year range allow VVWRA to utilize cutting-edge technologies to continue providing quality wastewater treatment services to the service areas. The anticipated capital projects can be classified into four general areas: Wastewater Treatment, Interceptor, Energy Efficiency, and Information Technology. This "Capital Improvement Programs - Expenditures by Projects" shows the projects in a priority order for each category. These projects are or will be funded through one or combination of the following sources: operating cash reserve; capital cash reserve; State Revolving Fund; and federal and California grants.

**Capital Improvement Programs - Expenditures by Projects**

| FY 2017 Priority | Project Number | Project Title | FY 2016 Budget | FY 2017 Budget | FY 2018 Budget | FY 2019 Budget | FY 2020 Budget |
|---|---|---|---|---|---|---|---|
| 1 | 1 | Laboratory Building Replacement Project | - | - | 1,656,428 | 443,572 | - |
| 2 | 2 | Digesters 4 and 5 Supernatant Line | 75,000 | - | 75,000 | - | - |
| 1 | 3 | Drying Beds Repair and Drainage Improvements | 150,000 | - | - | - | - |
| 3 | 4 | Westside Plant Spill Containment System | - | - | 250,000 | - | - |
| 1 | 5 | Hesperia Sub-regional Water Reclamation Plant | 21,684,959 | 21,365,176 | - | - | - |
| 1 | 6 | TOAV Sub-regional Water Reclamation Plant | 21,684,959 | 21,365,176 | - | - | - |
| 2 | 7 | Tertiary Filter Enclosure | 50,000 | - | 50,000 | - | - |
| 3 | 8 | Eastside WWTP (Serving Northern Triangle, VV-TOAV) | | | | | |
| | | **Total Wastewater Treatment Projects** | **$ 43,644,918** | **$ 42,730,352** | **$ 2,031,428** | **$ 443,572** | **$ -** |
| 1 | 9 | Upper Narrows Interceptor Replacement Project | 2,490,738 | 1,191,000 | - | - | - |
| | 10 | Nanticoke PS Bypass Sewer | 5,000,000 | 3,990,000 | 469,190 | - | - |
| 2 | 11 | Ossum Wash | 650,000 | - | 650,000 | - | - |
| 2 | 12 | Oro Grande Interceptor | | - | 5,700,000 | - | - |
| 3 | 13 | Yates Road Sampling Station | 84,900 | - | - | - | - |
| 2 | 14 | Apple Valley Odor Control | 100,000 | 100,000 | 50,000 | 500,000 | - |
| 3 | 15 | Apple Valley Interceptor Realignment Desert Knolls Wash | 100,000 | 100,000 | 50,000 | 350,000 | - |
| 3 | 16 | North Hesperia Relief Interceptor | - | - | - | - | - |
| 3 | 17 | Spring Valley Lake Relief Interceptor | - | - | - | - | - |
| 1 | 18 | Shay Road Diversion Structure | 75,000 | - | - | - | - |
| | | **Total Interceptor Projects** | **$ 8,500,638** | **$ 5,381,000** | **$ 6,919,190** | **$ 850,000** | **$ -** |
| 1 | 19 | Aeration Energy Efficiency Project | 900,000 | - | - | - | - |
| 1 | 20 | Biogas Solids Project | 500,000 | - | - | - | - |
| | | **Total Energy Efficiency Projects** | **$ 1,400,000** | **$ -** | **$ -** | **$ -** | **$ -** |
| 3 | 21 | Document Management System | 100,000 | - | - | - | - |
| | | **Total Information Technology Projects** | **$ 100,000** | **$ -** | **$ -** | **$ -** | **$ -** |
| | | **TOTAL** | **$ 53,645,556** | **$ 48,111,352** | **$ 8,950,618** | **$ 1,293,572** | **$ -** |

**Victor Valley Wastewater Reclamation Authority**
**Projected Cash Allocation Per Fund**
**Fiscal Year 2016-2017**

| FY 2015 - Year Ended 06/30/15 | | | |
|---|---|---|---|
| Fund | Audit at 06/30/15 | Targeted Board Reserves | Available Funds at 06/30/15 |
| Operations and Maintenance | 2,183,855 | (1,246,438) ① | 1,246,438 |
| Repair and Replacement | - | (1,670,006) ② | 937,417 |
| Capital | 5,848,576 | - | 5,848,576 |
| | 8,032,431 | (2,916,444) | 8,032,431 |

| FY 2016 - Year Ended 06/30/16 | | | | | | |
|---|---|---|---|---|---|---|
| Fund | Budgeted at 06/30/16 | Fund Projected at 06/30/16 | SRF Loan Reserve | Projected Available Cash | Targeted Board Reserves | **Projected Available Funds** |
| Operations and Maintenance | 2,988,535 | 3,153,630 | 2,900,975 | 252,655 | (1,081,523) ① | 4,271,566 |
| Repair and Replacement | (3,002,190) | 600,000 | - | 600,000 | (1,688,068) ② | 600,000 |
| Capital | 2,663,780 | 2,978,167 | 2,458,251 | 519,916 | - | 2,978,167 |
| | 2,650,125 | 6,731,797 | 5,359,226 | 1,372,571 | (2,769,591) | 7,849,733 |
| SRF Loan Restricted Reserve | | | | | | 5,359,226 |
| **Available Cash** | | | | | | **2,490,507** |

| FY 2017 - Year Ended 06/30/17 | | | | | | |
|---|---|---|---|---|---|---|
| Fund | Budgeted at 06/30/17 | Fund Projected at 06/30/17 | SRF Loan Reserve | Disposable Cash | Targeted Board Reserves | **Projected Available Funds** |
| Operations and Maintenance | 1,178,578 | 5,221,244 | 2,900,975 | 2,320,269 | (1,081,523) ① | 5,251,447 |
| Repair and Replacement | (828,900) | - | - | - | (1,688,068) ② | - |
| Capital | 4,869,964 | 7,848,131 | 2,458,251 | 5,389,880 | - | 7,514,728 |
| | 5,219,642 | 13,069,375 | 5,359,226 | 7,710,149 | (2,769,591) | 12,766,175 ③ |
| SRF Loan Restricted Reserve | | | | | | 5,359,226 |
| **Available Cash** | | | | | | **7,406,949** |

Notes:

① O&M Reserve: 10% of most recently available budgeted operating expenses

② R&R Reserve: 1% of land improvements, buildings and interceptors per prior year CAFR
The excess O&M fund is applied to R&R.

③ The FY 2017 'Projected Available Funds' include one-time receipt of retention $4,107,874 at the completion of Upper Narrows Replacement and Emergency projects.

The purpose of this analysis is to forecast how much cash will be available at the end of FY 2017 for each fund. We have predicted the cash balance at June 30, 2017 based on the estimated beginning cash balance.

Victor Valley Wastewater Reclamation Authority
Capital Improvement Programs - Summary and Cash Flows
Fiscal Year 2016-2017

| Priority | Project Number | Project Title | Project Financing | Account Code | Estimated Capital Cost Total | Estimated Capital Cost VVWRA | FY 2017 July | August | September | October | November | December | January | February | March | April | May | June | FY 2017 Summary |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Wastewater Treatment Projects** | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | Laboratory Building Replacement Project | State Revolving Fund | 09-02-520-9000/9025, C115 | 2,100,000 | 2,100,000 | | | | | | | | | | | | | |
| 2 | 2 | Digesters 4 and 5 Supernatant Line | Operating Cash | 09-02-152-9025/9000, 9999, R132 | 75,000 | 75,000 | | | | | | | | | | | | | |
| 3 | 4 | Westside Plant Spill Containment System | Operating Cash | 09-02-162-9025/9000, C016 | 250,000 | 250,000 | | | | | | | | | | | | | |
| 1 | 5 | Hesperia Sub regional Water Reclamation Plant | State Revolving Fund | 09-54-80-9025/9110/9040/9000, C101 | 41,158,000 | 21,365,176 | 3,509,125 | 3,509,125 | 3,509,125 | 3,509,125 | 3,509,125 | 3,509,125 | 50,071 | 50,071 | 50,071 | 50,071 | 50,071 | 50,071 | 21,365,176 |
| | | | | | | | | | Construction | | | | | | | | | | |
| 1 | 6 | TOAV Sub-Regional Water Reclamation Plant *Includes GC PS retrofit | State Revolving Fund | 09-55-80-9025/9110/9040/9000, C102 | 41,052,000 | 21,365,176 | 3,509,125 | 3,509,125 | 3,509,125 | 3,509,125 | 3,509,125 | 3,509,125 | 50,071 | 50,071 | 50,071 | 50,071 | 50,071 | 50,071 | 21,365,176 |
| | | | | | | | | | Construction | | | | | | | | | | |
| 2 | 7 | Tertiary Filter Enclosure | Capital Cash Reserve | 09-02-121-9000, C130 | 50,000 | 50,000 | | | | | | | | | | | | | |
| 3 | 8 | Eastside WWTP (Serving Northern Triangle, VV-TOAV) | State Revolving Fund | 09-52-500-9000/9020/9022/9025/9030/9035/9040/911 | | | | | | | | | | | | | | | |
| | | **Total Wastewater Treatment Projects** | | | **84,685,000** | **45,205,352** | | | | | | | | | | | | | |
| **Interceptor Projects** | | | | | | | | | | | | | | | | | | | |
| 1 | 9 | Upper Narrows Replacement Interceptor1 | Federal/State Grant | | 1,191,000 | 1,191,000 | 238,200 | 238,200 | 238,200 | 238,200 | 238,200 | | | | | | | | 1,191,000 |
| | | | | | | | | | Construction | | | | | | | | | | |
| 1 | 10 | Nanticoke PS Bypass Sewer | State Revolving Fund | 09-05-20-9000, C104 | 4,459,190 | 4,459,190 | 570,000 | 570,000 | 570,000 | 570,000 | 570,000 | 570,000 | 570,000 | | | | | | 3,990,000 |
| | | | | | | | | | Construction | | | | | | | | | | |
| 2 | 11 | Ossum Wash | Operating Cash | 07-05-20-9000/9025, C127 | 650,000 | 650,000 | | | | | | | | | | | | | |
| 2 | 12 | Oro Grande Interceptor | State Revolving Fund | 09-27-05-9025/9000, C126 | 5,700,000 | 5,700,000 | | | | | | | | | | | | | |
| 2 | 14 | Apple Valley Odor Control | Capital Cash Reserve | 09-19-10-9025/9000, C113 | 650,000 | 650,000 | | | | | | | | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 100,000 |
| | | | | | | | | | | | | | | | | Planning/Design | | | |
| 3 | 15 | Apple Valley Interceptor Realignment Desert Knolls Wash | Capital Cash Reserve | 09-19-20-9025/9000, C113 | 500,000 | 500,000 | | | | | | | | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 100,000 |
| | | | | | | | | | | | | | | | | Planning/Design | | | |
| 3 | 16 | North Hesperia Relief Interceptor | State Revolving Fund | 09-21-20-9000 | | | | | | | | | | | | | | | |
| 3 | 17 | Spring Valley Lake Relief Interceptor | State Revolving Fund | 09-23-20-9000 | | | | | | | | | | | | | | | |
| | | **Total Interceptor Projects** | | | **13,150,190** | **13,150,190** | | | | | | | | | | | | | |
| | | | | | | | 7,846,450 | 7,826,450 | 7,826,450 | 7,826,450 | 7,826,450 | 7,588,250 | 670,142 | 140,142 | 140,142 | 140,142 | 140,142 | 140,142 | 48,111,352 |
| | | **TOTAL** | | | **97,835,190** | **58,355,542** | | | | | | | | | | | | **Total FY 2017** | **48,111,352** |

| Notes |
|---|
| 1 SRF Financing of 6.25% VVWRA share |

| **FY 2017 to FY 2019** | | | *Check* |
|---|---|---|---|
| Sub-total | 975,000 | Operating Cash Reserve | 975,000 |
| Sub-total | 1,200,000 | Capital Cash Reserve | 1,200,000 |
| Sub-total | 56,180,542 | State Revolving Fund | 56,180,542 |
| **Total** | **58,355,542** | | 58,355,542 |

| Project Financing | |
|---|---|
| Operating Cash Reserve | - |
| Capital Cash Reserve | 200,000 |
| State Revolving Fund | 47,911,352 |
| **Total FY 2017** | **48,111,352** |

Victor Valley Wastewater Reclamation Authority
Capital Improvement Programs - Summary and Cash Flows
Fiscal Year 2016-2017

| Project Title | FY 2018 July | August | September | October | November | December | January | February | March | April | May | June | FY 2018 Summary |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **nt Projects** | | | | | | | | | | | | | |
| Laboratory Building Replacement Project | 5,000 | 5,000 | 5,000 | 100,000 | 350,000 | 200,000 | 200,000 | 200,000 | 147,857 | 147,857 | 147,857 | 147,857 | 1,656,428 |
| | Planning/Design | | | Construction | | | | | | | | | |
| Digesters 4 and 5 Supernatant Line | | | 10,000 | 35,000 | 30,000 | | | | | | | | 75,000 |
| | | | Planning/Desi | Construction | | | | | | | | | |
| Westside Plant Spill Containment System | | | 15,000 | 15,000 | 40,000 | 100,000 | 40,000 | 40,000 | | | | | 250,000 |
| | | | Planning/Design | | Construction | | | | | | | | |
| Hesperia Sub regional Water Reclamation Plant | | | | | | | | | | | | | |
| TOAV Sub-Regional Water Reclamation Plant | | | | | | | | | | | | | |
| *Includes GC PS retrofit | | | | | | | | | | | | | |
| Tertiary Filter Enclosure | | | 25,000 | 25,000 | | | | | | | | | 50,000 |
| | | | Construction | | | | | | | | | | |
| Eastside WWTP (Serving Northern Triangle, VV-TOAV) | | | | | | | | | | | | | |
| **Total Wastewater Treatment Projects** | | | | | | | | | | | | | |
| Upper Narrows Replacement Interceptor1 | | | | | | | | | | | | | |
| Nanticoke PS Bypass Sewer | 469,190 | | | | | | | | | | | | 469,190 |
| | Construction | | | | | | | | | | | | |
| Ossum Wash | 325,000 | 325,000 | | | | | | | | | | | 650,000 |
| | Construction | | | | | | | | | | | | |
| Oro Grande Interceptor | 475,000 | 475,000 | 475,000 | 475,000 | 475,000 | 475,000 | 475,000 | 475,000 | 475,000 | 475,000 | 475,000 | 475,000 | 5,700,000 |
| | | | | | | Construction | | | | | | | |
| Apple Valley Odor Control | 4,150 | 4,150 | 4,150 | 4,150 | 4,150 | 4,150 | 4,150 | 4,150 | 4,150 | 4,150 | 4,150 | 4,350 | 50,000 |
| | | | | | | Planning/Design | | | | | | | |
| Apple Valley Interceptor Realignment Desert Knolls Wash | 4,150 | 4,150 | 4,150 | 4,150 | 4,150 | 4,150 | 4,150 | 4,150 | 4,150 | 4,150 | 4,150 | 4,350 | 50,000 |
| | | | | | | Planning/Design | | | | | | | |
| North Hesperia Relief Interceptor | | | | | | | | | | | | | |
| Spring Valley Lake Relief Interceptor | | | | | | | | | | | | | |
| **Total Interceptor Projects** | | | | | | | | | | | | | |
| | 1,282,490 | 813,300 | 538,300 | 658,300 | 903,300 | 783,300 | 723,300 | 723,300 | 631,157 | 631,157 | 631,157 | 631,557 | 8,950,618 |

| Project Title | FY 2019 July | August | September | October | November | December | January | February | March | April | May | June | FY 2019 Summary |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Laboratory Building Replacement Project | 147,857 | 147,857 | 147,857 | | | | | | | | | | 443,572 |
| | Construction | | | | | | | | | | | | |
| Digesters 4 and 5 Supernatant Line | | | | | | | | | | | | | |
| Westside Plant Spill Containment System | | | | | | | | | | | | | |
| Hesperia Sub regional Water Reclamation Plant | | | | | | | | | | | | | |
| TOAV Sub-Regional Water Reclamation Plant | | | | | | | | | | | | | |
| *Includes GC PS retrofit | | | | | | | | | | | | | |
| Tertiary Filter Enclosure | | | | | | | | | | | | | |
| Eastside WWTP (Serving Northern Triangle, VV-TOAV) | | | | | | | | | | | | | |
| **Total Wastewater Treatment Projects** | | | | | | | | | | | | | |
| Upper Narrows Replacement Interceptor1 | | | | | | | | | | | | | |
| Nanticoke PS Bypass Sewer | | | | | | | | | | | | | |
| Ossum Wash | | | | | | | | | | | | | |
| Oro Grande Interceptor | | | | | | | | | | | | | |
| Apple Valley Odor Control | 100,000 | 150,000 | 100,000 | 100,000 | 50,000 | | | | | | | | 500,000 |
| | | | Construction | | | | | | | | | | |
| Apple Valley Interceptor Realignment Desert Knolls Wash | 87,500 | 87,500 | 87,500 | 87,500 | | | | | | | | | 350,000 |
| | | | Construction | | | | | | | | | | |
| North Hesperia Relief Interceptor | | | | | | | | | | | | | |
| Spring Valley Lake Relief Interceptor | | | | | | | | | | | | | |
| **Total Interceptor Projects** | | | | | | | | | | | | | |
| | 335,357 | 385,357 | 335,357 | 187,500 | 50,000 | - | - | - | - | - | - | - | 1,293,572 |

**TOTAL**

| | FY 2018 | FY 2019 |
|---|---|---|
| **Total** | **8,950,618** | **1,293,571** |
| Project Financing | | |
| Operating Cash Reserve | 975,000 | - |
| Capital Cash Reserve | 150,000 | 850,000 |
| State Revolving Fund | 7,825,618 | 443,572 |
| **Total** | **8,950,618** | **1,293,572** |

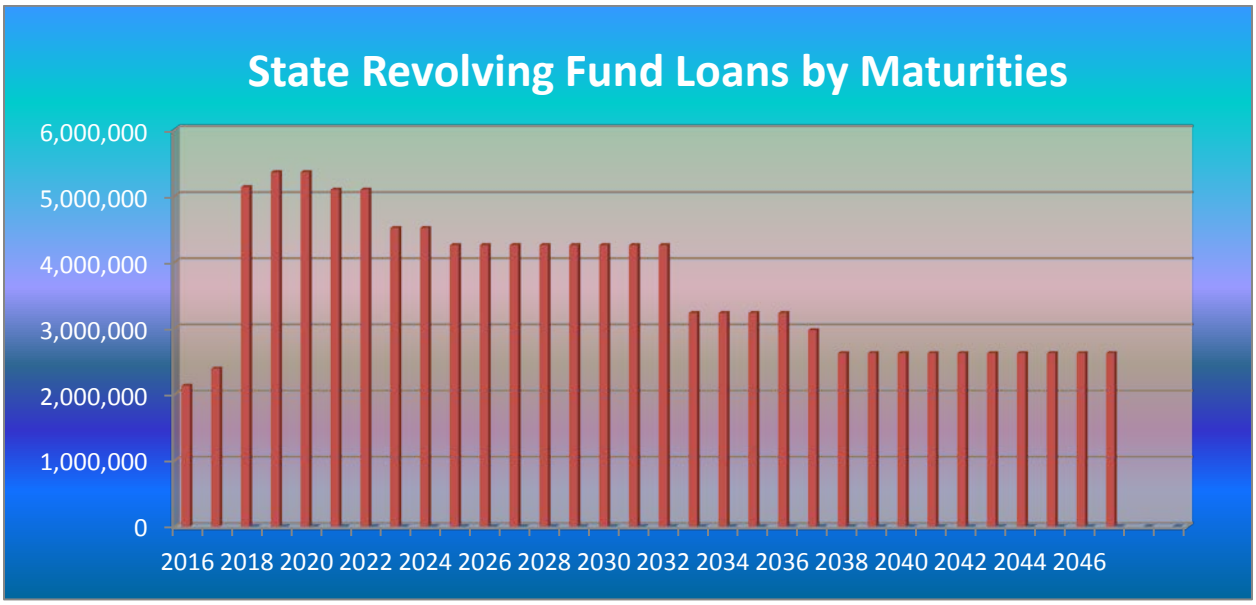
**Victor Valley Wastewater Reclamation Authority**
**Existing State Revolving Fund Loan Payments by Maturities**
**Fiscal Year 2016-2017**

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 $40.5 million SRF loan for Hesperia Sub-regional plant during FY 2015. In addition, we have added a $4,286,380 SRF loan for the Upper Narrows Pipeline Replacement Project and a $5,700,000 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 52 for the impact of the debt repayments to the Operations & Maintenance and Capital Funds. Next page shows the annual repayments in a graph.

**VVWRA Annual Debt Service**

| Fiscal Year | 9.5 MGD Capital Improvements | 11 MGD Expansion | North Apple Valley Interceptor | Phase IIIA Regulatory Upgrades | Upper Narrows Replacement | Nanticoke Bypass | Apple Valley Sub-Regional | Hesperia Sub-Regional | Total |
|---|---|---|---|---|---|---|---|---|---|
| **2016** | 265,049 | 579,870 | 258,151 | 1,027,610 | - | - | - | - | **2,130,680** |
| **2017** | 265,049 | 579,870 | 258,151 | 1,027,610 | 259,235 | - | - | - | **2,389,915** |
| **2018** | 265,049 | 579,870 | 258,151 | 1,027,610 | 259,235 | 304,674 | 963,366 | 1,475,121 | **5,133,076** |
| **2019** | 265,049 | 579,870 | 258,151 | 1,027,610 | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **5,359,224** |
| **2020** | 265,049 | 579,870 | 258,151 | 1,027,610 | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **5,359,224** |
| **2021** | - | 579,870 | 258,151 | 1,027,610 | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **5,094,175** |
| **2022** | - | 579,870 | 258,151 | 1,027,610 | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **5,094,175** |
| **2023** | - | - | 258,151 | 1,027,610 | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **4,514,305** |
| **2024** | - | - | 258,151 | 1,027,610 | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **4,514,305** |
| **2025** | - | - | - | 1,027,610 | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **4,256,154** |
| **2026** | - | - | - | 1,027,610 | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **4,256,154** |
| **2027** | - | - | - | 1,027,610 | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **4,256,154** |
| **2028** | - | - | - | 1,027,610 | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **4,256,154** |
| **2029** | - | - | - | 1,027,610 | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **4,256,154** |
| **2030** | - | - | - | 1,027,610 | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **4,256,154** |
| **2031** | - | - | - | 1,027,610 | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **4,256,154** |
| **2032** | - | - | - | 1,027,610 | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **4,256,154** |
| **2033** | - | - | - | - | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **3,228,544** |
| **2034** | - | - | - | - | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **3,228,544** |
| **2035** | - | - | - | - | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **3,228,544** |
| **2036** | - | - | - | - | 259,235 | 345,411 | 1,051,004 | 1,572,894 | **3,228,544** |
| **2037** | - | - | - | - | - | 345,411 | 1,051,004 | 1,572,894 | **2,969,309** |
| **2038** | - | - | - | - | - | - | 1,051,004 | 1,572,894 | **2,623,898** |
| **2039** | - | - | - | - | - | - | 1,051,004 | 1,572,894 | **2,623,898** |
| **2040** | - | - | - | - | - | - | 1,051,004 | 1,572,894 | **2,623,898** |
| **2041** | - | - | - | - | - | - | 1,051,004 | 1,572,894 | **2,623,898** |
| **2042** | - | - | - | - | - | - | 1,051,004 | 1,572,894 | **2,623,898** |
| **2043** | - | - | - | - | - | - | 1,051,004 | 1,572,894 | **2,623,898** |
| **2044** | - | - | - | - | - | - | 1,051,004 | 1,572,894 | **2,623,898** |
| **2045** | - | - | - | - | - | - | 1,051,004 | 1,572,894 | **2,623,898** |
| **2046** | - | - | - | - | - | - | 1,051,004 | 1,572,894 | **2,623,898** |
| **2047** | - | - | - | - | - | - | 1,051,004 | 1,572,894 | **2,623,898** |
| **Total** | **1,325,245** | **4,059,090** | **2,323,359** | **17,469,370** | **5,184,700** | **6,867,483** | **31,442,482** | **47,089,047** | **115,760,776** |

**Victor Valley Wastewater Reclamation Authority**
**Existing State Revolving Fund Loan Payments by Maturities**
**Fiscal Year 2016-2017**




This graph presents the annual SRF loan repayments. At peak years, the repayment amount exceeds $5 million. During FY 2017 the impact on Operations and Maintenance (O&M) Fund is $1,041,339, while the effect on Capital Fund is $1,348,576. For FY 2018, the impact on O&M Fund is $2,757,321 and effect on Capital Fund is $2,375,756. Please refer to page 52 for the detail information.

**Victor Valley Wastewater Reclamation Authority**
**State Revolving Fund Loans for FY 2017 and FY 2018**
**Fiscal Year 2016-2017**

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 except Upper Narrows Replacement Project as of June 30, 2016. This page shows the next two years of principal and interest repayments per Operations & Maintenance and Capital Funds.

| 2017 | 9.5 MGD Capital Improvements | 11 MGD Expansion | North Apple Valley Interceptor | Phase IIIA Regulatory Upgrades | Upper Narrows Replacement Project | 2017 Total |
|---|---|---|---|---|---|---|
| SRF Loan Amount | $ 4,069,859 | $ 11,430,726 | $ 4,084,688 | $ 15,717,668 | $ 4,286,380 | $ 39,589,321 |
| Annual Payment | $ 265,049 | $ 579,870 | $ 258,151 | $ 1,027,610 | $ 259,235 | $ 2,389,915 |
| 1. Operations | 4.30% | 0.00% | 0.00% | 75.00% | 100.00% | |
| Original Loan | $ 175,004 | $ - | $ - | $ 11,788,251 | $ 4,286,380 | |
| Principal | $ 10,285 | $ - | $ - | $ 503,225 | $ 184,241 | $ 697,751 |
| Interest | $ 1,112 | $ - | $ - | $ 267,482 | $ 74,994 | $ 343,588 |
| Annual Payment | $ 11,397 | $ - | $ - | $ 770,707 | $ 259,235 | $ 1,041,339 |
| 2. Capital | 95.70% | 100.00% | 100.00% | 25.00% | 0.00% | |
| Original Loan | $ 3,894,855 | $ 11,430,726 | $ 4,084,688 | $ 3,929,417 | $ - | |
| Principal | $ 228,902 | $ 519,438 | $ 211,877 | $ 167,742 | $ - | $ 1,127,959 |
| Interest | $ 24,750 | $ 60,432 | $ 46,274 | $ 89,161 | $ - | $ 220,617 |
| Annual Payment | $ 253,652 | $ 579,870 | $ 258,151 | $ 256,903 | $ - | $ 1,348,576 |
| Total Principal | $ 239,187 | $ 519,438 | $ 211,877 | $ 670,967 | $ 184,241 | $ 1,825,710 |
| Total Interest | $ 25,862 | $ 60,432 | $ 46,274 | $ 356,643 | $ 74,994 | $ 564,205 |
| Annual Payment | $ 265,049 | $ 579,870 | $ 258,151 | $ 1,027,610 | $ 259,235 | $ 2,389,915 |

| 2018 | 9.5 MGD Capital Improvements | 11 MGD Expansion | North Apple Valley Interceptor | Phase IIIA Regulatory Upgrades | Upper Narrows Replacement Project | Apple Valley Subregional Project | Hesperia Subregional Project | Nanticoke Bypass Project | 2018 Total |
|---|---|---|---|---|---|---|---|---|---|
| SRF Loan Amount | $ 4,069,859 | $ 11,430,726 | $ 4,084,688 | $ 15,717,668 | $ 4,286,380 | $ 27,085,611 | $ 4,286,380 | $ 5,700,000 | $ 76,661,312 |
| Annual Payment | $ 265,049 | $ 579,870 | $ 258,151 | $ 1,027,610 | $ 259,235 | $ 963,366 | $ 259,235 | $ 304,674 | $ 3,917,190 |
| 1. Operations | 4.30% | 0.00% | 0.00% | 75.00% | 100.00% | 61.00% | 61.00% | 75.00% | |
| Original Loan | $ 175,004 | $ - | $ - | $ 11,788,251 | $ 4,286,380 | $ 16,522,223 | $ 2,614,692 | $ 4,275,000 | |
| Principal | $ 10,552 | $ - | $ - | $ 516,812 | $ 181,294 | $ 448,543 | $ 681,601 | $ 174,626 | $ 2,013,428 |
| Interest | $ 845 | $ - | $ - | $ 253,895 | $ 77,941 | $ 139,110 | $ 218,223 | $ 53,879 | $ 743,893 |
| Annual Payment | $ 11,397 | $ - | $ - | $ 770,707 | $ 259,235 | $ 587,653 | $ 899,824 | $ 228,505 | $ 2,757,321 |
| 2. Capital | 95.70% | 100.00% | 100.00% | 25.00% | 0.00% | 39.00% | 39.00% | 25.00% | |
| Original Loan | $ 3,894,855 | $ 11,430,726 | $ 4,084,688 | $ 3,929,417 | $ - | $ 10,563,388 | $ 1,671,688 | $ 1,425,000 | |
| Principal | $ 234,854 | $ 529,047 | $ 217,174 | $ 172,271 | $ - | $ 286,774 | $ 435,778 | $ 58,209 | $ 1,934,107 |
| Interest | $ 18,799 | $ 50,823 | $ 40,977 | $ 84,632 | $ - | $ 88,939 | $ 139,519 | $ 17,960 | $ 441,649 |
| Annual Payment | $ 253,653 | $ 579,870 | $ 258,151 | $ 256,903 | $ - | $ 375,713 | $ 575,297 | $ 76,169 | $ 2,375,756 |
| Total Principal | $ 245,406 | $ 529,047 | $ 217,174 | $ 689,083 | $ 181,294 | $ 735,317 | $ 1,117,379 | $ 232,835 | $ 3,947,534 |
| Total Interest | $ 19,644 | $ 50,823 | $ 40,977 | $ 338,527 | $ 77,941 | $ 228,049 | $ 357,742 | $ 71,839 | $ 1,185,543 |
| Annual Payment | $ 265,050 | $ 579,870 | $ 258,151 | $ 1,027,610 | $ 259,235 | $ 963,366 | $ 1,475,121 | $ 304,674 | $ 5,133,077 |

# *Section VI: History and Demographics*

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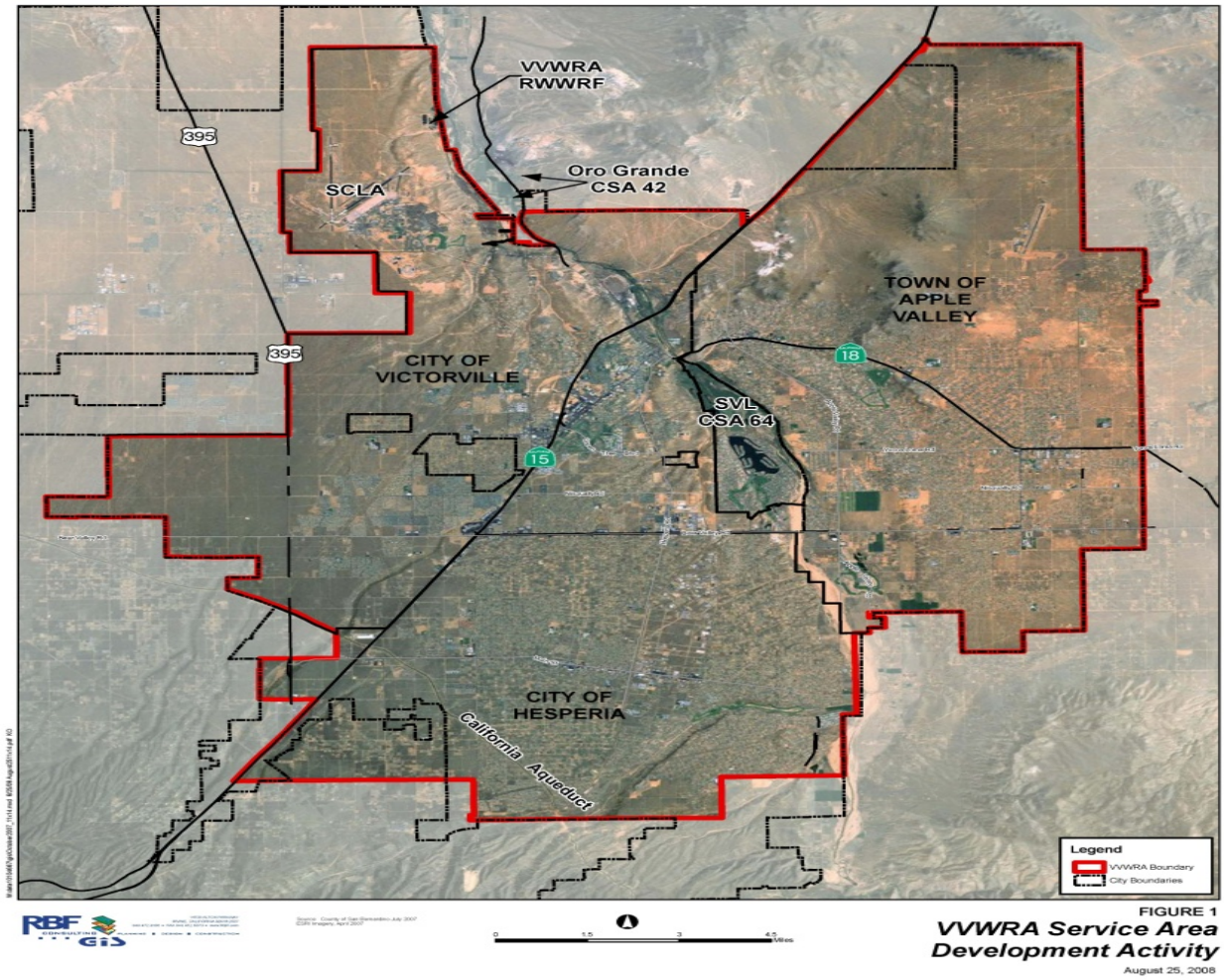
**Victor Valley Wastewater Reclamation Authority**
**History and Demographics**
**Fiscal Year 2016-2017**

## *History*

Victor Valley Wastewater Reclamation Authority (VVWRA) 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. VVWRA is now a joint powers public agency of the state of California handling 12.05 million gallons a day.

Over the years, VVWRA 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 2016-2017**

## *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.

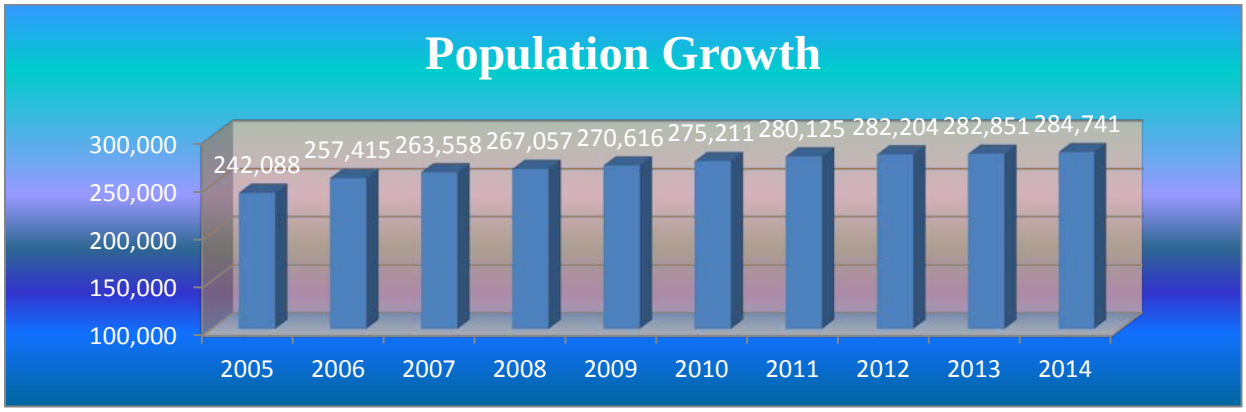
## *San Bernardino County*

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.

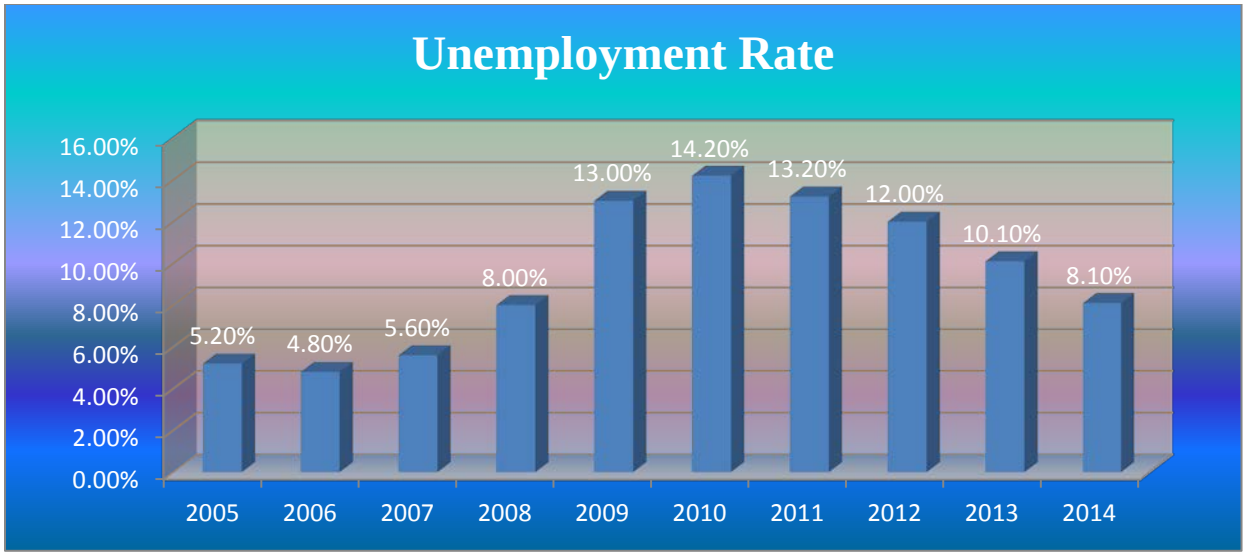
## *Demographics*

The service area has a population of 284,741 in 2014 with a slow and steady population growth from 2007 to 2014.

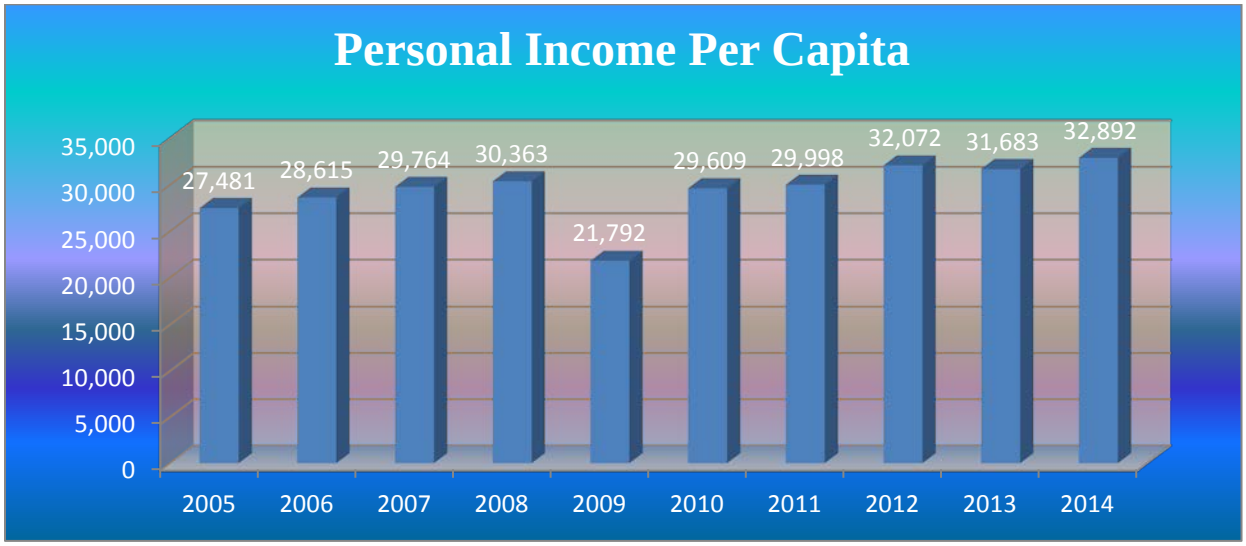
Unemployment in the San Bernardino County has risen from 8% in 2008 to 10.1% in 2013 due to the economic downturn that started in late 2008. The increased unemployment has also impacted the personal income per capita, which decreased from $30,363 in 2008 to $21,792 in 2009, then recovered to $32,892 in 2014.




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




*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.*

## *Sewer Overflow*

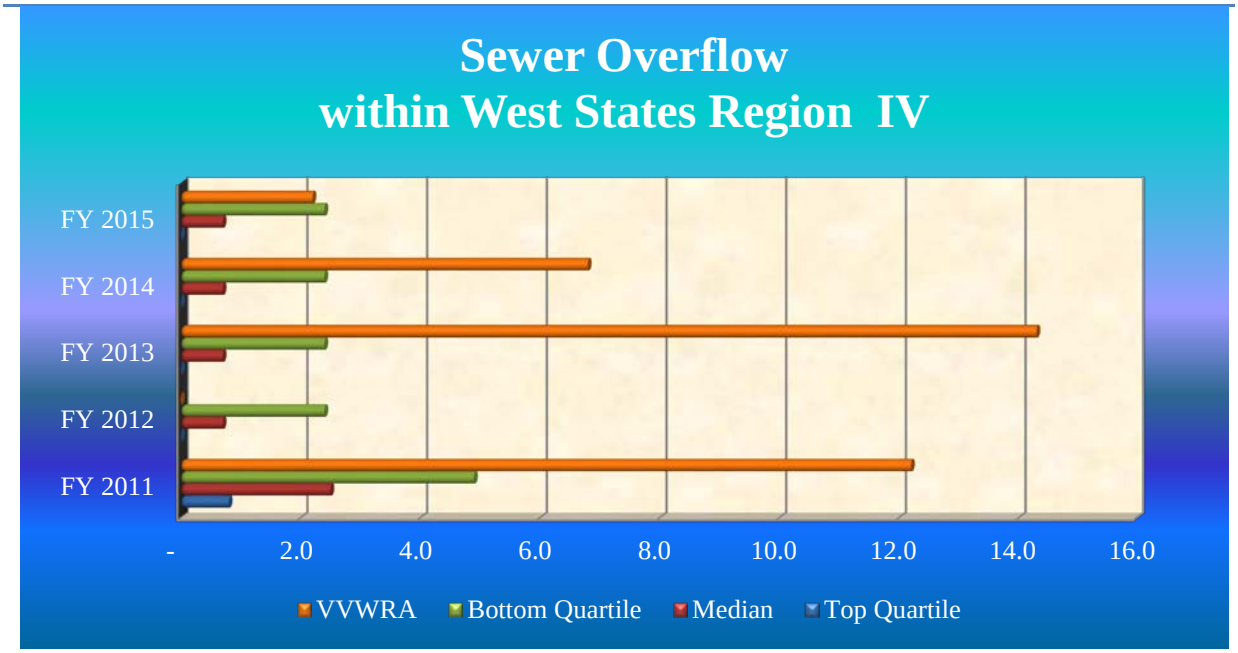
The sewer overflow rate is an indicator that tracks the condition and the effectiveness of the maintenance of the wastewater collection system.

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 "I" 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 one reported spill at the Upper Narrows Emergency Bypass Sites during FY 2015 which resulted in a sewer overflow rate of 2.20. VVWRA has initiated the construction of a permanent interceptor during March of FY 2014 to replace the temporary bypass line.

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

| | Top Quartile | Median | Bottom Quartile | VVWRA |
|---|---|---|---|---|
| **FY 2015** | *Data Not Available* | 0.70 | 2.40 | 2.20 |
| **FY 2014** | *Data Not Available* | 0.70 | 2.40 | 6.80 |
| **FY 2013** | *Data Not Available* | 0.70 | 2.40 | 14.30 |
| **FY 2012** | *Data Not Available* | 0.70 | 2.40 | 0.00 |
| **FY 2011** | 0.80 | 2.50 | 4.90 | 12.20 |

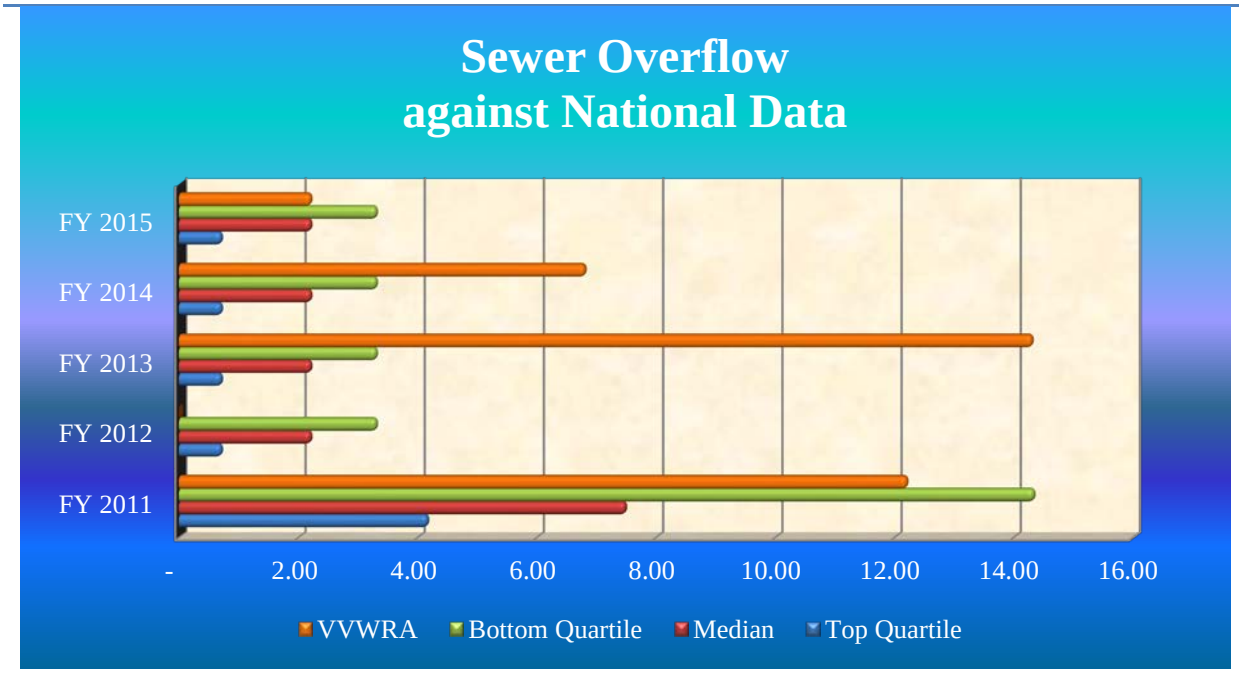



*Source: 2012 American Water Works Association Benchmarking analysis* *FY = Fiscal Year ended June 30*

**Victor Valley Wastewater Reclamation Authority**
**Performance Benchmarked against Industry**
**Fiscal Year 2016-2017**

**Sewer Overflow-National Benchmark**

| | Top Quartile | Median | Bottom Quartile | VVWRA |
|---|---|---|---|---|
| **FY 2015** | 0.70 | 2.20 | 3.30 | 2.20 |
| **FY 2014** | 0.70 | 2.20 | 3.30 | 6.80 |
| **FY 2013** | 0.70 | 2.20 | 3.30 | 14.30 |
| **FY 2012** | 0.70 | 2.20 | 3.30 | 0.00 |
| **FY 2011** | 4.16 | 7.48 | 14.33 | 12.20 |




*Source: 2012 American Water Works Association Benchmarking analysis* *FY = Fiscal Year ended June 30*

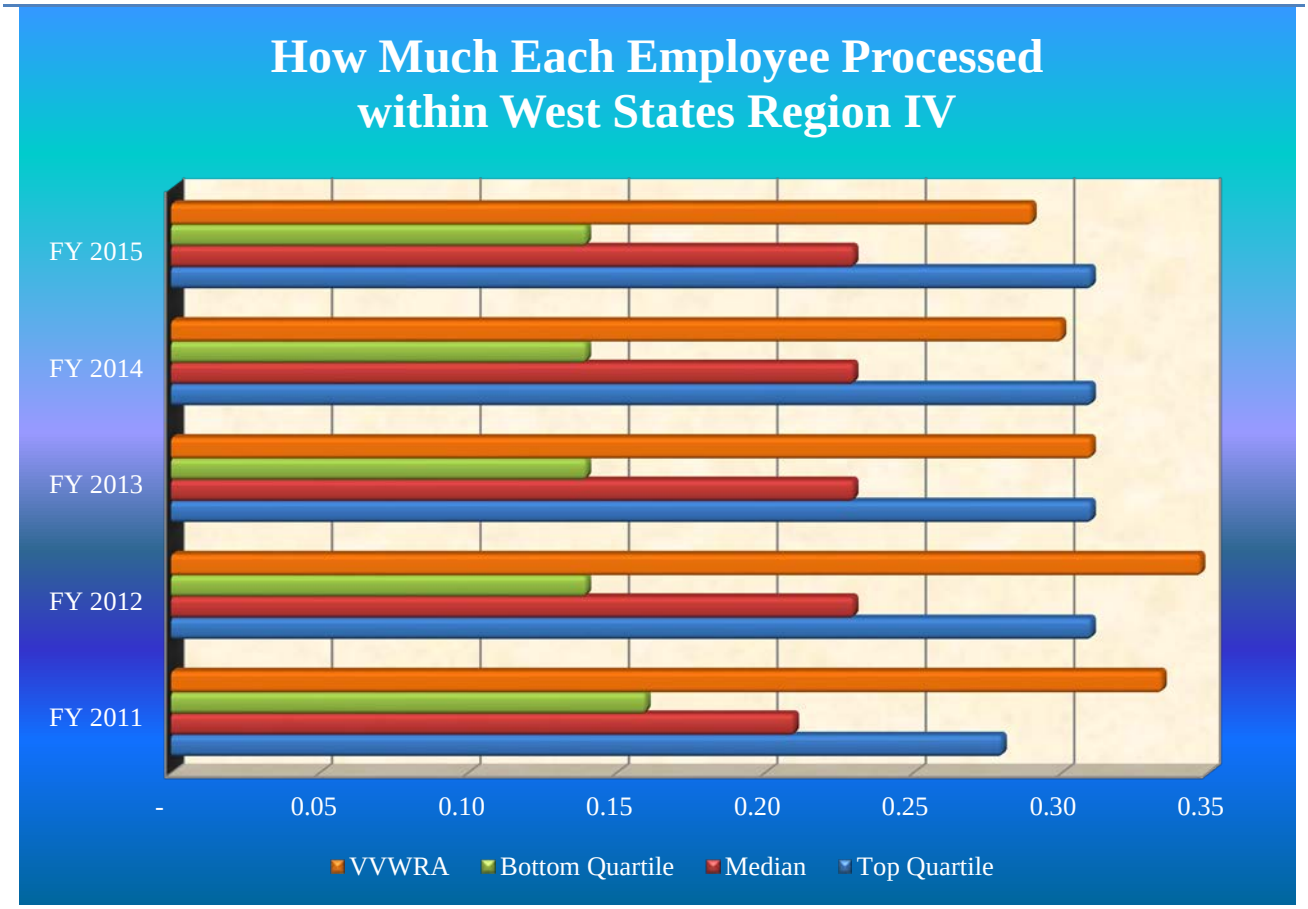
### *How Much Each Employee Processed*

The quantity of wastewater processed by each employee has decreased from 0.33 million gallons per day (MGD) in FY 2011 to 0.29 MGD in FY 2015. This processed quantity decrease seems to come from the decrease of flow quantity itself. In fact, the FY 2011 daily flow average is 13.20 MGD (.33 MGD x 40 actual number of employees), while the FY 2015 daily flow average is 11.31 MGD (.29 MGD x 39 actual number of employees). The daily flow average was decreased by 1.89 MGD between these years.

Compared to West States Region IV, VVWRA has almost continuously surpassed the top quartile during FY 2011 and FY 2012. Compared nationally, the quantity of wastewater processed by each employee has surpassed the median since FY 2011.

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

| | Top Quartile | Median | Bottom Quartile | VVWRA |
|---|---|---|---|---|
| **FY 2015** | 0.31 | 0.23 | 0.14 | 0.29 |
| **FY 2014** | 0.31 | 0.23 | 0.14 | 0.30 |
| **FY 2013** | 0.31 | 0.23 | 0.14 | 0.31 |
| **FY 2012** | 0.31 | 0.23 | 0.14 | 0.35 |
| **FY 2011** | 0.28 | 0.21 | 0.16 | 0.33 |

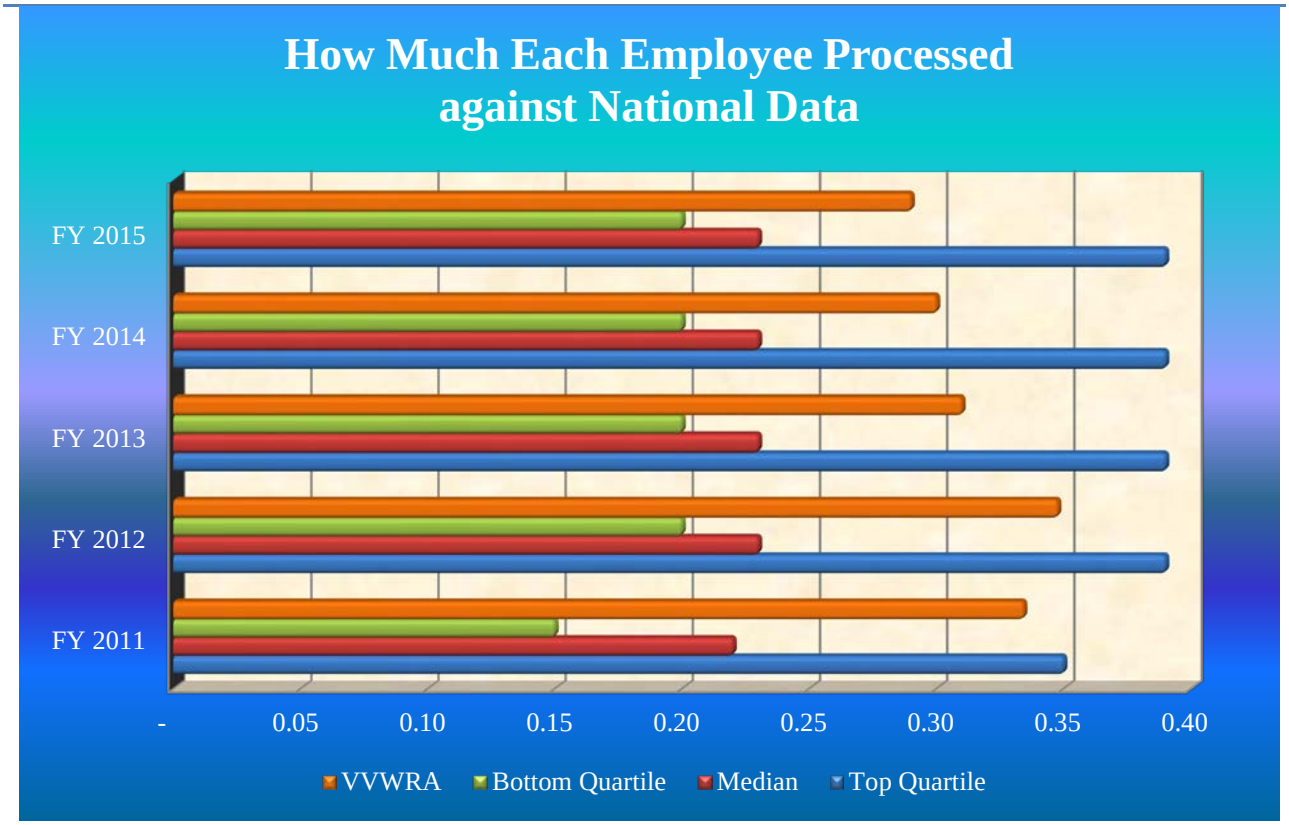



*Source: 2012 American Water Works Association Benchmarking analysis* *FY = Fiscal Year ended June 30*

**Victor Valley Wastewater Reclamation Authority**
**Performance Benchmarked against Industry**
**Fiscal Year 2016-2017**

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

| | Top Quartile | Median | Bottom Quartile | VVWRA |
|---|---|---|---|---|
| **FY 2015** | 0.39 | 0.23 | 0.20 | 0.29 |
| **FY 2014** | 0.39 | 0.23 | 0.20 | 0.30 |
| **FY 2013** | 0.39 | 0.23 | 0.20 | 0.31 |
| **FY 2012** | 0.39 | 0.23 | 0.20 | 0.35 |
| **FY 2011** | 0.35 | 0.22 | 0.15 | 0.33 |




*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 2016-2017**

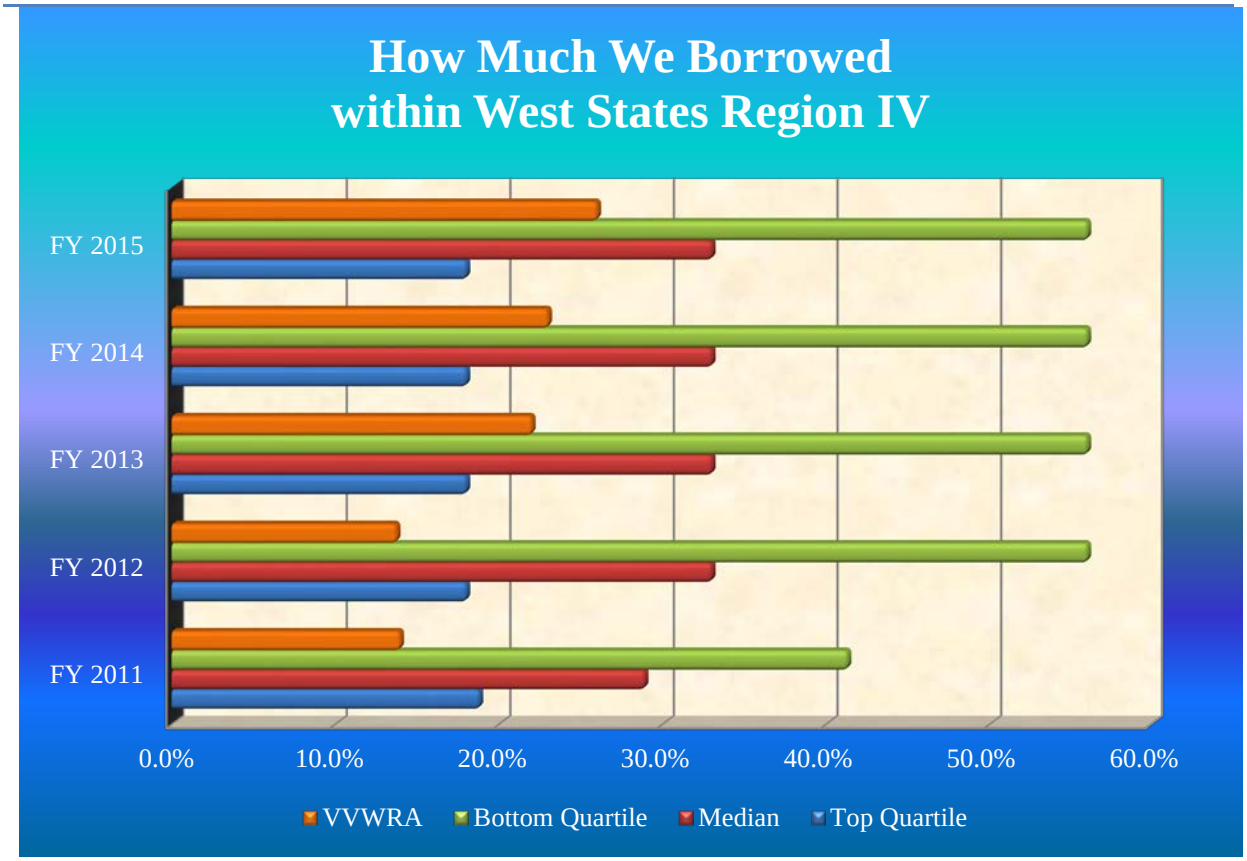
## *How Much We Borrowed*

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 13.96% in FY 2011 to 26.00% in FY 2015 due to the growth in the amount of State Revolving Fund loans for the construction projects.

VVWRA surpassed the top quartile in FY 2011 and FY 2012 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 in FY 2011. The national data for later years is not available.

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

| | Top Quartile | Median | Bottom Quartile | VVWRA |
|---|---|---|---|---|
| **FY 2015** | 18.0% | 33.0% | 56.0% | 26.00% |
| **FY 2014** | 18.0% | 33.0% | 56.0% | 23.00% |
| **FY 2013** | 18.0% | 33.0% | 56.0% | 22.00% |
| **FY 2012** | 18.0% | 33.0% | 56.0% | 13.73% |
| **FY 2011** | 18.8% | 28.9% | 41.3% | 13.96% |

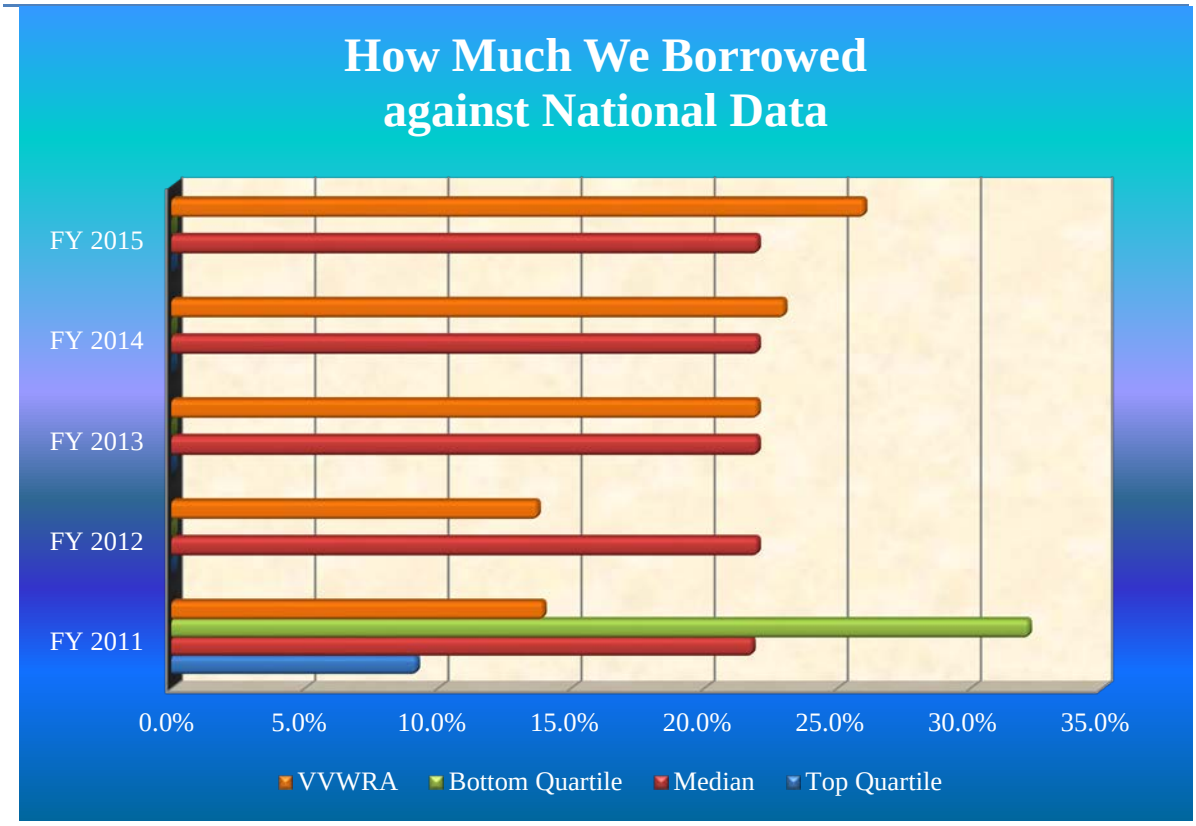



*Source: 2012 American Water Works Association Benchmarking analysis* *FY = Fiscal Year ended June 30*

**Victor Valley Wastewater Reclamation Authority**
**Performance Benchmarked against Industry**
**Fiscal Year 2016-2017**

**How Much We Borrowed-National Benchmark**

| | Top Quartile | Median | Bottom Quartile | VVWRA |
|---|---|---|---|---|
| **FY 2015** | Data Not Available | 22.0% | Data Not Available | 26.00% |
| **FY 2014** | Data Not Available | 22.0% | Data Not Available | 23.00% |
| **FY 2013** | Data Not Available | 22.0% | Data Not Available | 22.00% |
| **FY 2012** | Data Not Available | 22.0% | Data Not Available | 13.73% |
| **FY 2011** | 9.2% | 21.8% | 32.2% | 13.96% |



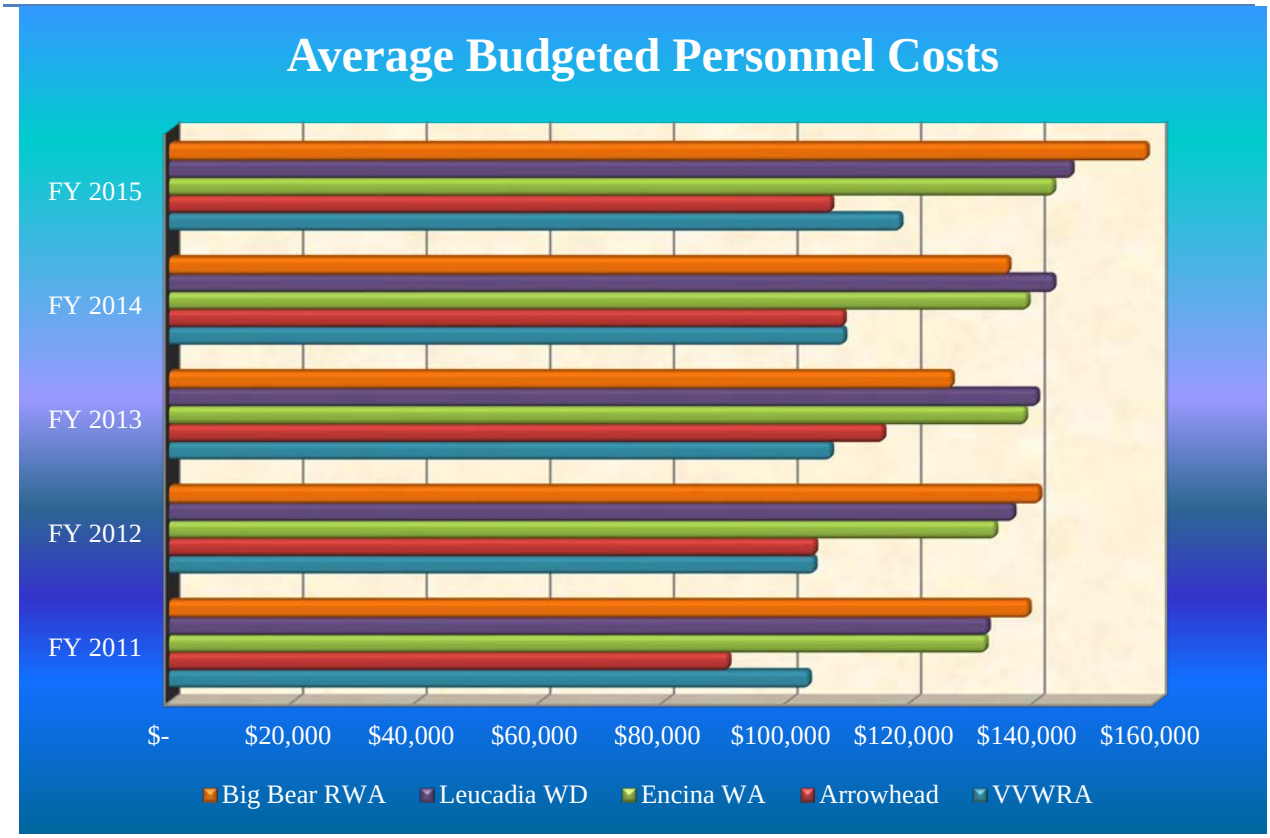

*Source: 2012 American Water Works Association Benchmarking analysis* *FY = Fiscal Year ended June 30*

## *Average Budgeted Personnel Cost*

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

**Average Budgeted Personnel Cost**

| | VVWRA | Arrowhead | Encina WA | Leucadia WD | Big Bear RWA |
|---|---|---|---|---|---|
| **FY 2015** | $ 118,218 | $ 107,039 | $ 142,968 | $ 145,960 | $ 135,720 |
| **FY 2014** | $ 109,157 | $ 109,058 | $ 138,791 | $ 142,991 | $ 135,720 |
| **FY 2013** | $ 106,993 | $ 115,469 | $ 138,421 | $ 140,339 | $ 126,547 |
| **FY 2012** | $ 104,338 | $ 104,435 | $ 133,566 | $ 136,517 | $ 140,704 |
| **FY 2011** | $ 103,416 | $ 90,403 | $ 132,012 | $ 132,364 | $ 138,986 |




*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 2016-2017**

| Glossary | |
|---|---|
| **Ammonia Nitrogen** | The soluble ionized and unionized ammonia nitrogen component in wastewater that can be measured using the procedure described in the current edition of "*Standard Methods for the Examination of Water and Wastewater*" published by the American Public Health Association. |
| **Biochemical oxygen demand (BOD)** | The measure of decomposable organic material in wastewater as represented by the oxygen utilized as determined by the procedure described in the current edition of "*Standard Methods for the Examination of Water and Wastewater*" published by the American Public Health Association. |
| **Cal-OES** | The California Governor's Office of Emergency Services (Cal-OES) serves the public through effective collaboration in preparing for, protecting against, responding to, recovering from, and mitigating the impacts of all hazards and threats. |
| **Cash Basis** | Revenues and expenses are recognized when cash is received or paid out. |
| **Connection Fee** | A fee paid by a new discharger for the costs of capacity in the regional wastewater system. |
| **Effluent** | The liquid outflow discharged from the Publicly Owned Treatment Works (POTW) facility or the nondomestic wastewater discharged by industrial users to the POTW. |
| **Enterprise accounting** | Uses an accrual basis of accounting method to account for the activities of a government agency that provides goods or services to the public on a fee basis. |
| **Enterprise Accounting System** | An accrual accounting system that is similar to a regular business accounting method, where revenues and expenses are recorded when they incur. VVWRA employs two funds, (1) Operations and Maintenance Fund and (2) Capital Fund. Both of the funds employ the Enterprise Accounting System. |
| **FEMA** | The Federal Emergency Management Agency (FEMA) coordinates the federal government's role in preparing for, preventing, mitigating the effects of, responding to, and recovering from all domestic disasters, whether natural or man-made, including acts of terror. |
| **Interceptor** | A pipeline that coveys wastewater from the sewer collection facilities of a Member Agency to the VVWRA's wastewater treatment facilities. |
| **Member Agencies** | The four government agencies who participate in the joint power agreement with VVWRA. They are the City of Victorville; Town of Apple Valley; Hesperia Water District; and County of San Bernardino Service Areas, #42 Oro Grande and #64 Spring Valley Lake. |
| **MG** | Million Gallons. |
| **MGD** | Million Gallons per Day. |
| **POTW** | The Publicly Owned Treatment Works is sewage treatment plants that are owned and usually operated by local government agencies. |
| **Pretreatment** | The reduction and elimination of pollutants or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into the POTW. |
| **Reclaimed Water** | Water that, as a result of waste treatment, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource. |
| **Septage** | Any wastewater or sludge removed from cesspools, septic tanks, holding tanks, or chemical toilets that is trucked or hauled to the point of discharge. |
| **SRF** | State Revolving Fund. |
| **Surcharge** | An assessment, in addition to the service charge, which may be levied on those users whose waste are greater in strength than threshold concentration values established. |
| **Total Suspended Solids** | The insoluble solid matter suspended in wastewater that is separable by laboratory filtration in accordance with the procedure described in the current edition of "*Standard Methods for the Examination of Water and Wastewater*" published by the American Public Health Association. |
| **Ultraviolet Disinfection** | 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. |
| **User** | Any person who contributes, causes, or permits the contribution of wastewater into the POTW, including households, private residences, nonresidential users, and Member Agencies. |
| **VVWRA** | The Victor Valley Wastewater Reclamation Authority. |
| **Wastewater** | The domestic or nondomestic liquid wastes discharged from dwellings, or commercial buildings, industrial facilities, and institutions, together with any ground water, surface water, and storm water that may be present, whether treated or untreated, which is contributed into or permitted to enter the POTW. |