



**AGENDA AND NOTICE OF PUBLIC HEARING**  
**LAS VEGAS VALLEY WATER DISTRICT**  
**BOARD OF DIRECTORS**

**SPECIAL MEETING**  
**9:45 A.M. – MAY 20, 2019**

**COMMISSION CHAMBERS**  
**CLARK COUNTY GOVERNMENT CENTER**  
**500 S. GRAND CENTRAL PARKWAY, LAS VEGAS, NEVADA**  
**(702) 258-3100**

**Board of Directors**  
Marilyn Kirkpatrick, President  
Jim Gibson, Vice President  
Larry Brown  
Justin Jones  
Michael Naft  
Tick Segerblom  
Lawrence Weekly

*John J. Entsminger,*  
*General Manager*

Date Posted: May 13, 2019

The Las Vegas Valley Water District makes reasonable efforts to assist and accommodate persons with physical disabilities who desire to attend the meeting. For assistance, call the Agenda Coordinator (702) 258-3939 at least 24 hours prior to the meeting.

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**THIS MEETING HAS BEEN PROPERLY NOTICED AND POSTED IN THE FOLLOWING LOCATIONS:**

**LAS VEGAS VALLEY WATER DISTRICT**  
**1001 SOUTH VALLEY VIEW BOULEVARD**  
**LAS VEGAS, NEVADA**

**CLARK COUNTY GOVERNMENT CENTER**  
**500 SOUTH GRAND CENTRAL PARKWAY**  
**LAS VEGAS, NEVADA**

**GRANT SAWYER STATE OFFICE BUILDING**  
**555 EAST WASHINGTON AVENUE**  
**LAS VEGAS, NEVADA**

**REGIONAL JUSTICE CENTER**  
**200 LEWIS AVENUE**  
**LAS VEGAS, NEVADA**

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All items listed on this agenda are for action by the Board of Directors, unless otherwise indicated. Items may be taken out of order. The Board of Directors may combine two or more agenda items for consideration, and/or may remove an item from the agenda or delay discussions relating to an item on the agenda at any time.

Visit our website at [http://www.lvvw.com/about/board\\_meetings.html](http://www.lvvw.com/about/board_meetings.html) or main office at 1001 S. Valley View Boulevard, Las Vegas, Nevada for Las Vegas Valley Water District agenda postings, copies of supporting material and approved minutes. To receive meeting information, including supporting material, contact the LVVWD Agenda Coordinator at (702) 258-3939 or [agendas@lvvw.com](mailto:agendas@lvvw.com).

**CALL TO ORDER, INVOCATION AND PLEDGE OF ALLEGIANCE**

**COMMENTS BY THE GENERAL PUBLIC**

**NO ACTION MAY BE TAKEN:** At this time, the Board of Directors will hear general comments from the public on items listed on this agenda. If you wish to speak to the Board about items within its jurisdiction, but not appearing on this agenda, you must wait until the "Comments by the General Public" period listed at the end of this agenda. Please limit your comments to three minutes or less.

**ITEM NO.**

1. *For Possible Action:* Approve agenda with the inclusion of tabled and/or reconsidered items, emergency items and/or deletion of items.
2. *For Possible Action:* Conduct a Public Hearing on the Tentative Budget for the Las Vegas Valley Water District and subsequently adopt a Final Budget for Fiscal Year 2019/20.

Copies of the Budget, which have been prepared on forms in such detail as prescribed by the Nevada Department of Taxation, are on file for public inspection at the Las Vegas Valley Water District, 1001 S. Valley View Boulevard, Las Vegas, Nevada.

**COMMENTS BY THE GENERAL PUBLIC**

**NO ACTION MAY BE TAKEN:** At this time, the Board of Directors will hear general comments from the public on matters under the jurisdiction of the Las Vegas Valley Water District. Please limit your comments to three minutes or less.

**LAS VEGAS VALLEY WATER DISTRICT  
BOARD OF DIRECTORS  
AGENDA ITEM**

May 20, 2019

|  |
|--|
| <b>Subject:</b><br>Conduct Public Hearing  |
| <b>Petitioner:</b><br>John J. Entsminger, General Manager  |
| <b>Recommendations:</b><br>That the Board of Directors conduct a Public Hearing on the Tentative Budget for the Las Vegas Valley Water District and subsequently adopt a Final Budget for Fiscal Year 2019/20. |

**Fiscal Impact:**

The approval of a Final Budget will establish revenue and expenditure levels for the District for Fiscal Year 2019/20.

**Background:**

Pursuant to NRS 354.596, the District filed a Tentative Budget with the State of Nevada Department of Taxation on or before April 15, 2019. The Tentative Budget has been reviewed by the Department of Taxation for compliance with state statutes, regulations, and guidelines. A delineation of budget components was provided to the Board of Directors in General Manager's Information Report Number 174. The Board conducted a public workshop on the Tentative Budget on April 22, 2019.

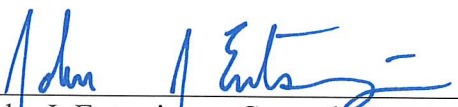
NRS 354.596(4) requires that the District conduct a Public Hearing on the Tentative Budget not sooner than the third Monday in May, and not later than the last day in May. The Public Hearing is therefore scheduled for the third Monday in May (May 20, 2019). Notice of this hearing has been published in the *Las Vegas Review-Journal* in accordance with the law.

NRS 354.598 requires that, subsequent to conducting the Public Hearing, the Board adopt a Final Budget for the District not later than June 1, 2019, and transmit it to the Department of Taxation.

The Board is being asked to conduct a Public Hearing on the District's Tentative Budget and adopt a Final Budget for Fiscal Year 2019/20.

This action is authorized pursuant to NRS 354.596, NRS 354.598, and Section 9(1) of the Las Vegas Valley Water District Act, Chapter 167, Statutes of Nevada 1947. The office of the General Counsel has reviewed and approved this agenda item.

Respectfully submitted:

  
John J. Entsminger, General Manager  
JJE:EKB:MC:nf  
Attachment

|                  |
|------------------|
| AGENDA<br>ITEM # |
|------------------|

2

# Las Vegas Valley Water District

**Operating & Capital Budget  
Fiscal Year Ending June 30, 2020**



## **LAS VEGAS VALLEY WATER DISTRICT™**

### **Board of Directors**

**Marilyn K. Kirkpatrick, President**

**James B. Gibson, Vice President**

**Lawrence L. Brown III**

**Justin Jones**

**Michael Naft**

**Tick Segerblom**

**Lawrence Weekly**

**John J. Entsminger**

**General Manager**

**E. Kevin Bethel**

**Chief Financial Officer**

**Matt J. Chorpening**

**Assistant Chief Financial Officer**

**Prepared by the Finance Department  
1001 South Valley View Blvd., Las Vegas, Nevada 89153  
702-870-2011 [www.lvwd.com](http://www.lvwd.com)**

DRAFT

**Note of Appreciation**

**We would like to express our appreciation to the Finance department staff, and staff members of other departments for their special work in the preparation of the 2019-20 budget document.**



The **VISION** of the Las Vegas Valley Water District is  
**To be a global leader in service, innovation and stewardship**

The **VALUES** of the Las Vegas Valley Water District are

- ◆ **Respect for People**
- ◆ **Integrity**
- ◆ **Service**
- ◆ **Excellence**
- ◆ **Sustainability**

The **MISSION** of the Las Vegas Valley Water District is to

**Provide world-class water service in a sustainable, adaptive and responsible manner to our customers through reliable, cost-effective systems**

## **CERTIFICATE OF ACHIEVEMENT**

The Government Finance Officers Association of the United States and Canada (GFOA) presented an award of Distinguished Presentation to the **Las Vegas Valley Water District (LVVWD) for its annual budget for the fiscal year beginning July 1, 2018.**

In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan and as a communication device.

The award is valid for a period of one year only. The LVVWD believes our current budget continues to conform to program requirements, and we are submitting it to the GFOA to determine its eligibility for another award.



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished  
Budget Presentation  
Award*

PRESENTED TO

**Las Vegas Valley Water District  
Nevada**

For the Fiscal Year Beginning

**July 1, 2018**

*Christopher P. Morrill*

Executive Director

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Table of Contents**  
Fiscal Year Ending June 30, 2020

**SECTION 1: General Manager's Information Report**

|  |     |
|--|-----|
| Executive Summary .....                | 1-1 |
| Finance .....                          | 1-1 |
| Water Resources and Conservation ..... | 1-2 |
| LVVWD Operations.....                  | 1-4 |
| Organizational Recognition .....       | 1-6 |
| Springs Preserve .....                 | 1-6 |
| Financial Summary .....                | 1-7 |
| Approval .....                         | 1-9 |

**SECTION 2: Introduction and Strategic Plan**

|   |             |
|---|-------------|
| <b>Introduction .....</b>                                   | <b>2-1</b>  |
| Purposes and Powers .....                                   | 2-1         |
| Intergovernmental Relationships.....                        | 2-1         |
| Areas Currently Served.....                                 | 2-2         |
| Organizational Structure .....                              | 2-3         |
| Financial Structure and Controls.....                       | 2-5         |
| Budget Controls and Process .....                           | 2-6         |
| Budget Augmentation .....                                   | 2-8         |
| Budget Calendar for the Fiscal Year 2019-20.....            | 2-9         |
| <b>Las Vegas Valley Water District Strategic Plan .....</b> | <b>2-12</b> |
| Strategic Plan Background .....                             | 2-12        |
| Strategic Plan and 2019-20 Budget Plan Preparation.....     | 2-12        |
| Vision- Mission- Goals .....                                | 2-13        |
| Strategic Plan Strategies.....                              | 2-13        |

**SECTION 3: Operating and Capital Budget Plan**

|   |      |
|---|------|
| Budget Summary .....  | 3-1  |
| Sources .....   | 3-2  |
| Uses .....  | 3-8  |
| Summary of Sources and Uses of Funds and Changes in Net Assets..... | 3-11 |

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Table of Contents**  
Fiscal Year Ending June 30, 2020

**SECTION 4: State of Nevada Budget Documents**

|   |      |
|---|------|
| State of Nevada, Department of Taxation, Budget Submittal .....               | 4-1  |
| Budget Document Index.....  | 4-2  |
| Schedule S-2: Statistical Data .....  | 4-3  |
| Schedule A-2: Proprietary Funds.....  | 4-4  |
| Schedule F-1: Enterprise Fund - Revenues, Expenses and Net Position .....     | 4-5  |
| Schedule F-1.1: Pension Trust Fund - Revenues, Expenses and Net Position..... | 4-6  |
| Schedule F-1.2: OPEB - Revenues, Expenses and Net Position .....              | 4-7  |
| Schedule F-2: Enterprise Fund - Statement of Cash Flows .....                 | 4-8  |
| Schedule C-1: Indebtedness .....  | 4-9  |
| Schedule 31: Schedule of Existing Contracts .....                             | 4-10 |
| Schedule 32: Schedule of Privatization Contracts.....                         | 4-16 |
| Affidavit of Publication .....  | 4-17 |
| Letter of Compliance .....  | 4-18 |

**SECTION 5: Department Budgets**

|  |       |
|--|-------|
| Summary of Department Expenditures .....                 | 5-1   |
| Executive Management.....                                | 5-2   |
| Legal Services .....                                     | 5-10  |
| Finance .....  | 5-13  |
| Information Technology.....                              | 5-19  |
| Human Resources.....                                     | 5-26  |
| Public Services .....                                    | 5-29  |
| Environmental, Health, Safety & Corporate Security ..... | 5-35  |
| Customer Care & Field Services .....                     | 5-46  |
| Engineering.....   | 5-53  |
| Resources & Facilities.....                              | 5-59  |
| Infrastructure Management.....                           | 5-71  |
| Water Resources .....                                    | 5-79  |
| Energy Management .....                                  | 5-87  |
| Operations.....  | 5-92  |
| Water Quality & Treatment .....                          | 5-100 |

**SECTION 6: Capital Plans**

|                               |      |
|-------------------------------|------|
| Capital Budget .....          | 6-1  |
| Capital Improvement Plan..... | 6-10 |

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Table of Contents**  
Fiscal Year Ending June 30, 2020

**SECTION 7: Debt Management Policy**

|   |      |
|---|------|
| Introduction.....   | 7-3  |
| Affordability of Debt.....  | 7-5  |
| Supported by Water System Pledged Revenues .....                                      | 7-5  |
| Supported by the SNWA Pledged Revenues .....  | 7-9  |
| Debt Capacity .....   | 7-10 |
| Debt Comparison (per capita and assessed valuation).....                              | 7-10 |
| Policy Statement for Sale of Debt .....   | 7-11 |
| Operation Costs and Revenue Sources for<br>Projects in Capital Improvement Plan ..... | 7-13 |
| Miscellaneous Items.....  | 7-14 |
| Chief Financial Officer Information .....   | 7-17 |
| Appendix.....   | 7-18 |

**SECTION 8: Statistical Information**

|  |      |
|--|------|
| Table of Contents .....  | 8-1  |
| Demographic Statistics.....  | 8-2  |
| Top Ten Employers.....   | 8-3  |
| Residential Real Estate .....  | 8-4  |
| Secured Tax Roll .....   | 8-5  |
| Temperature & Rainfall.....  | 8-6  |
| Average Monthly Consumption per Active Service .....                           | 8-7  |
| Average Annual Water Billed per Active Service by Class of Service.....        | 8-8  |
| Percent of Total Water Billed by Class of Service .....                        | 8-9  |
| Average Consumption and Monthly Revenue from Water Sales per Active Account... | 8-10 |
| Water Billed by Month .....  | 8-11 |

**SECTION 9: Financial Policies**

|                             |     |
|-----------------------------|-----|
| Financial Policy .....      | 9-2 |
| Reserve Policy.....         | 9-5 |
| Capitalization Policy ..... | 9-7 |

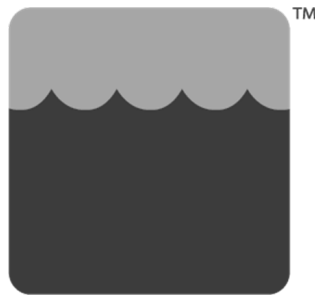
**SECTION 10: Glossary**

|                |      |
|----------------|------|
| Glossary ..... | 10-1 |
|----------------|------|

# SECTION 1

## GENERAL MANAGER'S INFORMATION REPORT

|  |     |
|--|-----|
| Executive Summary.....                 | 1-1 |
| Finance.....                           | 1-1 |
| Water Resources and Conservation ..... | 1-2 |
| LVVWD Operations .....                 | 1-4 |
| Organizational Recognition.....        | 1-6 |
| Springs Preserve.....                  | 1-6 |
| Financial Summary.....                 | 1-7 |
| Approval.....                          | 1-9 |



**LAS VEGAS VALLEY WATER DISTRICT**  
FISCAL YEAR 2019-20





# LAS VEGAS VALLEY WATER DISTRICT

## GENERAL MANAGER'S INFORMATION REPORT

DATE: April 17, 2019

NO. 174

SUBJECT: LAS VEGAS VALLEY WATER DISTRICT  
PROPOSED OPERATING AND CAPITAL BUDGET FOR FISCAL YEAR 2019-20

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The Tentative Operating and Capital Budget of the Las Vegas Valley Water District (LVVWD) for fiscal year 2019-20 was submitted by April 15, 2019, to the State of Nevada Department of Taxation in accordance with NRS 354.596. Included for your review is the General Manager's Information Report.

### Executive Summary

The LVVWD is responsible for providing a safe drinking water supply to more than 1.5 million residents in the Las Vegas Valley. The LVVWD also maintains several rural water systems within Clark County, including the Kyle Canyon Water District, Blue Diamond Water System, Searchlight Water System, Jean Water System and the Big Bend Water District.

To ensure ongoing water service reliability, the LVVWD is continuing its 10-year, \$616 million (2016 dollars) Capital Improvement Plan (CIP), which focuses on infrastructure renewal, consisting of many efforts, including repair and replacement of facilities and aging pipes, coupled with an expansion initiative to increase system capacity.

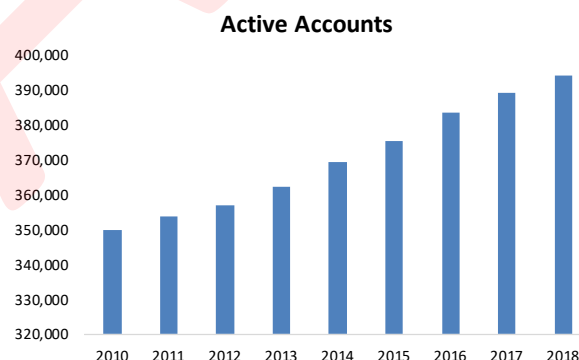
The LVVWD also owns and operates the Springs Preserve, a 180-acre facility that exists to build culture and community, inspire environmental stewardship and celebrate the vibrant history of the Las Vegas Valley.

Southern Nevada's economy has seen steady gains since the 2008 economic recession. As the community continues to rebound, the

fiscal year 2019-20 budget reflects the LVVWD's efforts and initiatives to maintain reliable water supplies for homes and businesses for years to come.

### Finance

Customer account growth is reflective of the community's economic vibrancy. As shown below, the number of active LVVWD service accounts has continually trended upward since 2010, one indicator that Southern Nevada's economy has steadily improved.



### Funding Philosophy.

The LVVWD maintains a diversified funding approach, which includes water-related rates and fees, facilities connection charges, application and inspection fees and grant funding. Prudent management of these income sources, coupled with consistent long-term financial planning, has resulted in financial stability levels not reached since before the economic recession.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**General Manager's Information Report**  
Fiscal Year Ending June 30, 2020

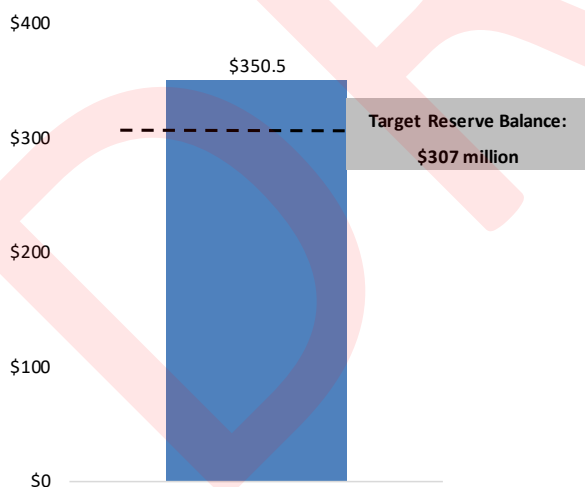
**Improved Bond Rating.**

Prudent management and oversight of the LVVWD's finances have been recognized by credit raters. In 2018, Standard & Poor's increased the LVVWD's Bond Rating to AA+ based on the organization's strong financial management practices and policies, an improved local economy and its strong liquidity position supported by its reserve policy. Standard & Poor's reaffirmed the rating in 2019.

**Reserve Policy.**

A responsible reserve policy helps ensure the LVVWD can withstand potential unanticipated expenditures and maintain positive credit ratings. During the last fiscal year, as reflected in the chart below, the LVVWD exceeded its target reserve balance, representing an important benchmark in the organization's financial health.

**2017-18 Unrestricted Reserves**



The LVVWD's reserve policy includes the following components:

- Adequate reserves to fund 180 days of operating and maintenance expenses

- Adequate reserves to fund one year of the maximum annual debt service
- Adequate reserves to fund a one-year average of future capital needs
- Adequate reserves to fund one percent of assets subject to depreciation

**Project Funding.**

In addition to the previously-mentioned funding sources, the LVVWD continually monitors grant and low-interest loan opportunities on both the state and federal levels to benefit not only the LVVWD, but also in working as administrators for the Southern Nevada Water Authority (SNWA) and the Big Bend Water District (BBWD).

In 2018, for example, the LVVWD applied for and received \$800,000 in total grant funding to support the drilling and equipping of an emergency well for the BBWD in Laughlin, Nevada. The well will use riverbank filtration as an additional water quality measure during times of significantly increased turbidity in the Colorado River, which is Laughlin's sole water supply.

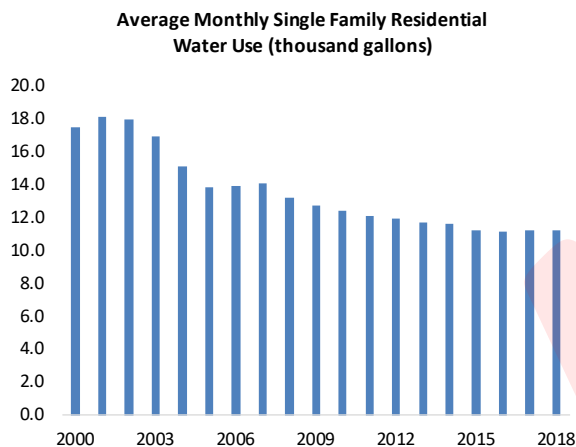
**Water Resources and Conservation**

Southern Nevada is almost completely dependent on the Colorado River, drawing from it to meet approximately 90 percent of the community's water demands. The other 10 percent are met with groundwater rights within the local aquifer. Colorado River water is purchased from the SNWA, which diverts and treats water from Lake Mead.

The LVVWD's average monthly water use for single family residential services was

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**General Manager's Information Report**  
Fiscal Year Ending June 30, 2020

approximately 11,200 gallons in 2018, representing a 36 percent decrease from fiscal year 2000 consumption. Conservation efforts continue to yield significantly improved results from the early-2000's; however, residential single-service consumption has either stagnated or slightly increased over the past few years.



Irresponsible water use, such as Sunday watering, improper pool drainage, sprinklers spraying into the street, and watering during the hottest hours of the day continue to be some the main culprits of water waste throughout the community. In response, the LVVWD is developing and applying new resources and tools to increase community conservation enforcement efforts.

### **Water Waste Enforcement.**

To mitigate the uptick in per capita water use, the LVVWD is increasing its public outreach efforts, bolstering its water waste enforcement presence, and expanding its suite of tools for residents to report water waste.

**Public Outreach.** Past experience has proven that an informed and educated community responds well to conservation-related

initiatives. In the wake of several years of successful conservation efforts, the LVVWD has ramped up public outreach activities to emphasize the importance of sustained participation in conservation practices and programs.

In February 2019, a WaterSmart living newsletter was circulated to more than 800,000 homes and businesses throughout Southern Nevada. It primarily focused on water conservation, water-smart landscaping, winter watering schedules and water resource issues. Additionally, nearly 333,000 households within the LVVWD's service area were notified and reminded of their watering day and watering group via a winter compliance direct mail postcard.

Ramped up social media messaging has also revolved around the importance of water conservation. Multiple Facebook and Twitter posts focus on water waste reporting and enforcement and remind customers to turn sprinklers off on rainy days, and an example is shown below. This outreach utilizes social media trends and memes to attract attention, as well as videos depicting the ease of reporting water waste.



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**General Manager's Information Report**  
Fiscal Year Ending June 30, 2020

**Reporting Water Waste.** To increase waster waste reporting and enforcement across its service area, the LVVWD has developed and implemented a water waste reporting form on its website (<https://www.lvvwd.com>). From either a home computer or mobile device, members of the public can use the form to immediately notify the LVVWD of the date, time, location and type of an observed water waste occurrence within the service territory.

**Investigations.** The past year has seen a notable increase in customer notification letters, water waste investigations and water waste fees.

| Water Waste Investigation Efforts                            |          |          |
|--|----------|----------|
|  | 2017     | 2018     |
| <b>Water Waste Letters</b>                                   | 4,015    | 5,468    |
| <i>(first time complaint)</i>                                |          |          |
| <b>Water Waste Investigations</b>                            | 3,875    | 5,736    |
| <i>(follow-up on a complaint)</i>                            |          |          |
| <b>Assessed Fees</b>   | \$36,080 | \$61,200 |
| <i>(Repeat violation within 18 months of formal warning)</i> |          |          |

## LVVWD Operations

The LVVWD provides water service to customers in the City of Las Vegas, parts of unincorporated Clark County and several rural water systems that are not connected to in-valley infrastructure. The LVVWD also operates the public water systems in Blue Diamond, Coyote Springs, Jean, Kyle Canyon, Laughlin and Searchlight. In 2018, the LVVWD delivered approximately 107 billion gallons of water to customers throughout its service area.

## System Profile.

The LVVWD operates and maintains a complex water distribution system that connects more than 395,000 homes and businesses to the community's water supply. Key components of the water system include:

- 6,318 miles of transmission, distribution and service lines
- 77 reservoir basins which collectively hold nearly one billion gallons of water
- 55 pump stations with the capacity to move more than one million gallons of water per minute
- 79 production wells
- 26 dedicated recharge wells and 32 combination wells capable of storing more than 140 million gallons of water per day

Each of these components are critical to ensuring that the more than 2.2 million people in Southern Nevada have reliable access to water.

## Capital Improvements and Asset Management.

Significant progress continues to be made on the LVVWD's 10-year CIP, which was approved by the LVVWD's Board of Directors (Board) in 2017. The \$616 million plan provides an outline to maintain water system assets, sufficiently expand the system to meet the demands of planned growth and meet state-mandated water quality compliance standards.

The following projects are currently either in the planning or active project phase:

**Backflow Program.** To meet State requirements, approximately 35,000 meters

Las Vegas Valley Water District  
Operating and Capital Budget  
**General Manager's Information Report**  
Fiscal Year Ending June 30, 2020

within the LVVWD's service area require backflow protection. Accordingly, the LVVWD has prioritized backflow installations based on their degree of risk to the system and has begun systematically retrofitting properties that require backflow protection. Currently, staff is working to install 11,600 backflow prevention devices to commercial properties, and more than 1,578 backflow devices have been installed at those properties.

**3665 Zone Reservoir.** Construction recently commenced on a new 10 million gallon reservoir, which will be located on the western edge of the Summerlin community. Approximately 3,000 feet of 42-inch pipeline is also being installed to connect the reservoir to the existing water distribution system. In addition to providing enhanced system reliability to surrounding customers, the new reservoir and pipelines will offer additional capacity and emergency storage for current and future demands in the area. It is anticipated that construction will be complete in late 2019.

**Centennial 2635 Zone Reservoir and 2745 Zone Pumping Station.** This project, which consists of a five million gallon below-grade reservoir and a 38 million gallon per day pumping station, is currently in the design phase and tentatively slated for completion in 2021. The reservoir, located in the northwestern corner of the LVVWD's service area, will transfer storage to the valley's far-western pressure zones while the pump station will transfer water to the 2635 and 2745 pressure zones, as well as the future Rome 2745 Zone Reservoir.

**SCADA Upgrades.** The LVVWD's high-tech Supervisory Control and Data Acquisition (SCADA) center allows water system

operators to monitor the water system 24-hours per day. It also uses advanced instrumentation to detect minute changes in water quality. The SCADA system, which was last upgraded in 2013, is in need of additional computer hardware and software updates. Once complete, the new upgrades will provide long-term maintainability, improved functionality for operators, increased vendor and integrator support and enhanced cybersecurity tools. It is estimated that the upgrades will be complete in late 2019.

**Solar PV Carports.** Renewable energy is a key component of the organization's energy strategy and aligns with the objective of promoting sustainability. Toward that end, solar photovoltaic (PV) carports are being installed at the LVVWD's two main employee parking lots.

Once complete, the solar-covered carports will produce more than 4,200 megawatt hours (MWh) per year of solar energy, which will be used to offset the LVVWD's overall energy requirements. It will also add 4,200 MWh per year to the LVVWD's overall voluntary renewable portfolio standard goals. The project is scheduled for completion in 2019.

**Local Agency Coordination.** For all major projects occurring throughout its service area, the LVVWD works with the City of Las Vegas and Clark County to coordinate project schedules, resulting in lower costs and reduced traffic impacts. These projects include water facility construction on Las Vegas Boulevard, pipeline replacements along Boulder Highway, and repaving on Paradise Road near the Las Vegas Convention Center.



Las Vegas Valley Water District  
Operating and Capital Budget  
**General Manager's Information Report**  
Fiscal Year Ending June 30, 2020

**Customer Care.**

Customer service remains a top priority embedded within the LVVWD's daily work efforts. As such, the LVVWD is continually making process improvements to ensure customers consistently receive world-class customer service.

**Electronic Billing.** As growth in electronic payments and e-Bill services continues to increase, so does the cost to process on-line transactions due to the increased use of credit card payments. In January 2019, the Board approved a \$1.2 million contract increase to accommodate customer-driven growth in electronic payment volume and paperless billing. This trend is expected to continue as both new and existing customers increasingly elect to adopt paperless billing as their preferred method for receiving bills.

**Organizational Recognition**

As an organization, the LVVWD continually strives to not only provide reliable, quality water and world-class service to its customers, but to do so in a responsible and sustainable manner. Over the past year, these efforts have been recognized on national and global levels.

**Leading Utilities of the World.**

In April 2018, the LVVWD and the SNWA were inducted into the Leading Utilities of the World network and received the Golden Tap award for utility performance. This achievement is held by only 30 other utilities around the world and represents the gold standard of utility innovation and performance throughout the developed world's water sector.

**AMWA Sustainable Water Utility Management Award.**

In August 2018, the LVVWD received the Association of Metropolitan Water Agencies (AMWA) Sustainable Water Utility Management Award. This achievement, earned by less than 40 utilities nationwide, recognized the LVVWD for successfully balancing innovative efforts in the areas of economic, social and environmental endeavors; responsible resource management; protection of public health; meeting responsibilities to the community and providing cost effective services to ratepayers.

**Fleet Award.**

In 2018, the LVVWD's fleet ranked first in the 100 Best Fleets ratings for environmental practices. While the LVVWD's fleet has annually ranked among the country's top 50 green fleets over the last decade, this is the first year it garnered the top spot. Applicants are graded on a comprehensive set of criteria including use of renewable and alternative sources of fuel.

**AWWA Utility Safety Award.**

In 2018, the LVVWD received the American Water Works Association (AWWA) Wendell LaDue Utility Safety Award, which recognizes distinguished water utility safety programs in fields of employee involvement, safety training and process improvements.

**Springs Preserve**

The Springs Preserve continues to maximize guest experiences through new programming, events and exhibits. In the past two years, the Springs Preserve has secured \$1.4 million

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**General Manager's Information Report**  
Fiscal Year Ending June 30, 2020

through corporate sponsorships, donations and grants.

Social media remains a popular tool for the Springs Preserve to garner interest in events and classes and educate followers about issues affecting our community. Across its social media networks, more than 80,000 individuals like or follow the Springs Preserve.

**Combination Ticket.**

In December 2018, the Springs Preserve began offering a combination ticket in addition to previous ticket options available to visitors. By purchasing the combination ticket, single-day visitors are now allowed access to the Butterfly Habitat and unlimited train rides on the same day as their visit. By offering a combination ticket online and at the ticket

window, visitors can enjoy a more streamlined payment experience and onsite staffing impacts are reduced.

**Butterfly Playground.**

During the 2017 Nevada State Legislative Session, the Legislature appropriated \$500,000 towards construction of a new butterfly-themed playground and splash pad. Once completed in 2019, the playground will feature equipment and themes directed toward a younger audience.

**Financial Summary**

The table on the following page contains a summary of sources and uses of funds for the LVVWD's fiscal years 2017-18, 2018-19 and 2019-20.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**General Manager's Information Report**  
Fiscal Year Ending June 30, 2020



**Budget Summary**  
(\$ Millions)

|                                    | Actual<br>2017-18 | Budget<br>2018-19 | Tentative<br>Budget<br>2019-20 | Budget-to-Budget<br>Variance |            |
|------------------------------------|-------------------|-------------------|--------------------------------|------------------------------|------------|
|                                    |                   |                   |                                | \$                           | %          |
| <b>Sources</b>                     |                   |                   |                                |                              |            |
| Tiered Consumption                 | \$ 273.5          | \$ 287.0          | \$ 300.5                       | \$ 13.5                      | 5%         |
| Service Charge                     | 66.6              | 70.5              | 73.6                           | 3.1                          | 4%         |
| Backflow Charge                    | 11.6              | 11.7              | 11.9                           | 0.2                          | 2%         |
| Reclaimed Water                    | 7.4               | 7.2               | 7.5                            | 0.3                          | 5%         |
| Other Water Bill Charges           | 7.5               | 6.8               | 7.6                            | 0.8                          | 12%        |
| Facilities Connection Charge       | 16.2              | 15.5              | 16.7                           | 1.3                          | 8%         |
| Application & Inspection Fees      | 2.8               | 2.2               | 2.8                            | 0.6                          | 30%        |
| Investment Income                  | 2.7               | 3.3               | 4.7                            | 1.4                          | 42%        |
| Springs Preserve                   | 2.8               | 3.0               | 3.1                            | 0.1                          | 2%         |
| Other Sources                      | 2.8               | -                 | -                              | -                            |            |
| <b>Subtotal</b>                    | <b>\$ 393.9</b>   | <b>\$ 407.1</b>   | <b>\$ 428.4</b>                | <b>\$ 21.3</b>               | <b>5%</b>  |
| Debt Issuance Proceeds             | 108.0             | 8.5               | 3.7                            | (4.8)                        | -56%       |
| <b>LVVWD Sources</b>               | <b>\$ 501.9</b>   | <b>\$ 415.5</b>   | <b>\$ 432.1</b>                | <b>\$ 16.6</b>               | <b>4%</b>  |
| <b>Uses</b>                        |                   |                   |                                |                              |            |
| Purchased Water                    | \$ 92.8           | \$ 96.9           | \$ 100.9                       | \$ 4.0                       | 4%         |
| Energy                             | 9.8               | 10.7              | 10.1                           | (0.6)                        | -6%        |
| Payroll & Related                  | 127.4             | 139.0             | 150.0                          | 11.0                         | 8%         |
| Operating Expenses                 | 33.1              | 59.9              | 67.4                           | 7.5                          | 13%        |
| Capital Expenditures               | 48.8              | 103.3             | 133.4                          | 30.1                         | 29%        |
| Debt Service                       | 61.5              | 70.6              | 70.5                           | (0.1)                        | 0%         |
| <b>LVVWD Uses</b>                  | <b>\$ 373.5</b>   | <b>\$ 480.4</b>   | <b>\$ 532.1</b>                | <b>\$ 51.7</b>               | <b>11%</b> |
| <b>LVVWD Net Surplus/(Deficit)</b> | <b>\$ 128.4</b>   | <b>\$ (64.8)</b>  | <b>\$ (100.0)</b>              |                              |            |
| <b>SNWA Charges</b>                |                   |                   |                                |                              |            |
| Infrastructure Charge              | \$ 108.2          | \$ 112.7          | \$ 115.8                       | \$ 3.1                       | 3%         |
| Commodity Charge                   | 50.5              | 50.3              | 51.3                           | 1.0                          | 2%         |
| Connection Charge                  | 46.4              | 42.5              | 43.5                           | 1.0                          | 2%         |
| Reliability Surcharge              | 4.0               | 4.0               | 4.2                            | 0.1                          | 4%         |
| <b>SNWA Charges</b>                | <b>\$ 209.2</b>   | <b>\$ 209.6</b>   | <b>\$ 214.9</b>                | <b>\$ 5.3</b>                | <b>3%</b>  |
| <b>Total Sources</b>               | <b>\$ 711.1</b>   | <b>\$ 625.1</b>   | <b>\$ 647.0</b>                | <b>\$ 21.8</b>               | <b>3%</b>  |
| <b>Total Uses</b>                  | <b>582.7</b>      | <b>690.0</b>      | <b>747.0</b>                   | <b>57.0</b>                  | <b>8%</b>  |
| <b>Total Net Surplus/(Deficit)</b> | <b>\$ 128.4</b>   | <b>\$ (64.8)</b>  | <b>\$ (100.0)</b>              | <b>\$ (35.2)</b>             |            |

**Sources.**

The 2019-20 Budget Plan's total sources of funds are projected to be \$647.0 million, or a three percent increase as compared to the

2018-19 Adopted Budget Plan. The increase is largely due to the LVVWD's revenue-based sources of funds increasing \$21.3 million, or five percent.



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**General Manager's Information Report**  
Fiscal Year Ending June 30, 2020

Tiered consumption charges are projected to increase \$13.5 million, or five percent, reflecting a rise in consumption, as well as an increase in rates. The service charge is anticipated to increase \$3.1 million, or four percent. Tier consumption charges and service charge revenues are rising based on water rate increases adopted by the Board in January 2017, and 1.5 percent projected growth in the number of active services.

Facilities Connection Charges are expected to increase by \$1.3 million, or eight percent, reflecting continued economic development in Southern Nevada. The Springs Preserve's revenue is also expected to rise slightly, continuing its trend of growth.

The 2019-20 budget includes \$3.7 million in proceeds from Nevada's State Revolving Fund (SRF) loan program. The SRF loans from the Nevada State Board for Financing Water Projects are facilitating water system infrastructure improvements. In fiscal year 2019-20, \$3.7 million is projected to be reimbursed through the SRF loan program.

#### **Uses.**

The 2019-20 Budget Plan's total uses of funds are projected to be \$747.0 million, or an eight percent increase compared to the 2018-19 Adopted Budget Plan. The increase is largely due to the increase in capital expenditures, which are expected to rise by \$30.1 million, or 29 percent. This increase is attributable to alignment with the \$616 million 10-year CIP adopted by the Board in January 2017.

Purchased water costs are projected to increase by \$4.0 million, or four percent, due to increases in water demands and the cost of wholesale water purchased from the SNWA. Energy costs are projected to decrease by six

percent. Payroll costs are anticipated to increase by \$11.0 million, or eight percent, compared to the 2018-19 Adopted Budget Plan. The full time equivalent (FTE) employee count is projected to increase to support the 10-year CIP and operational demands.

Non-payroll operating expenses are projected to increase \$7.5 million, or 13 percent. The rise in this area is due to increased operations and maintenance costs and an organizational shift to more "cloud-based" software solutions. Capital Expenditures are budgeted to rise by \$30.1 million in continuation of the adopted 10-year CIP. Debt service is anticipated to decrease slightly compared to 2018-19.

#### **Summary.**

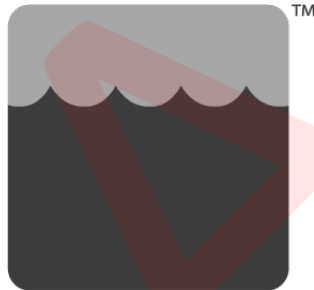
Overall, the LVVWD's fiscal year 2019-20 Budget Plan presents a stable outlook, with revenues exceeding expenses and a mix of revenues, reserves, and debt proceeds funding capital expenditures.

#### **Approval**

The public hearing on the LVVWD's 2019-20 Tentative Budget, and adoption of the Final Budget, is scheduled for 9:45 a.m., Monday, May 20, 2019. The public hearing will be held in the Clark County Commission Chambers of the Clark County Government Center at 500 South Grand Central Parkway, Las Vegas, Nevada.

  
John J. Entsminger, General Manager

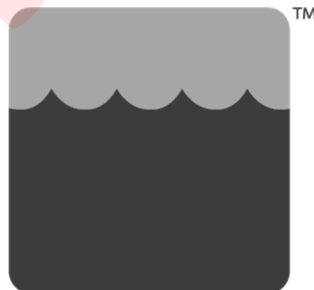
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# SECTION 2

## INTRODUCTION AND STRATEGIC PLAN

|   |             |
|---|-------------|
| <b>Introduction .....</b>                                   | <b>2-1</b>  |
| Purposes and Powers.....                                    | 2-1         |
| Intergovernmental Relationships .....                       | 2-1         |
| Areas Currently Served .....                                | 2-2         |
| Organizational Structure.....                               | 2-3         |
| Financial Structure and Controls.....                       | 2-5         |
| Budget Controls and Process .....                           | 2-6         |
| Budget Augmentation.....                                    | 2-8         |
| Budget Calendar for the Fiscal Year 2019-20 .....           | 2-9         |
| <b>Las Vegas Valley Water District Strategic Plan .....</b> | <b>2-12</b> |
| Strategic Plan Background .....                             | 2-12        |
| Strategic Plan and 2019-20 Budget Plan Preparation .....    | 2-12        |
| Vision- Mission- Goals.....                                 | 2-13        |
| Strategic Plan Strategies .....                             | 2-13        |



**LAS VEGAS VALLEY WATER DISTRICT**  
FISCAL YEAR 2019-20  
OPERATING AND CAPITAL BUDGET



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year Ending June 30, 2020

## **Introduction**

### **Purposes and Powers.**

The Las Vegas Valley Water District (LVVWD) was created under a special act of the State of Nevada's legislature in 1947 for the purpose of obtaining and distributing water primarily in the Las Vegas Valley, including Blue Diamond, Jean and Searchlight, Nevada. The LVVWD also manages the water districts of Kyle Canyon, Searchlight, Coyote Springs and Big Bend under contracts with Clark County. The map on the following page shows the areas served by the LVVWD in relation to Clark County, Nevada.

The LVVWD has been granted certain powers to achieve its purpose, including the right of eminent domain, the right to cause taxes to be levied, the right to create assessment districts, the responsibility to operate and maintain the Southern Nevada Water Authority's (SNWA) regional treatment and transmission system and the right to incur indebtedness.

The LVVWD is governed by a seven-member Board of Directors (LVVWD Board), all of whom are elected Clark County Commissioners. The LVVWD Board has the sole power to set rates and charges for water, and charges cannot be put into effect until the conclusion of a public hearing process. The Las Vegas Valley Water District Act and applicable Bond Covenants provide that rates and charges should be sufficient to provide for operation and maintenance costs, general expenses of the LVVWD, and principal and interest payments on outstanding debt. Although the LVVWD Board may levy a tax on all taxable property within the LVVWD service

area, such a tax never has been levied. The daily operations of the LVVWD are overseen by the General Manager, appointed by the LVVWD Board.

### **Intergovernmental Relationships.**

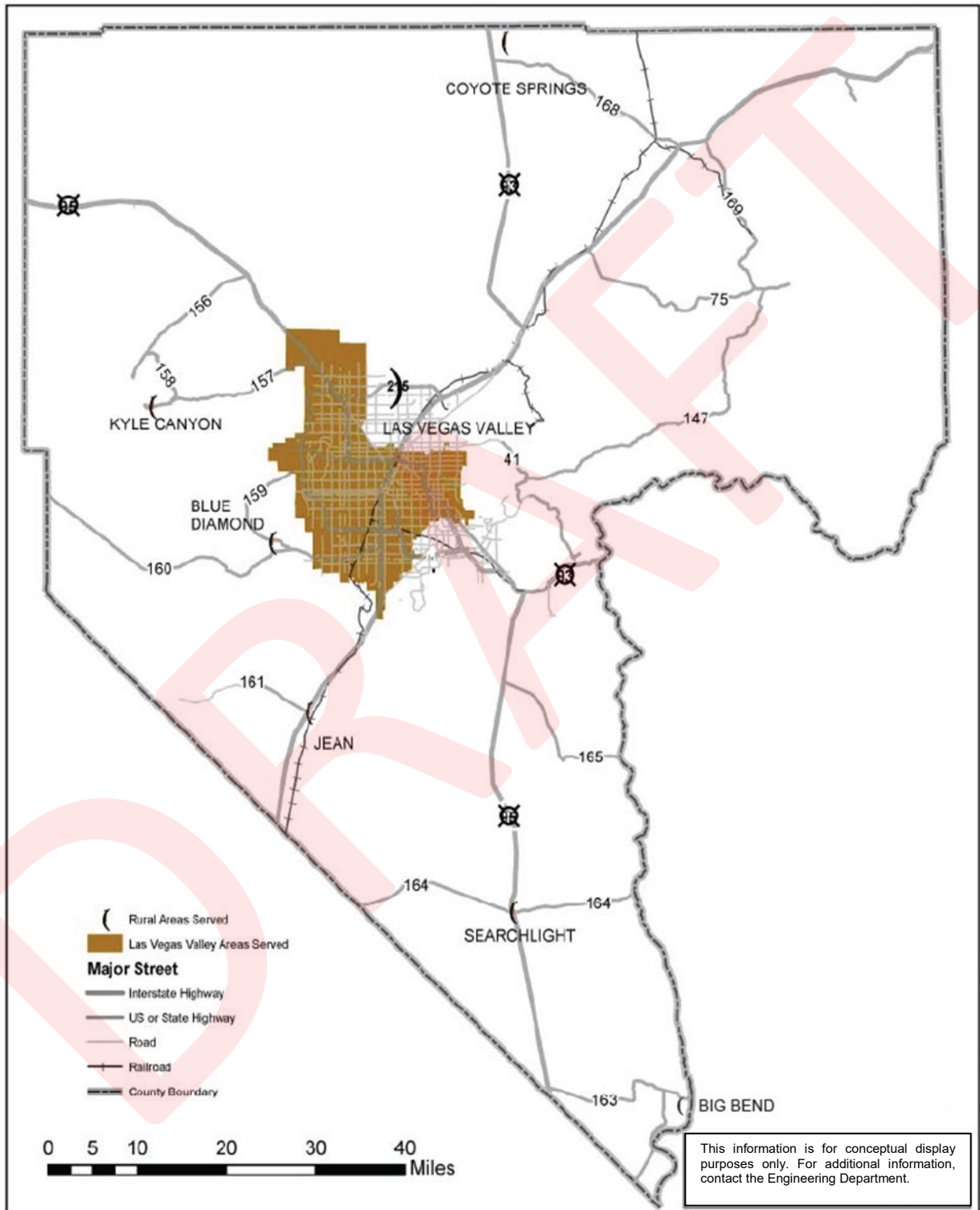
The LVVWD plays a vital role in the management of water resources in Southern Nevada. To fulfill this role, the LVVWD must work effectively and cooperate with state and federal governments, numerous local jurisdictions and other local water purveyors. These relationships play a vital role in shaping not only the demands on the LVVWD, but also the fiscal year 2019-20 Budget Plan. The following describes these intergovernmental relationships.

**Las Vegas Valley Water District.** The LVVWD serves potable water to customers in the City of Las Vegas and unincorporated urban areas of Clark County, Nevada. As the largest water purveyor in Southern Nevada, the LVVWD has taken a leadership role in conservation and regional water issues. The LVVWD provides the operating staff for the SNWA. The General Manager of the LVVWD serves as the General Manager of the SNWA.

**Southern Nevada Water Authority.** In 1991, the cities of Las Vegas, North Las Vegas, Henderson, and Boulder City, and the Big Bend Water District, Clark County Water Reclamation District and the LVVWD formed the SNWA to develop additional water resources and to address water issues on a regional basis. The Board of Directors of the SNWA (SNWA Board) consists of one member selected from each of the member agencies.

Las Vegas Valley Water District  
Operating and Capital Budget  
Introduction and Strategic Plan  
Fiscal Year Ending June 30, 2020

Areas Currently Served



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year Ending June 30, 2020

**Southern Nevada Water System (SNWS).** The SNWS is the regional system consisting of water treatment plants, pumping and distribution facilities supplying water to the water purveyors in Southern Nevada. Prior to 1996, the SNWS was owned by the Colorado River Commission and operated by the LVVWD. In accordance with legislation passed by the Nevada State Legislature during its 1995 session, the SNWS was transferred to the SNWA in January 1996. The LVVWD continues to operate the SNWS.

**Major Water Purveyors.** The major water purveyors and the percentages of Colorado River water distributed in the Las Vegas area for the fiscal year ended June 30, 2018, are as follows: Boulder City (2.3 percent), Henderson (16.8 percent), North Las Vegas (12 percent), the LVVWD (68.7 percent) and others (0.3 percent).

**Wastewater Treatment Agencies.** The wastewater treatment agencies are as follows: City of Henderson, City of Las Vegas, City of North Las Vegas and the Clark County Water Reclamation District.

**Colorado River Commission (CRC).** The CRC is a Nevada State agency created in the mid-1930's to acquire and protect Nevada's

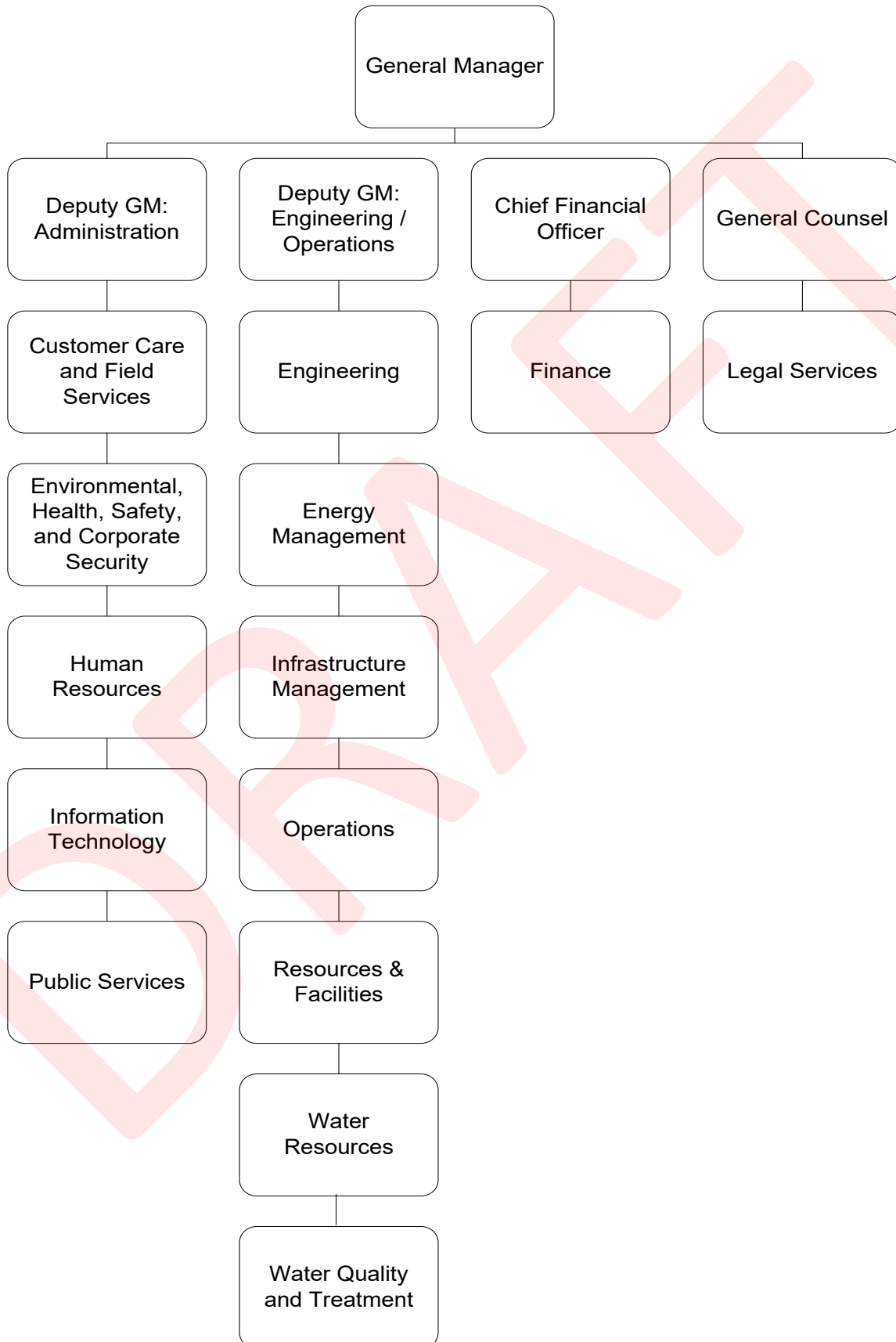
right to water and power resources from the Colorado River. Colorado River water is apportioned among the seven Colorado River basin states and Mexico. The seven-member CRC consists of four members appointed by the Governor (including the Chairperson) and three SNWA Board members.

**Bureau of Reclamation (BOR).** The Bureau of Reclamation, within the U.S. Department of the Interior, is responsible for managing the Colorado River to benefit the users with Colorado River water rights. Any changes to the laws governing the Colorado River benefiting Nevada require the cooperation and approval of the federal government and all seven of the basin states.

**Organizational Structure.**

The LVVWD's organizational structure has evolved to meet the demands of major water facility expansions, conservation, customer service initiatives, and special projects. During the past two years, the LVVWD's departments and divisions went through extensive restructuring to provide more cost efficiencies and a better customer service experience. The organization chart on the following page reflects the LVVWD's current organizational structure.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year Ending June 30, 2020





**Las Vegas Valley Water District  
Operating and Capital Budget  
Introduction and Strategic Plan  
Fiscal Year Ending June 30, 2020**

**Financial Structure and Controls.**

The LVVWD's financial reporting structure is fund based. A fund is defined as a separate, self-balancing set of accounts used to account for resources segregated for specific purposes in accordance with special regulations, restrictions, and/or limitations. The LVVWD maintains two funds, a proprietary enterprise fund and a fiduciary pension trust fund. Both funds utilize full-accrual accounting.

**Proprietary Fund Type - Enterprise Fund.** The Enterprise Fund is used to account for the LVVWD's operations in a manner similar to private business enterprises. The intent of the LVVWD is to establish water user rates and charges sufficient to provide for payment of general operation and maintenance expenses, capital improvements and annual debt service. Revenues are recognized when they are earned, and expenses (including depreciation) are recognized when they are incurred.

**Fiduciary Fund Type - Pension Trust Fund.** The Pension Trust Fund is used to report the assets and liabilities of the LVVWD's defined benefit pension plan and the additions and deductions during the fiscal reporting period. The resources of the Pension Trust Fund are held in trust for the members and beneficiaries of the plan.

**Capital and Debt Service Accounting.** Capital and debt service finances are accounted for separately within the overall structure of the Enterprise Fund. Bond issuance resolutions require that bond proceeds be maintained in restricted acquisition and construction accounts until they are expended. Assets restricted for specific

purposes (e.g. additions to plant or repayment of bonds) and liabilities payable from such assets are accounted for separately until disposition. Earnings on these assets also are considered restricted. Fund equity is restricted for assets, less related liabilities, which are restricted by law or other externally imposed regulations, such as bond covenants.

**Internal Controls.** In developing and evaluating the LVVWD's accounting system, consideration is given to the adequacy of internal accounting controls. These controls are designed to provide reasonable, but not absolute, assurance regarding the safeguarding of assets against loss from unauthorized use or disposition; and the reliability of financial records for preparing financial statements and maintaining accountability for assets. The concept of reasonable assurance recognizes the cost of a control should not exceed the benefits likely to be derived and the evaluation of costs and benefits requires estimates and judgments by management. All internal control evaluations occur within the above framework. The LVVWD's internal accounting controls safeguard assets and provide reasonable assurance of proper recording of financial transactions. On an ongoing basis, the LVVWD evaluates its internal controls and implements changes in response to dynamic operations.

**Debt Administration.** It is the general intent of the LVVWD that rates and charges are adequate to provide for all costs, and reliance on taxes is to be avoided. Ad valorem taxes have never been required to support the LVVWD's operations or debt service. As of June 30, 2019, the LVVWD has \$798 million in outstanding general debt. All applicable bond covenants, such as ratios of net income to

**Las Vegas Valley Water District  
Operating and Capital Budget  
Introduction and Strategic Plan  
Fiscal Year Ending June 30, 2020**

debt service, sinking funds and insurance coverage have been met or exceeded. The LVVWD does not have a statutory debt limit. Currently, Standard and Poor's (S&P) Corporation rating for the LVVWD's general obligation bond issues is "AA+", while Moody's Investor Service, Inc. rating for outstanding LVVWD general obligation bonds is "Aa1".

In 2018, Standard and Poor's Global Ratings raised its long-term rating to "AA+" from "AA" based on the Southern Nevada's continued economic growth along with LVVWD maintenance of strong cash reserves. Potential ratings increases from Moody's will further lower the LVVWD's ongoing cost of debt service.

**Cash Management.** During the year, available operating funds are invested in obligations of the United States agencies and in commercial paper with credit ratings of A-1, P-1 or its equivalent, or better. Investments are purchased through recognized and regulated brokers dealing in government securities. Investments are made with the objective of obtaining a market rate of return appropriate in relation to the prevailing budgetary and economic environment. Investments of the LVVWD are independently reviewed by an external auditor, and are reported in the LVVWD's annual financial report. All investments are held by a bank's trust department in the LVVWD's name.

**Risk Management.** The LVVWD employs a multifaceted approach to risk management, which includes the transfer, elimination, avoidance, reduction and/or assumption of risk of loss. The LVVWD also purchases risk insurance (including terrorism insurance) from the commercial insurance market on real

and personal property, including earthquake and flood, with common policy restrictions, covering direct physical loss of or damage to buildings, fixtures, equipment, boilers, machinery and supplies. The blanket limit of liability under the property insurance program is \$500 million per occurrence with a deductible of \$1 million per occurrence. The program also includes earthquake coverage (\$100 million limit) and flood coverage (\$50 million limit) each having a \$100,000 deductible. The LVVWD self-insures the first \$1 million for its automobile and general liability exposure and purchases \$30 million of excess liability insurance. The LVVWD self-insures its workers' compensation exposure up to \$500,000 per claim and purchases excess workers' compensation insurance, which provides statutory limits over the self-insured limit.

In contracts, the LVVWD obtains indemnification and hold-harmless agreements, and requires contractors name the LVVWD as an additional insured under the indemnitor's insurance coverage, usually \$1 million to \$10 million, for commercial general and auto liability insurance. The LVVWD provides builders risk insurance for all construction projects with a blanket limit of \$100 million per contract, or higher as needed, with a \$50,000 deductible per claim, except earthquake and flood, where the deductible is \$500,000 per claim.

#### **Budget Controls and Process.**

**Budget Controls.** By state statutes, the LVVWD's budget is approved annually, following a public hearing process, by the LVVWD Board. The LVVWD annually prepares a budget on a modified cash basis. The LVVWD also prepares and submits a budget to the

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year Ending June 30, 2020

Nevada State Department of Taxation in accordance with statutory laws based on a full accrual basis. Budgetary controls are established at the levels of total estimated operating and non-operating expenses. A utility or other enterprise is a self-supporting operation of a commercial nature, and the demand for service largely determines the appropriate level of revenues and expenditures. Depending upon the timing and level of the demand for services, revenues and expenditures will vary.

Budgetary controls are established at various levels to have effective control over the necessary expenditures. These levels always include departments and divisions and, in some instances, sections. Most disbursements are made through the issuance of purchase orders. The purchasing division in the Finance department administers purchases of new furniture, vehicles, and communication equipment. Computer equipment purchases are administered under the authority of the Director of the Information Technology department. The Finance department prepares and distributes monthly budget variance reports, and division managers can electronically access their budget information using the Oracle Financial System. Division managers are accountable for variances between the budgeted and actual expenditures. The LVVWD's staffing is controlled by the Human Resources department.

**Budget Process.** The LVVWD's budget process starts in December of each year, and proceeds with a series of meetings involving department directors and/or managers. Financial analysis is done to project the revenues under the projected water rate structure. The revenue projections are based

on the estimated water the LVVWD is planning to deliver in the coming year. The budget reflects the strategies and goals adopted by the LVVWD.

The LVVWD's budget staff distributes current and historical information to managers to assist in the preparation of budgets within the budgeting guidelines. The budget process consists of three major phases. The first phase includes preparing new requests for capital equipment, construction projects and staff positions for the new fiscal year. The second phase consists of preparing department-operating budgets, including payroll and related expenditures. Estimating payroll and related expenditures are based on current approved positions and factors based on historical adjustments throughout the year. The third phase involves department directors, managers and supervisors meeting with Executive Management to justify expenditure requests. After all the departments' budgets have been reviewed and approved by the Executive Management Office, the budget is consolidated for the entire LVVWD, and an initial proposed budget document is submitted to the Nevada State Department of Taxation by April 15. The state then reviews the proposed budget and issues a notice of compliance or noncompliance with the statutory laws of the State of Nevada.

The LVVWD, typically in late April, conducts a working session with the LVVWD Board to review the proposed budget in detail. On the third Monday in May, the LVVWD Board conducts a public hearing to allow the public an opportunity to discuss the proposed budget, and after discussion and/or amendments, the proposed budget receives final approval from the LVVWD Board. The approved final budget document is filed with


**Las Vegas Valley Water District  
Operating and Capital Budget  
Introduction and Strategic Plan**  
Fiscal Year Ending June 30, 2020

the State of Nevada. Once approved and filed, copies of their budgets are provided to departments. The approved budget is implemented on July 1, the first day of the new fiscal year.

**Budget Augmentation.** Nevada State law (NRS 354.493) defines budget augmentation as a procedure for increasing appropriations of a fund with the express intent of employing unbudgeted resources to carry out the purpose for the increased appropriations. To

augment the budget, the LVVWD Board must adopt a resolution providing for an augmentation at a regular meeting of the LVVWD Board by majority vote of all members. Budget augmentation becomes effective when an executed copy of the resolution for augmentation is delivered to the State of Nevada Department of Taxation.

# FISCAL YEAR 2019-20 BUDGET CALENDAR

|  | All Departments  | Financial Services   | Executive Management   | Human Resources   |
|---|--|--|--|---|
| Dec   | <b>Tue Dec 11</b><br>Budget instructions and calendar received   | <b>Tue Dec 11</b><br>Budget instructions and calendar sent to departments  |  | <b>Dec</b><br>Organization charts available for review in Workday. Adjustments to organization charts due to Human Resources Information Systems, (HRIS) (HRIS@lvvwd.com) by Thursday, January 17, 2019 |
|   | <b>Thu Dec 13</b><br>Operating expense files received  |  |  |   |
|   | <b>Tue Dec 18</b><br>Budget Kick-off Meeting(s)  | <b>Thu Dec 13</b><br>Operating expense files sent. Coordination of budget process, schedule, and assigned department Analyst assistance begins       | <b>Tue Dec 18 – Thu Jan 17</b><br>Personnel related requests will be coordinated through each department's Director and Deputy General Manager | <b>Thu Dec 20</b><br>List of existing interns and summer hire positions distributed to departments. Updates, corrections and new requests due to HRIS (HRIS@lvvwd.com) by Thursday, January 17, 2019    |
|   | <b>Tue Dec 18 – Thu Jan 17</b><br>Personnel related requests will be coordinated through each department's Director and Deputy General Manager | <b>Tue Dec 18</b><br>Budget Kick-off Meeting(s)  |  |   |
|   | <b>Thu Jan 17</b><br>Adjustments to organization charts submitted to Human Resources Information Systems, (HRIS) (HRIS@lvvwd.com)              | <b>Thu Jan 17</b><br>Major data processing and equipment requests submitted to Information Technology and Fleet Services for review and coordination |  |   |
| Jan   | <b>Thu Jan 17</b><br>Final requests for interns and summer hire positions submitted to HRIS (HRIS@lvvwd.com)                                   | <b>Mon Jan 21</b><br>Coordination with departments incurring intercompany and overtime payroll costs begins  |  | <b>Thu Jan 17</b><br>List of existing interns and summer hire position renewals sent to Financial Services  |
|   | <b>Thu Jan 31</b><br>Final 2019-20 operating expense budgets submitted to Financial Services   |  |  |   |
|   | <b>Thu Jan 31</b><br>Final 2019-20 capital budget equipment and project requests submitted   |  |  |   |

# FISCAL YEAR 2019-20 BUDGET CALENDAR



|     | All Departments   | Financial Services   | Executive Management   | Human Resources |
|-----|---|--|--|-----------------|
| Feb | <b>Mon Feb 4</b><br>Budget narrative instructions received  | <b>Mon Feb 4</b><br>Budget narrative instructions sent to departments  |  |                 |
|     | <b>Mon Feb 25</b><br>Summaries and detail of operating expense & capital expenditure budgets received | <b>Mon Feb 25</b><br>Summaries and detail of operating expense & capital expenditure budgets sent to departments                   |  |                 |
|     |   | <b>Mon Feb 25</b><br>Assisting departments in preparation for the Senior Management Team (SMT) budget meeting presentations begins |  |                 |
| Mar |   | <b>Tue Mar 5</b><br>Budget overview briefing with Executive Management (E-Team)  | <b>Tue Mar 5</b><br>Budget overview briefing with Executive Management (E-Team)                      |                 |
|     | <b>Mon Mar 11</b><br>Department budget meetings with SMT and overview briefing                        | <b>Mon Mar 11</b><br>Department budget meetings with SMT and overview briefing   | <b>Mon Mar 11</b><br>Department budget meetings with SMT and overview briefing                       |                 |
|     | <b>Mon Mar 18</b><br>Budget narratives submitted to Financial Services                                |  | <b>Tue Mar 12 – Mon Mar 18</b><br>Final budget decisions made by Executive Management (E-Team)       |                 |
| Apr |   | <b>Thu Apr 4</b><br>Proposed draft budgets completed for Budget Workshops with Boards of Directors                                 | <b>Mon Apr 22</b><br>Board of Directors Budget Workshops for LVVWD (including BBWD & Coyote Springs) |                 |
|     |   | <b>Thu Apr 11</b><br>Preliminary Budgets filed with the Nevada State Department of Taxation  | <b>Thu Apr 25</b><br>Board of Directors Budget Workshops for SNWA                                    |                 |

# FISCAL YEAR 2019-20 BUDGET CALENDAR



| All Departments | Financial Services  | Executive Management  | Human Resources   |
|-----------------|---|---|---|
| May             | <p><b>Tue May 7</b><br/>LVVWD, BBWD, and Coyote Springs<br/>Public hearing notice published in LVRJ</p> <p><b>Fri May 10</b><br/>SNWA Public hearing notice published in LVRJ</p> | <p><b>Mon May 20</b><br/>LVVWD Board of Directors public<br/>hearings conducted on proposed<br/>budgets of LVVWD, Big Bend, and<br/>Coyote Springs for possible adoption</p> <p><b>Thu May 23</b><br/>SNWA Board of Directors public hearing<br/>conducted on the proposed budget for<br/>possible adoption</p> |   |
|                 | <p><b>Thu May 30</b><br/>Adopted budgets sent to the<br/>Nevada Department of Taxation</p>  |   | <p><b>Thu May 30</b><br/>Organization charts updated<br/>after Boards adopt budgets</p> |
| Jun             | <p><b>Thu Jun 20</b><br/>LVVWD, SNWA, BBWD &amp; Coyote Springs<br/>annual summary fiscal reports published in<br/>LVRJ</p>   |   |   |
| Jul             | <p><b>Thu Jul 25</b><br/>Proof of publication of fiscal reports<br/>submitted to the Nevada State Department of<br/>Taxation</p>  |   |   |
| Aug             | <p><b>Thu Aug 8</b><br/>Budget Award Application<br/>submitted to the GFOA</p>  |   |   |



**Las Vegas Valley Water District  
Operating and Capital Budget  
Introduction and Strategic Plan**  
Fiscal Year Ending June 30, 2020

## **Las Vegas Valley Water District Strategic Plan**

### **Strategic Plan Background.**

The LVVWD's Strategic Plan represents the latest iteration in the LVVWD's long-standing commitment to self-assessment, continuous improvement, and comprehensive planning. The Strategic Plan provides future direction for the LVVWD, both in its role as a local water purveyor and in its operational and management support of the SNWA.

To respond to a variety of rapidly changing factors impacting the LVVWD, senior management and employees of the LVVWD, with policy guidance from the LVVWD Board, completed a comprehensive Strategic Plan in 1993. The LVVWD's Strategic Plan identified forces influencing decision-making and formulated goals and strategies to guide the LVVWD in responding to the challenges, and evolve into a dynamic, responsive and effective organization. In 1997, the LVVWD revised its original plan to reflect its evolving role in supporting and managing the SNWA, as well as meeting demands as a local water purveyor. In fiscal year 2003-04, senior management and staff completed a review and updated the goals and strategies of the LVVWD's Strategic Plan, and a revised plan with new goals and strategies was presented to and adopted by the LVVWD Board. At the same time, staff initiated strategic planning meetings with the SNWA member agencies, resulting in the identification of goals to guide the future of the SNWA, and provide a foundation for common understanding between the LVVWD and the SNWA.

In fall 2012, the Senior Management Team

began meeting to develop a new strategic plan. This strategic planning process allows the LVVWD and the SNWA to continue to respond to current economic conditions, plan for future needs and implement changes to ensure efficient and effective operations. The revised strategic plan was finalized and the organization-wide implementation launched in 2013.

### **Strategic Plan and 2019-20 Budget Plan Preparation.**

The LVVWD's Strategic Plan serves as a guide in the development of the LVVWD's annual Budget Plan. The Strategic Plan is used to guide and focus operational objectives and subsequently budget plan investments for the upcoming year. In section 5 of the 2019-20 Budget Plan, each department has established objectives for the upcoming year according to the relevant and existing Strategic Plan goal it is designed to address.

The LVVWD has undergone several strategic planning initiatives over the past several decades to ensure the organization has a framework for action and is prepared to address dynamic environmental and economic challenges. The Strategic Plan developed in 2013 addresses the current economic climate, organizational realignment and operational needs.

For the past decade, Southern Nevada has weathered unprecedented drought conditions on the Colorado River and, more recently, has survived the effects of the economic downturn. The recession impacts included a change in the community's business environment, a decrease in water sales and sales tax revenue, and a significant decrease in the SNWA connection charges.



**Las Vegas Valley Water District  
Operating and Capital Budget  
Introduction and Strategic Plan  
Fiscal Year Ending June 30, 2020**

During this period of economic uncertainty, organizational structure and budgetary issues have been closely evaluated to ensure the organization's focus meets current community needs. The strategic plan represents a roadmap for the next three to five years which realigns the organization's focus on enhancing service levels, improving asset management, providing rate stability and streamlining the organization to meet current and future community needs.

The strategic planning process developed a "blueprint" to increase communication, emphasize accountability, and continue to cut costs and eliminate duplication in a manner representative of the organization's commitment to internal efficiency and exemplary customer service. The plan also establishes goals to facilitate these objectives.

The strategic planning process involved management and employees in all departments through a comprehensive exercise to: assess the organizations and their current environment; review and clarify the organizational vision, mission and values; and develop goals and strategies to support these objectives. By involving all levels of employees in the development of measures, milestones and standards of excellence, and incorporating their input into the strategic plan, the entire workforce has had the opportunity to engage in the implementation of the new Strategic Plan. Additionally, each workgroup has the ability to monitor its own progress through an online administrative tool.

As a result of this strategic planning process, a new vision, mission and goals were developed:

## **VISION**

**To be a global leader in service, innovation and stewardship**

## **MISSION**

**Provide world class water service in a sustainable, adaptive and responsible manner to our customers through reliable, cost-effective systems**

## **GOALS**

- Assure quality water through reliable and highly efficient systems.
- Deliver an outstanding customer service experience.
- Anticipate and adapt to changing climatic conditions while demonstrating stewardship of our environment.
- Develop innovative and sustainable solutions through research and technology.
- Ensure organizational efficiency and manage financial resources to provide maximum customer value.
- Strengthen and uphold a culture of service, excellence and accountability.

### **Strategic Plan Strategies.**

In order to implement the goals of the Strategic Plan, the LVVWD prepared the following strategies:

***Assure quality water through reliable and highly efficient systems.***

- Provide a high quality drinking water

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year Ending June 30, 2020

supply and delivery system that is sustainable and promotes the vitality and prosperity of the community.

- Maintain high levels of reliability through application of a sufficiently funded asset management program.
- Sustain operational continuity with a sufficiently staffed, well-trained and skilled workforce.
- Continually improve operating efficiencies by benchmarking to leading industry standards.
- Ensure a high quality of local and regional water resources through comprehensive water quality and watershed management.

***Deliver an outstanding customer service experience.***

- Assess customer satisfaction, establish benchmarks and determine where improvements are required.
- Continuously improve service processes and practices based on customer assessments.
- Utilize appropriate technology to simplify and improve the customer experience.
- Provide necessary training and development to ensure a quality customer service experience.
- Communicate with and receive continuous feedback from employees on organizational policy changes and improvements.
- Monitor other organizations/industries to identify innovations, best practices and ways to improve the customer experience.

***Anticipate and adapt to changing climatic conditions while demonstrating stewardship of our environment.***

- Enhance understanding of climate change impacts among ourselves and our stakeholders.
- Develop and implement adaptation plans to reduce or mitigate impacts of climate change on water and environmental resources.
- Conduct long-term water resources and facilities planning to ensure adequate resources are available when needed.
- Develop and implement proactive stewardship for environmental resources to ensure access to current and future water supplies.
- Champion innovative water efficiency initiatives to maximize beneficial use of resources.
- Incorporate sustainable best practices into organization initiatives and inspire positive change.

***Develop innovative and sustainable solutions through research and technology.***

- Identify, prioritize and implement sustainable and cost-effective solutions to organizational challenges.
- Promote a culture that is innovative and creative, and makes effective use of technology.
- Allocate the resources necessary to advance research, technology and other innovations.
- Develop and strengthen partnerships on a global basis to leverage resources and advance innovation.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Introduction and Strategic Plan  
Fiscal Year Ending June 30, 2020**

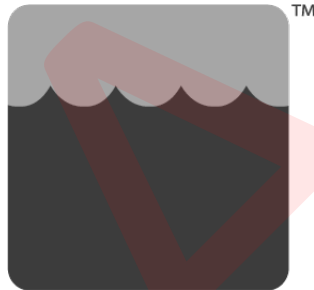
***Ensure organizational efficiency and manage financial resources to provide maximum customer value.***

- Increase customer communication so there is a better understanding of the value of our products and services.
- Ensure predictable rates that are aligned with community expectations.
- Seek out and deploy worldwide best practices to minimize costs.
- Establish and utilize benchmarks to explore new opportunities for improved efficiencies.
- Formulate risk assessments and develop alternatives for expenditure decisions.

***Strengthen and uphold a culture of service, excellence and accountability.***

- Improve the consistency and openness of communication to ensure employees are engaged and well informed.
- Increase the effectiveness of professional development by providing additional diverse learning opportunities.
- Hold ourselves accountable for delivering quality products and services to our customers, each other and the environment.
- Identify, monitor and measure key performance areas of the organization, openly sharing results and taking appropriate action.
- Provide and seek timely feedback on individual, team and departmental performance to enhance collaboration, accountability and excellence.

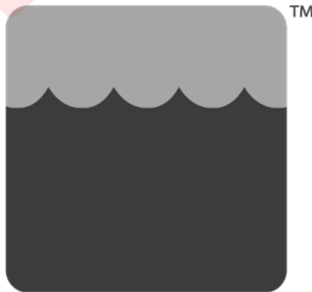
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# SECTION 3

## OPERATING AND CAPITAL BUDGET PLAN

|   |      |
|---|------|
| Budget Summary .....  | 3-1  |
| Sources .....   | 3-2  |
| Uses .....  | 3-8  |
| Summary of Sources and Uses of Funds and Changes in Net Assets..... | 3-11 |



**LAS VEGAS VALLEY WATER DISTRICT**  
FISCAL YEAR 2019-20  
OPERATING AND CAPITAL BUDGET



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
Fiscal Year Ending June 30, 2020

The fiscal year 2019-20 Budget Plan reflects the continued commitment of the Las Vegas Valley Water District (LVVWD) to provide water resources and services to meet the demands of Southern Nevada. The LVVWD utilizes its Strategic Plan as a guide in shaping its annual Budget Plan. The fiscal year 2019-20 Budget Plan's total sources of funds are projected to be \$647.0 million, or a three percent increase compared to the fiscal year

2018-19 Adopted Budget Plan. The fiscal year 2019-20 Budget Plan's total uses of funds are projected to be \$747.0 million, or an eight percent increase compared to the fiscal year 2018-19 Adopted Budget Plan. The table below shows the Sources and Uses of Funds Summary for the 2017-18, 2018-19, and 2019-20 fiscal years.



**Budget Summary**

|                                    | <b>Actual<br/>2017-18</b> | <b>Budget<br/>2018-19</b> | <b>Budget<br/>2019-20</b> | <b>Budget-to-Budget<br/>Variance<br/>\$</b> | <b>%</b>   |
|------------------------------------|---------------------------|---------------------------|---------------------------|---|------------|
| <b>Sources</b>                     |                           |                           |                           |   |            |
| Tiered Consumption                 | \$ 273,523,120            | \$ 287,018,477            | \$ 300,475,251            | \$ 13,456,774                               | 5%         |
| Service Charge                     | 66,614,479                | 70,466,473                | 73,568,486                | 3,102,013                                   | 4%         |
| Backflow Charge                    | 11,608,038                | 11,677,963                | 11,908,629                | 230,666                                     | 2%         |
| Reclaimed Water                    | 7,433,497                 | 7,161,630                 | 7,500,339                 | 338,709                                     | 5%         |
| Other Water Bill Charges           | 7,517,553                 | 6,756,119                 | 7,595,123                 | 839,004                                     | 12%        |
| Facilities Connection Charge       | 16,171,119                | 15,457,665                | 16,727,513                | 1,269,848                                   | 8%         |
| Application & Inspection Fees      | 2,788,421                 | 2,182,400                 | 2,832,318                 | 649,918                                     | 30%        |
| Investment Income                  | 2,697,065                 | 3,331,271                 | 4,721,991                 | 1,390,720                                   | 42%        |
| Springs Preserve                   | 2,756,528                 | 3,029,465                 | 3,090,260                 | 60,795                                      | 2%         |
| Other Sources                      | 2,836,311                 | -                         | -                         | -   | -          |
| <b>Subtotal</b>                    | <b>\$ 393,946,131</b>     | <b>\$ 407,081,464</b>     | <b>\$ 428,419,910</b>     | <b>\$ 21,338,446</b>                        | <b>5%</b>  |
| Debt Issuance Proceeds             | 107,953,576               | 8,462,299                 | 3,692,628                 | (4,769,671)                                 | -56%       |
| <b>LVVWD Sources</b>               | <b>\$ 501,899,707</b>     | <b>\$ 415,543,763</b>     | <b>\$ 432,112,538</b>     | <b>\$ 16,568,775</b>                        | <b>4%</b>  |
| <b>Uses</b>                        |                           |                           |                           |   |            |
| Purchased Water                    | \$ 92,830,073             | \$ 96,890,139             | \$ 100,853,938            | \$ 3,963,799                                | 4%         |
| Energy                             | 9,771,761                 | 10,676,500                | 10,056,500                | (620,000)                                   | -6%        |
| Payroll & Related                  | 127,449,524               | 139,029,285               | 149,996,855               | 10,967,570                                  | 8%         |
| Operating Expenses                 | 33,142,368                | 59,877,426                | 67,385,506                | 7,508,080                                   | 13%        |
| Capital Expenditures               | 48,831,005                | 103,304,440               | 133,377,574               | 30,073,134                                  | 29%        |
| Debt Service                       | 61,471,883                | 70,601,752                | 70,457,009                | (144,743)                                   | 0%         |
| <b>LVVWD Uses</b>                  | <b>\$ 373,496,614</b>     | <b>\$ 480,379,542</b>     | <b>\$ 532,127,382</b>     | <b>\$ 51,747,840</b>                        | <b>11%</b> |
| <b>LVVWD Net Surplus/(Deficit)</b> | <b>\$ 128,403,093</b>     | <b>\$ (64,835,779)</b>    | <b>\$ (100,014,844)</b>   |   |            |
| <b>SNWA Charges</b>                |                           |                           |                           |   |            |
| Infrastructure Charge              | \$ 108,194,045            | \$ 112,695,027            | \$ 115,832,567            | \$ 3,137,540                                | 3%         |
| Commodity Charge                   | 50,547,096                | 50,317,179                | 51,308,350                | 991,171                                     | 2%         |
| Connection Charge                  | 46,415,820                | 42,543,034                | 43,533,230                | 990,196                                     | 2%         |
| Reliability Surcharge              | 4,025,237                 | 4,041,996                 | 4,186,924                 | 144,928                                     | 4%         |
| <b>SNWA Charges</b>                | <b>\$ 209,182,198</b>     | <b>\$ 209,597,236</b>     | <b>\$ 214,861,071</b>     | <b>\$ 5,263,835</b>                         | <b>3%</b>  |
| <b>Total Sources</b>               | <b>\$ 711,081,905</b>     | <b>\$ 625,140,999</b>     | <b>\$ 646,973,609</b>     | <b>\$ 21,832,610</b>                        | <b>3%</b>  |
| <b>Total Uses</b>                  | <b>582,678,812</b>        | <b>689,976,778</b>        | <b>746,988,453</b>        | <b>57,011,675</b>                           | <b>8%</b>  |
| <b>Total Net Surplus/(Deficit)</b> | <b>\$ 128,403,093</b>     | <b>\$ (64,835,779)</b>    | <b>\$ (100,014,844)</b>   |   |            |

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
Fiscal Year Ending June 30, 2020

## Sources

The fiscal year 2019-20 Budget Plan's total sources of funds are projected to be \$647.0 million, which is a three percent increase compared to the 2018-19 Adopted Budget Plan.

The LVVWD revenue-based sources of funds are projected to rise by \$21.3 million, or five percent. This increase is related to the implementation of the LVVWD Board of Directors (Board) adopted water rate adjustments, which were a result of the LVVWD's Citizen's Advisory Committee (CAC) recommendations. The Board adopted water rate adjustments are inflation-indexed annually, increased 3.7 percent in January 2019.

In January 2017, the Board approved the CAC recommendations, which included the water rate adjustments noted above, to help fund the LVVWD's capital program through fiscal year 2026-27. The capital needs were included as part of the 10-year, \$616 million (in 2016 dollars) Capital Improvement Plan (CIP). The CIP was also adopted by the Board in January 2017. The CIP guides decisions related to asset management, necessary water system expansion and water quality compliance activities.

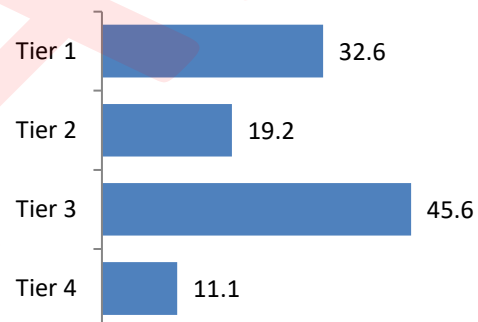
### **Tiered Consumption.**

The LVVWD service rules have consumption rates of four tiers with thresholds for each tier varying by meter size and customer class. In establishing water rates, the LVVWD strives to set reasonable rates and considerations for the equitable allocation and recovery of costs of providing facilities and delivery of water

service are made, except that the rates may be established in such a way as to encourage the conservation of water. Construction water and reclaimed water are sold at uniform rates. The historical 10-year average mix of actual water deliveries between the consumptive tiers is as follows:

- Tier 1 – 28%
- Tier 2 – 17%
- Tier 3 – 44%
- Tier 4 – 11%

**2019-20 Budgeted Water  
Deliveries by Tier  
(gallons in billions)**



**Tier 1.** Tier 1 rates have typically been considered the rate for “lifeline” water (i.e. the amount of water a small residence needs to satisfy typical indoor water uses such as bathing, washing clothes, toilets, etc.). The tier 1 consumption rate is currently set at \$1.28 per 1,000 gallons.

**Tier 2.** Tier 2 rates allow a typical small residence with very limited outdoor water use to avoid the 3<sup>rd</sup> tier. In addition, tier 2 thresholds have been compressed for residential services with a meter size of ¾” or above in order to encourage conservation.



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
 Fiscal Year Ending June 30, 2020

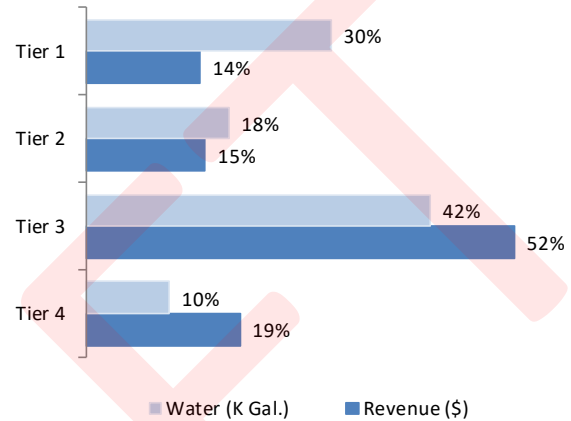
The tier 2 consumption rate is currently set at \$2.28 per 1,000 gallons.

**Tier 3.** Tier 3 typically delivers 40 – 45 percent of the water sold. The tier 3 consumption rate is currently set at \$3.40 per 1,000 gallons.

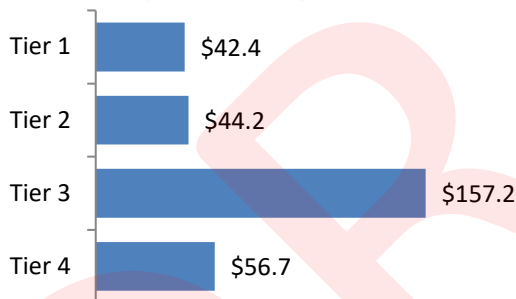
**Tier 4.** Tier 4 rates are designed to encourage conservation. The tier 4 consumption rate is currently set at \$5.04 per 1,000 gallons.

**Construction Water.** Construction water is sold at a uniform rate equal to the tier 3 rate. This water is typically delivered through a fire hydrant and is often used for dust suppression at construction sites.

**Percent Budgeted Water Deliveries & Revenue by Tier**



**2019-20 Budgeted Revenue by Tier**  
 (\$ in millions)

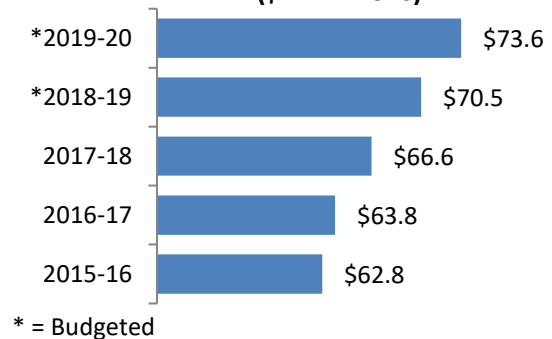


The following chart shows the percent of budgeted water deliveries and revenue by tier for the fiscal year 2019-20. This chart illustrates the revenue impact on the water flowing through the tiers. In Tiers 1 and 2, the percentage revenue impact is less than the percent of water delivered, and the reverse is true in Tiers 3 and 4. While conservation is important, from a revenue perspective, it is financially beneficial to the LVVWD to deliver water in the upper tiers.

**Service Charge.**

The daily service charge is a fixed charge designed to cover the costs of servicing an account, regardless of the amount of water consumed. For example, costs like meter reading, meter maintenance, preparing the bill, postage, and remittance processing are approximately the same regardless of the amount of water consumed, and almost regardless of the size of the service.

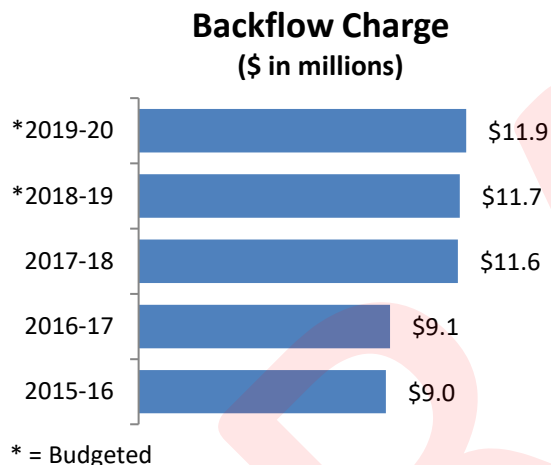
**Service Charge**  
 (\$ in millions)



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
Fiscal Year Ending June 30, 2020

**Backflow Charge.**

The backflow charge is a fixed charge applied to customers with a backflow device. In the event of negative water pressure (a rare occurrence), a backflow device prevents water from flowing from pipes on the customer's premises back into the potable water system and thereby potentially contaminating the potable water system. The backflow charge is designed to cover the cost of maintaining those devices.



**Reclaimed Water.**

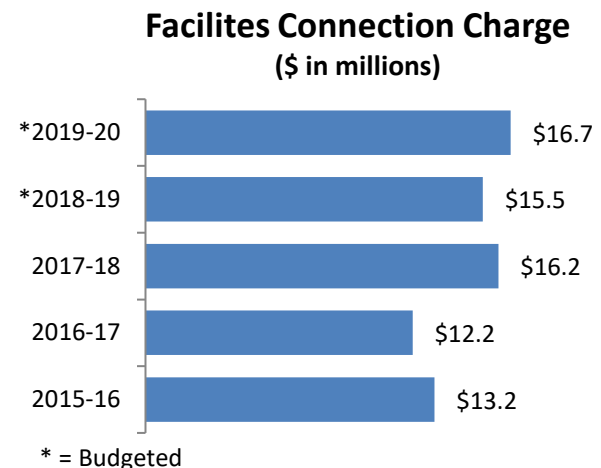
Reclaimed water is treated effluent from water reclamation centers, typically blended with potable water, and delivered to golf courses. The flat rate for reclaimed, or non-potable, water is \$2.33 per 1,000 gallons. Reclaimed water services are not subject to the daily service charge, the SNWA Commodity Charge or the SNWA Reliability Surcharge, but they are subject to the SNWA Infrastructure Charge. For the fiscal year 2019-20 Budget Plan, reclaimed water revenues are estimated to be \$7.5 million.

**Other Water Bill Charges.**

The water bill may contain various other charges which appear on customers' water bills, such as turn on charges, late fees, delinquent processing charges, lockout fees, returned check charges, etc. For the fiscal year 2019-20 Budget Plan, other water bill charges are anticipated to total \$7.6 million.

**Facilities Connection Charge.**

The facilities connection charge is based on meter size and is designed to offset costs of providing and/or expanding the LVVWD's water facilities. For the fiscal year 2019-20 Budget Plan, connection charges are anticipated to be \$16.7 million, which represents a \$1.3 million, or eight percent, increase compared to the fiscal year 2018-19 Adopted Budget Plan. Similar to the water rates, the CAC recommended, and the Board subsequently adopted increases to the facilities connection charge. The 2019-20 budget includes a 7.5% increase in January 2020, and in future years is tied to annual inflation-indexed increases.



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
Fiscal Year Ending June 30, 2020

**Application & Inspection Fees.**

The application and inspection fees are developer fees charged at the time a customer applies to connect to the water system or applies for changes in water service connection. These fees cover the costs associated with handling the application, setting up the service and reviewing plans. Inspection fees are those developer fees charged for the inspection of all new water facility installations and water services constructed by private contractors. In the fiscal year 2019-20 Budget Plan, application and inspection fees total \$2.8 million, a increase of \$0.6 million, or 30 percent compared to the fiscal year 2018-19 Adopted Budget Plan. This reflects the recent pace of growth and development in the LVVWD's Service Area.

**Investment Income.**

Investment income is revenue earned from earnings on accumulated reserve balances. For the fiscal year 2019-20, interest earnings are anticipated to be \$4.7 million, a \$1.4 million increase compared to the fiscal year 2018-19 Adopted Budget Plan estimate. This increase is the result of larger reserve balances, higher interest rates, and the inclusion of interest income that was previously allocated to capital projects. As a result of an update to GASB 89, interest is no longer allocated to capital projects.

**Springs Preserve.**

In 1998, the LVVWD entered into a partnership with the Las Vegas Springs Preserve Foundation, a tax-exempt charitable organization founded to provide funding for the Springs Preserve. The Springs Preserve is a cultural and historic attraction located on

the LVVWD property. The 180-acre national historic site is widely known as the "birthplace" of Las Vegas. The presence of an abundant water supply at the site was the original catalyst for the growth, development, and the resulting economic prosperity of the Las Vegas area. The Springs Preserve opened in June 2007.

For the fiscal year 2019-20 Budget Plan, revenues for the Springs Preserve are anticipated to total \$3.1 million, a two percent increase compared to the fiscal year 2018-19 Adopted Budget Plan.

**Debt Issuance Proceeds.**

**Municipal Bond Proceeds.** The 2019-20 Budget Plan does not include debt proceeds from municipal bond issuances.

**Nevada State Revolving Fund (SRF) Loan Proceeds.** In December 2014, the LVVWD entered into an agreement with the State of Nevada Department of Conservation and Natural Resources to receive a loan from the SRF to finance construction of water infrastructure. The LVVWD will ultimately receive \$50 million in SRF financing, but the first loan was for \$20 million. The second loan of \$15 million was part of the 2015-16 Adopted Budget Plan. The final \$15 million was included in the 2016-17 Budget Plan.

The SRF loan is secured by general obligation bonds the LVVWD provided to the State of Nevada as collateral for the loan. The SRF loan is funded on a reimbursement basis, therefore the LVVWD must first fund the construction expenditures with its own assets and then be reimbursed through the SRF loan. After the full principal has been drawn, or three years from the closing date, whichever occurs first, the LVVWD is obligated to make roughly equal

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
Fiscal Year Ending June 30, 2020

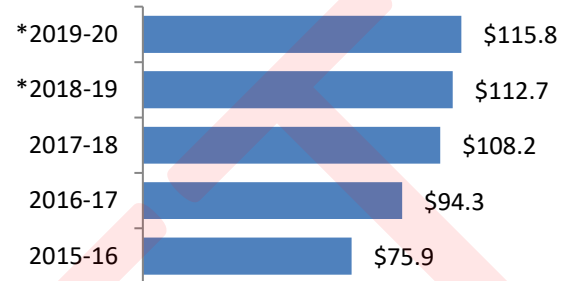
semiannual payments of principal and interest over the remaining term of the loan. Until then, the LVVWD is obligated to pay interest only on the outstanding amount of the loan. For the fiscal year 2019-20, the LVVWD projects to spend approximately \$3.7 million, which is expected to be reimbursed through the SRF loans.

**SNWA Infrastructure Charge.**

In October 2011, the SNWA Board of Directors (SNWA Board) authorized an extensive rate study and a public outreach process to study various alternative rate structures to service the SNWA's outstanding debt. Debt had been issued to fund capital projects and additional debt was issued to fund ongoing capital needs. After the completion of a rate study and a public outreach process, the SNWA Board on February 29, 2012, unanimously approved an Infrastructure Charge to help offset declines in other sources of revenue. Subsequently, on March 6, 2012, the SNWA Infrastructure Charge was unanimously approved by the LVVWD's Board.

This source of revenue for the SNWA, which went into effect beginning May 2012, is projected to generate \$115.8 million from the LVVWD customers. This represents an increase of \$3.1 million, or three percent, in the fiscal year 2019-20 Budget Plan when compared to the fiscal year 2018-19 Adopted Budget Plan. This charge is on the LVVWD customers' water bills and the funds pass directly to the SNWA. The Infrastructure Charge receipts will have no impact on the LVVWD's net surplus or deficit.

**Infrastructure Charge**  
**(\$ in millions)**



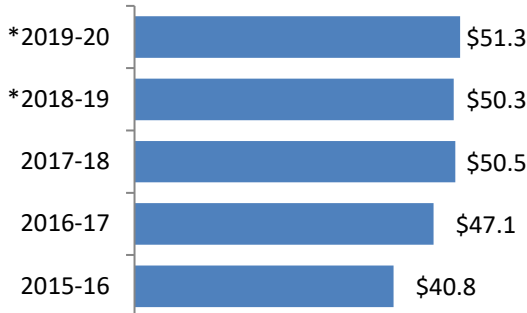
\* = Budgeted

**SNWA Commodity Charge.**

The Commodity Charge was approved by the SNWA Board and the LVVWD Board in December 1995 and went into effect on purveyor water bills beginning in November 1996. This charge consists of a usage cost per 1,000 gallons sold by each of the SNWA's participating purveyor members to their customers. The charges are paid by the purveyors' customers based on the benefit they will accrue from the expansion of the SNWA's regional water treatment and transmission system. For fiscal year 2019-20, commodity charge revenues are anticipated to be around \$51.3 million, an increase of \$1.0 million, or two percent, compared to the fiscal year 2018-19 Adopted Budget Plan.

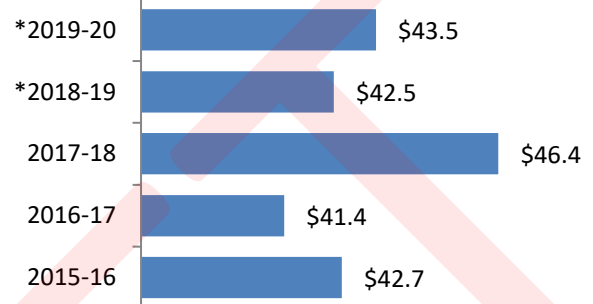
**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
Fiscal Year Ending June 30, 2020

**Commodity Charge**  
(\$ in millions)



\* = Budgeted

**Connection Charge**  
(\$ in millions)



\* = Budgeted

**SNWA Connection Charge.**

The Connection Charge was approved by the SNWA Board and the LVVWD Board in December of 1995 and became effective March 1, 1996. It was established to pay the majority of the costs of expanding the SNWA's regional water treatment and transmission system. It assesses new development to partially pay the costs of the system's current and future expansions. These revenues are passed directly from the LVVWD to the SNWA and are offset in the LVVWD's sources of funds with an equal amount of uses of funds. These revenues (as well as the SNWA Commodity and Reliability charges) are not used to support any of the LVVWD's ongoing operations or capital projects.

The fiscal year 2019-20 Budget Plan anticipates the SNWA connection charge collections of \$43.5 million, a increase of \$1.0 million, or two percent, compared to the fiscal year 2018-19 Adopted Budget Plan. As with other sources of development-based revenue, this increase reflects the recent pace of growth and development in the LVVWD's Service Area.

**SNWA Reliability Surcharge.**

The Reliability Surcharge was approved by the SNWA Board and the LVVWD Board in November 1997 and went into effect on purveyor water bills beginning in April 1998. It is applied to the total dollar amount of customers' bills, excluding the SNWA Infrastructure Charge. Residential customers are charged 0.25 percent of their total bill, while all other customers are charged 2.5 percent. The reliability surcharge is an additional charge to be paid by the purveyors' customers based on the benefit they will accrue from the expansion of the SNWA's regional water treatment and transmission system. In the fiscal year 2019-20 Budget Plan, it is estimated this charge will total \$4.2 million.

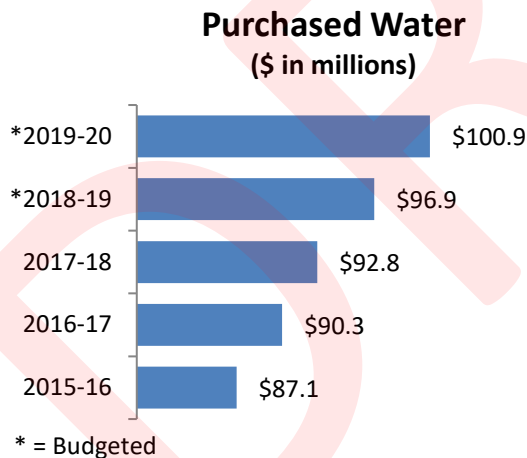
**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
Fiscal Year Ending June 30, 2020

## Uses

The fiscal year 2019-20 Budget Plan's total uses of funds are projected to be \$747.0 million, which is an eight percent increase compared to the 2018-19 budget. A significant factor in the rise in uses of funds is due to increases in capital expenditures attributable to the \$616 million 10-year CIP adopted by the Board in January 2017.

### Purchased Water.

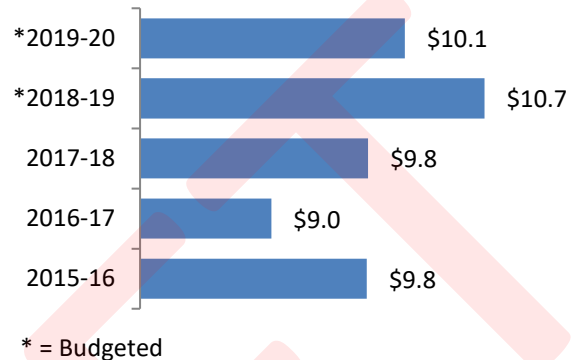
The LVVWD purchases nearly 90 percent of its water from the SNWA. For the fiscal year 2019-20 Budget Plan, water costs are projected to be \$100.9 million, which is a four percent increase compared to the fiscal year 2018-19 Adopted Budget Plan. This \$4.0 million rise in costs is due to increases in water demands and the wholesale water rate on water purchased from the SNWA.



### Energy.

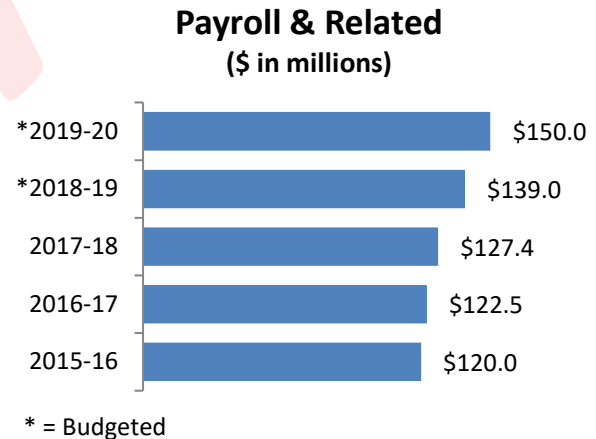
Compared to the 2018-19 Adopted Budget Plan, the cost of energy is expected to decrease by \$0.6 million, or six percent, for the fiscal year 2019-20 Budget Plan. This slight decrease is attributable to an expected decrease in power prices.

### **Energy** (\$ in millions)



### Payroll & Related.

Payroll costs include wages, salaries and benefits. For the fiscal year 2019-20 Budget Plan, payroll and related expenses are anticipated to be \$150.0 million. This represents an increase of \$11.0 million, or eight percent, compared to the fiscal year 2018-19 Adopted Budget Plan.



Full-time equivalent (FTE) is a unit of measurement which represents the workload of one full-time employed person. The LVVWD's FTE count is expected to increase by approximately 22 employees over the fiscal year 2018-19 Adopted Budget Plan. Demands to continue providing safe and reliable water service under current operational conditions



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
Fiscal Year Ending June 30, 2020

and the ongoing CIP have resulted in increased staffing requirements for the LVVWD. The following chart summarizes the number of equivalent FTE positions by department charging time to the LVVWD.

**FTE Summary**

| <u>Department</u>                                     | <u>Actual<br/>2017-18</u> | <u>Budget<br/>2018-19</u> | <u>Budget<br/>2019-20</u> |
|---|---------------------------|---------------------------|---------------------------|
| Executive Management                                  | 5.0                       | 5.5                       | 5.5                       |
| Legal Services  | 7.5                       | 8.5                       | 8.5                       |
| Finance   | 32.3                      | 36.8                      | 35.3                      |
| Information Technology                                | 92.9                      | 101.5                     | 103.0                     |
| Human Resources                                       | 19.8                      | 23.5                      | 25.6                      |
| Public Services                                       | 57.8                      | 71.3                      | 75.3                      |
| Environmental, Health,<br>Safety & Corporate Security | 59.9                      | 48.0                      | 45.8                      |
| Customer Care & Field<br>Services                     | 149.2                     | 170.1                     | 170.5                     |
| Engineering   | 71.4                      | 81.7                      | 88.3                      |
| Resources & Facilities                                | 67.1                      | 63.7                      | 65.1                      |
| Infrastructure Management                             | 58.7                      | 64.6                      | 66.2                      |
| Water Resources                                       | 1.6                       | 2.5                       | 9.4                       |
| Energy Management                                     | 0.4                       | -                         | -                         |
| Operations  | 186.4                     | 189.3                     | 190.0                     |
| Water Quality & Treatment                             | 3.9                       | 0.4                       | 0.4                       |
| <b>Total</b>  | <b>813.9</b>              | <b>867.1</b>              | <b>888.8</b>              |

*\*Totals may be off slightly due to rounding*

**Operating Expenses.**

Operating expenses include materials and supplies, maintenance and repairs, rental and leases, other employee expenses, and other expenses, which are described in detail after the following table.

**Operating Expense Detail**

|                           | <u>Actual<br/>2017-18</u> | <u>Budget<br/>2018-19</u> | <u>Budget<br/>2019-20</u> |
|---------------------------|---------------------------|---------------------------|---------------------------|
| <b>Operating Expenses</b> |                           |                           |                           |
| Materials & Supplies      | \$ 11.3                   | \$ 14.7                   | \$ 16.2                   |
| Maintenance & Repairs     | 17.2                      | 24.2                      | 24.8                      |
| Rental & Leases           | 2.4                       | 2.7                       | 2.8                       |
| Other Employee Expenses   | 1.6                       | 2.4                       | 2.7                       |
| Other Operating Expenses  | 0.5                       | 15.8                      | 20.8                      |
| <b>Total</b>              | <b>\$ 33.1</b>            | <b>\$ 59.9</b>            | <b>\$ 67.4</b>            |

*\*Totals may be off slightly due to rounding*

**Materials and Supplies.** This classification includes, but is not limited to, pipe, asphalt, concrete, office supplies, and materials required for the normal operation of the LVVWD's facilities. The fiscal year 2019-20 Budget Plan anticipates total expenditures of \$16.2 million for this expense category. This represents an increase of \$1.5 million, or 10 percent, compared to the fiscal year 2018-19 Adopted Budget Plan.

**Maintenance and Repairs.** This classification includes, but is not limited to, the outside purchase of goods and services associated with maintaining and repairing the water transmission system; buildings and grounds; and computer equipment. The fiscal year 2019-20 Budget Plan anticipates this expense will total \$24.8 million, an increase of \$0.6 million, or three percent compared to the fiscal year 2018-19 Adopted Budget Plan.

**Rental and Leases.** The fiscal year 2019-20 Budget Plan anticipates expenses of \$2.8 million, which includes rent/lease office space, communication equipment and outside storage facilities. This expense increased by \$0.1 million when compared to the fiscal year 2018-19 Adopted Budget Plan.

**Other Employee Expense.** This classification includes such items as safety equipment, dues, travel and training, and tuition

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
 Fiscal Year Ending June 30, 2020

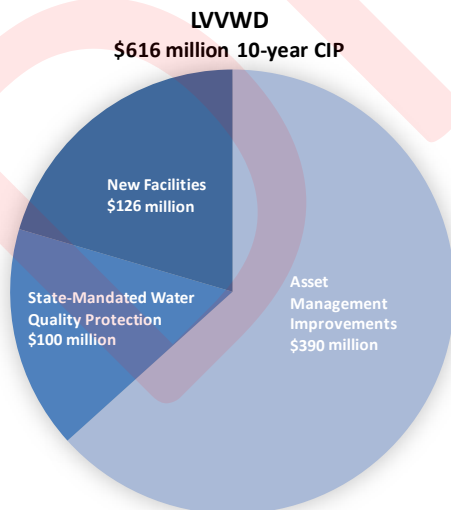
reimbursement. The Budget Plan anticipates a total of \$2.7 million spent within this category. This amount represents an increase of \$0.3 million when compared to the fiscal year 2018-19 Adopted Budget Plan.

**Other Operating Expense.** This classification includes, but is not limited to postage, legal fees and professional services. For the fiscal year 2019-20 Budget Plan, other operating expenses are anticipated to total \$20.8 million, an increase of \$5.0 million, or 31 percent, compared to the fiscal year 2018-19 Adopted Budget Plan.

**Capital Expenditures.**

Capital expenditures are primarily driven by the need to expand and maintain the LVVWD's water storage, pumping, distribution system and the LVVWD's facilities and equipment.

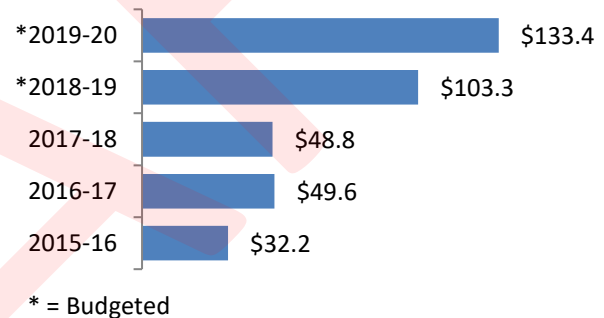
As mentioned earlier, in January 2017, the Board adopted the \$616 million (in 2016 dollars) 10-year CIP with the major components shown in the chart below.



For the fiscal year 2019-20 Budget Plan, the CIP and continued focus on asset

management efforts to replace and maintain the LVVWD's essential equipment and water distribution facilities resulted in an increase in capital equipment and construction expenditures. For the fiscal year 2019-20 Budget Plan, total equipment and construction expenditures are budgeted at \$133.4 million, or an increase of 29 percent, compared to the fiscal year 2018-19 Adopted Budget Plan.

**Capital Expenditures**  
 (\$ in millions)



**Capital Equipment and Vehicles.** For the fiscal year 2019-20 Budget Plan, equipment purchases are anticipated to total \$5.3 million, a decrease of \$2.5 million, or 32 percent, compared to the fiscal year 2018-19 Adopted Budget Plan.

**Capital Projects.** For the fiscal year 2019-20 Budget Plan, the adopted CIP enhances the emphasis in capital projects, along with asset management, maintenance, and improvement of the LVVWD's water distribution system. In the fiscal year 2019-20 budget, the LVVWD anticipates spending \$128.1 million for capital projects, an increase of \$32.6 million, or 34 percent, compared to the fiscal year 2018-19 Adopted Budget Plan. The increases are prudent and necessary to fund new facilities and a number of large water distribution system projects. Both in the



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
Fiscal Year Ending June 30, 2020

fiscal year 2019-20 Budget Plan, and in the fiscal year 2018-19 Adopted Budget Plan, expenditure increases for included projects are considered to be crucial for the continued operation of the water distribution system and include reservoir, well, pump, vault, pipe, motor and valve renovation and replacement projects.

**Debt Service.**

This classification includes bond payments made for debt that the LVVWD has issued, or expects to issue, for funding capital projects as well as ongoing capital needs. For the fiscal year 2019-20 Budget Plan, total bond payments are expected to total \$70.5 million, which is a decrease of \$0.1 million compared to the fiscal year 2018-19 Adopted Budget Plan.

**SNWA Charges.**

As described in the Sources section above, the overall SNWA Charges for the fiscal year 2019-20 Budget Plan are expected to be \$214.9 million. This amount represents an increase of \$5.3 million, or three percent, when compared to the fiscal year 2018-19 Adopted Budget Plan.

**Summary of Sources and Uses of Funds and Changes in Net Assets**

An enterprise fund's year-end balance differs dramatically from other government agencies' fund balances. The enterprise net asset balance closely approximates a private corporation's retained earnings section. As such, net assets are affected by operating items as presented in this document as well as other financial resources and expenditures. The LVVWD accounts for its Net Assets in accordance with GASB Statement 33. The table on the following page summarizes the estimated sources and uses of funds and changes in net assets for the fiscal year 2019-20 Budget Plan.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
Fiscal Year Ending June 30, 2020

**Estimated Net Assets Detail**  
**Fiscal Year 2019-20 Budget**

|                                   | <u>Invested in<br/>Capital Assets<br/>Net of Related<br/>Debt</u> | <u>Restricted<br/>for Debt<br/>Service</u> | <u>Restricted for<br/>Capital Projects</u> | <u>Unrestricted<br/>Net Assets</u> | <u>Total Proprietary<br/>Fund Net Position</u> | <u>Pension<br/>Trust Fund</u> | <u>Total Net<br/>Assets</u> |
|-----------------------------------|---|--|--|------------------------------------|--|-------------------------------|-----------------------------|
| Estimated Equity<br>June 30, 2018 | \$ 801,796,184  | \$ 26,919,006                              | \$ 146,975                                 | \$256,014,372                      | \$ 1,084,876,537                               | \$459,435,792                 | \$ 1,544,312,329            |
| Capital Acquisitions              | (133,377,574)   | -  | -  | -                                  | (133,377,574)                                  | -                             | (133,377,574)               |
| Bond Payments                     |   |  |  |                                    |  |                               |                             |
| Principal                         | 35,517,714  | (35,517,714)                               | -  | -                                  | -  | -                             | -                           |
| Interest                          | -   | (34,939,295)                               | -  | -                                  | (34,939,295)                                   | -                             | (34,939,295)                |
| Transfer for Debt Service         | -   | 70,457,009                                 | -  | (70,457,009)                       | -  | -                             | -                           |
| Operating Revenues                | -   | -  | -  | 406,970,406                        | 406,970,406                                    | 64,044,000                    | 471,014,406                 |
| Operating Expenses                | -   | -  | -  | (328,292,799)                      | (328,292,799)                                  | 20,400,000                    | (307,892,799)               |
| Non Operating Revenue             | -   | -  | -  | 21,449,504                         | 21,449,504                                     | -                             | 21,449,504                  |
| Estimated Equity<br>June 30, 2019 | <u>\$ 703,936,324</u>   | <u>\$ 26,919,006</u>                       | <u>\$ 146,975</u>                          | <u>\$285,684,474</u>               | <u>\$ 1,016,686,779</u>                        | <u>\$543,879,792</u>          | <u>\$ 1,560,566,571</u>     |

**Invested in Capital Assets, Net of Related Debt.** This classification is composed of Donated Capital. Cash is received from the Facilities Connection Charge. Property and other non-cash items represent mains and services constructed to the LVVWD's standards by developers and then donated to the LVVWD.

**Restricted for Debt Service.** Assets from this classification are transferred from Unrestricted Assets to the Debt Service classification on a monthly basis. Total transfers (\$70.5 million) are used to pay current portions of general obligation bonds.

**Unrestricted Net Assets.** Many different classifications make up this category including:

- **Transfer to Debt Service** - Described in preceding section.

- **Operating Revenue** - This represents the cumulative financial results of operations. Operating Revenue consists of water revenue, application and inspection fees, other revenues (backflow and hydrant service charges; delinquent charges, late charges and returned-check charges), and Springs Preserve revenues. For the fiscal year 2019-20, these revenues are anticipated to total approximately \$407.0 million.
- **Operating Expense** - Operating Expenses include all categories in the Uses of Funds, excluding pension expense, which is listed separately in preceding table, bond payments, capital equipment, major construction expenditures, and the SNWA charges (Regional Connection, Commodity, Reliability Surcharge and the Infrastructure Charge). For the fiscal

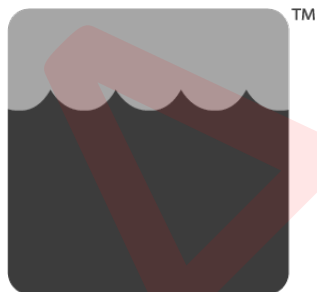
**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
Fiscal Year Ending June 30, 2020

year 2019-20 these expenses are anticipated to total approximately \$328.3 million.

- **Pension Expense** - For the fiscal year 2019-20, this expense has been separated from the Payroll Expense listed in the Uses of Funds, and is shown as a separate operating expense in the preceding table in order to clarify and better track the transfer of this expense from the LVVWD's Proprietary Fund to the Pension Trust Fund.
- **Non-operating Revenues (net)** - Non-operating revenue consists of facilities connection charge and investment income.

**Pension Trust Fund.** This is cumulative activity in the LVVWD's pension plan. The plan is a single-employer pension trust fund, established to provide pension benefits for the LVVWD's employees. Anticipated operating revenues shown for this fund include contributions from the operating revenues discussed above and are expensed within the operating expenses discussed above as part of overall payroll expenses. For the purpose of estimating the impact of the LVVWD's operations on the Pension Trust Fund, the pension expense included as part of the LVVWD's operations is shown.

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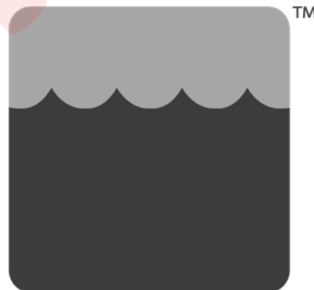


# SECTION 4

## STATE OF NEVADA

### BUDGET DOCUMENTS

|   |      |
|---|------|
| State of Nevada, Department of Taxation, Budget Submittal .....               | 4-1  |
| Budget Document Index.....  | 4-2  |
| Schedule S-2: Statistical Data .....  | 4-3  |
| Schedule A-2: Proprietary Funds.....  | 4-4  |
| Schedule F-1: Enterprise Fund - Revenues, Expenses and Net Position .....     | 4-5  |
| Schedule F-1.1: Pension Trust Fund - Revenues, Expenses and Net Position..... | 4-6  |
| Schedule F-1.2: OPEB - Revenues, Expenses and Net Position.....               | 4-7  |
| Schedule F-2: Enterprise Fund - Statement of Cash Flows .....                 | 4-8  |
| Schedule C-1: Indebtedness .....  | 4-9  |
| Schedule 31: Schedule of Existing Contracts.....                              | 4-10 |
| Schedule 32: Schedule of Privatization Contracts.....                         | 4-16 |
| Affidavit of Publication .....  | 4-17 |
| Letter of Compliance .....  | 4-18 |



**LAS VEGAS VALLEY WATER DISTRICT**  
FISCAL YEAR 2019-20  
OPERATING AND CAPITAL BUDGET





# LAS VEGAS VALLEY WATER DISTRICT™

Nevada Department of Taxation  
1550 College Parkway, Suite 115  
Carson City, NV 89706-7937

Las Vegas Valley Water District herewith submits the (TENTATIVE) (FINAL) budget for the  
fiscal year ending June 30, 2020

This budget contains 0 funds, including Debt Service, requiring property tax revenues totaling \$ 0

The property tax rates computed herein are based on preliminary data. If the final state computed revenue limitation permits,  
the tax rate will be increased by an amount not to exceed 0. If the final computation requires, the tax rate will be  
lowered.

This budget contains 0 governmental fund types with estimated expenditures of \$ 0 and  
1 proprietary funds with estimated expenses of \$ 688,093,165

Copies of this budget have been filed for public record and inspection in the offices enumerated in NRS 354.596 (Local  
Government Budget and Finance Act).

## CERTIFICATION

I E. Kevin Bethel  
(Print Name)  
Chief Financial Officer  
(Title)  
certify that all applicable funds and financial  
operations of this Local Government are  
listed herein

Signed:

Dated:

4-10-2019

## APPROVED BY THE GOVERNING BOARD

Marilyn K. Kirkpatrick, President

James B. Gibson, Vice-President

Lawrence L. Brown III

Justin Jones

Michael Naft

Tick Segerblom

Lawrence Weekly

## SCHEDULED PUBLIC HEARING:

Date and Time: Monday, May 20, 2019 at 9:45 AM

Publication Date: May 7, 2019

Place: Clark County Government Center, Grand Central Parkway, Las Vegas, NV

**LAS VEGAS VALLEY WATER DISTRICT  
BUDGET DOCUMENT INDEX**

**Page No.**

**I INTRODUCTION**

- |   |                       |   |
|---|-----------------------|---|
| 1 | Transmittal Letter    | 1 |
| 2 | Budget Document Index | 2 |

**II SUMMARY FORMS**

- |   |                                  |   |
|---|----------------------------------|---|
| 1 | Schedule S-2 - Statistical Data  | 3 |
| 2 | Schedule A-2 - Proprietary Funds | 4 |

**III PROPRIETARY FUNDS**

- |   |   |   |
|---|---|---|
| 1 | Schedule F-1 - Enterprise Fund - Revenues, Expenses and Net Position                        | 5 |
| 2 | Schedule F-1.1 - Pension Trust Fund - Revenues, Expenses and Net Position                   | 6 |
| 3 | Schedule F-1.2 - Other Post Employment Benefits Trust - Revenues, Expenses and Net Position | 7 |
| 4 | Schedule F-2 - Enterprise Fund - Statement of Cash Flows                                    | 8 |

**IV SUPPLEMENTARY INFORMATION**

- |   |                             |   |
|---|-----------------------------|---|
| 1 | Schedule C-1 - Indebtedness | 9 |
|---|-----------------------------|---|

**V SERVICE CONTRACTS**

- |   |   |    |
|---|---|----|
| 1 | Schedule 31 - Schedule of Existing Contracts      | 10 |
| 2 | Schedule 32 - Schedule of Privatization Contracts | 11 |



FULL TIME EQUIVALENT EMPLOYEES BY FUNCTION

|                          | ACTUAL<br>PRIOR YEAR<br>ENDING 06/30/18 | ESTIMATED<br>CURRENT YEAR<br>ENDING 06/30/19 | BUDGET YEAR<br>ENDING 06/30/20 |
|--------------------------|---|--|--------------------------------|
| General Government       |   |  |                                |
| Judicial                 |   |  |                                |
| Public Safety            |   |  |                                |
| Public Works             |   |  |                                |
| Sanitation               |   |  |                                |
| Health                   |   |  |                                |
| Welfare                  |   |  |                                |
| Culture and Recreation   |   |  |                                |
| Community Support        |   |  |                                |
| TOTAL GENERAL GOVERNMENT |   |  |                                |
| Utilities                | 813.9                                   | 867.1  | 888.8                          |
| Hospitals                |   |  |                                |
| Transit Systems          |   |  |                                |
| Airports                 |   |  |                                |
| Other                    |   |  |                                |
| TOTAL                    |   |  |                                |

|   |   |   |           |
|---|---|---|-----------|
| POPULATION (AS OF JULY 1)                       | 1,596,228   | 1,620,171   | 1,659,056 |
| SOURCE OF POPULATION ESTIMATE*                  | NV Dept. of Taxation<br>( <a href="https://tax.nv.gov/">https://tax.nv.gov/</a> )<br>Publications, Population<br>Statistics & Reports | Population Statistics & Reports Figure<br>Increased by Demographer's annual % increase<br>projection for Clark County |           |
| Assessed Valuation (Secured and Unsecured Only) |   |   |           |
| Net Proceeds of Mines                           |   |   |           |
| TOTAL ASSESSED VALUE                            |   |   |           |
| TAX RATE  |   |   |           |
| General Fund                                    |   |   |           |
| Special Revenue Funds                           |   |   |           |
| Capital Projects Funds                          |   |   |           |
| Debt Service Funds                              |   |   |           |
| Enterprise Fund                                 |   |   |           |
| Other   |   |   |           |
| TOTAL TAX RATE                                  |   |   |           |

**\* Use the population certified by the state in March each year. Small districts may use a number developed per the instructions (page 6) or the best information available.**

Las Vegas Valley Water District  
(Local Government)

SCHEDULE S-2 - STATISTICAL DATA

Las Vegas Valley Water District  
(Local Government)

| FUND NAME                       | * | OPERATING<br>REVENUES<br>(1) | OPERATING<br>EXPENSES<br>(2) ** | NONOPERATING<br>REVENUES<br>(3) | NONOPERATING<br>EXPENSES<br>(4) | <u>OPERATING TRANSFERS</u> |        | NET INCOME<br>(7) |
|---------------------------------|---|------------------------------|---------------------------------|---------------------------------|---------------------------------|----------------------------|--------|-------------------|
|                                 |   |                              |                                 |                                 |                                 | IN (5)                     | OUT(6) |                   |
| Las Vegas Valley Water District | E | \$ 621,831,477               | \$ 653,153,870                  | \$ 41,449,504                   | \$ 34,939,295                   | \$ -                       | \$ -   | \$ (24,812,184)   |
|                                 |   |                              |                                 |                                 |                                 |                            |        |                   |
|                                 |   |                              |                                 |                                 |                                 |                            |        |                   |
|                                 |   |                              |                                 |                                 |                                 |                            |        |                   |
|                                 |   |                              |                                 |                                 |                                 |                            |        |                   |
|                                 |   |                              |                                 |                                 |                                 |                            |        |                   |
|                                 |   |                              |                                 |                                 |                                 |                            |        |                   |
|                                 |   |                              |                                 |                                 |                                 |                            |        |                   |
|                                 |   |                              |                                 |                                 |                                 |                            |        |                   |
|                                 |   |                              |                                 |                                 |                                 |                            |        |                   |
|                                 |   |                              |                                 |                                 |                                 |                            |        |                   |
|                                 |   |                              |                                 |                                 |                                 |                            |        |                   |
|                                 |   |                              |                                 |                                 |                                 |                            |        |                   |
|                                 |   |                              |                                 |                                 |                                 |                            |        |                   |
|                                 |   |                              |                                 |                                 |                                 |                            |        |                   |
|                                 |   |                              |                                 |                                 |                                 |                            |        |                   |
|                                 |   |                              |                                 |                                 |                                 |                            |        |                   |
| TOTAL                           |   | \$ 621,831,477               | \$ 653,153,870                  | \$ 41,449,504                   | \$ 34,939,295                   | \$ -                       | \$ -   | \$ (24,812,184)   |

\* FUND TYPES: E - Enterprise  
I - Internal Service  
N - Nonexpendable Trust

### \*\* Include Depreciation

Page: 4  
SCHEDULE A-2

| <b>PROPRIETARY FUND</b>                | (1)                                      | (2)  | (3) (4)<br>BUDGET YEAR ENDING 06/30/20 |                   |
|--|--|--|--|-------------------|
|  | ACTUAL PRIOR<br>YEAR ENDING<br>6/30/2018 | ESTIMATED<br>CURRENT<br>YEAR ENDING<br>6/30/2019 | TENTATIVE<br>APPROVED                  | FINAL<br>APPROVED |
| OPERATING REVENUE                      |  |  |  |                   |
| Water Sales                            | \$ 366,696,687                           | \$ 383,080,663                                   | \$ 401,047,828                         |                   |
| Application & Inspection Fees          | 2,788,421                                | 2,182,400  | 2,832,318                              |                   |
| Springs Preserve                       | 2,756,528                                | 3,029,465  | 3,090,260                              |                   |
| Other Operating Revenue                | 66,489                                   | -  | -                                      |                   |
| SNWA Infrastructure Charge             | 108,194,045                              | 112,695,027                                      | 115,832,567                            |                   |
| SNWA Commodity Charge                  | 50,547,096                               | 50,317,179                                       | 51,308,350                             |                   |
| SNWA Connection Charge                 | 46,415,820                               | 42,543,034                                       | 43,533,230                             |                   |
| SNWA Reliability Charge                | 4,025,237                                | 4,041,996  | 4,186,924                              |                   |
| Total Operating Revenue                | \$ 581,490,323                           | \$ 597,889,764                                   | \$ 621,831,477                         |                   |
| OPERATING EXPENSE                      |  |  |  |                   |
| Purchased Water                        | \$ 92,830,073                            | \$ 96,890,139                                    | \$ 100,853,938                         |                   |
| Energy                                 | 9,771,761                                | 10,676,500                                       | 10,056,500                             |                   |
| Payroll & Related                      | 120,070,807                              | 128,421,525                                      | 149,996,855                            |                   |
| Materials & Supplies                   | 11,334,957                               | 14,746,569                                       | 16,225,067                             |                   |
| Maintenance & Repairs                  | 17,239,667                               | 24,160,844                                       | 24,802,120                             |                   |
| Rent/Lease                             | 2,439,255                                | 2,708,270  | 2,836,500                              |                   |
| Other Employee Expense                 | 1,578,598                                | 2,434,612  | 2,736,282                              |                   |
| Other Operating Expense                | 549,891                                  | 15,827,131                                       | 20,785,537                             |                   |
| SNWA Infrastructure Charge             | 108,194,045                              | 112,695,027                                      | 115,832,567                            |                   |
| SNWA Commodity Charge                  | 50,547,096                               | 50,317,179                                       | 51,308,350                             |                   |
| SNWA Connection Charge                 | 46,415,820                               | 42,543,034                                       | 43,533,230                             |                   |
| SNWA Reliability Charge                | 4,025,237                                | 4,041,996  | 4,186,924                              |                   |
| Depreciation/Amortization              | 84,232,472                               | 100,000,000                                      | 110,000,000                            |                   |
| Total Operating Expense                | \$ 549,229,679                           | \$ 605,462,827                                   | \$ 653,153,870                         |                   |
| Operating Income or (Loss)             | \$ 32,260,644                            | \$ (7,573,062)                                   | \$ (31,322,393)                        |                   |
| NONOPERATING REVENUES                  |  |  |  |                   |
| Capital Contributions                  | \$ 32,863,453                            | \$ 35,457,665                                    | \$ 36,727,513                          |                   |
| Investment Income - Unrestricted Funds | 2,256,083                                | 2,321,795  | 3,949,925                              |                   |
| Investment Income - Restricted Funds   | 440,982                                  | 1,009,476  | 772,066                                |                   |
| Other Nonoperating Revenue             | 2,769,822                                | -  | -                                      |                   |
| Total Nonoperating Revenues            | \$ 38,330,340                            | \$ 38,788,936                                    | \$ 41,449,504                          |                   |
| NONOPERATING EXPENSES                  |  |  |  |                   |
| Interest Expense                       | \$ 26,660,604                            | \$ 36,074,139                                    | \$ 34,939,295                          |                   |
| Total Nonoperating Expenses            | \$ 26,660,604                            | \$ 36,074,139                                    | \$ 34,939,295                          |                   |
| Net Income before Operating Transfers  | \$ 43,930,380                            | \$ (4,858,266)                                   | \$ (24,812,184)                        |                   |
| Transfers (Schedule T)                 |  |  |  |                   |
| In                                     |  |  |  |                   |
| Out                                    |  |  |  |                   |
| Net Operating Transfers                |  |  |  |                   |
| CHANGE IN NET POSITION                 | \$ 43,930,380                            | \$ (4,858,266)                                   | \$ (24,812,184)                        |                   |

Las Vegas Valley Water District  
(Local Government)

SCHEDULE F-1 REVENUES, EXPENSES AND NET POSITION

FUND \_\_\_\_\_ ENTERPRISE \_\_\_\_\_

| <b>PROPRIETARY FUND</b>               | (1)                                      | (2)  | (3) (4)<br>BUDGET YEAR ENDING 06/30/20 |                   |
|---------------------------------------|--|--|--|-------------------|
|                                       | ACTUAL PRIOR<br>YEAR ENDING<br>6/30/2018 | ESTIMATED<br>CURRENT<br>YEAR ENDING<br>6/30/2019 | TENTATIVE<br>APPROVED                  | FINAL<br>APPROVED |
| OPERATING REVENUE                     |  |  |  |                   |
| Contributions - Employer              | \$ 37,000,000                            | \$ 40,459,545                                    | \$ 45,440,146                          |                   |
| Contributions - Employee              | 635,292                                  | 200,000  | 200,000                                |                   |
| Investment Earnings                   | 43,751,867                               | 18,179,045                                       | 18,403,854                             |                   |
|                                       |  |  |  |                   |
|                                       |  |  |  |                   |
|                                       |  |  |  |                   |
|                                       |  |  |  |                   |
| Total Operating Revenue               | 81,387,159                               | 58,838,590                                       | 64,044,000                             |                   |
| OPERATING EXPENSE                     |  |  |  |                   |
| Administrative & General Expenses     | \$ 398,691                               | \$ 400,000                                       | \$ 400,000                             |                   |
| Benefits Paid                         | 17,589,206                               | 20,000,000                                       | 20,000,000                             |                   |
|                                       |  |  |  |                   |
|                                       |  |  |  |                   |
|                                       |  |  |  |                   |
|                                       |  |  |  |                   |
|                                       |  |  |  |                   |
|                                       |  |  |  |                   |
|                                       |  |  |  |                   |
| Total Operating Expense               | 17,987,897                               | 20,400,000                                       | 20,400,000                             |                   |
| Operating Income or (Loss)            | \$ 63,399,262                            | \$ 38,438,590                                    | \$ 43,644,000                          |                   |
| NONOPERATING REVENUES                 |  |  |  |                   |
| Interest Earned                       | 202,869                                  | 150,000  | 150,000                                |                   |
|                                       |  |  |  |                   |
|                                       |  |  |  |                   |
| Total Nonoperating Revenues           | 202,869                                  | 150,000  | 150,000                                |                   |
| NONOPERATING EXPENSES                 |  |  |  |                   |
| Investment Expense                    | 164,752                                  | 150,000  | 150,000                                |                   |
|                                       |  |  |  |                   |
| Total Nonoperating Expenses           | 164,752                                  | 150,000  | 150,000                                |                   |
| Net Income before Operating Transfers | \$ 63,437,379                            | \$ 38,438,590                                    | \$ 43,644,000                          |                   |
| Transfers (Schedule T)                |  |  |  |                   |
| In                                    |  |  |  |                   |
| Out                                   |  |  |  |                   |
| Net Operating Transfers               |  |  |  |                   |
| CHANGE IN NET POSITION                | \$ 63,437,379                            | \$ 38,438,590                                    | \$ 43,644,000                          |                   |

Las Vegas Valley Water District  
(Local Government)

SCHEDULE F-1 REVENUES, EXPENSES AND NET POSITION

FUND \_\_\_\_\_ PENSION TRUST \_\_\_\_\_

| <b>PROPRIETARY FUND</b>               | (1)                                      | (2)  | (3) (4)<br>BUDGET YEAR ENDING 06/30/20 |                   |
|---------------------------------------|--|--|--|-------------------|
|                                       | ACTUAL PRIOR<br>YEAR ENDING<br>6/30/2018 | ESTIMATED<br>CURRENT<br>YEAR ENDING<br>6/30/2019 | TENTATIVE<br>APPROVED                  | FINAL<br>APPROVED |
| OPERATING REVENUE                     |  |  |  |                   |
| Contributions - Employer              |  | \$ 29,902,511                                    | \$ 1,999,624                           |                   |
| Contributions - Employee              |  | -  | -                                      |                   |
| Investment Earnings                   |  | 500,000  | 500,000                                |                   |
| Total Operating Revenue               |  | \$ 30,402,511                                    | \$ 2,499,624                           |                   |
| OPERATING EXPENSE                     |  |  |  |                   |
| Administrative & General Expenses     |  | \$ 200,000                                       | \$ 200,000                             |                   |
| Benefits Paid                         |  | 4,902,511  | 1,999,624                              |                   |
| Total Operating Expense               |  | \$ 5,102,511                                     | \$ 2,199,624                           |                   |
| Operating Income or (Loss)            |  | \$ 25,300,000                                    | \$ 300,000                             |                   |
| NONOPERATING REVENUES                 |  |  |  |                   |
| Interest Earned                       |  | 50,000   | 50,000                                 |                   |
| Total Nonoperating Revenues           |  | \$ 50,000  | \$ 50,000                              |                   |
| NONOPERATING EXPENSES                 |  |  |  |                   |
| Investment Expense                    |  | 50,000   | 50,000                                 |                   |
| Total Nonoperating Expenses           |  | \$ 50,000  | \$ 50,000                              |                   |
| Net Income before Operating Transfers |  | \$ 25,300,000                                    | \$ 300,000                             |                   |
| Transfers (Schedule T)                |  |  |  |                   |
| In                                    |  |  |  |                   |
| Out                                   |  |  |  |                   |
| Net Operating Transfers               |  |  |  |                   |
| CHANGE IN NET POSITION                |  | \$ 25,300,000                                    | \$ 300,000                             |                   |

Las Vegas Valley Water District  
(Local Government)

SCHEDULE F-1 REVENUES, EXPENSES AND NET POSITION

FUND \_\_\_\_\_ OTHER POST EMPLOYMENT BENEFITS (OPEB) TRUST \_\_\_\_\_

Page: 7  
Schedule F-1.2

| <b>PROPRIETARY FUND</b>  | (1)                                      | (2)  | (3) (4)<br>BUDGET YEAR ENDING 06/30/20 |                   |
|--|--|--|--|-------------------|
|  | ACTUAL PRIOR<br>YEAR ENDING<br>6/30/2018 | ESTIMATED<br>CURRENT<br>YEAR ENDING<br>6/30/2019 | TENTATIVE<br>APPROVED                  | FINAL<br>APPROVED |
| A. CASH FLOWS FROM OPERATING<br>ACTIVITIES:  |  |  |  |                   |
| Cash Received from Customers   | \$ 363,032,939                           | \$ 388,292,528                                   | \$ 406,970,406                         |                   |
| Cash Payments to Suppliers for Goods and Services                                    | (123,052,517)                            | (167,444,065)                                    | (178,295,944)                          |                   |
| Cash Payments for Salaries and Benefits  | (114,820,628)                            | (128,421,525)                                    | (149,996,855)                          |                   |
| Other Cash Receipts  | 809,756                                  | -  | -                                      |                   |
| Other Cash Payments  | (6,817)                                  | (29,902,511)                                     | -                                      |                   |
| a. Net cash provided by (or used for)<br>operating activities                        | \$ 125,962,733                           | \$ 62,524,427                                    | \$ 78,677,607                          |                   |
| B. CASH FLOWS FROM NONCAPITAL<br>FINANCING ACTIVITIES:                               |  |  |  |                   |
| b. Net cash provided by (or used for)<br>noncapital financing<br>activities          | \$ -                                     | \$ -   | \$ -                                   |                   |
| C. CASH FLOWS FROM CAPITAL AND<br>RELATED FINANCING ACTIVITIES:                      |  |  |  |                   |
| Acquisition and Construction of Capital Assets                                       | \$ (45,067,997)                          | \$ (113,912,200)                                 | \$ (133,377,574)                       |                   |
| Capital Contributed for Construction   | 21,061,213                               | 35,457,665                                       | 36,727,513                             |                   |
| Proceeds from Sale of Property and Equipment   | 635,757                                  | -  | -                                      |                   |
| Proceeds from Sale of Bonds  | 104,131,774                              | -  | -                                      |                   |
| Proceeds from State Revolving Fund Loan  | 7,953,576                                | 8,462,299  | 3,692,628                              |                   |
| Bond Issue Costs   | (946,092)                                | -  | -                                      |                   |
| State Revolving Fund Loan Issue Costs  | -  | -  | -                                      |                   |
| Principal Paid on Bonds  | (30,408,000)                             | (32,322,063)                                     | (34,153,000)                           |                   |
| Principal Paid on State Revolving Fund loans   | (477,214)                                | (960,146)  | (1,364,714)                            |                   |
| Interest Paid  | (30,586,669)                             | (37,319,543)                                     | (34,939,295)                           |                   |
| Interest Rebate  | 1,407,132                                | -  | -                                      |                   |
| Construction Deposits  | (464,800)                                | -  | -                                      |                   |
| c. Net cash provided by (or used for)<br>capital and related<br>financing activities | \$ 27,238,680                            | \$ (140,593,988)                                 | \$ (163,414,442)                       |                   |
| D. CASH FLOWS FROM INVESTING<br>ACTIVITIES:  |  |  |  |                   |
| Purchase of Investment Securities  | (637,934,114)                            | (410,147,063)                                    | (780,618,265)                          |                   |
| Proceeds from Maturities of Investment Securities                                    | 429,892,484                              | 431,167,723                                      | 920,429,230                            |                   |
| Investment Income  | 4,321,930                                | 3,331,271  | 4,721,991                              |                   |
| d. Net cash provided by (or used in)<br>investing activities                         | \$ (203,719,700)                         | \$ 24,351,932                                    | \$ 144,532,956                         |                   |
| NET INCREASE (DECREASE) in cash and<br>cash equivalents (a+b+c+d)                    | \$ (50,518,287)                          | \$ (53,717,629)                                  | \$ 59,796,122                          |                   |
| CASH AND CASH EQUIVALENTS AT<br>JULY 1, 20xx   | \$ 64,279,111                            | \$ 13,760,824                                    | \$ (39,956,805)                        |                   |
| CASH AND CASH EQUIVALENTS AT<br>JUNE 30, 20xx  | \$ 13,760,824                            | \$ (39,956,805)                                  | \$ 19,839,317                          |                   |

Las Vegas Valley Water District  
(Local Government)

SCHEDULE F-2 STATEMENT OF CASH FLOWS

FUND ENTERPRISE

ALL EXISTING OR PROPOSED  
GENERAL OBLIGATION BONDS, REVENUE BONDS,  
MEDIUM-TERM FINANCING, CAPITAL LEASES AND  
SPECIAL ASSESSMENT BONDS

\* - Type  
1 - General Obligation Bonds  
2 - G.O. Revenue Supported Bonds  
3 - G.O. Special Assessment Bonds  
4 - Revenue Bonds  
5 - Medium-Term Financing

6 - Medium-Term Financing - Lease Purchase  
7 - Capital Leases  
8 - Special Assessment Bonds  
9 - Mortgages  
10 - Other (Specify Type)  
11 - Proposed (Specify Type)

| (1)   | (2) | (3)      | (4)                            | (5)           | (6)                      | (7)              | (8)   | (9) (10)<br>REQUIREMENTS FOR FISCAL<br>YEAR ENDING 06/30/20 |                      | (11)              |
|---|-----|----------|--------------------------------|---------------|--------------------------|------------------|---|---|----------------------|-------------------|
| NAME OF BOND OR LOAN<br>List and Subtotal By Fund | *   | TERM     | ORIGINAL<br>AMOUNT OF<br>ISSUE | ISSUE<br>DATE | FINAL<br>PAYMENT<br>DATE | INTEREST<br>RATE | BEGINNING<br>OUTSTANDING<br>BALANCE<br>7/1/2019 | INTEREST<br>PAYABLE   | PRINCIPAL<br>PAYABLE | (9)+(10)<br>TOTAL |
| ENTERPRISE FUND                                   |     |          |                                |               |                          |                  |   |   |                      |                   |
| LVVWD 2008 Clean Energy                           | 2   | 14 Years | 2,520,000                      | 7/15/2008     | 12/15/2022               | 1%               | \$ 672,000                                      | \$ 7,644  | \$ 168,000           | \$ 175,644        |
| LVVWD 2010A BABS                                  | 2   | 30 Years | 75,995,000                     | 6/15/2010     | 3/1/2040                 | 5.60%-5.70%      | 75,995,000                                      | 4,311,398   | -                    | 4,311,398         |
| LVVWD 2010B                                       | 2   | 28 Years | 31,075,000                     | 6/15/2010     | 3/1/2038                 | 2.00%-4.625%     | 26,145,000                                      | 1,138,940   | 930,000              | 2,068,940         |
| LVVWD 2011D                                       | 2   | 16 Years | 78,680,000                     | 10/19/2011    | 6/1/2027                 | 2.00%-5.25%      | 48,520,000                                      | 2,470,850   | 5,080,000            | 7,550,850         |
| LVVWD 2012A                                       | 2   | 20 Years | 39,310,000                     | 9/5/2012      | 6/1/2032                 | 5%               | 39,310,000                                      | 1,965,500   | -                    | 1,965,500         |
| LVVWD 2014 \$20 Million SRF                       | 10  | 20 Years | 19,929,329                     | 12/1/2014     | 7/1/2034                 | 3%               | 18,491,969                                      | 468,955   | 984,980              | 1,453,936         |
| LVVWD 2015A                                       | 2   | 11 Years | 172,430,000                    | 6/1/2015      | 6/1/2027                 | 2-5%             | 123,025,000                                     | 6,151,250   | 13,740,000           | 19,891,250        |
| LVVWD 2016B                                       | 2   | 20 Years | 108,220,000                    | 4/6/2016      | 6/1/2036                 | 2.5-5%           | 113,650,000                                     | 4,799,250   | 3,875,000            | 8,674,250         |
| LVVWD 2016D                                       | 2   | 20 Years | 125,650,000                    | 7/18/2016     | 6/1/2036                 | 3%               | 15,000,000                                      | 3,409,500   | 4,400,000            | 7,809,500         |
| LVVWD 2016 \$15 Million SRF                       | 10  | 20 Years | 15,000,000                     | 9/1/2016      | 7/1/2036                 | 1.78%            | 15,000,000                                      | 252,265   | 379,733              | 631,999           |
| LVVWD 2017 \$15 Million SRF                       | 10  | 20 Years | 15,000,000                     | 5/1/2017      | 1/1/2037                 | 2%               | 15,000,000                                      | 324,680   | -                    | 324,680           |
| LVVWD 2017A                                       | 2   | 21 Years | 130,105,000                    | 3/14/2017     | 2/1/2038                 | 4-5%             | 125,555,000                                     | 5,758,150   | 4,155,000            | 9,913,150         |
| LVVWD 2018A                                       | 2   | 30 Years | 100,000,000                    | 6/26/2018     | 7/1/2048                 | 5%               | 98,395,000                                      | 3,880,913   | 1,805,000            | 5,685,913         |
| TOTAL ALL DEBT SERVICE                            |     |          |                                |               |                          |                  | \$ 714,758,969                                  | \$ 34,939,295   | \$ 35,517,714        | \$ 70,457,009     |

SCHEDULE C-1 - INDEBTEDNESS

Las Vegas Valley Water District Budget Fiscal Year 2019-2020  
(Local Government)

Page: 9  
Schedule C-1

# SCHEDULE OF EXISTING CONTRACTS

Budget Year 2019 - 2020

Local Government: Las Vegas Valley Water District  
 Contact: E. Kevin Bethel  
 E-mail Address: [kevin.bethel@lvvwd.com](mailto:kevin.bethel@lvvwd.com)  
 Daytime Telephone: 702-822-8809

Total Number of Existing Contracts: 299

| Line | Vendor  | Effective Date of Contract | Termination Date of Contract | Proposed Expenditure FY 2019-20 | Proposed Expenditure FY 2020-21 | Reason or need for contract:  |
|------|---|----------------------------|------------------------------|---------------------------------|---------------------------------|---|
| 1    | ABC Fire & Cylinder   | 08/25/15                   | 08/24/20                     | \$ 13,000                       | \$ 2,500                        | Special Hazard Fire Suppression Systems And Fire Hydrant Inspection And Testing |
| 2    | Access  | 02/01/13                   | 01/31/20                     | 25,000                          | -                               | Records Mangement Storage   |
| 3    | Accruent LLC  | 11/05/15                   | 10/04/20                     | 211,067                         | 50,000                          | Maintenance Of Field Work Order Software  |
| 4    | Acme Underground, Inc.  | 11/01/17                   | 10/31/22                     | 235,000                         | 246,750                         | Misc. Vault Repairs-On Call Services  |
| 5    | Adobe Communications  | 12/05/17                   | 12/05/22                     | 1,000,000                       | 1,000,000                       | No. G1011, Network Infrastructure Upgrade Services                              |
| 6    | Aerotech Mapping, Inc.  | 09/04/18                   | 09/03/23                     | 100,000                         | 100,000                         | Aerial Photogrammetric Services   |
| 7    | All Pro Awnings Of Las Vegas  | 07/18/18                   | 07/17/23                     | 25,000                          | 25,000                          | On-Call Awning Repair Services  |
| 8    | Allied Universal Security Services                                  | 03/07/17                   | 02/28/22                     | 560,000                         | 560,000                         | Security Services   |
| 9    | Allison Payment Systems LLC   | 04/10/18                   | 04/09/21                     | 300,000                         | 300,000                         | Document Design, Production And Mailing Services                                |
| 10   | Amalgamated Plant Company   | 06/21/18                   | 06/20/23                     | 14,000                          | 14,000                          | Plant Care Services   |
| 11   | American Red Cross  | 12/31/18                   | 12/31/18                     | 21,310                          | -                               | Cpr/Aed Training  |
| 12   | Amy Ayoub   | 12/19/18                   | 12/17/19                     | 98,500                          | -                               | Springs Preserve Foundation Fundraising Consulting Srvs                         |
| 13   | Ankura Consulting Group LLC   | 12/31/18                   | 12/31/18                     | 153,400                         | -                               | Enterprise Continuity Of Operations Plan Consulting                             |
| 14   | Argus Engineering   | 07/01/15                   | 06/30/20                     | 70,000                          | -                               | Psa For Scada System  |
| 15   | Aspect Software Inc   | 12/31/18                   | 12/31/18                     | 10,800                          | -                               | Aspect - Oracle R12 Training  |
| 16   | Assetworks Inc  | 12/31/18                   | 12/31/18                     | 14,746                          | -                               | Software Maintenance And Support  |
| 17   | Atkins North America  | 10/03/18                   | 10/02/21                     | 1,700,000                       | 1,700,000                       | Right Of Way Research & Acquisition   |
| 18   | Atkins North America  | 12/15/18                   | 12/15/23                     | 114,000                         | 114,000                         | Engineering Design Services   |
| 19   | Attraction Technology Ltd   | 02/16/16                   | 12/31/21                     | 50,000                          | -                               | Smart Phone Mapping Application Services  |
| 20   | Audio Visual Advisors Inc   | 12/31/18                   | 12/31/18                     | 14,270                          | -                               | Audio Visual Consulting And Design Services                                     |
| 21   | Automic Software, Inc.  | 12/01/16                   | 11/30/21                     | -                               | -                               | Appworx Software Maintenance And Support  |
| 22   | Avalon Electric Inc dba Avalon Solutions                            | 05/15/18                   | 11/15/20                     | 756,325                         | -                               | Springs Preserve Electrical Service Expansion, Phase Ii                         |
| 23   | Aveva Software LLC  | 01/01/19                   | 12/13/25                     | 300,000                         | 300,000                         | Avantis Technical Services And Software Maintenance                             |
| 24   | Avisight LLC  | 08/22/16                   | 08/21/19                     | 40,000                          | 40,000                          | Aerial Imagery Services   |
| 25   | Baker & Hostetler Llp   | 03/01/17                   | 02/28/25                     | 25,000                          | 25,000                          | Cyber Security Data Breach Prevention   |
| 26   | Ballard Spahr   | 11/26/13                   | 11/26/19                     | 20,000                          | -                               | Tax Representation  |
| 27   | Banctec USA   | 07/01/15                   | 06/30/22                     | 180,000                         | 180,000                         | Check Payment Processing Services For Customer Care                             |
| 28   | Black & Veatch  | 02/06/18                   | 02/05/25                     | 426,000                         | 426,000                         | Engineering Design Services   |
| 29   | Blackbaud   | 11/12/15                   | 11/11/22                     | 80,000                          | 800,000                         | Software Maintenance And Support  |
| 30   | Blackline Systems Inc   | 12/31/18                   | 12/31/23                     | 70,000                          | 70,000                          | Account Reconciliation Subscription Services                                    |
| 31   | Blue Locker Commercial Diving                                       | 10/08/14                   | 10/07/20                     | 100,000                         | -                               | Reservoir And Tank Diver Inspection And Cleaning Services                       |
| 32   | Boomi Inc   | 08/02/18                   | 08/01/24                     | 160,000                         | 160,000                         | Software Maintenance And Support  |
| 33   | Boot Camp Las Vegas   | 11/14/18                   | 10/30/19                     | 15,000                          | -                               | Health And Fitness Training Services  |
| 34   | Bridge Works III, LLC   | 10/15/18                   | 10/14/25                     | 91,000                          | 91,000                          | Compensation and Classification System  |
| 35   | Bright Horizons Family Solutions                                    | 12/31/18                   | 12/31/18                     | 198,661                         | 197,000                         | Management Fees   |
| 36   | Broniec Associates  | 08/21/17                   | 08/20/23                     | -                               | -                               | Auditing Services - Accounts Payable  |
| 37   | Bugs-R-Us Pest Control  | 07/01/16                   | 06/30/21                     | 30,903                          | 30,903                          | Pest Control  |
| 38   | C.A. Group Inc  | 09/05/17                   | 09/04/22                     | 171,235                         | 171,235                         | Engineering Design Services   |
| 39   | Capitol North American  | 01/01/17                   | 12/31/21                     | 152,101                         | 152,101                         | Installation Of Systems Furniture   |
| 40   | Capriati Construction Corp.   | 12/04/18                   | 02/01/20                     | 10,618,551                      | -                               | Miscellaneous Main Replacement, The Dales Subdivisions                          |
| 41   | Cardno Inc  | 01/10/19                   | 01/09/26                     | 14,000                          | 14,000                          | Horizontal & Vertical Utility Location Services                                 |
| 42   | Carpenter Sellers Del Gatto Architects                              | 12/04/18                   | 12/03/21                     | 21,000                          | 21,000                          | Professional Architectural/Design Services                                      |
| 43   | CDW Government  | 02/01/16                   | 01/31/21                     | 500,000                         | 500,000                         | Computer Hardware, Software, And Maintenance                                    |
| 44   | Celebrate Kids  | 02/03/16                   | 02/02/20                     | 14,500                          | -                               | Year Round Educational Events At The Springs Preserve                           |
| 45   | Celebrity Coaches   | 04/04/18                   | 04/30/21                     | 15,000                          | 15,000                          | Bus Services For Events At The Springs Preserve                                 |
| 46   | Centurylink   | 12/31/18                   | 12/31/18                     | 53,098                          | -                               | Scada Software Threat Assessment Services                                       |
| 47   | CH2M Hill Engineers & HDR Engineering                               | 07/01/17                   | 06/30/22                     | 600,000                         | 600,000                         | Engineering Services  |
| 48   | Chem-Aqua   | 08/15/18                   | 08/14/23                     | 20,000                          | 20,000                          | Cooling Tower Maintenance   |
| 49   | Cherwell Software LLC   | 12/31/18                   | 12/31/18                     | 49,168                          | -                               | IT Helpdesk Training and Support  |
| 50   | Chynoweth, Hill And Leavitt, LLC dba Kelly Hawkins Physical Therapy | 01/15/19                   | 12/30/19                     | 10,000                          | -                               | Employee Ergonomic Evaluation Services  |
| 51   | City Of Las Vegas   | 12/31/18                   | 12/31/18                     | 126,335                         | -                               | Special Event Police Services   |
| 52   | Clark County  | 04/01/16                   | 03/31/22                     | 100,000                         | 100,000                         | Debt Collection Services  |
| 53   | Clark County Water Reclamation District                             | 12/31/18                   | 11/06/18                     | 1,144,842                       | -                               | Wastewater Processing   |
| 54   | Cludo Inc   | 08/01/18                   | 07/31/23                     | 26,600                          | 27,000                          | Website Search Feature  |
| 55   | CMMCM LLC dba Muller Construction                                   | 01/16/19                   | 04/30/19                     | 116,334                         | -                               | Water Service Replacements  |
| 56   | CMMCM LLC dba Muller Construction                                   | 11/14/18                   | 04/30/19                     | 135,000                         | -                               | Tropical Perimeter Fence Upgrade  |



**SCHEDULE OF EXISTING CONTRACTS**

**Budget Year 2019 - 2020**

Local Government: Las Vegas Valley Water District  
 Contact: E. Kevin Bethel  
 E-mail Address: [kevin.bethel@lvvwd.com](mailto:kevin.bethel@lvvwd.com)  
 Daytime Telephone: 702-822-8809

Total Number of Existing Contracts: 299

| Line | Vendor  | Effective Date of Contract | Termination Date of Contract | Proposed Expenditure FY 2019-20 | Proposed Expenditure FY 2020-21 | Reason or need for contract:   |
|------|---|----------------------------|------------------------------|---------------------------------|---------------------------------|--|
| 57   | CMMCM LLC dba Muller Construction                   | 04/19/18                   | 04/18/23                     | 220,000                         | 220,000                         | Miscellaneous Concrete And Restoration Services  |
| 58   | Combustion Associates Inc                           | 12/31/18                   | 12/31/18                     | 10,570                          | -                               | Tank Anchor Fall Protection System Installation  |
| 59   | Communication Electronic Systems                    | 04/17/18                   | 04/16/23                     | 47,318                          | 47,318                          | Fire Alarm System Inspection, Testing, And Repairs   |
| 60   | Concentra Medical Centers                           | 12/01/18                   | 11/30/24                     | 23,000                          | 23,000                          | Employee Medical Testing Services  |
| 61   | Condeco Software Inc                                | 04/18/18                   | 04/17/21                     | 97,000                          | 97,000                          | Conference Room Reservation Software & Implementation Services                                 |
| 62   | Consumer Opinion Services Las Vegas                 | 09/01/13                   | 08/31/19                     | -                               | -                               | Research Services  |
| 63   | Cool Dogs   | 10/22/18                   | 01/01/19                     | 31,500                          | -                               | Springs Preserve Entertainment Services  |
| 64   | Core 4 Consulting LLC                               | 11/15/17                   | 11/14/21                     | 51,000                          | -                               | Human Resources Consulting Services  |
| 65   | Corporate Air Mechanical Services Inc               | 12/31/18                   | 12/31/18                     | 35,742                          | -                               | Repair Animal Quarantine Facility  |
| 66   | Cosco Fire Protection Inc                           | 08/13/18                   | 08/12/23                     | 100,000                         | 100,000                         | Fire System Testing  |
| 67   | Cox Communications Las Vegas Inc                    | 06/13/18                   | 05/04/25                     | 99,000                          | 990,000                         | Internet Services  |
| 68   | Crawford & Company                                  | 01/23/19                   | 01/22/24                     | 25,000                          | 25,000                          | Claims Adjusting Services  |
| 69   | Custard Insurance Adjusters, Inc.                   | 04/11/18                   | 04/10/23                     | 25,000                          | 25,000                          | Claims Adjusting Services  |
| 70   | D & L Roofing LLC                                   | 09/18/18                   | 09/17/23                     | 100,000                         | 100,000                         | Bldg Maintenance   |
| 71   | D&R Hydrant Inc                                     | 08/09/18                   | 08/08/23                     | 23,930                          | 23,930                          | Backflow Assembly Testing  |
| 72   | D.R. Backflow Services                              | 04/01/17                   | 03/31/23                     | 269,100                         | 309,465                         | Backflow Inspection Services   |
| 73   | Design Vision Inc                                   | 03/06/18                   | 03/05/25                     | 50,000                          | 50,000                          | Professional Architectural/Design Services   |
| 74   | Digital Guardian Inc                                | 12/29/16                   | 12/28/21                     | 54,000                          | 27,000                          | Software Technical Implementation Services   |
| 75   | Dinosaurs Unearthed                                 | 04/23/18                   | 09/30/19                     | 225,000                         | -                               | Dinosaurs Unearthed Exhibit And Related Services   |
| 76   | Divdat  | 09/09/18                   | 09/08/21                     | 60,000                          | 30,000                          | Payment Kiosk Leasing Services   |
| 77   | DJA Inspection Services                             | 09/06/18                   | 09/05/19                     | 50,000                          | -                               | Storage Tank Inspection Services For Condition Assessment For Asset Management                 |
| 78   | DLT Solutions LLC                                   | 12/31/18                   | 12/31/18                     | 66,454                          | -                               | Annual Software Maintenance Renewal  |
| 79   | Dons Window Washing Service                         | 06/07/18                   | 06/06/23                     | 24,630                          | 24,630                          | Window Washing Services For Facilities   |
| 80   | Dorsey & Whitney, LLP                               | 07/05/17                   | upon notice                  | 49,000                          | 49,000                          | IT Assistance for complex technology contracts   |
| 81   | Dyno Plumbing                                       | 11/14/18                   | 11/13/23                     | 25,000                          | 25,000                          | On-Call Plumbing Services LVVWD  |
| 82   | E-Builder Inc                                       | 12/04/18                   | 12/03/21                     | 167,000                         | 167,000                         | Construction Management Software & Technical Implementation Services                           |
| 83   | Electric Power Systems                              | 02/17/18                   | 02/16/20                     | 182,326                         | -                               | Arc For Multi-Site Testing   |
| 84   | Emtec Consulting Services LLC                       | 02/05/18                   | 02/04/23                     | 100,000                         | 100,000                         | Data Conversion Services   |
| 85   | Entco Government Software LLC                       | 06/27/18                   | 06/26/21                     | 60,000                          | 60,000                          | Hp Fortify Software Performance Improvement Services   |
| 86   | Environmental Systems Research Institute Inc (Esri) | 07/01/16                   | 06/30/21                     | 372,000                         | 372,000                         | Geographic Information System Software Services  |
| 87   | Erin Carter   | 04/16/18                   | 04/15/19                     | 36,000                          | -                               | Psa For Event Planning At The Springs Preserve   |
| 88   | Epiq eDiscovery Solutions                           | 01/18/13                   | upon notice                  | 98,985                          | -                               | Legal Dept. Process Review   |
| 89   | Epiq eDiscovery Solutions                           | 07/12/17                   | upon notice                  | 97,722                          | -                               | CMS Software Implementation  |
| 90   | Evergreen Exhibitions Ltd                           | 12/31/18                   | 12/31/18                     | 21,200                          | -                               | Exhibit Services At Lvsp   |
| 91   | Executive Information Systems LLC                   | 12/31/18                   | 12/31/18                     | 27,765                          | -                               | SAS Software Maintenance And Support   |
| 92   | Experian Information Services                       | 11/01/17                   | 10/31/19                     | 96,000                          | -                               | Credit Risk Assessment Services For Customer Care And Field Services                           |
| 93   | Faiss Foley Warren                                  | 04/01/15                   | 03/31/21                     | 96,000                          | 96,000                          | Community & Stakeholder Education, Obtaining Sponsorships, Event Planning & Logistical Support |
| 94   | Fencing Specialists Inc.                            | 08/03/16                   | 08/02/20                     | 24,000                          | 4,000                           | Tortois Fencing Repairs/Replacement  |
| 95   | Fireeye Inc. dba Mandiant                           | 03/16/17                   | 03/15/21                     | 215,920                         | 215,920                         | Msa For Software Products And Services   |
| 96   | First Choice Tree Service Inc                       | 12/31/18                   | 12/31/18                     | 20,300                          | -                               | Holiday Lighting Set Up And Removal  |
| 97   | First Data Government Solutions                     | 05/19/16                   | 05/18/21                     | 35,000                          | 35,000                          | Outbound Calling Implementation Services   |
| 98   | Fiserv Solutions, Inc                               | 01/07/19                   | 12/31/23                     | 3,600,000                       | 3,600,000                       | Electronic Payments And Related E-Bill Services  |
| 99   | Fisher & Phillips                                   | 03/18/15                   | 03/18/22                     | 25,000                          | 25,000                          | Labor & Employment   |
| 100  | Flairsoft Limited                                   | 03/22/18                   | 10/21/23                     | 150,000                         | 150,000                         | Right Of Way And Property Management Software And Technical Implementation Services            |
| 101  | Fleet Management Solutions Inc                      | 11/30/15                   | 06/30/19                     | 50,000                          | -                               | Vehicle Tracking System Services   |
| 102  | Frasco Investigative Services                       | 02/02/18                   | 02/01/23                     | 15,000                          | 15,000                          | Investigative Services   |
| 103  | Frazier & Deeter LLC                                | 12/05/17                   | 06/30/22                     | 95,500                          | 95,500                          | Additional Accounting And Budget Operations Advisory Services                                  |
| 104  | FTN Financial Main Street Advisors                  | 10/08/14                   | 03/03/21                     | 175,000                         | 175,000                         | Fixed Income And Cash Investment Management Services   |
| 105  | G & G Systems                                       | 06/04/18                   | 05/31/23                     | 25,000                          | 25,000                          | Building Maintenance   |
| 106  | Gatekeeper Systems                                  | 07/01/16                   | 07/01/21                     | 121,000                         | 121,000                         | Software Maintenance - Mapping Software  |

**SCHEDULE OF EXISTING CONTRACTS**  
**Budget Year 2019 - 2020**

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Daytime Telephone: 702-822-8809

Total Number of Existing Contracts: 299

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|------|--|----------------------------|------------------------------|---------------------------------|---------------------------------|--|
| 107  | General Networks Corporation                     | 08/17/18                   | 08/16/20                     | 95,443                          | 12,000                          | Content Services Platform Software Implementation                                |
| 108  | George T. Hall Co Inc                            | 07/01/17                   | 06/30/22                     | 750,000                         | 750,000                         | Maintaining And Updating The District'S Control System                           |
| 109  | Geotechnical & Environmental Services            | 11/13/18                   | 11/12/25                     | 14,000                          | 14,000                          | Geotechnical Engineering Services  |
| 110  | Gerry A. Hester                                  | 03/01/17                   | 02/28/25                     | 41,000                          | 41,000                          | Consulting Services - Weirs  |
| 111  | Glass Box Technology Inc                         | 02/21/18                   | 02/20/23                     | 500,000                         | 500,000                         | Dell/Emc Hardware And Software Maintenance                                       |
| 112  | Golbal Experience Specialists Inc.               | 04/24/18                   | 06/23/19                     | 220,000                         | -                               | Touring Exhibition Titled "National Geographic Presents Earth Explorers,"        |
| 113  | GQR Global Markets                               | 01/29/19                   | 01/28/29                     | 26,100                          | 26,100                          | Staffing Placement Services  |
| 114  | Guardian Elite Medical                           | 09/01/17                   | 08/31/20                     | 12,000                          | 4,000                           | Psa Extend Ambulatory Services To Group Sales At The Las Vegas Springs Preserve. |
| 115  | Gutic Enterprises                                | 09/15/16                   | 09/14/22                     | 35,000                          | 35,000                          | Entertainment Services   |
| 116  | Hands On Technology Transfer, Inc.               | 02/07/17                   | 02/06/21                     | 99,000                          | 55,000                          | Training Customized Applications For Modern Programming Languages,               |
| 117  | Harris Acquisition Quality                       | 05/23/18                   | 05/22/23                     | 25,000                          | 25,000                          | Hvac Repair  |
| 118  | Harris Computer Systems                          | 12/31/18                   | 12/31/18                     | 12,477                          | -                               | Form Printing  |
| 119  | HDR Engineering, Inc.,                           | 05/02/17                   | 05/02/21                     | 125,000                         | 125,000                         | Miscellaneous Civil, Electrical, Mechanical Aiid Control Systems Projects        |
| 120  | Hexagon Geospatial                               | 12/31/18                   | 12/31/18                     | 19,924                          | -                               | ArcGIS Maintenance   |
| 121  | Hispana Comunicacion Integral                    | 03/17/16                   | 03/16/22                     | 60,000                          | 60,000                          | Spanish Language Creative And Production Development For Springs Preserve        |
| 122  | Hitachi Vantara Corporation                      | 03/22/16                   | 03/21/21                     | 50,000                          | 50,000                          | Data Storage Hardware, Maintenance, And Support                                  |
| 123  | Hobbs, Ong And Associates                        | 05/01/12                   | upon notice                  | 29,050                          | 29,050                          | Financial Advisory Services  |
| 124  | Holland And Hart                                 | 09/23/08                   | upon notice                  | 100,000                         | 100,000                         | Environmental Legal Services   |
| 125  | Hooks, Meng, Schaan, Clement                     | 10/30/17                   | upon notice                  | 30,000                          | 30,000                          | Nevada OSHA Matters  |
| 126  | IBM Corporation                                  | 12/12/18                   | 12/21/18                     | 498,873                         | -                               | Service-Oriented Architecture Integration Platform Software                      |
| 127  | Innovyze Inc                                     | 03/10/16                   | 03/09/21                     | 250,000                         | 250,000                         | Engineering Software Maintenance And Support Services                            |
| 128  | Institute For Executive Development              | 08/21/13                   | 08/20/20                     | -                               | -                               | Consulting Services For Strategic Planning                                       |
| 129  | Integra Realty Resources                         | 06/07/18                   | 05/31/25                     | 10,000                          | 10,000                          | Land Leasing And Realty Services   |
| 130  | Interworks Inc                                   | 12/06/18                   | 12/05/25                     | 300,000                         | 300,000                         | Construction Management Software & Technical Implementation Services             |
| 131  | Ion Wave Technologies Inc                        | 12/31/18                   | 12/31/18                     | 18,000                          | 18,000                          | Bidding Software and Maintenance   |
| 132  | It'll Gro Inc                                    | 12/31/18                   | 12/31/18                     | 10,000                          | -                               | Green Waste Recycling Services   |
| 133  | Itron Inc  | 02/05/13                   | 02/04/23                     | 564,000                         | 564,000                         | Amr Meter Reading System   |
| 134  | Iwater Inc                                       | 12/31/18                   | 12/31/18                     | 14,000                          | -                               | iWater InfraMap software   |
| 135  | IZ Design Studio                                 | 11/08/18                   | 11/07/23                     | 54,102                          | 54,102                          | Professional Architectural/Design Services                                       |
| 136  | J & J Enterprises Services                       | 01/23/17                   | 01/22/22                     | 25,000                          | 25,000                          | Asphalt Milling Services   |
| 137  | J & J Enterprises Services                       | 12/31/18                   | 12/31/18                     | 354,765                         | -                               | Emergency Paving And Parking Lot Repainting                                      |
| 138  | Joanne Robinson                                  | 10/04/17                   | 10/03/19                     | 100,000                         | -                               | Psa For Backflow Preventer Devices   |
| 139  | Jordan Lawrence Group LLC                        | 05/03/18                   | 05/31/21                     | 25,000                          | 25,000                          | Vendor Risk Services   |
| 140  | Joshua Tree Productions                          | 06/15/17                   | 06/14/22                     | 72,000                          | 72,000                          | Professional Video Services  |
| 141  | Joshua Tree Productions                          | 07/01/18                   | 06/30/23                     | 25,000                          | 25,000                          | Video Production Services  |
| 142  | Kara Ann Peterson                                | 03/02/18                   | 03/01/23                     | 24,000                          | 24,000                          | Professional Writing and Research  |
| 143  | Katarina Hradilek dba Double Vision Art & Design | 06/14/17                   | 06/13/21                     | 97,000                          | 97,000                          | Professional Design Services   |
| 144  | Kimley Horn & Assoc                              | 10/03/18                   | 10/01/22                     | 842,523                         | 842,523                         | Engineering Design Services  |
| 145  | Kimley Horn & Assoc                              | 04/16/18                   | 04/15/25                     | 123,000                         | 123,000                         | Engineering Design Services  |
| 146  | Korn Ferry Hay Group, Inc.                       | 07/01/17                   | 06/30/20                     | 100,000                         | -                               | Talent Management Strategic And Consulting Services                              |
| 147  | KR   | 12/31/18                   | 12/31/18                     | 29,551                          | -                               | Survey Field Warranty  |
| 148  | Las Vegas Paving Corp.                           | 11/09/17                   | 11/08/22                     | 1,395,490                       | 1,395,490                       | On-Call Oper. & Main. Svc-LVVWD  |
| 149  | Las Vegas Plumbing                               | 11/01/14                   | 10/31/19                     | 15,000                          | -                               | Plumbing Repair Services For Meter Change-Outs By Field Services                 |
| 150  | Las Vegas Plumbing                               | 03/30/17                   | 03/29/21                     | 20,000                          | 20,000                          | Miscellaneous On-Call Plumbing Services For Distribution                         |
| 151  | Lawrence Roll-Up Doors Inc                       | 05/14/18                   | 05/13/23                     | 25,000                          | 25,000                          | Roll Up And Fire Door Preventative Maintenance And Repair Services               |
| 152  | Lebenson Actuarial Services, Inc.                | 06/01/16                   | 05/31/23                     | 40,000                          | 40,000                          | Actuarial Services   |
| 153  | Lewis Investment Company Of Nevada, LLC          | 11/06/18                   | 05/06/20                     | 4,125,000                       | -                               | Design And Construct Cougar 3090 Zone Reservoir Inlet/Outlet Pipeline            |

# SCHEDULE OF EXISTING CONTRACTS

Budget Year 2019 - 2020

Local Government: Las Vegas Valley Water District  
 Contact: E. Kevin Bethel  
 E-mail Address: [kevin.bethel@lvvwd.com](mailto:kevin.bethel@lvvwd.com)  
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Total Number of Existing Contracts: 299

| Line | Vendor                                      | Effective Date of Contract | Termination Date of Contract | Proposed Expenditure FY 2019-20 | Proposed Expenditure FY 2020-21 | Reason or need for contract:  |
|------|---|----------------------------|------------------------------|---------------------------------|---------------------------------|---|
| 154  | Lincoln County Telephone Sys Inc            | 02/18/18                   | 02/17/25                     | 30,250                          | 30,250                          | Meet-Point Circuits   |
| 155  | Little Ray's Reptile Zoo (Us) LLC           | 12/31/18                   | 12/31/18                     | 102,000                         | -                               | Exhibit Services At Lvsp  |
| 156  | Logmein Usa Inc                             | 12/31/18                   | 12/31/18                     | 13,265                          | -                               | Password Recovery Software Maintenance  |
| 157  | Louis Berger U.S., Inc                      | 12/31/18                   | 12/31/18                     | 142,116                         | -                               | Waterline Engineering Services -Paradise Road Replacement Project Increase Amount |
| 158  | Louis Berger U.S., Inc.                     | 01/28/19                   | 01/06/24                     | 151,728                         | 151,728                         | Waterline Engineering Services-Bonanza  |
| 159  | Lynn Belcher Lnc Associates                 | 01/26/18                   | 01/25/23                     | 15,000                          | 15,000                          | Nursing Consulting Services   |
| 160  | Maile Concrete Contractors                  | 11/13/18                   | 04/30/19                     | 283,000                         | -                               | Replacement Of Reservoir Joint Material-Angel Park                                |
| 161  | Manpower Inc. Of Southern Nevada            | 04/01/13                   | 03/31/21                     | 1,064,800                       | 1,064,800                       | Temporary Staffing  |
| 162  | Market Decisions Corporation                | 04/01/17                   | 03/31/22                     | 150,000                         | 150,000                         | Data Collection Services  |
| 163  | Market Decisions Corporation                | 04/01/18                   | 03/31/23                     | 100,000                         | 100,000                         | Customer Survey Services  |
| 164  | Marsh Usa Inc                               | 12/31/18                   | 12/31/18                     | 11,134                          | -                               | Notary Bond Services  |
| 165  | McCandless International Trucks Inc         | 08/01/18                   | 04/30/25                     | 115,000                         | 115,000                         | Truck Parts And Services  |
| 166  | McDermott & Bull Inc                        | 04/16/18                   | 04/15/20                     | 73,000                          | -                               | Executive Search Consulting Services  |
| 167  | MCS Inspection Group                        | 06/07/18                   | 06/06/23                     | 90,000                          | 90,000                          | Tank Inspection Services  |
| 168  | Melvyn Green & Associates Inc               | 12/31/18                   | 12/31/18                     | 15,900                          | -                               | Well Derrick Repairs  |
| 169  | Michaelson & Associates, Ltd.               | 10/16/18                   | 08/29/19                     | 10,000                          | -                               | Legal Counsel Services  |
| 170  | Micone Staffing Resources                   | 12/31/18                   | 12/31/18                     | 25,126                          | -                               | Professional Staffing Services  |
| 171  | Microsoft Corporation                       | 08/31/15                   | 08/30/20                     | 103,518                         | 20,000                          | Software Maintenance And Technical Services                                       |
| 172  | Microsoft Corporation                       | 01/07/19                   | 01/06/26                     | 365,000                         | 365,000                         | Technical Services - Commercial Cloud Migration                                   |
| 173  | Milliman Inc                                | 12/31/18                   | 12/31/18                     | 37,478                          | -                               | Legal Disclosures Service   |
| 174  | Mistras Group                               | 03/07/18                   | 03/06/19                     | 25,000                          | -                               | Inspection Services For Asset Management  |
| 175  | Moapa Valley Telephone Company              | 03/15/12                   | Perputual                    | 14,500                          | 14,500                          | T1 Communication Lines  |
| 176  | Moody's Investors Service Inc               | 12/31/18                   | 12/31/18                     | 10,000                          | -                               | Financial Advisory Services   |
| 177  | Motor Mission Machine & Radiator            | 12/31/18                   | 12/31/18                     | 32,750                          | -                               | Stand-By Generator Repairs  |
| 178  | MPhoto7                                     | 12/31/18                   | 12/31/18                     | 11,046                          | -                               | Professional Photography Services   |
| 179  | Mr. Camera, Inc.                            | 04/24/18                   | 04/30/24                     | 64,175                          | 64,175                          | Additional Video And Production Services  |
| 180  | Mr. Camera, Inc.                            | 10/23/18                   | 10/22/19                     | 61,350                          | -                               | Professional Video And Production Services  |
| 181  | MSI Tec Inc                                 | 12/31/18                   | 12/31/18                     | 16,729                          | -                               | Scada Cellular Remote Site Monitoring Service                                     |
| 182  | Museum Of Science And Industry              | 06/27/18                   | 12/31/18                     | 186,148                         | -                               | Exhibit Services - Numbers in Nature: A Mirror Maze                               |
| 183  | Navis Strategy Services, LLC                | 11/15/18                   | 11/14/19                     | 11,700                          | -                               | Consulting Services For Emergency Man.  |
| 184  | NDL Group Inc                               | 04/04/18                   | 04/03/23                     | 24,500                          | 24,500                          | General Contracting Services At The Springs Preserve                              |
| 185  | Nevada Tap Master                           | 01/02/18                   | 01/01/20                     | 25,000                          | -                               | Large Diameter Pipeline Hot Tap Services For Asset Management                     |
| 186  | Nice Systems Inc                            | 12/31/18                   | 12/31/18                     | 29,971                          | -                               | Nice Systems Support Maintenance  |
| 187  | Ninety Five Management, LLC                 | 07/03/18                   | 01/03/20                     | 3,796,000                       | -                               | Design And Construct Egan Crest 3090 Zone North Pipeline Phase III                |
| 188  | Ninety Five Management, LLC                 | 07/03/18                   | 01/03/20                     | 4,373,000                       | -                               | Design And Construct Shaiunber 3205 Zone North Pipeline Phase II                  |
| 189  | Novus Architecture LLC                      | 09/06/18                   | 09/05/21                     | 37,950                          | 37,950                          | Professional Architectural/Design Services  |
| 190  | NV Energy                                   | 01/01/06                   | 12/28/19                     | 178,714                         | -                               | Lease Of Fiber Optic Lines  |
| 191  | Ogletree Deakins                            | 07/20/16                   | upon notice                  | 100,000                         | 100,000                         | Legal Services, Advice and Counsel on ADA Issues                                  |
| 192  | Olson Precast Company                       | 12/04/17                   | 12/04/22                     | 235,000                         | 235,000                         | Miscellaneous Vault Pipe Coatings   |
| 193  | Ontario Refrigeration                       | 04/03/18                   | 03/31/20                     | 25,000                          | -                               | Chiller Maintenance   |
| 194  | Opportunity Village                         | 05/01/15                   | 04/30/20                     | 30,500                          | -                               | Shredding And Recycling Services  |
| 195  | Optimatics LLC                              | 12/31/18                   | 12/31/18                     | 18,000                          | -                               | Annual Maintenance-Optimizer Wds Software   |
| 196  | Oracle America Inc                          | 02/22/18                   | 02/21/21                     | 13,605                          | 13,605                          | Computer Hardware And Software Support  |
| 197  | Oracle Support Services                     | 06/01/17                   | 05/31/22                     | 19,461                          | 19,461                          | Annual Maintenance Renewals On Oracle Primavera Software                          |
| 198  | Origami Risk LLC                            | 03/27/17                   | 03/26/21                     | 200,000                         | 200,000                         | Additional Risk Management Software And Services                                  |
| 199  | Osisoft LLC                                 | 10/25/17                   | 10/24/22                     | 163,447                         | 163,447                         | Software Licenses And Maintenance   |
| 200  | Outdoor Solutions                           | 12/31/18                   | 12/31/18                     | 16,750                          | -                               | Us 95 Animal Wall Repairs   |
| 201  | Pacific Surveys                             | 09/11/17                   | 09/10/19                     | 40,000                          | -                               | Geophysical Inspection And Well Profiling Services                                |
| 202  | Park Landscape                              | 09/28/15                   | 09/27/21                     | 362,960                         | 362,960                         | Grounds Maintenance   |
| 203  | Parsons Transportation Group Inc.           | 12/04/18                   | 12/04/25                     | 657,143                         | 657,143                         | Implementation Of A New Project Management Information System                     |
| 204  | Paso Robles Tank-Brown-Minneapolis Tank Inc | 07/16/18                   | 12/31/18                     | 219,799                         | -                               | Welded Steel Tank Rehabilitation Additional Services                              |

**SCHEDULE OF EXISTING CONTRACTS**

**Budget Year 2019 - 2020**

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| 205  | Perficient Inc                       | 09/06/18                   | 09/05/24                     | 60,000                          | 20,000                          | Dell Integration Software Implementation Services  |
| 206  | PFM Solutions LLC                    | 04/04/18                   | 03/31/21                     | 30,000                          | 30,000                          | Whitebirtch Service Software   |
| 207  | PGAL, LLC                            | 01/28/19                   | 12/31/19                     | 45,680                          | -                               | Architectural Design Services  |
| 208  | Pica Corporation                     | 05/08/18                   | 05/07/19                     | 57,000                          | -                               | Large Diameter Pipeline Leak Detection Service For Asset Management                                    |
| 209  | Piercy Bowler Taylor & Kern          | 03/30/17                   | 03/29/22                     | 82,500                          | 82,500                          | District/Bbwd Auditor Services   |
| 210  | Pitney Bowes Inc                     | 12/31/18                   | 12/31/18                     | 11,524                          | -                               | Sendsuite Tracking Software Maintenance  |
| 211  | Pitney Bowes Software Inc            | 10/01/18                   | 09/30/19                     | 74,420                          | -                               | Pitney Bowes" Code 1 Software Maintenance  |
| 212  | Plante & Moran PLLC                  | 12/31/18                   | 12/31/18                     | 28,071                          | -                               | Purchasing Consolidation Project Consulting Services   |
| 213  | Platinum Edge LLC                    | 01/19/17                   | 03/08/21                     | 100,000                         | 100,000                         | "Scrum" Training Services.   |
| 214  | Precision Crane & Hoist              | 02/06/16                   | 02/05/20                     | 89,070                          | -                               | Overhead Crane Maintenance And Repair Service  |
| 215  | Precision Electric Inc               | 07/24/18                   | 07/23/23                     | 25,000                          | 25,000                          | On-Call Electrical Services  |
| 216  | Procore Technologies Inc             | 12/31/18                   | 12/31/18                     | 48,000                          | -                               | Construction Management Software Maintenance   |
| 217  | Pyro Combustion & Controls           | 11/14/18                   | 11/13/23                     | 25,000                          | 25,000                          | Boiler Pm And Repair Services  |
| 218  | R&R Partners                         | 07/01/17                   | 06/30/22                     | 2,200,000                       | 2,200,000                       | Integrated Marketing, Communications And Public Outreach Services                                      |
| 219  | R&R Partners Inc                     | 05/18/17                   | 05/17/22                     | 50,000                          | 50,000                          | Advertising Services   |
| 220  | Rafael Construction Inc              | 09/05/18                   | 12/31/18                     | 35,338                          | -                               | Recycled Water System Electrical Improvements  |
| 221  | Rahi Systems, Inc.                   | 11/27/18                   | 06/30/19                     | 20,000                          | -                               | Audio Visual Consulting And Design Services  |
| 222  | Ralph Jones Display                  | 12/31/18                   | 12/31/18                     | 18,000                          | -                               | Decorating Service For Holiday Express   |
| 223  | Raysco                               | 10/18/18                   | 10/18/21                     | 25,000                          | 25,000                          | Floor Cleaning Services At The Springs Preserve  |
| 224  | Rebel Party Rentals                  | 09/27/18                   | 09/26/23                     | 20,000                          | 20,000                          | Event Set-Up And Fixture Rental Services   |
| 225  | Red Clay Consulting Inc              | 01/30/19                   | 06/30/25                     | 500,000                         | 500,000                         | C2M Software Implementation Services   |
| 226  | Relx                                 | 12/31/18                   | 12/31/18                     | 16,178                          | -                               | Lexis Nexis Research Services  |
| 227  | Resources Connection LLC             | 12/31/18                   | 12/31/19                     | 101,050                         | -                               | Blackline Software Implementation Services   |
| 228  | Results Fitness, LLC                 | 12/18/18                   | 12/04/19                     | 29,500                          | -                               | Health And Fitness Training Services   |
| 229  | Reward Strategy Group Inc            | 11/01/14                   | 10/31/21                     | 95,000                          | 95,000                          | Hr Consulting Service For Compensation   |
| 230  | Rimon PC                             | 12/31/18                   | 12/31/18                     | 31,655                          | -                               | Records Management Services  |
| 231  | River Valley Air Conditioning Inc    | 01/01/18                   | 12/31/23                     | 25,000                          | 25,000                          | Hvac Maintenance, Filter Changes And Related Non-Construction Services                                 |
| 232  | Robert Half Technology               | 12/31/18                   | 12/31/18                     | 33,750                          | -                               | Recruitment Services   |
| 233  | Robertson Installations LLC          | 12/31/18                   | 12/31/18                     | 13,796                          | -                               | Repairs Of Childcare Playground Equipment  |
| 234  | Rogich Communication Services        | 02/27/09                   | 03/31/22                     | 96,000                          | 96,000                          | Consulting, Educating, Programming Services For Springs Preserve                                       |
| 235  | Royce Industries LC                  | 12/31/18                   | 12/31/18                     | 10,678                          | -                               | Ops Wash Rack Repair   |
| 236  | Ruckus Wireless Inc                  | 12/31/18                   | 12/31/18                     | 14,492                          | -                               | Brocade Hardware And Software Annual Maintenance   |
| 237  | S & S Concrete And Materials         | 08/03/16                   | 08/02/19                     | 25,000                          | -                               | Type II Material And Waste Disposal Services   |
| 238  | Santoro Whitmire Ltd.                | 06/01/15                   | 05/31/22                     | 100,000                         | 100,000                         | Legal Representation A-15-718938-C   |
| 239  | Santoro Whitmire, Ltd                | 11/06/18                   | 11/05/22                     | 500,000                         | 500,000                         | Litigation Services Regarding Issues Related To Water Rights And Water Service In Coyote Spring Valley |
| 240  | Santoro Whitmire, Ltd                | 10/02/18                   | 09/30/22                     | 100,000                         | 100,000                         | Legal Counsel Services   |
| 241  | Santoro Whitmire, Ltd                | 10/02/18                   | 09/30/22                     | 100,000                         | 100,000                         | Legal Counsel Services   |
| 242  | Santoro Whitmire, Ltd                | 11/07/18                   | 11/06/25                     | 100,000                         | 100,000                         | Legal Counsel Services   |
| 243  | Santoro Whitmire, Ltd                | 11/07/18                   | 09/30/22                     | 100,000                         | 100,000                         | Legal Counsel Services   |
| 244  | SAP America Inc                      | 12/21/14                   | 12/20/19                     | 88,900                          | -                               | Crystal Reports and BOE Software Maintenance Support   |
| 245  | SC East Landco, LLC                  | 12/04/18                   | 12/04/21                     | 3,125,000                       | 3,125,000                       | Design And Construction Of The Rome 2860 Zone North Water Facility Improvements.                       |
| 246  | Schindler Elevator Corporation       | 03/20/18                   | 03/18/23                     | 117,000                         | 175,000                         | Elevator Preventive Maintenance Services   |
| 247  | Schneider Electric Systems Usa Inc   | 04/26/16                   | 04/25/21                     | 500,000                         | 500,000                         | Scada System Software Products And Maintenance   |
| 248  | Schneider Electric Systems Usa Inc   | 04/26/16                   | 04/25/22                     | 100,000                         | 100,000                         | Software Consulting Services   |
| 249  | Schneider Electric Systems Usa Inc   | 04/10/17                   | 04/09/22                     | 50,000                          | 50,000                          | Avantis Technical Services And Software Maintenance  |
| 250  | Sectran Security Inc.                | 04/01/15                   | 03/31/22                     | 22,500                          | 22,500                          | Armored Car Services   |
| 251  | Sedaru Inc                           | 12/31/18                   | 12/31/18                     | 10,410                          | -                               | Assessment Data Collection Service   |
| 252  | Sherman & Howard                     | 07/30/15                   | 07/29/23                     | 100,000                         | 100,000                         | Miscellaneous Bond And Financial Services  |
| 253  | Sierra Nevada Administrators         | 11/01/17                   | 10/31/22                     | 100,000                         | 100,000                         | Self-Funded Workers' Compensation Program Third Party Administration Services                          |
| 254  | Silver State Analytical Laboratories | 07/01/18                   | 06/30/19                     | 20,000                          | -                               | Testing Of Sodium Hypochlorite Deliveries For Disinfection   |
| 255  | Simplifile                           | 01/01/18                   | 12/31/19                     | 15,000                          | -                               | Lien Filing Service For Customer Care  |



**SCHEDULE OF EXISTING CONTRACTS**

**Budget Year 2019 - 2020**

Local Government: Las Vegas Valley Water District  
 Contact: E. Kevin Bethel  
 E-mail Address: [kevin.bethel@lvvwd.com](mailto:kevin.bethel@lvvwd.com)  
 Daytime Telephone: 702-822-8809

Total Number of Existing Contracts: 299

| Line | Vendor   | Effective Date of Contract | Termination Date of Contract | Proposed Expenditure FY 2019-20 | Proposed Expenditure FY 2020-21 | Reason or need for contract:                                       |
|------|--|----------------------------|------------------------------|---------------------------------|---------------------------------|--|
| 256  | Sirius Computer Solutions                              | 11/06/17                   | 11/05/22                     | 500,000                         | 500,000                         | Software Maintenance Services                                      |
| 257  | Southern Nv Water Authority                            | 12/31/18                   | 12/31/18                     | 589,278                         | -                               | Snwa Groundwater Management Fees                                   |
| 258  | Spa Risk   | 10/15/18                   | 06/30/19                     | 50,000                          | -                               | Disaster Restoration Planning And Consulting Services              |
| 259  | Standard Automation & Control Lp dba Wonderware West   | 06/13/18                   | 06/30/25                     | 426,709                         | 426,709                         | Scada Software And Implementation Services                         |
| 260  | State Of Nevada  | 12/31/18                   | 12/31/18                     | 171,546                         | -                               | Application For Well 90 Waste Line Review                          |
| 261  | Statera, Inc.  | 07/16/17                   | 07/05/25                     | 276,300                         | 276,300                         | Technical Services For Aptus Software                              |
| 262  | Statewide Fire Protection, Inc.                        | 04/02/18                   | 04/01/23                     | 25,000                          | 25,000                          | Fire Suppression Inspections, Testing, and Repairs                 |
| 263  | Stradling Yocca Carlson & Rauth                        | 12/05/17                   | 12/05/24                     | 100,000                         | 100,000                         | Bond Disclosure Counsel Services                                   |
| 264  | Studio J Inc   | 12/31/18                   | 12/31/18                     | 23,161                          | -                               | Professional Photography Services                                  |
| 265  | Sunbelt Controls                                       | 08/13/18                   | 08/12/23                     | 25,000                          | 25,000                          | Ems Maintenance  |
| 266  | Sunflower Construction                                 | 03/28/18                   | 03/27/23                     | 24,500                          | 24,500                          | On Call Painting Services  |
| 267  | Sunflower Construction                                 | 06/11/18                   | 06/10/23                     | 100,000                         | 100,000                         | On Call Painting Services- LVVWD                                   |
| 268  | Sunrise Paving Inc                                     | 06/07/18                   | 11/06/20                     | 411,000                         | -                               | Pavement Replacement Services                                      |
| 269  | Support Product Services Inc                           | 12/31/18                   | 12/31/18                     | 17,663                          | -                               | Heat Exchanger Repair Services                                     |
| 270  | T & M Controls Inc                                     | 03/15/18                   | 03/14/23                     | 240,000                         | 240,000                         | On-Call Electrical Services  |
| 271  | Technical Inspection Agency Usa                        | 08/01/18                   | 07/31/23                     | 15,000                          | 15,000                          | Elevator Inspection Services                                       |
| 272  | Telerik Inc  | 12/31/18                   | 12/31/18                     | 10,110                          | -                               | NET Developer Software Maintenance Renewal                         |
| 273  | The Call Center Network, LLC dba The Call Center Group | 01/29/19                   | 01/24/24                     | 32,000                          | 32,000                          | Professional Recruiting Services                                   |
| 274  | The Druckman Company LLC                               | 12/31/18                   | 12/31/18                     | 13,500                          | -                               | Scrummaster Training   |
| 275  | The Lampo Group Inc                                    | 12/31/18                   | 12/31/18                     | 32,994                          | -                               | Annual Financial Wellness Program Training                         |
| 276  | The Law Offices Of Rory Reid                           | 06/01/18                   | 05/31/25                     | 31,000                          | 31,000                          | Legal Services   |
| 277  | Thomas Lucas   | 11/20/18                   | 10/30/20                     | 55,000                          | 55,000                          | Psa For Archaeological Consulting Services                         |
| 278  | Tiberti Fence Company                                  | 01/03/19                   | 01/02/24                     | 10,000                          | 100,000                         | On-Call Fencing Services   |
| 279  | T-Mobile Usa Inc                                       | 10/26/16                   | 10/25/20                     | 10,000                          | -                               | Phone Service Conversion   |
| 280  | Top Bird Entertainment                                 | 09/20/18                   | 09/19/19                     | 14,000                          | -                               | Extreme Parrot Shows At Springs Preserve                           |
| 281  | Topnotch Services Inc                                  | 07/10/15                   | 07/09/22                     | 75,653                          | 75,653                          | Street Sweeping  |
| 282  | Total-Western, Inc.                                    | 06/07/18                   | 06/06/23                     | 200,000                         | 200,000                         | Mechanical Services For LVVWD                                      |
| 283  | TRC Solutions  | 08/23/18                   | 08/22/23                     | 14,595                          | 14,595                          | Annual Compliance Testing For Campbell Station Natural Gas Engines |
| 284  | Tre Barnen   | 01/11/18                   | 01/10/20                     | 180,000                         | -                               | Misc. Fence Installations  |
| 285  | Trench Shoring   | 03/18/14                   | 03/19/20                     | 50,000                          | -                               | Rental Of Trench Shoring And Plates                                |
| 286  | U S Captioning Company                                 | 08/01/16                   | 07/31/21                     | 12,000                          | 12,000                          | Closed Captioning Services For SNWA                                |
| 287  | Unifirst Corporation                                   | 08/01/11                   | 07/31/20                     | 100,000                         | -                               | Uniform Rental And Laundry Services                                |
| 288  | United Site Services                                   | 10/02/18                   | 09/30/24                     | 25,000                          | 25,000                          | Sewage Waste Removal   |
| 289  | University Of Utah                                     | 01/02/19                   | 01/01/24                     | 25,000                          | 25,000                          | Research/Testing Services  |
| 290  | Veterinarian Aquarium Group                            | 04/14/14                   | 04/13/21                     | 85,000                          | 85,000                          | Veterinary Services - Springs Preserve                             |
| 291  | Voda, Inc.   | 11/27/18                   | 11/26/19                     | 10,000                          | -                               | Piping Infrastructure Assessment And Analysis                      |
| 292  | Walker And Associates Inc                              | 12/31/18                   | 12/31/18                     | 14,917                          | -                               | Fiber Multiplexing   |
| 293  | Walker Tracker, Inc.                                   | 01/08/19                   | 12/27/23                     | 10,000                          | 10,000                          | Activity-Based Challenge Services                                  |
| 294  | Wells Fargo  | 07/06/17                   | 07/06/22                     | 22,500                          | 22,500                          | Custody And Purchasing Card Services                               |
| 295  | Wilson Elser Moskowitz Edleman & Dicker                | 10/06/15                   | 10/05/23                     | 100,000                         | 100,000                         | Legal Services Case No. A-15-714878                                |
| 296  | Work Zone Traffic Services Inc                         | 07/01/17                   | 06/30/22                     | 268,308                         | 268,308                         | Traffic Control And Barricade Services                             |
| 297  | Wunderlich-Malec Engineering, Inc                      | 07/01/17                   | 06/30/22                     | 750,000                         | 750,000                         | Tech. Svc. For Automation Projects                                 |
| 298  | Xebialabs Inc  | 06/30/18                   | 06/29/23                     | 140,000                         | 140,000                         | Application Development Software And Implementation Services       |
| 299  | Zions Public Finance Inc                               | 12/31/18                   | 12/31/18                     | 26,000                          | -                               | Secondary Market Disclosure Service Fees                           |
|      | Total Proposed Expenditures                            |                            |                              | \$ 68,677,764                   | \$ 37,380,600                   |  |

**SCHEDULE OF PRIVATIZATION CONTRACTS**

**Budget Year 2019 - 2020**

**Local Government:** Las Vegas Valley Water District  
**Contact:** E. Kevin Bethel  
**E-mail Address:** [kevin.bethel@lvvwd.com](mailto:kevin.bethel@lvvwd.com)  
**Daytime Telephone:** 702-882-8809

Total Number of Privatization Contracts: None

| Line | Vendor | Effective Date of Contract | Termination Date of Contract | Duration (Months/ Years) | Proposed Expenditure FY 2019-20 | Proposed Expenditure FY 2020-21 | Position Class or Grade | Number of FTEs employed by Position Class or Grade | Equivalent hourly wage of FTEs by Position Class or Grade | Reason or need for contract: |
|------|--------|----------------------------|------------------------------|--------------------------|---------------------------------|---------------------------------|-------------------------|--|---|------------------------------|
| 1    | None   |                            |                              |                          |                                 |                                 |                         |  |   |                              |
|      |        |                            |                              |                          |                                 |                                 |                         |  |   |                              |
| 2    |        |                            |                              |                          |                                 |                                 |                         |  |   |                              |
|      |        |                            |                              |                          |                                 |                                 |                         |  |   |                              |
| 3    |        |                            |                              |                          |                                 |                                 |                         |  |   |                              |
|      |        |                            |                              |                          |                                 |                                 |                         |  |   |                              |
| 4    |        |                            |                              |                          |                                 |                                 |                         |  |   |                              |
|      |        |                            |                              |                          |                                 |                                 |                         |  |   |                              |
| 5    |        |                            |                              |                          |                                 |                                 |                         |  |   |                              |
|      |        |                            |                              |                          |                                 |                                 |                         |  |   |                              |
| 6    |        |                            |                              |                          |                                 |                                 |                         |  |   |                              |
|      |        |                            |                              |                          |                                 |                                 |                         |  |   |                              |
| 7    |        |                            |                              |                          |                                 |                                 |                         |  |   |                              |
|      |        |                            |                              |                          |                                 |                                 |                         |  |   |                              |
| 8    | Total  |                            |                              |                          |                                 |                                 |                         |  |   |                              |

Attach additional sheets if necessary.

Page: 11  
Schedule 32

Place holder for  
affidavit of  
publication



STEVE SISOLAK  
Governor  
JAMES DEVOLLO  
Chair, Nevada Tax Commission  
MELANIE YOUNG  
Executive Director

STATE OF NEVADA  
DEPARTMENT OF TAXATION

Web Site: <http://tax.nv.gov>

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Fax: (702) 486-3377

April 24, 2019

Mr. E. Kevin Bethel, Chief Financial Officer  
Las Vegas Valley Water District  
1001 South Valley View Blvd.  
Las Vegas, NV 89153

Re: Tentative Budgets – Fiscal Year 2019-2020  
Las Vegas Valley Water District

Dear Mr. Bethel:

The Department of Taxation has examined the Fiscal Year 2019-2020 tentative budgets for the above named entities in accordance with NRS 354.596 (5). We find them to be in compliance with applicable statutes and regulations.

**Please be reminded a proof of publication of the notice of the public hearing should be provided along with your final budget.**

If you should have any questions, please call me at (775) 684-2073, or my email address is:  
[klangley@tax.state.nv.us](mailto:klangley@tax.state.nv.us).

Sincerely,

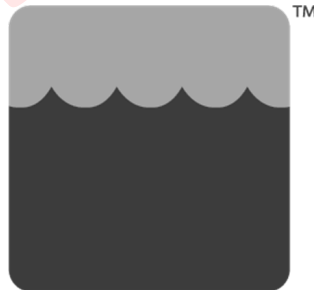
Kelly S. Langley, CTP  
Supervisor  
Local Government Finance  
Division of Local Government Services



# SECTION 5

## DEPARTMENT BUDGETS

|  |       |
|--|-------|
| Summary of Department Expenditures .....                 | 5-1   |
| Executive Management .....                               | 5-2   |
| Legal Services .....                                     | 5-10  |
| Finance .....  | 5-13  |
| Information Technology.....                              | 5-19  |
| Human Resources .....                                    | 5-26  |
| Public Services.....                                     | 5-29  |
| Environmental, Health, Safety & Corporate Security ..... | 5-35  |
| Customer Care & Field Services .....                     | 5-46  |
| Engineering .....  | 5-53  |
| Resources & Facilities .....                             | 5-59  |
| Infrastructure Management .....                          | 5-71  |
| Water Resources .....                                    | 5-79  |
| Energy Management.....                                   | 5-87  |
| Operations .....   | 5-92  |
| Water Quality & Treatment .....                          | 5-100 |



**LAS VEGAS VALLEY WATER DISTRICT**  
FISCAL YEAR 2019-20  
OPERATING AND CAPITAL BUDGET



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
Fiscal Year Ending June 30, 2020

## Department Budgets

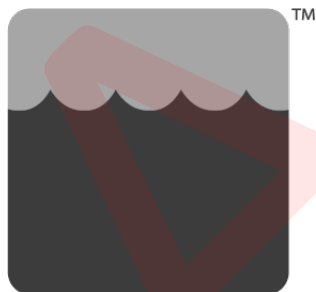
This section contains summaries of budgets for each of the Las Vegas Valley Water District's (LVVWD) departments. Each department's budget narrative contains detailed budget information and other

highlights of the 2019-20 Budget Plan. The following table presents the 2017-18 actual, 2018-19 Adopted Budget and 2019-20 Budget Plan for each of the departments.

**LVVWD**  
**Summary of Department Expenditures**

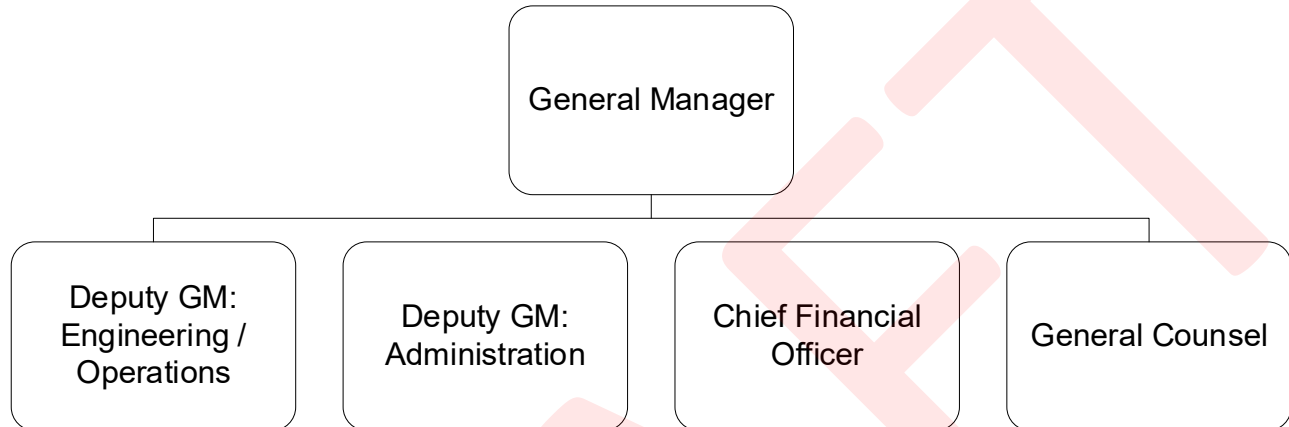
| <b>Departments</b>                               | <b>2017-18<br/>Actual</b> | <b>2018-19<br/>Budget</b> | <b>2019-20<br/>Budget</b> | <b>Budget-to-Budget<br/>Variance</b> |
|--|---------------------------|---------------------------|---------------------------|--------------------------------------|
| Executive Management                             | \$ 1,317,341              | \$ 1,529,906              | \$ 1,723,161              | \$ 193,255                           |
| Legal Services                                   | 263,995                   | 5,228,083                 | 5,337,966                 | 109,883                              |
| Finance  | 300,288,345               | 310,950,839               | 320,315,179               | 9,364,341                            |
| Information Technology                           | 34,016,306                | 45,461,883                | 46,214,111                | 752,227                              |
| Human Resources                                  | 4,732,615                 | 5,662,195                 | 6,265,836                 | 603,641                              |
| Public Services                                  | 13,489,703                | 18,863,867                | 20,674,601                | 1,810,735                            |
| Environmental Health Safety & Corporate Security | 8,997,856                 | 10,164,116                | 10,799,280                | 635,164                              |
| Customer Care & Field Services                   | 23,920,174                | 30,780,053                | 36,592,956                | 5,812,903                            |
| Engineering                                      | 30,476,071                | 84,524,578                | 116,375,088               | 31,850,510                           |
| Resources & Facilities                           | 18,691,056                | 23,328,120                | 23,576,021                | 247,901                              |
| Infrastructure Management                        | 37,736,098                | 28,693,830                | 30,001,400                | 1,307,569                            |
| Water Resources                                  | 350,460                   | 4,094,374                 | 4,468,110                 | 373,736                              |
| Energy Management                                | 32,448                    | -                         | -                         | -                                    |
| Operations                                       | 45,828,745                | 49,986,956                | 54,014,597                | 4,027,640                            |
| Water Quality & Treatment                        | 1,065,715                 | 106,228                   | 173,139                   | 66,911                               |
| <b>Total Department Expenditures</b>             | <b>\$ 521,206,929</b>     | <b>\$ 619,375,027</b>     | <b>\$ 676,531,444</b>     | <b>\$ 57,156,418</b>                 |
| Debt Service                                     | \$ 61,471,883             | \$ 70,601,752             | \$ 70,457,009             | \$ (144,743)                         |
| <b>Total Uses of Funds</b>                       | <b>\$ 582,678,812</b>     | <b>\$ 689,976,779</b>     | <b>\$ 746,988,453</b>     | <b>\$ 57,011,675</b>                 |

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## EXECUTIVE MANAGEMENT

Level: 1000



### Mission Statement

Provide world class water service in a sustainable, adaptive and responsible manner to our customers through reliable, cost-effective systems.

### The Executive Management Team

The Executive Management Team is responsible for strategic planning, general administration and operational oversight of the Las Vegas Valley Water District (LVVWD) and the Southern Nevada Water Authority (SNWA). The function is staffed by a General Manager, who has responsibility for managing the two organizations. Two Deputy General

Managers, a Chief Financial Officer and a General Counsel also oversee administrative and operational activities.

The Executive Management Team implements policy as established by the LVVWD and SNWA Boards of Directors. The team is responsible for anticipating organizational needs and implementing appropriate strategies to ensure these needs are met. To fulfill the missions of both organizations, the Executive Management Team petitions the respective boards for direction and approval of funding and other support and directs staff accordingly. It also interacts with other local, national and international entities in developing strategies to meet demands and responsibly manage resources.

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Executive Management  
Fiscal Year Ending June 30, 2020

### Expenditures

| LVVWD Uses                           | Actual<br>2017-18   | Budget<br>2018-19   | Budget<br>2019-20   |
|--------------------------------------|---------------------|---------------------|---------------------|
| Materials & Supplies                 | \$ 9,872            | \$ 11,350           | \$ 11,350           |
| Maintenance & Repairs                | -                   | 100                 | 100                 |
| Rental & Leases                      | -                   | -                   | -                   |
| Other Employee Expenses              | 49,912              | 104,100             | 104,100             |
| Other Expenses                       | 61,170              | 169,640             | 169,640             |
| Total Operating Expenses             | \$ 120,954          | \$ 285,190          | \$ 285,190          |
| Capital Expenditures                 | \$ -                | \$ -                | \$ -                |
| Payroll & Related Costs              | \$ 1,196,388        | \$ 1,244,716        | \$ 1,437,971        |
| <b>Total Department Expenditures</b> | <b>\$ 1,317,341</b> | <b>\$ 1,529,906</b> | <b>\$ 1,723,161</b> |
| FTE Positions                        | 5.0                 | 5.5                 | 5.5                 |

### Major Activities

The Executive Management Team continues to direct efforts to ensure that Southern Nevada has access to a safe, reliable and sustainable water supply. This is achieved by implementing and overseeing initiatives to mitigate the impacts of drought and climate change, maintaining community-wide water conservation efforts and identifying present and future infrastructure and resource needs. Significant initiatives over the past year include:

- Continued collaboration with Colorado River partners on conservation programs

to help protect Lake Mead water elevations, including execution of the Lower Basin Drought Contingency Plan.

- Continued progress in constructing a new Low Lake Level Pumping Station (L3PS), which is expected to be complete by 2020.
- Continued implementation of LVVWD's 10-year Capital Improvement Plan.
- Continued participation in the WaterStart partnership.
- Increased awareness and initiatives related to community water conservation.
- Leadership and involvement in Colorado River issues and initiatives.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Executive Management**  
Fiscal Year Ending June 30, 2020

**Lower Basin Drought Contingency Plan.**

In November 2018, the SNWA Board of Directors authorized the execution of three agreements regarding the Lower Basin Drought Contingency Plan (DCP). The Lower Basin DCP provides Arizona, California and Nevada with tools to voluntarily reduce water demands and minimize risks associated with a decline in Lake Mead water levels. With the Board's approval, Nevada became the first of the Lower Basin states to adopt DCP measures, which require the three states to make a series of voluntary water contributions to keep water in Lake Mead.

Ultimately, the completed DCP agreements will be designed to reduce the risk of reaching critical elevation levels in Lake Powell and Lake Mead accordingly.

**Conservation Initiatives.**

Despite the ongoing management of a comprehensive conservation program, Southern Nevada's water use has increased over the last couple years, with hot, dry weather as one contributing factor.

Because sustained conservation represents such a critical element of SNWA's water resource portfolio, SNWA has responded with new resources, tools and efforts to increase community conservation efforts.

For example, the SNWA Board of Directors authorized an increase to the Water Smart Landscapes Rebate Program rebate from \$2 to \$3 per square foot to stimulate program participation. As a result, residential landscape conversions and total turf removed have increased by 29 percent and 27 percent, respectively. This is significant, as outdoor

water use accounts for 60 percent of the community's water consumption.

Additionally, significant outreach efforts are underway to convert non-functional turf areas into more sustainably-landscaped spaces. These include areas such as traffic medians, roundabouts, and pocket parks that do not offer the community recreational benefits.

The LVVWD has also increased public outreach activities to emphasize the importance of sustained participation in conservation practices and programs. Through robust direct mail and social media campaigns, customers are being reminded about water-efficient landscaping, watering schedules, water resource issues and the importance of water conservation.

To increase water waste reporting and enforcement across its service area, the LVVWD has also developed and implemented a water waste reporting form on LVVWD.com. From either a home computer or mobile device, members of the public can access the form to immediately notify LVVWD staff of the date, time, location and type of an observed water waste occurrence within the service territory.

**Low Lake Level Pumping Station.**

Construction of the Low Lake Level Pumping Station (L3PS) at Lake Mead continues to meet milestones and progress towards its 2020 completion date.

Workers have recently completed work in the underground forebay, which has now been flooded. Crews will be installing 32 specially-designed submersible pumps with a 900 million-gallon-per-day pumping capacity,

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Executive Management**  
Fiscal Year Ending June 30, 2020

which will send water to SNWA's two water treatment facilities. Once complete, L3PS will help Southern Nevada maintain reliable access to its primary water supplies even if drought conditions worsen.

**LVVWD Capital Improvement Plan.**

Progress continues to be made on the LVVWD's 10-year Capital Improvement Plan, which was approved by the Board of Directors in 2017. The \$616 million plan provides an outline to maintain water system assets, sufficiently expand the system to meet the demands of planned growth and meet state-mandated water quality compliance standards.

There are several major capital projects currently in either the planning or active project phase, including:

- Installation of 11,600 backflow prevention devices on meters throughout the LVVWD's service area. To date, more than 1,580 backflows have been installed.
- Replacement of 1,820 large meters, with 119 meters remaining to be changed out as part of the large meter replacement program.
- Construction of a 10 million-gallon reservoir and associated appurtenances on the western edge of the valley, which will provide additional reliability to existing customers as well as additional capacity and emergency storage for current and future demands in the area.
- Construction of a 5 million-gallon reservoir and pumping station in the northwest corner of the valley, which will transfer storage to the valley's far-western

pressure zones and the future Rome 2745 Zone Reservoir.

- Supervisory Control and Data Acquisition (SCADA) upgrades, which will provide long-term maintainability, improved functionality for operators, increased vendor and integrator support and enhanced cybersecurity tools.

**WaterStart.**

The WaterStart program has greatly benefited the advancement of various organizational objectives by leveraging expertise and leadership in developing innovative solutions to water resource and distribution challenges. For example, through a partnership with United Kingdom-based firm, Riventa, SNWA has realized increased pump efficiency monitoring by eliminating the need for flow measurements. This has resulted in an approximate annual savings of \$300,000 per year.

WaterStart has also facilitated SNWA's partnership with Abyss Solutions, which is based in Austria and provides high-quality three-dimensional modeling of underwater assets. SNWA uses these tools to monitor quagga mussels and the overall condition of its three drinking water intakes at Lake Mead.

**Strategic Plan Objectives and Accomplishments**

The Executive Management Team oversees and manages the implementation of the strategic plan goals identified by the LVVWD and the SNWA.

***Strategic Plan Goal - Assure quality water through reliable and highly efficient systems.***



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Executive Management**  
Fiscal Year Ending June 30, 2020

**2019-20 Performance Objectives**

- Develop and maintain existing state, federal and international partnerships to advance and promote water-related technical development and innovative water-resource solutions.
- Continue to identify opportunities for increased efficiency and enhanced customer service.
- Continue to work with federal, state and local agencies to develop and operate joint facilities that provide regional solutions to water quality, water supply and environmental issues on the Colorado River.
- Demonstrate national and international leadership in water research, conservation and water quality efforts.
- Implement the LVVWD and SNWA Capital Plans.

**2018-19 Major Accomplishments**

- In 2018, the SNWA and LVVWD, were inducted into the Leading Utilities of the World network and received the Golden Tap award for utility performance. This achievement is held by only 31 other utilities around the world and represents the gold standard of utility innovation and performance throughout the developed world's water sector.
- The SNWA Board approved an updated Water Resource Plan and Water Budget in 2018 that extends water supply and demand planning scenarios through the year 2069.
- L3PS construction remains on-schedule with forebay construction complete and preparation for submersible pump installation underway.

- Continued progress on asset management, necessary system expansion and water quality compliance projects provided within LVVWD's 10-year Capital Improvement Plan.

***Strategic Plan Goal - Deliver an outstanding customer service experience.***

**2019-20 Performance Objectives**

- Identify and implement further operational and management practices to maintain service levels with greater efficiency.
- Continue implementation and increase use of analytics software to detect potential leaks and notify customers.

**2018-19 Major Accomplishments**

- In 2018, LVVWD delivered approximately 107 billion gallons of water to customers throughout its service area.
- Converted all Big Bend Water District (BBWD) customers from inHance billing software to LVVWD's Customer Care and Billing system. This conversion will significantly increase efficiency within the billing and customer care processes for BBWD customers.
- Continued construction schedule coordination with the City of Las Vegas and Clark County for all major projects occurring throughout the LVVWD's service area, resulting in lower costs and reduced traffic impacts.
- In December 2018, the Springs Preserve began offering a combination ticket, providing visitors a more streamlined

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Executive Management**  
Fiscal Year Ending June 30, 2020

payment experience and reducing onsite staffing impacts.

- Continued outreach to customers through trickle report letters, which are sent to customers whose meters report constant water use—often the sign of an undiscovered on-site leak.

***Strategic Plan Goal - Anticipate and adapt to changing climatic conditions while demonstrating stewardship of our environment.***

**2019-20 Performance Objectives**

- Continue leadership on Colorado River issues to ensure Southern Nevada's needs are addressed.
- Participate in national and industry discussions and planning on climate change, including active membership in the Water Utility Climate Alliance.
- Continue effective management of the Spring Valley ranching properties.
- Continue conservation education and incentive programs to maximize available water supplies.

**2018-19 Major Accomplishments**

- In November 2018, Nevada became the first lower basin state to adopt DCP measures, which require Arizona, California and Nevada to make a series of voluntary water contributions to protect Lake Mead water levels. Ultimately, the completed DCP agreements will be designed to reduce the risk of reaching critical elevation levels in Lake Powell and Lake Mead accordingly.
- The LVVWD was recently the recipient of the AMWA Sustainable Water Utility Management Award. This achievement—

earned by fewer than 40 utilities nationwide—recognized the LVVWD for successfully balancing innovative efforts in the areas of economic, social and environmental endeavors; responsible resource management; protection of public health; meeting responsibilities to the community and providing cost effective services to ratepayers.

- Significantly increased conservation incentives and enforcement efforts to stimulate sustained water conservation throughout the community.
- Partnered with the U.S. Bureau of Reclamation, Western Water Assessment, and Climate Assessment for the Southwest to produce a report that will synthesize recent progress in climate and hydrology research that is applicable to water resources management in the Colorado River Basin. The goal is to lay a scientific foundation that paves the way for more accurate and actionable forecasts and projections of Colorado River Basin water supply. The report is expected to be available in the fall of 2019.
- Completed construction of the Tropicana Weir – the last of the 21 weirs planned and constructed at the upper Las Vegas Wash. The Wash remains an important component to Southern Nevada's watershed by carrying the valley's reusable water through wetlands, which serve as critical habitats to birds and plants, and a crucial cleansing point for runoff.

***Strategic Plan Goal - Develop innovative and sustainable solutions through research and technology.***

**2019-20 Performance Objectives**

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Executive Management**  
Fiscal Year Ending June 30, 2020

- Continued implementation of IRPAC recommendations, including the construction of L3PS.
- Continue to lead the implementation of the Las Vegas Wash Comprehensive Adaptive Management Plan.
- Continue participation with the WaterStart initiative to identify and adopt innovative solutions to water resource challenges.

**2018-19 Major Accomplishments**

- Development and implementation of an online water waste reporting tool to increase water waste enforcement across the LVVWD service area.
- Continued partnership with Syrinix Pipeline Monitoring System, which monitors water pressure throughout the service area and provides staff data that can be used to minimize leaks, avert costly emergency repairs and enhance the longevity of the community's water infrastructure.
- Through a partnership with United Kingdom-based Riventa, SNWA has benefited from increased pump efficiency monitoring by eliminating the need for flow measurements. This has resulted in an approximate annual savings of \$300,000 per year.
- Partnering with Abyss Solutions, which is based in Austria and provides high-quality three-dimensional modeling of underwater assets. SNWA uses these tools to monitor quagga mussels and the overall condition of its three drinking water intakes at Lake Mead.
- Continued to support environmental management efforts at SNWA Northern Resource Properties by putting primary

groundwater rights to beneficial use. Ranch staff maintains critical assets and provides services to technical staff conducting research and monitoring activities.

***Strategic Plan Goal - Ensure organizational efficiency and manage financial resources to provide maximum customer value.***

**2019-20 Performance Objectives**

- Continue to establish and maintain responsible reserve policies to ensure both SNWA and LVVWD can weather unanticipated expenditures and maintain positive bond ratings.
- Continue to evaluate opportunities to save ratepayer dollars through bond refunding and other activities.
- Plan and develop opportunities to increase LVVWD and SNWA investments in alternative and renewable energy supplies.

**2018-19 Major Accomplishments**

- LVVWD ended fiscal year 2017-18 with \$350.5 million in unrestricted reserves, exceeding its fund balance target by 14 percent.
- SNWA ended fiscal year 2017-18 with \$551.7 million in unrestricted reserves, exceeding its fund balance target by 13 percent.
- In January 2019, the LVVWD Board of Directors authorized the issuance of General Obligation Water Refunding Bonds. The proceeds of the bonds will be used to advance-refund a portion of the outstanding General Obligation Improvement Bonds, reducing debt service by nearly \$16 million.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Executive Management**  
Fiscal Year Ending June 30, 2020

- Because of the organizations' strong financial policies and practices, Standard & Poor's increased LVVWD's and SNWA's Bond Ratings to AA+ and AA, respectively.

***Strategic Plan Goal - Strengthen and uphold a culture of service, excellence and accountability.***

**2019-20 Performance Objectives**

- Ensure continual security and safety of LVVWD and SNWA facilities and promote an organizational climate and culture of safety and security for employees, customers and the community.
- Identify opportunities to strengthen a culture of accountability and efficiency throughout the organization.

**2018-19 Major Accomplishments**

- The LVVWD recently received the AWWA Wendell LaDue Utility Safety Award which recognizes distinguished water utility safety programs in employee involvement, training and process improvement.
- Over the past year, the Alfred Merritt Smith Water Treatment and River Mountains Water Treatment Facilities each earned the Partnership for Safe Water's Excellence in Water Treatment Award, which recognizes utilities that have adopted best practices in water treatment. SNWA is only the fourteenth community water system—out of more than 50,000 nationwide—to receive the exclusive designation.
- In 2018, SNWA assisted 15 well users to connect to the municipal water supply, in compliance with the SNWA's financial assistance guidelines for the Groundwater

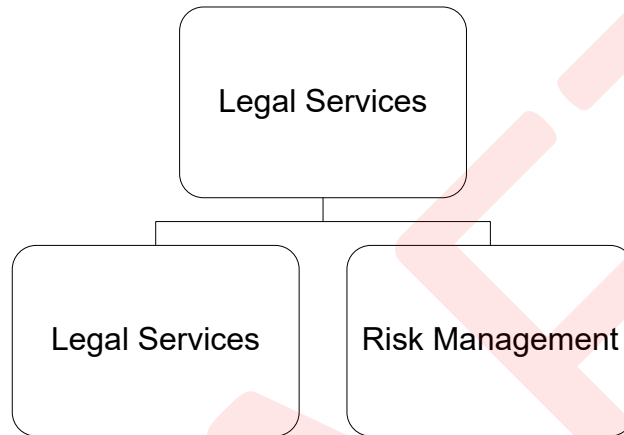
Management Program as established by the Nevada Legislature. Through the Sub-Meter Assistance Program, five sub-meters have been distributed to well owners, two rebates have been issued for sub-meter installation, and six wells have been plugged and abandoned.

- The Springs Preserve was recently recognized as the "Best Educational Family Outing" and Best Interactive Hands-On Attraction" by Desert Companion Magazine.

## LEGAL SERVICES

Level: 1200

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### Mission

To provide expert legal counsel in support of the organization's mission, policies, goals and strategies.

### Department Description

Legal Services acts as corporate counsel to the organization, providing legal review of policies and procedures to ensure compliance with applicable laws and regulations. The department represents the organization in court proceedings and before administrative boards and hearing panels in a variety of natural resource, property, personnel and other litigation matters. The department reviews contract documents and provides services for land and natural resource acquisitions associated with capital development programs. Legal Services coordinates and monitors efforts of outside counsel who represent the organization. The

department is involved in resource planning and continues to advise on electrical power issues.

The Risk Management division assesses risk and insurance needs on an organization-wide basis, procures appropriate coverage, and manages submitted claims. The department works closely with the General Manager and Deputy General Managers in providing legal advice and in the development and review of proposed legislation and regulations at the local, state, and federal levels.

### Budget Objectives and Highlights

Attorneys in the department are performing a steadily increasing practice before Nevada courts, federal courts, and state and federal administrative agencies. The 2019-20 budget contains continuing funding to support these efforts and for outside counsel who perform a variety of other legal services for the organization.

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
**Legal Services**  
Fiscal Year Ending June 30, 2020

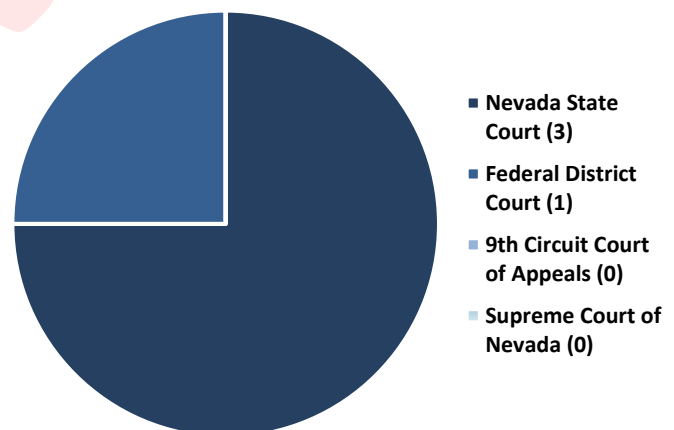
### Expenditures

| <b>LVVWD Uses</b>                    | <b>Actual<br/>2017-18</b> | <b>Budget<br/>2018-19</b> | <b>Budget<br/>2019-20</b> |
|--------------------------------------|---------------------------|---------------------------|---------------------------|
| Materials & Supplies                 | \$ 8,654                  | \$ 74,450                 | \$ 66,950                 |
| Maintenance & Repairs                | 225                       | -                         | -                         |
| Rental & Leases                      | -                         | -                         | -                         |
| Other Employee Expenses              | 39,419                    | 80,600                    | 90,100                    |
| Other Expenses                       | (1,397,422)               | 3,232,350                 | 3,223,350                 |
| <b>Total Operating Expenses</b>      | <b>\$ (1,349,124)</b>     | <b>\$ 3,387,400</b>       | <b>\$ 3,380,400</b>       |
| Capital Expenditures                 | \$ -                      | \$ -                      | \$ -                      |
| Payroll & Related Costs              | \$ 1,613,119              | \$ 1,840,683              | \$ 1,957,566              |
| <b>Total Department Expenditures</b> | <b>\$ 263,995</b>         | <b>\$ 5,228,083</b>       | <b>\$ 5,337,966</b>       |
| FTE Positions                        | 7.5                       | 8.5                       | 8.5                       |

### Department Performance

Representing the organization in litigation is only a small part of what Legal Services does. In addition to litigation, department attorneys support the organization by giving advice and counsel on transactional matters and on sensitive personnel issues.

### Pending Litigation Matters Number of Cases: Federal, State, or Administrative Forum



**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Legal Services**  
Fiscal Year Ending June 30, 2020

**Strategic Plan Objectives and Accomplishments**

***Deliver an Outstanding Customer Service Experience***

The department will continue to focus on client satisfaction to ensure our internal clients receive highly responsive, clear and accurate legal opinions.

***Strengthen and Uphold a Culture of Service, Excellence and Accountability***

Legal Services and Risk Management have provided and will continue to provide training sessions to organization staff to develop internal capacity and strengthen the culture of excellence.

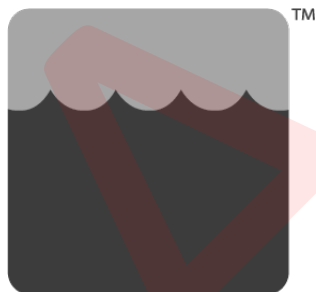
**2018-19 Major Accomplishments**

- Negotiated water and power resource positions and agreements, as well as renewable resource agreements.
- Kept construction on schedule without costly delays due to litigation and arbitration.
- Prevailed in adversarial proceedings.
- Minimized the need for any construction project condemnations.
- Continued implementation of the LVVWD/SNWA Contract Management Software.

**2019-20 Performance Objectives**

- To be highly responsive to the needs of our clients and provide concise, clear and accurate legal opinions.
- To increase communication between Legal Services and organization staff in a coordinated response to legal issues.
- To provide proactive contract reviews to minimize the threat of extended and costly litigation.
- To take an active role regarding resource acquisition and management with regard to legal issues and strategy concerning water and power.
- To support the organization's Information Governance initiative.

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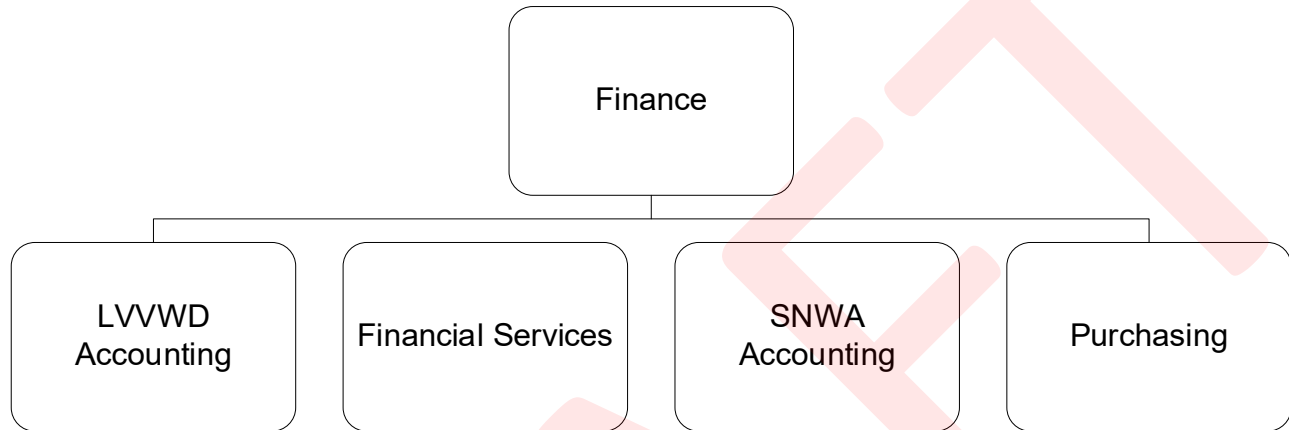


Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
**Finance**  
Fiscal Year Ending June 30, 2020

## FINANCE

### Level: 2100

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### Mission

Ensure the financial integrity and safeguard the assets of the Las Vegas Valley Water District (LVVWD) and the Southern Nevada Water Authority (SNWA) by providing strategic planning and utilizing effective finance, budgeting, debt management, treasury, and purchasing procedures and processes.

### Department Description

The Finance department is responsible for day-to-day accounting, financial reporting, financial planning, debt and treasury management, budgeting, centralized purchasing activities, and all aspects of financial operations of the LVVWD and the SNWA. Following the principles of governmental accounting, the department maintains, on an accrual basis, an Enterprise Fund for the LVVWD and the SNWA and a Pension Trust Fund. In the Enterprise Funds, financial activities are recorded in a similar

manner to that of a private business. The Pension Trust Fund is used to account for the investments, earnings, contributions, expenses, and projected pension benefits of the Las Vegas Valley Water District Retirement Plan. The department also coordinates the LVVWD's and the SNWA's budget processes in compliance with Nevada State Law. Internal accounting controls, as required under generally accepted accounting principles (GAAP), are strictly enforced for safeguarding property and in preparing financial statements.

The Finance department budget also includes the LVVWD's costs for water supply and charges that are made on behalf of the SNWA (pass-through costs).

### Budget Objectives and Highlights

The 2019-20 Finance department budget contains funding to maintain the necessary functions that the LVVWD and SNWA require to provide quality services to both internal and external customers.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Finance**  
Fiscal Year Ending June 30, 2020

**Expenditures**

| <b>LVVWD Uses</b>                        | <b>Actual<br/>2017-18</b> | <b>Budget<br/>2018-19</b> | <b>Budget<br/>2019-20</b> |
|--|---------------------------|---------------------------|---------------------------|
| Purchased Water                          | \$ 92,809,533             | \$ 96,851,139             | \$ 100,814,938            |
| Materials & Supplies                     | 803,123                   | 767,325                   | 767,750                   |
| Maintenance & Repairs                    | 4,489,068                 | 4,275,500                 | 4,265,500                 |
| Rental & Leases                          | 874                       | 2,000                     | 2,000                     |
| Other Employee Expenses                  | 50,813                    | 218,800                   | 251,300                   |
| Other Expenses*                          | 197,045,975               | 202,995,937               | 208,200,072               |
| <b>Total Operating Expenses</b>          | <b>\$ 295,199,386</b>     | <b>\$ 305,110,701</b>     | <b>\$ 314,301,559</b>     |
| <br>Capital Expenditures                 | <br>\$ -                  | <br>\$ -                  | <br>\$ -                  |
| <br>Payroll & Related Costs              | <br>\$ 5,088,959          | <br>\$ 5,840,138          | <br>\$ 6,013,620          |
| <br><b>Total Department Expenditures</b> | <br><b>\$ 300,288,345</b> | <br><b>\$ 310,950,839</b> | <br><b>\$ 320,315,179</b> |
| <br>FTE Positions                        | <br>32.3                  | <br>36.8                  | <br>35.3                  |

\*Includes SNWA Pass-Throughs and Allocations

## Department Performance

**LVVWD Accounting.** The LVVWD Accounting division is responsible for accounting, financial reporting, treasury and debt management, accounts payable, as well as supporting cashiering activities at the Springs Preserve. The division ensures adequate controls over all revenues, expenditures, assets and liabilities, and prepares the LVVWD Comprehensive Annual Financial Report (CAFR). The division provides accounting services for the LVVWD, the SNWA, Big Bend Water District (BBWD), Kyle Canyon, Coyote Springs, and three rural systems that are part of the LVVWD. The division also provides

accounting services for the Las Vegas Valley Water District Retirement Plan.

Accounting functions include: ensuring financial statements and reports are accurate, complete and consistent; maintaining the general ledger, inventory, fixed asset and other system records; cash management and the accounting and reporting of investments of the LVVWD's funds; debt management; reconciling bank statements; accounting for the Springs Preserve; accounts receivable, and federal and state agency grant accounting that require preparing and submitting reports to obtain reimbursements.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Finance**

Fiscal Year Ending June 30, 2020

The LVVWD outsources its mail payment remittance processing. The Accounting division researches and resolves mail payment exceptions, records and reconciles payments received by direct debit, electronic funds transfer, credit card payments by phone, internet payments, recurring credit card transactions and payments received from over 150 satellite pay station locations throughout the Las Vegas valley.

The Accounting division is also responsible for monitoring and supporting all cashier functions at the Springs Preserve, including; managing the cash vault, daily preparation, distribution and reconciliation of cashier banks and bank deposits. In addition, Accounting coordinates and processes group sales and vendor payments for special events as well as providing revenue-based reports and analysis for organizational departments.

**Financial Services.** A broad range of financial services are provided by this division, including oversight of annual budgets; designing, analyzing, and recommending water rates; providing short and long-term financial plans.

Financial Services is responsible for preparing the annual operating and capital budgets for the LVVWD, SNWA, BBWD and Coyote Springs. This includes budget development, implementation and monitoring for the LVVWD, SNWA, and BBWD. Financial Services prepares variance reports by department, and directors are accountable for expenditures over and under budget.

The division also performs a variety of strategic and long-range financial forecasting, financial and water rate scenario analyses and

develops water rates, connection and other fee recommendations for the organization. On an annual basis, this division conducts a survey of water rates from over 50 cities located in the western United States, closely monitors water production and consumption data, and prepares statistical reports.

**SNWA Accounting.** The SNWA Accounting division is responsible for accounting, financial reporting, treasury and debt management, revenue billing, and various financial analyses. The division ensures adequate controls over revenues, expenditures, assets and liabilities.

The financial reporting includes the SNWA's monthly and quarterly financial statements, as well as, the SNWA's Comprehensive Annual Financial Report and corresponding audit. In addition, the SNWA Accounting division prepares and submits the financial reporting related to grant activities for both the SNWA and LVVWD.

The SNWA Accounting division supports both senior management and other workgroups within the SNWA with financial analysis. Some areas include construction related activities, groundwater management programs, conservation related activities, Las Vegas Wash, energy management, and various water rights related activities.

**Purchasing.** The Purchasing division is responsible for the centralized purchasing activities of the LVVWD, the SNWA and the Springs Preserve. These activities include: market analysis, developing and identifying new, expanded or alternative suppliers, systems contracting, formal and informal solicitation/bidding processes, sustainable purchasing, disposition of company property,

**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Finance**

Fiscal Year Ending June 30, 2020

and the support of a diversified supplier program. The development of supply agreements containing appropriate contract terms and conditions, in conjunction with the Legal department, are an integral function of the Purchasing division. Ensuring compliance with all applicable purchasing statutes, obtaining quality products and services to serve our customers, and cost savings are among the division's priorities.

## **Strategic Plan Objectives and Accomplishments**

By the very nature of its activities, the Finance department either directly or indirectly impacts all the Strategic Plan Goals through the prudent and strategic funding of the various activities and services provided by the LVVWD and the SNWA.

***Strategic Plan Goal - Assure quality water through reliable and highly efficient systems.***

### **2019-20 Performance Objectives**

- Identify and secure funding for critical infrastructure.
- Provide timely and accurate financial reporting for all capital programs.
- Provide timely and accurate support for the LVVWD, the SNWA and small water system rate proceedings.
- Develop long-term financial plans to ensure a sustainable revenue base to support operations.

***Strategic Plan Goal - Deliver an outstanding customer service experience.***

### **2019-20 Performance Objectives**

- Begin implementation of a new procure-to-pay and inventory management system that streamlines the procurement process, creating efficiencies that will allow staff the time to manage their assigned commodities and services more effectively.
- Continue to improve and streamline day-to-day accounting practices, specialized processes, improved financial analyses, reporting, and information sharing to departments.
- Continue to provide the quality products, equipment and services to departments, in a timely manner, to assist them meet their goals.
- Complete financial month end close within 30 days of the end of the month.

### **2018-19 Major Accomplishments**

- Expanded use of electronic systems for the submission and analysis of bids for construction, and evaluation of complex Request for Proposals. The ability to submit bids and proposals electronically helped increase competition, and exposure of the LVVWD's contracting activity to a larger supply base, including diverse suppliers.
- Implemented a Procurement Card program to replace a manual purchase order process for small dollar purchases. This program increased transparency and accountability for small dollar purchases and decreased the transactional costs for such items.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Finance  
Fiscal Year Ending June 30, 2020**

It also increased efficiency and timeliness of small dollar purchases.

- Completed successful transition of Big Bend Water District to the Customer Care & Billing System (CC&B).
- Updated the Purchasing Guidelines to reflect current practices.

***Strategic Plan Goal - Develop innovative and sustainable solutions through research and technology.***

**2019-20 Performance Objectives**

- Increase use of Splash BI Publishing and GL Connect reporting tools to improve reporting and automation technology to provide more timely information for management to make decisions, increased employee efficiency, better control of the approval/authorization process and to maximize vendor discounts.
- Actively participate in Oracle system upgrade, defining financial information requirements to new system project management information system, continued enhancements and upgrades to CC&B, and Workday software.
- Encourage the purchase of sustainable products by facilitating meetings with suppliers and interested departments.

**2018-19 Major Accomplishments**

- Identified vendors for accounts payable automation software and began system implementation.
- Automated several manual processes through implementation of automated workflow solutions to

improve accuracy and efficiency of payment processes.

- Implemented changes to the chart of accounts to improve efficiencies and enable more flexibility to respond to future organizational changes.
- Implemented a new end-user budget dashboard application to facilitate easier review and analysis of financial data across the organization.

***Strategic Plan Goal - Ensure organizational efficiency and manage financial resources to provide maximum customer value.***

**2019-20 Performance Objectives**

- Continue the Finance department's long-standing record of excellence in budgeting and financial reporting.
- Continue to enroll vendors and develop payment opportunities for credit card program to increase the credit card rebate.
- Replace decades old purchasing and inventory management system.
- Implement second phase of accounts payable

**2018-19 Major Accomplishments**

- The long-term credit ratings of AA+/Stable were affirmed by Standard and Poor's and Moody's affirmed their Aa1/Stable rating. These ratings help keep rates affordable and acknowledge the LVVWD's strong financial management practices and policies, maintenance of robust cash reserves, and continued economic growth in the Las Vegas area.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Finance**

Fiscal Year Ending June 30, 2020

- Issued the Las Vegas Valley Water District General Obligation Bonds (additionally secured by SNWA Revenues) Series 2019A Refunding Bonds generating net present value savings of \$17.9 million.
- Renegotiated terms for the 2016D Bonds to continue the LVVWD's variable component of its debt.
- Processed approximately 40,000 vendor payments annually, earning more than \$163,000 in discounts on invoices processed in fiscal year 2017-18, and achieved a rebate of \$93,000 on annual credit card spend.
- Updated the Capitalization Policy including the adoption of GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, which eliminates interest capitalization incurred before the end of a construction period.
- Implemented Docstar, an accounts payable automation and workflow system that increases employee efficiency, better controls the approval/authorization process and maximizes vendor discounts.
- Selected a supplier to provide the new Procure to Pay and Inventory Management System to be implemented in early 2020.
- Implementation of Blackline account reconciliation and transaction matching modules.

***Strategic Plan Goal - Strengthen and uphold a culture of service, excellence and accountability.***

**2019-20 Performance Objectives**

- Submit the LVVWD and SNWA CAFR for the year ending June 30, 2019, to the Government Finance Officers Association (GFOA) to receive the Certificate of Excellence in Financial Reporting.
- Receive unmodified opinions from external auditors for the LVVWD, SNWA and BBWD fiscal year 2019 audits.
- Receive the Distinguished Budget Presentation Award from the GFOA for the LVVWD and SNWA Operating and Capital Budgets for the year ending June 30, 2020.

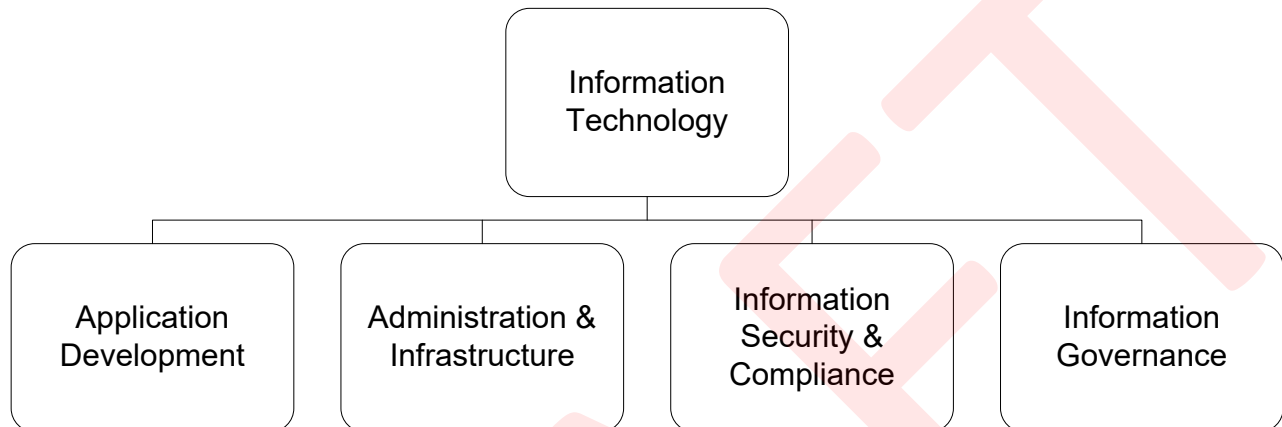
**2018-19 Major Accomplishments**

- Received the Certificate of Excellence in Financial Reporting from the GFOA of the United States and Canada for the fortieth (40<sup>th</sup>) consecutive year for the LVVWD CAFR for the ended June 30, 2018.
- Received the Certificate of Excellence in Financial Reporting from the GFOA for the twenty-third (23<sup>rd</sup>) consecutive year for the SNWA CAFR for the year ended June 30, 2018.
- Received an unmodified opinion from external auditors for the LVVWD, SNWA and BBWD fiscal year 2018 audits.
- Received the Distinguished Budget Presentation Award from the GFOA for the LVVWD and SNWA Operating and Capital Budgets for the year beginning July 1, 2018.



## INFORMATION TECHNOLOGY

Level: 2300



### Mission

Establish a leadership position by the use and support of leading information technologies while making customer service the top priority.

data in support of ongoing projects, such as the Clark County Imagery Project. Specific support activities are noted for each division herein.

### Department Description

The Information Technology department is responsible for the Las Vegas Valley Water District's (LVVWD), Southern Nevada Water Authority's (SNWA), Springs Preserve's, and the Big Bend Water District's (BBWD) acquisition, administration, and maintenance of software products, installation and maintenance of all computer-related and office management hardware products, cybersecurity, Payment Card Industry (PCI) Compliance, Geographic Information Systems (GIS), telecommunications and the organization's Information Governance Initiative. The department is also responsible for the acquisition and maintenance of spatial

The Information Technology Steering Committee was established in 2015 and is comprised of customer representatives throughout the organization. The committee evaluates projects relative importance using an objective and quantifiable system that directs Information Technology initiatives to meet business needs.

### Budget Objectives and Highlights

The 2019-20 Information Technology department budget contains funding to continue the development and implementation of technology projects and provide daily operational support to the LVVWD, SNWA, the Springs Preserve, and BBWD information technology systems.

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Information Technology  
Fiscal Year Ending June 30, 2020

### Expenditures

| <b>LVVWD Uses</b>                    | <b>Actual<br/>2017-18</b> | <b>Budget<br/>2018-19</b> | <b>Budget<br/>2019-20</b> |
|--------------------------------------|---------------------------|---------------------------|---------------------------|
| Materials & Supplies                 | \$ 846,307                | \$ 1,149,702              | \$ 1,750,700              |
| Maintenance & Repairs                | 8,196,726                 | 8,670,804                 | 9,472,055                 |
| Rental & Leases                      | 580,828                   | 742,000                   | 750,000                   |
| Other Employee Expenses              | 180,765                   | 322,699                   | 424,959                   |
| Other Expenses                       | 4,584,354                 | 6,701,564                 | 5,507,070                 |
| Total Operating Expenses             | \$ 14,388,979             | \$ 17,586,769             | \$ 17,904,784             |
| Capital Expenditures                 | \$ 1,672,875              | \$ 8,037,350              | \$ 7,236,000              |
| Payroll & Related Costs              | \$ 17,954,451             | \$ 19,837,764             | \$ 21,073,327             |
| <b>Total Department Expenditures</b> | <b>\$ 34,016,306</b>      | <b>\$ 45,461,883</b>      | <b>\$ 46,214,111</b>      |
| FTE Positions                        | 92.9                      | 101.5                     | 103.0                     |

### Department Performance

Information Technology completed a number of projects to improve business processes, functionality, system operations, and security, while reducing expenses and risk to the organization. Major projects during the year included completion of the first and second phase of the Genesys Pure Cloud Engage Call Center project upgrade, completion of the 10 gigabit network backbone upgrade project, continuation of PC/monitor refresh program, the initiation and completion of the Microsoft O365 cloud tenet migration to the Enterprise cloud, continued progress on the Facility View rewrite project, and initiation of the Telecom upgrade project slated for completion in late 2020.

**Information Technology Application Development.** This multi-division team performs software development, upgrades and version testing, and validation of key operational systems utilized throughout the organization.

Systems supporting Finance, Customer Care & Field Services, Engineering, and Human Resources are targeted for upgrades and enhancements.

The Organization's financial management system will be upgraded to ensure continued vendor support and provide redundancy of operation. As part of the upgrade, existing Accounting business processes will be reviewed for potential process improvements.



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Information Technology**  
Fiscal Year Ending June 30, 2020

A new purchasing system will be implemented that will streamline the procure-to-pay functions, centralize purchasing, and improve inventory management.

A new customer care, billing, and meter management system will be implemented. The new system combines utility customer management (i.e. accounts, rates and billing, payments, credit and collection, field activities) with support for advance metering infrastructure (i.e. device inventory, device testing, usage and event data and smart meter commands). The system will enhance customer service, better support conservation initiatives, further optimize service response, and improve device management.

Application Development will continue to provide support for the Project Management Information System (PMIS). PMIS, a multi-year project, includes technology that supports a more consistent and efficient capital program and project delivery for Engineering. Implementation of a program portal and data warehouse to combine active projects and legacy projects are among the deliverables planned. PMIS will consolidate processes, improve work flow, and eliminate legacy applications.

Primavera P6 will be upgraded to Primavera EPPM, a cloud-based schedule management tool that will track internal and contractor schedule performance. Increased usability options and performance will improve the organizations ability to create, maintain, and monitor schedules. The Primavera EPPM product will integrate with the PMIS solution offering scheduling options for both large and small projects.

The Workday Human Resource Management System will be expanded to include a new e-Learning and Performance/Talent management modules. These systems will consolidate functions, improve user experience, and reduce administrative costs.

Further enhancements are planned to systems recently implemented. These include new features for applications that support asset management, real property management, account reconciliation and accounts payable invoice automation.

Ongoing support will continue to be provided to Operations and Water Quality & Treatment staff through effective delivery of Supervisory Control and Data Acquisition (SCADA) information required for compliance, metrics, and performance monitoring.

**Information Technology Administration and Infrastructure.** This multi-division team is comprised of the Customer Support division, the Technical Services division, and the Spatial Technologies division.

The Customer Support Division is responsible for many diverse functions within the company. This group supports desktops, field and personal laptops, and all supporting desktop applications. This group provides remote and on-site support for over 4,000 computers, monitors, and printers, as well as over 1,000 applications, on all company desktop and laptop devices.

The Technical Services division is responsible for application administration of business systems utilized throughout the organization. It is also responsible for the architecture and administrative support for the corporate infrastructure to include server, storage and

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Information Technology**  
Fiscal Year Ending June 30, 2020

database administration, e-mail, web services, network infrastructure, and the telecom group. Additionally, this division is responsible for the maintenance of the SCADA systems for LVVWD, SNWA, and BBWD and the Laboratory Information Management System (LIMS).

Enterprise application support focuses on providing uninterrupted application services to customers, while providing for planned and unplanned infrastructure outages. Efforts encompass design and implementation of off-site redundant configurations for critical applications, formalized change management processes, quality assurance testing procedures, and implementation of proactive monitoring and alerting tools.

Major on-going initiatives include completion of the first two phases of the Genesys call center upgrade project with phase three go-live in the second quarter of 2020, the initiation of the Telecom upgrade of the aging corporate PBX phone switch, initiation of the upgrade to the corporate Oracle database infrastructure slated for completion in late 2020, continued upgrades to the enterprise storage infrastructure, and the implementation of a new multimedia and imagery storage appliance.

The Spatial Technologies division is responsible for the acquisition and delivery of high-resolution imagery, GIS application development and maintenance. GIS mapping and data management, and infrastructure to support the organization.

Ongoing initiatives include acquisition of very-high resolution imagery for the multi-agency Clark County Imagery Project, acquiring imagery of the Muddy and Virgin Rivers in

concert with the Intentionally Created Surplus project for the Bureau of Reclamation, rewriting of existing FacilityView application using latest GIS application development tools and programming languages, and mapping support for a wide range of projects important to the organization.

**Information Security and Compliance.** This team was formed in July of 2016 to ensure strong and continued focus on cybersecurity and PCI compliance. Major emphasis will continue to be on cybersecurity as world-wide security breaches increase at an alarming rate. Significant effort will continue to be directed toward providing an operationally stable and secure computer system and infrastructure, developing strategies with Legal and Risk Management to reduce and manage cyber risk, as well as educating employees on cybersecurity topics. The Information Security and Compliance division has been recognized as an Excellence Award finalist in the Best IT Security-related Training Program category for the 2019 SC Awards, which honors excellence in information security.

Ongoing initiatives include continued work to promote off-site disaster recovery capability, allowing continuous service and business continuity, defense against cybersecurity threats and vulnerabilities, identification and management of risks, delivering cybersecurity awareness briefings, providing guidance on system upgrades and/or replacements to critical infrastructure, implementation of technology to meet required PCI Data Security Standards (PCI-DSS), capacity planning to increase network performance and efficient data storage, recommending best practices to ensure high availability of applications and databases, support to mobile devices, as well

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Information Technology**  
Fiscal Year Ending June 30, 2020

as developing and refining processes to support secure infrastructure.

Security efforts include continual review and enhancement to security procedures, monitoring for cyber threats, managing vulnerabilities in addition to promoting the timely application of security patches, and establishing audited/controlled system and data access for Data Loss Prevention (DLP). In addition, the division focuses on ensuring software technologies and business processes meet the continuously evolving PCI-DSS and regulatory requirements.

**Information Governance.** This division was formed in July of 2016. The distributed nature of data assets at the organization is becoming increasingly complex. In part, Information Governance (IG) strives to support the organization in optimizing the management and use of its data.

A significant project implemented in 2018, is the simplifying of our records retention schedule into Big Buckets. The new schedule follows State and Federal regulations and IG worked with subject matter experts in all departments to successfully train and implement the new schedule. Another key project involves identifying and curating historical records in conjunction with University of Nevada Las Vegas School of Library Sciences. This effort is focusing on a sustainable approach to identifying and preserving historic records.

Additional projects include supporting and extending the document imaging program, such as the RedEye initiative and other engineering efforts, working with various departments on records-related issues, and coordinating with Legal and Public

Information on the responsive delivery of public records requests.

During 2019-20, focus will be placed on the implementation of an Enterprise Content Management System (ECMS). This system will be comprised of strategies, methods and tools used to manage information throughout its useful life cycle within the organization. The ECMS will also facilitate the tracking of information and data contained in disparate silos and provide a platform for achieving compliance and improved governance of this data.

## **Strategic Plan Objectives and Accomplishments**

Information Technology provides support to all departments to achieve Strategic Plan goals through the acquisition, development, administration, and maintenance of technology-related products and services.

***Strategic Plan Goal – Deliver an outstanding customer service experience.***

### **2019-20 Performance Objectives**

- A new system will be implemented that combines utility customer management with support for advance metering infrastructure. The system will enhance customer service, better support conservation initiatives, further optimize service response and improve device management.
- The District will subscribe to Microsoft E5 Enterprise O365 licensing to enhance corporate security, improve productivity and team collaboration as it prepares the business for the new

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Information Technology**  
Fiscal Year Ending June 30, 2020

mobile workforce with a new modern integrated desktop experience that will allow staff to work anywhere.

### **2018-19 Major Accomplishments**

- LVVWD bill design was outsourced to a professional services company providing customers with better messaging, advanced bill forwarding and more modern bill design capabilities.
- BBWD Customer Information System (CIS) was integrated into LVVWD 's Customer Care & Billing System. BBWD's CIS, inHance, was retired, effectively eliminating redundant computer systems, providing consistency of CIS management, streamlining accounting and meter reading processes and improving customer service for BBWD.
- Completion of the first full 3-year cycle of the desktop and monitor refresh project, which has increased staff efficiency and reduced downtime and labor/maintenance cost. Project savings include recouping funds through a competitive bidding process of retired desktop equipment to offset cost.

***Strategic Plan Goal – Ensure organizational efficiency and manage financial resources to provide maximum customer value.***

### **2019-20 Performance Objectives**

- The Financials system will be upgraded to ensure continued vendor support, add process improvements, and provide redundancy of operation.

- A new purchasing system will be implemented that will streamline the procure-to-pay functions, centralize purchasing, and improve inventory management.
- A multi-year effort will commence to develop a new Engineering PMIS. Implementation of a program portal and data warehouse to combine active projects and legacy projects are among the deliverables planned. PMIS will consolidate processes, improve work flow and eliminate many legacy applications.
- Applications supporting the collection and management of Water Resource data will be upgraded to better leverage field computer functionality and to consolidate all necessary functionality into a one platform.
- Complete the replacement of the existing facilities mapping application with an updated, streamlined application which will improve the organization's ability to meet long-term management of water infrastructure assets and mapping needs.
- Upgrades to the Corporate Business Storage platform to allow for future application data growth and replacement of end of life storage arrays/platforms.
- Initiate the implementation of the ECMS to allow for the secured storage, management, and retrieval of enterprise information assets.

### **2018-19 Major Accomplishments**

- A system was implemented to automate and help assist Accounts Payable's business processes with

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Information Technology**  
Fiscal Year Ending June 30, 2020

automated data capture, auto-match, workflow, and analytics.

- Blackline was implemented to improve efficiencies in Accounting's month-end close processes, automating and standardizing key account reconciliation tasks. The system will create workflows to standardize the reconciliation tasks, enable auditing and approvals to track the status of the closing process, and provide analytics to identify issues and concerns.
- Project HUB was developed to support engineering plan acceptance, construction, and approval of new service connections. The new system better supports business processes and replaced an inefficient legacy system that reached end-of-life.
- Completed upgrade of the LIMS software to the latest release to support the Water Quality and Research Lab, allowing better automation, data reporting, workflows, and instrument integration.
- Upgraded the corporate network load-balancer and Layer 4 switches to the latest generation to support application high-availability and system redundancy.
- Upgraded the corporate network storage to ensure capacity and availability demands are at the highest level.
- Completed the 10-gigabit corporate backbone infrastructure upgrade project, which enhanced performance, reliability, and redundancy for the corporate network.

***Strategic Plan Goal – Strengthen and uphold a culture of service, excellence and accountability.***

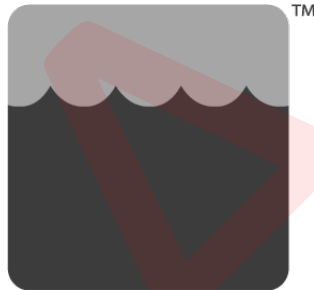
**2019-20 Performance Objectives**

- Make numerous enhancements to cybersecurity which includes implementation of additional threat monitoring tools and further data separation to achieve PCI compliance 3.2.
- Continue to improve functionality in the Genesys Pure Cloud Call Center application by adding chat payment options for customers.
- Add additional payment kiosk at the Valley View campus for more payment options for customers.

**2018-19 Major Accomplishments**

- A new system was developed improved reporting of water waste violations by customers. The application leveraged mobile device features such as location and camera to report more accurate information to investigators.
- The Customer self-service portal was enhanced to include leak notifications and Watering Group information. These features allow the portal to promote conservation messages as it accounts for 90% of traffic to LVVWD.com
- Continued implementation of Agile methodology utilizing both Scrum and Kanban principles to enhance interdepartmental collaboration and improve bidirectional customer communications.

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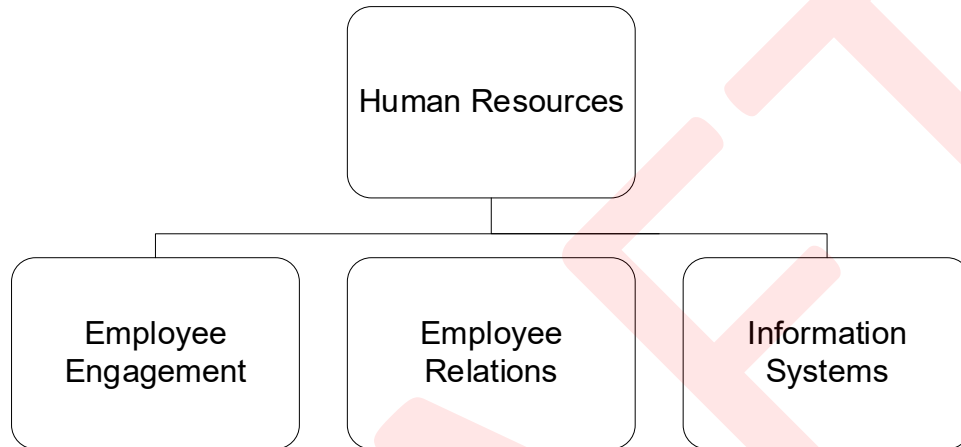




## HUMAN RESOURCES

Level: 2400

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### Mission

To recruit, develop and retain the best employees to accomplish the organization's vision, mission and goals in accordance with the organization's values and ethics.

### Budget Objectives and Highlights

The Human Resources department continues to monitor budgetary expenditures, while still pursuing its efforts towards progress with the Human Capital Management System, diversity, employee development, and productive employee relations.

### Department Description

The Human Resources department is responsible for payroll, recruitment and selection; employee development; employee relations; benefit plans; compensation and classification plans for the Las Vegas Valley Water District (LVVWD) and the Southern Nevada Water Authority (SNWA). The department also administers fair employment policies and procedures, and negotiates all collective bargaining agreements. Presently, there are three service groups within the department: Recruitment, Employee Relations and the HR Applications Team.

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Human Resources  
Fiscal Year Ending June 30, 2020

### Expenditures

| LVVWD Uses                           | Actual<br>2017-18   | Budget<br>2018-19   | Budget<br>2019-20   |
|--------------------------------------|---------------------|---------------------|---------------------|
| Materials & Supplies                 | \$ 27,683           | \$ 340,000          | \$ 150,500          |
| Maintenance & Repairs                | 759                 | 500                 | 500                 |
| Other Employee Expenses              | 299,328             | 248,500             | 393,000             |
| Other Expenses                       | 1,260,157           | 1,322,100           | 1,417,100           |
| Total Operating Expenses             | \$ 1,587,927        | \$ 1,911,100        | \$ 1,961,100        |
| Capital Expenditures                 | \$ -                | \$ -                | \$ -                |
| Payroll & Related Costs              | \$ 3,144,689        | \$ 3,751,095        | \$ 4,304,736        |
| <b>Total Department Expenditures</b> | <b>\$ 4,732,615</b> | <b>\$ 5,662,195</b> | <b>\$ 6,265,836</b> |
| FTE Positions                        | 19.8                | 23.5                | 25.6                |

## Department Performance

**Employee Engagement.** Provides recruitment and selection services; classification and salary assignment of jobs. This group develops and administers responsive recruitment and selection methods utilizing fair employment practices ensuring employees are properly classified. This group also recruits and staffs the volunteers for the Springs Preserve.

**Employee Relations.** Responsible for light duty and return to work program; administration of collective bargaining agreements; consultation regarding federal, state and local employment laws; and

internal mediation services designed to improve communication and understanding between employees. Responsible for the administration of various employee benefit plans and all employee personal records and payment data. Provides support for HR management programs, activities and processes.

**HR Information Systems.** Responsible for the administration and support of the Human Capital Management System (Workday) for the organization. This team processes payroll and benefits, prepares data in response to Workday requests for employee information; implements organizational changes; provides employee application training.



Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Human Resources  
Fiscal Year Ending June 30, 2020

## Strategic Plan Objectives and Accomplishments

The Human Resources department provides a foundation for all departments to reach the goals of the Strategic Plan through appropriate recruitment; employee development; and productive employee relations. The Human Resources department is dedicated to supporting work environments where employees are encouraged to perform at their highest potential.

***Strategic Plan Goal – Strengthen and uphold a culture of service, excellence and accountability.***

***Strategic Plan Goal – Ensure organizational efficiency and manage financial resources to provide maximum customer value.***

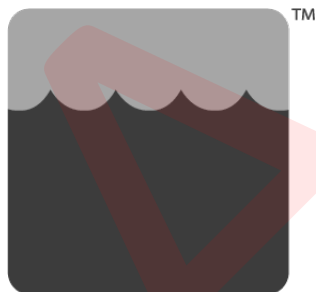
### 2019-20 Performance Objectives

- Continue to coordinate implementation of Workday modules, including e-learning, with a communication plan and training for employees in cooperation with Management Services.
- Centralize training and development within Human Resources. Work with the departments to track all training and education.
- Continue to implement an organization-wide talent management program.
- Continue to build on the success of Diversity Council and the Recreation Committee within Employee Outreach.

### 2018-19 Major Accomplishments

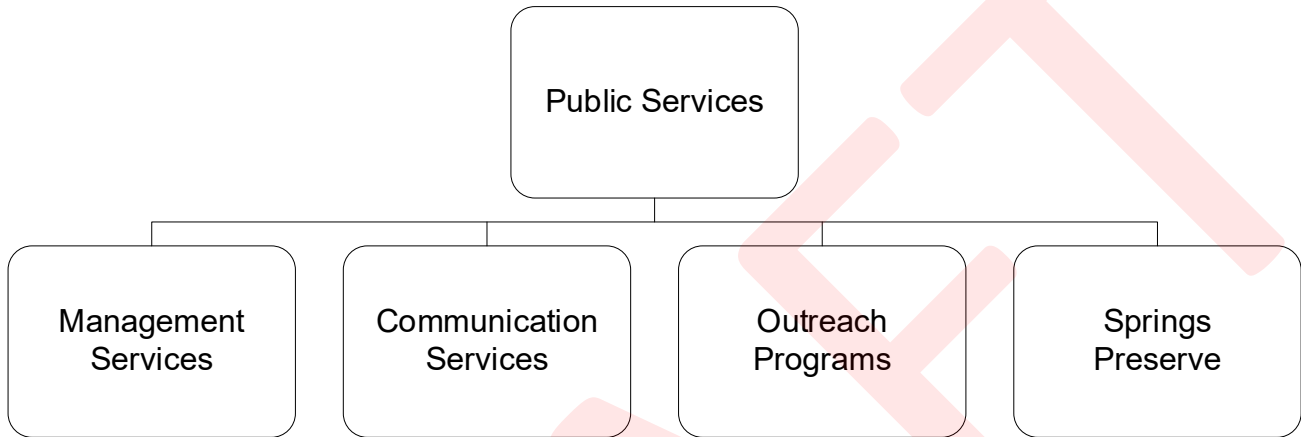
- Coordinated the successful implementation of Workday recruitment with a communication plan and training for employees in cooperation with Management Services.
- Implemented Workday for Open Enrollment and Recruitment.

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## PUBLIC SERVICES

Level: 2500



### Mission

The Public Services Department is responsible for communicating the organization's goals and initiatives to the community and educating the public about water issues. This effort is accomplished through government relations, stakeholder and customer outreach, and operation of the Springs Preserve.

### Department Description

The department is comprised of four divisions: Management Services; Communication Services; Outreach Programs; and the Springs Preserve.

Together, the four divisions work together to support customer service efforts to the organization's internal and external customers and communicate organizational initiatives to various audiences.

The Management Services division oversees the organization's government affairs, agenda

processes, public participation efforts and provides expert analysis and support to senior management.

Communication Services is responsible for communicating organizational messaging through the development and maintenance of websites, social media platforms, video production, and numerous printed materials such as bill inserts.

The Public Outreach division is responsible for providing information to the media and customers. The division also executes special events, including those at the Springs Preserve and the WaterSmart Innovations conference.

The Springs Preserve aims to build community, inspire environmental stewardship, and celebrate the vibrant history of the Las Vegas Valley.

### Budget Objectives and Highlights

The 2019-20 budget remains consistent with the organization's efforts to enhance

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Public Services**  
Fiscal Year Ending June 30, 2020

efficiency and service to internal and external customers.

### Expenditures

| <b>LVVWD Uses</b>                        | <b>Actual<br/>2017-18</b> | <b>Budget<br/>2018-19</b> | <b>Budget<br/>2019-20</b> |
|--|---------------------------|---------------------------|---------------------------|
| Materials & Supplies                     | \$ 582,390                | \$ 1,071,410              | \$ 1,215,260              |
| Maintenance & Repairs                    | 455,099                   | 777,940                   | 827,965                   |
| Rental & Leases                          | 21,814                    | 32,000                    | 27,000                    |
| Other Employee Expenses                  | 172,098                   | 276,288                   | 240,223                   |
| Other Expenses                           | 3,846,885                 | 4,722,877                 | 4,734,027                 |
| <b>Total Operating Expenses</b>          | <b>\$ 5,078,287</b>       | <b>\$ 6,880,515</b>       | <b>\$ 7,044,475</b>       |
| <br>Capital Expenditures                 | <br>\$ 530,612            | <br>\$ 2,567,016          | <br>\$ 3,302,500          |
| <br>Payroll & Related Costs              | <br>\$ 7,880,804          | <br>\$ 9,416,336          | <br>\$ 10,327,626         |
| <br><b>Total Department Expenditures</b> | <br><b>\$ 13,489,703</b>  | <br><b>\$ 18,863,867</b>  | <br><b>\$ 20,674,601</b>  |
| <br>FTE Positions                        | <br>57.8                  | <br>71.3                  | <br>75.3                  |

## Department Performance

In fiscal year 2018-19, the Public Services Department continued efforts to provide outstanding service and support of organizational initiatives and priorities:

**Management Services.** Management Services is responsible for board administration, special events, tours, meeting monitoring, presentations, coordination of special processes and offering support to organizational initiatives through a wide variety of activities.

In the last fiscal year, the division provided support to the 2019 Nevada State Legislative

Session through expert analysis and tracking of the many bills affecting the utility.

The division also led an ordinance review process to tighten existing development ordinances that prevent the installation of non-functional turf. The division supports the organization's development activities through grant development and Springs Preserve fundraising activities to offset programming, capital and operational expenses. In the last fiscal year, more than \$1.5 million was secured for the organizations.

**Communication Services.** Communication Services is responsible for developing materials that reach customers through web, social media, television, email and print. Over

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Public Services**  
Fiscal Year Ending June 30, 2020

the past year, the division coordinated a Water Smart Landscapes Rebate direct-mail campaign to 56,000 properties with on-site grass. This campaign raised awareness and contributed to a 35 percent increase in turf conversions over the previous year.

Communication Services also recently launched an SNWA Instagram account to expand the reach of conservation and water quality messaging to younger audiences. The division also continued managing the social media accounts for LVVWD, SNWA and the Springs Preserve, which continue to add followers and earn accolades.

**Outreach Programs.** The Outreach Programs Division is responsible for developing and implementing public awareness and education campaigns that support and advance organizational initiatives, managing external communications with media and journalists, and coordinating the Springs Preserve's cultural and community events.

Recent outreach efforts include the development of integrated communication campaigns for the SNWA and LVVWD to spur conservation and water-waste awareness among residents and businesses in the community. Last year, SNWA developed and launched the "Every Drop Counts" campaign, which focused on the community's collaborative successes in conserving water and underscored key conservation programs, such as Water Smart Landscapes.

Two new educational campaigns are in development and scheduled to debut in May 2019. They will target residents and businesses and emphasize water-waste reduction, non-functional turf removal and

fixing leaks. Conservation-related outreach activities will increase as the Division implements various targeted grassroots tactics to promote conservation programs. Outreach related to the Springs Preserve will continue to focus on special events and general admission.

Additionally, the division managed more than 100 inquiries and records requests from a variety of local, national and international news organizations throughout the past year.

**Springs Preserve.** Springs Preserve staff is responsible for overall facility operations and developing programs and events that enhance the visitor experience. The community has taken notice of staff's commitment to excellence: the Preserve was voted the "Best Educational Family Outing" and "Best Interactive/Hands-on Attraction" in Desert Companion's 2019 Best of the City edition. The Springs Preserve hosted 315 field trips for more than 27,000 students in Clark County, and its summer camps saw an increase of 48 percent in attendance from last fiscal year. In addition to the seven traveling exhibits hosted at the Springs Preserve over the past year, new interpretive panels about Mojave Max and Desert Living Center sustainable architecture were added to provide visitors with a more informative experience.

## **Strategic Plan Objectives and Accomplishments**

The Public Services Department is committed to accomplishing the goals and objectives set forth within the organization's Strategic Plan. While the department is not solely responsible for one goal, it works to support

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Public Services  
Fiscal Year Ending June 30, 2020

each goal through the coordination and administration of support functions.

New in 2019, the Springs Preserve launched a combination ticket for visitors seeking an all-inclusive experience.

***Strategic Plan Goal – Assure quality water through reliable and highly efficient systems.***

**2019-20 Performance Objectives**

- Provide a high-quality water supply and delivery system that is safe, sustainable and promotes the vitality and prosperity of the community.
- Maintain high levels of reliability through the application of a sufficiently funded asset management program.
- Continually improve operating efficiencies by benchmarking to leading industry standards.
- Ensure a high quality of local and regional water resources through comprehensive water quality and watershed management.

**2018-19 Major Accomplishments**

- River Mountains and Alfred Merritt Smith Water Treatment Facilities received the prestigious Partnership for Safe Water-Excellence in Water Treatment award. This award recognizes Water Treatment plants that have achieved the highest possible levels of turbidity mitigation performance and have met very stringent performance goals.
- The SNWA was acknowledged and recognized by the Leading Utilities of the World (LUOW), a global network of the world's most innovative water utilities and

agencies for its proactive and effective response to drought.

***Strategic Plan Goal – Deliver an outstanding customer service experience.***

**2019-20 Performance Objectives**

- Assess customer satisfaction, establish benchmarks and determine where improvements are required
- Continuously improve service processes and practices based on customer assessments.
- Utilize appropriate technology to simplify and improve the customer experience.
- Monitor other organizations and industries to identify innovations, best practices and ways to improve the customer experience.

**2018-19 Major Accomplishments**

- Launched a new Springs Preserve membership campaign that increased employee membership by more than 25 percent and increased by 14 percent the existing members who upgraded to a donor level membership.
- Completed a comprehensive study and recommendations report to implement wayfinding and update signage at the Springs Preserve to improve the guest experience.
- Continued an active social media program designed to increase attendance and revenue. Social media posts received 10.1 million impressions, more than 74,000 engagements, 22,000 link clicks, and 1.2 million video views during the first seven months of the 2018-2019 fiscal year.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Public Services**  
Fiscal Year Ending June 30, 2020

- Public Outreach coordinated a variety of technical and media tours of the Low Lake Level Pumping Station construction site, which included more than 250 community members, engineering professionals, students, and journalists. Outreach also includes considerable communication with the National Park Service to schedule and manage activities at the construction site within the Lake Mead National Recreation area.
- The redesigned Springs Preserve website was recognized for excellence in web design by the Las Vegas Chapter of the Public Relations Society of America.
- Responded to approximately 450 phone inquiries on the Groundwater Information Line.
- Conducted outreach for approximately 70 major construction projects to rehabilitate or repair the water system.
- Community outreach efforts continue to raise awareness and provide education supporting the SNWA's water conservation initiatives. Also, communications campaign for the Springs Preserve and the launch of a public education campaign highlighting community investment in water infrastructure.

***Strategic Plan Goal – Anticipate and adapt to changing climatic conditions while demonstrating stewardship of our environment.***

**2019-20 Performance Objectives**

- Enhance understanding of climate change impacts among ourselves and our stakeholders.
- Conduct long-term water resources and

facilities planning to ensure adequate resources are available when needed.

- Champion innovative water efficiency initiatives to maximize beneficial use of resources.
- Incorporate sustainable best practices into organizational initiatives and inspire positive change.

**2018-19 Major Accomplishments**

- Continued support of the Sustainability Cross-Departmental Team to examine internal processes and develop sustainable practices within the organization.
- Completing the State required five-year Conservation Plan (2019-2024). The plan outlines the conservation programs that are and will be implemented, and the expected savings from each. The plan is expected to be submitted in May 2019.
- Created spring seasonal compliance messaging and artwork communicating the mandatory watering schedule to more than 500,000 single-family homes in the SNWA services area (Las Vegas, Henderson, North Las Vegas and Boulder City).
- Published an enhanced online Report Water Waste form that makes it easy to submit accurate information about a property wasting water by automating the location, types of violations and adding the ability to submit photographs of the waste.
- Met with approximately 20 groups/organizations to educate Southern Nevadans on the continued and worsening drought conditions and how it is impacting water levels at Lake Mead.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Public Services  
Fiscal Year Ending June 30, 2020**

The goal is to inform audiences that conservation is more important than ever.

***Strategic Plan Goal – Ensure organizational efficiency and manage financial resources to provide maximum customer value.***

**2019-20 Performance Objectives**

- Increase customer communication so there is a better understanding of the organization's products and services.
- Ensure predictable rates that are aligned with community expectations.
- Establish and utilize benchmarks to explore new opportunities for improved efficiencies.
- Formulate risk assessments and develop alternatives for expenditure decisions.

**2018-19 Major Accomplishments**

- The Legislative Team has taken a leading role to meet with the Governor's office and other stakeholders to draft a bill that would provide equitable funds to protect, preserve and obtain benefits of the property and natural resources of Nevada.
- Coordinated customer outreach to successfully migrate the BBWD to the LVVWD billing system.
- Successfully coordinated several Springs Preserve special events to sell-out crowds, including Ice Cream Festival, Brews & Blues, Grapes & Hops, Haunted Harvest, Día de Muertos, and Holiday Express.

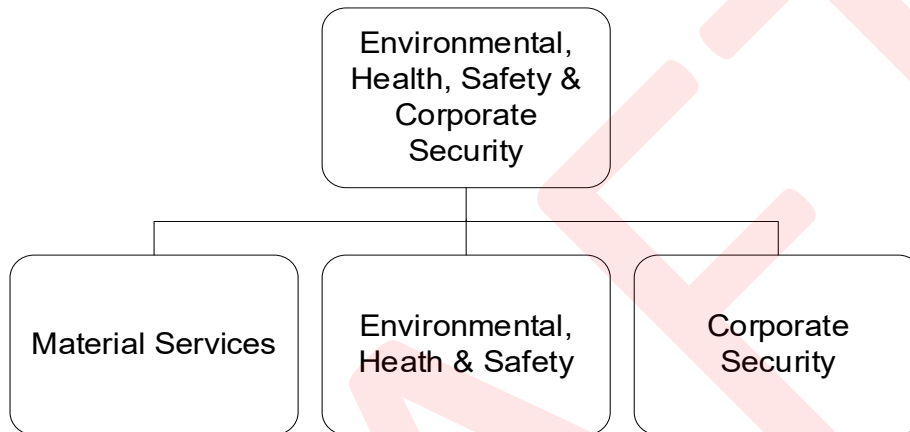


Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Environmental, Health, Safety & Corporate Security  
Fiscal Year Ending June 30, 2020

## ENVIRONMENTAL, HEALTH, SAFETY & CORPORATE SECURITY

Level: 2700

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### Mission Statement

Provide a safe, secure environment and supply logistical services to employees, customers and the community.

### Department Description

The Environmental, Health, Safety & Corporate Security (EHSCS) department works to ensure organizational compliance with all applicable statutes; maintain the safety and security of our employees, facilities and customers, as well as a high performance environmental, health and safety (EHS) culture; and develop strategies and programs to eliminate or mitigate risk and cost exposure.

Material and Mail Services delivers reliable customer service by providing quality operating and maintenance products, material requirements planning, inventory management, storage and retrieval services.

### Budget Objectives and Highlights

The 2019-20 EHSCS budget contains the funding necessary to support the safety and security of our organization's workforce, customers and facilities. Our departmental strategic planning efforts have allowed us to streamline processes to reduce costs.

Material Services supports sustainability through inactive and obsolete inventory reduction, repurposed shipping materials, and administers, coordinates and manages the investment recovery efforts for various recyclable and repurposed equipment and material through the auction program and bid sales.

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
**Environmental, Health, Safety & Corporate Security**  
Fiscal Year Ending June 30, 2020

### Expenditures

| <b>LVVWD Uses</b>                    | <b>Actual<br/>2017-18</b> | <b>Budget<br/>2018-19</b> | <b>Budget<br/>2019-20</b> |
|--------------------------------------|---------------------------|---------------------------|---------------------------|
| Materials & Supplies                 | \$ 265,271                | \$ 505,000                | \$ 1,023,000              |
| Maintenance & Repairs                | 111,522                   | 398,000                   | 190,000                   |
| Rental & Leases                      | 24,496                    | 20,000                    | 25,000                    |
| Other Employee Expenses              | 323,348                   | 421,500                   | 432,500                   |
| Other Expenses                       | 1,764,872                 | 1,817,800                 | 2,170,300                 |
| Total Operating Expenses             | \$ 2,489,510              | \$ 3,162,300              | \$ 3,840,800              |
| Capital Expenditures                 | \$ -                      | \$ 81,600                 | \$ -                      |
| Payroll & Related Costs              | \$ 6,508,346              | \$ 6,920,216              | \$ 6,958,480              |
| <b>Total Department Expenditures</b> | <b>\$ 8,997,856</b>       | <b>\$ 10,164,116</b>      | <b>\$ 10,799,280</b>      |
| FTE Positions                        | 59.9                      | 48.0                      | 45.8                      |

## Department Performance

### Environmental, Health and Safety Division.

The EHS division is responsible for overall management of the LVVWD's Environmental, Health and Safety program to guarantee a safe workplace for all employees. EHS tracks leading and lagging indicators in the program and makes necessary adjustments to ensure a positive safety culture is maintained. EHS provides ongoing environmental, health and safety training for employees. The division is responsible for permitting and compliance with the federal, state and local agency environmental regulations regarding pollution control (including air pollution, water pollution, land disturbances, implementation of chemical control and waste management), and manages environmental permitting and

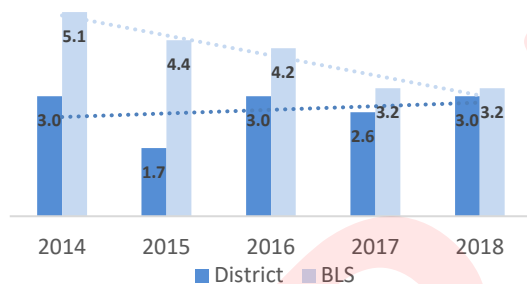
compliance reporting for operations and maintenance. Maintaining proper upkeep and care of the LVVWD's Process Safety Management program for a highly hazardous chemical (chlorine) at Alfred Merritt Smith Water Treatment Facility (AMSWTF). Develops and publishes safety procedures ensuring compliance with Occupational Safety and Health Administration (OSHA) and state regulations. EHS employs an aggressive accident prevention program, investigates on-the-job accidents and injuries, and manages a comprehensive Fleet Safety program that encompasses vehicle and heavy equipment training, defensive driving education, and commercial driver licenses. The division conducts monthly meetings with the EHS Steering Committee, comprised of employees from various departments and labor

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
**Environmental, Health, Safety & Corporate Security**  
Fiscal Year Ending June 30, 2020

management representatives. The health discipline manages the Radiation Safety, Asbestos, Lead Awareness, and Hearing Conservation programs for the organization.

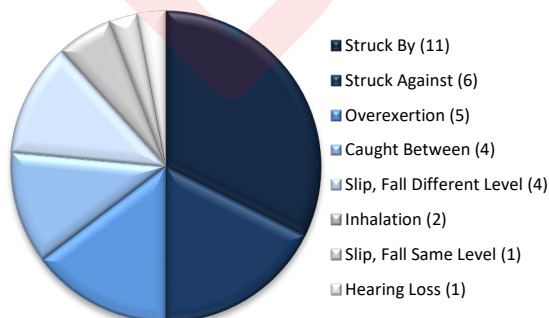
## Recordable Injury Rates

EHS tracks recordable injuries and illnesses annually and compares them to the Bureau of Labor Statistics (BLS) annual averages for similar industries. The recordable injury rate increased from 2.6 to 3.0.



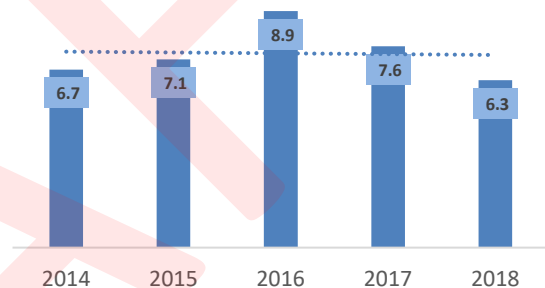
## Recordable Injuries by Category

There were 11 “struck by” injuries where employees were hit by equipment and other objects while on the job and six “struck against” injuries. These two categories represent 50 percent of the total recordable injuries in 2018. As a result, EHS has made this a special interest item and will conduct spot audits that focus on factors that contributed to the 17 injuries experienced in 2018.



## Vehicle Accidents & Rates

For the second straight year, the LVVWD experienced a decrease in at-fault vehicle accidents; 34 in 2017 vs. 29 in 2018. The LVVWD’s vehicle accident frequency rate decreased from 7.6 in 2017 to 6.3 in 2018. Rates are computed using the following formula: # vehicle accidents X 1,000,000 miles/actual miles driven.



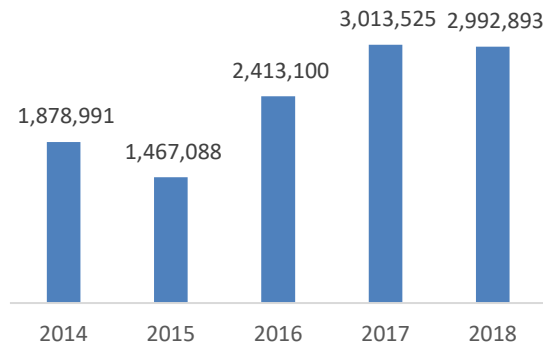
## Health Assessments

There are 180 LVVWD employees in the Hearing Conservation Program; 100 percent compliance was obtained related to audiometric testing in 2018. There were 278 LVVWD employees respiratory fit-tested in 2018. A quantitative fit testing device was purchased to precisely measure respirator fit. This purchase allowed a work center to divest its supplied air breathing apparatus and only use full-face air purifying respirators.

## Total Pounds Recycled

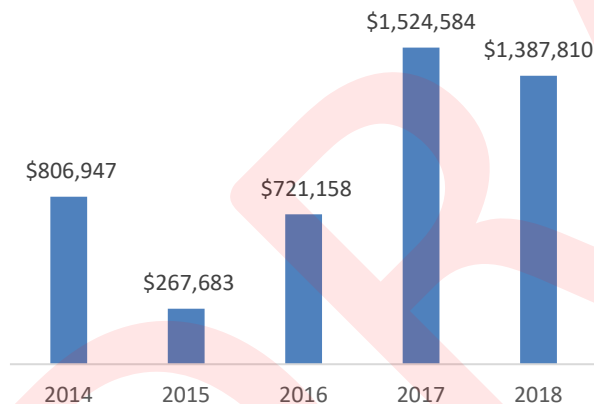
LVVWD and SNWA recycled a combined total of 2,992,893 pounds of materials in 2018, which is 99.32 percent of the total materials recycled in 2017.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Environmental, Health, Safety & Corporate Security**  
Fiscal Year Ending June 30, 2020



## Total Revenue Generated

Total revenue for 2018 was \$1,387,810 (scrap = \$347,649, auctions = \$14,921, vehicles = \$1,025,240).



**Corporate Security Division.** Corporate Security's mission is to assure the protection of people, property, facilities and water treatment/delivery systems by providing 24-hour security services on a system-wide basis.

Corporate Security staff and officers provide fire protection equipment inspections, assist with customer parking, escort customers and visitors to areas where they can conduct their business, provide information assistance, monitor access to restricted areas, and provide access to facilities and monitoring of vendors' visits during and after business

hours. Security officers patrol and protect all LVVWD/SNWA properties by responding to intrusion alarms at outlying properties and patrolling reservoir and pumping station sites. Physical security networks and systems (e.g., electronic access control systems, security camera systems, alarms and locking systems) are in place and monitored 24 hours daily by security officers.

Corporate Security operates a 24/7 "Security Center" where security officers conduct video surveillance, log all radio communications, and provide central response to alarms, calls for assistance, and accidents. Corporate Security also provides on-scene incident command services in emergency situations, and has formed partnerships with federal, state and local law enforcement authorities and other utilities/infrastructures in a collaborative effort to protect against malicious acts toward people, sites and systems.

**Emergency Management.** Assure a water system that is able to adapt to or withstand the effects of a malevolent act or natural hazard without interruption to the asset's or system's function, or if the function is interrupted, to rapidly return to a normal operating condition.

Emergency Management staff will conduct work in all five phases of emergency management: (mitigation, planning, prevention, response and recovery) to meet or exceed Federal guidelines for water sector preparedness. This will be accomplished through the implementation of plans, processes and procedures that increases resiliency by leveraging, organic and valley-wide resources and capabilities.

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
**Environmental, Health, Safety & Corporate Security**  
Fiscal Year Ending June 30, 2020

**Material Services.** Material Services' primary mission is to deliver reliable customer service by providing quality operating and maintenance products, material requirements planning, inventory management, storage and retrieval services. To facilitate this level of customer service Material Services, as of January 2019 managed inventory assets valued over \$14 million consisting of approximately 13,241 inventory items. Material Services partners with internal customers to identify, forecast, and schedule Capital and O&M project material requirements and deliveries across the LVVWD network.

**Mail Services.** Mail Services processes incoming and outgoing intercompany and United States Postal Service (USPS) mail and office supply deliveries. Mail Services delivers to all facilities throughout the LVVWD service network. Mail Services' also performs the delivery and posting of agenda public notices, administering LVVWD's postage budget and processing special communication campaign projects for Public Services. Terrorism training certification is required annually by all Mail Services personnel.

### **Strategic Plan Objectives and Accomplishments**

***Strategic Plan Goal – Assure quality water through reliable and highly efficient systems.***

#### **2019-20 Performance Objectives**

- Operate the Security Center, monitoring organizational security systems, and continue to implement automated security systems to improve the protection of facilities.
- Expand the use of card activated access control, and security system technologies to enhance efficiency.
- Review maintenance and services contracts to ensure EHS operational compliance.
- Train key employees and conduct drills on the LVVWD/SNWA combined Emergency Response Plan (ERP).
- Explore new technologies and methods of utilizing the security surveillance system.
- Continue partnership with the Department of Homeland Security and the Southern Nevada Counter-Terrorism Center to prepare for potential threats to facilities or the water industry.
- Conduct weekend/after-hours spot audits of industrialized work activities supporting water treatment, water quality, water distribution or other activities.
- Conduct weekend/after-hours spot audits of industrialized work activities supporting water treatment, water quality, water distribution or other activities.
- Complete four comprehensive audits of departments involved in high-hazard activities to measure regulatory compliance.
- Review and update the EHS Manual and all internal EHS procedures.
- Maintain a formalized training schedule for all EHS instructor-led courses.
- Benchmark accident/injury standards to comparable industries via BLS rates.
- Obtain all required operational water pollution control permits and continually monitor water discharge

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Environmental, Health, Safety & Corporate Security**  
Fiscal Year Ending June 30, 2020

parameters to reduce pollutants discharged.

- Develop the LVVWD's Recovery Plan.
- Implement a Mass Notification System.
- Conduct a Risk and Resiliency Assessment in accordance with the American Water Infrastructure Act.
- Complete renovation of an alternate Department Operations Center (DOC).
- Maintain rigorous training and exercise programs.
- Maintain cyclical plans review, revision and improvement based on training and exercise results.
- Continue development of an incident management team (IMT).
- Develop and implement a training program for task-level incident command system tactics.
- Work in conjunction with Distribution, Field Services and Big Bend Water District (BBWD) teams to improve parts availability and mobility at the Laughlin site to support possible future activities.

#### **2018-19 Major Accomplishments**

- Continued supporting and promoting the Department of Homeland Security's national "If You See Something, Say Something™" campaign.
- Completed over 130 documented audits (spot and comprehensive) throughout the calendar year.
- Conducted over 250 investigations related to recordable injuries, preventable vehicle accidents, preventable property damage incidents, near-misses, chemical spills

and first-aid events. Recommended corrective actions were included as appropriate to reduce the chance of recurrence.

- Achieved a LVVWD incidence rate of 3.0, compared to the BLS rate of 3.2, extending the LVVWD's years long history of falling below BLS rates.
- EHS renewed 67 environmental permits during the 2018 calendar year.
- The LVVWD was not issued any OSHA citations in 2018.

#### **Corporate Security**

- Installed access control car readers at the Spring Mountain Durango site for access improvement and control.
- Installed new cameras on the sodium building at the Valley View campus.
- Conducted critical infrastructure vulnerability and risk assessment process with the Department of Homeland Security Protective Security Advisor.

#### **Emergency Management**

- "Foot Stomp 2018" Chlorine Release Incident Drill.
- Delivered 30+ hours of instruction to 100 students.
- County-wide Threat Hazard Identification and Risk Assessment.
- AWWA and FEMA first mutual aid Resource Typing Guide for water sector.
- Emergency Operations Plan (EOC) and Continuity of Operation Plan (COOP) revision.
- Re-establish Emergency Management Steering Committee quarterly



Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
**Environmental, Health, Safety & Corporate Security**  
Fiscal Year Ending June 30, 2020

meetings and prepare coordinators programs.

- Coordinate 20 LVVWD personnel to attend training at the Center for Domestic Preparedness in Anniston, Alabama.

***Strategic Plan Goal – Deliver an outstanding customer service experience.***

**2019-20 Performance Objectives**

- Explore and test new security technology and systems.
- Identify additional opportunities for security service and collaboration with internal departments.
- Attend briefings, meetings, training and support groups such as the Utility Pipeline and Coordinating Group, InfraGard, Southern Nevada Counter-Terrorism Center, Department of Homeland Security, Local Emergency Planning Committee, and Southern Nevada Health Preparedness Coalition.
- Provide evaluation forms for instructor-led courses to assess customer satisfaction.
- Participate in local association meetings to gather information on best management practices to support the Safety Management System and adopt and implement proven work methods.
- Participate in internal and external committees or groups to improve communication and enhance customer service.
- Seek professional training opportunities to augment EHS skills and knowledge.
- Provide evaluation forms for

instructor-led courses to assess customer satisfaction.

- Implement a Bleeding Control Program through American Red Cross.
- Establish monthly planning and review meetings with Field Services to monitor and ensure consistent meter/register/parts material management and stocking for short and long-term projects.

**2018-19 Major Accomplishments**

- Collected student evaluation forms after each EHS instructor-led course to improve future course curriculums.
- Participated in local and national professional organizational meetings, seminars and conferences specific to water treatment and delivery, with EHS staff conducting presentations at several events.
- Represented EHS in all department safety action teams, the EHS Steering Committee and several cross-department teams (CDT) to include the specifications committee and the sustainability committee.
- Updated electronic materials on the Hydroweb to ensure that LVVWD employees have access to useful safety and health literature, information and videos for training.
- Participated in continuing EHS education, including webinars, local training opportunities and online training to assist in professional development and maintenance of professional certifications.
- Organized EPA Security workshop for police, fire, and first responders to recognize criticality of waters systems and elicit aid if needed.

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
**Environmental, Health, Safety & Corporate Security**  
Fiscal Year Ending June 30, 2020

- Increased onsite training and strengthened partnerships with other responders by allowing them to use our facility and provide rescue and emergency response training.
- Enhanced security in Customer Care by adding more cameras and creating four safe rooms using Nightlock device.
- Established new duress signal for employees in company vehicles to alert security of a potential hostile individual in vehicle or surrounding area.
- Conducted Active Shooter preparedness training for 70 percent of LVVWD employees.
- Coordinate with Facilities during upcoming solar carport construction to ensure employee security and safety.
- Provided enhanced security screening and protection at SNWA public meetings and Springs Preserve events.
- Hosted FEMA Integrated Emergency Management Course for the City of Las Vegas; held at the Springs Preserve.

***Strategic Plan Goal – Anticipate and adapt to changing climatic conditions while demonstrating stewardship of our environment.***

**2019-20 Performance Objectives**

- Prepare and submit environmental reports to regulatory agencies.
- Review current recycling and waste streams at manned facilities to identify new recycling opportunities.
- Storm Ready District certification through the National Weather Service (NWS) and the National Oceanic and

Atmospheric Administration (NOAA)

- For the FY 2018-19 the combined metals recycling sales netted \$347,648 and \$14,921 for obsolete equipment and material auctions; all proceeds were debited to the LVVWD's operating fund.

**2018-19 Major Accomplishments**

- Tracked and submitted operational environmental permits in a timely fashion with zero negative impact to the LVVWD.
- EHS monitored the recycling program for the LVVWD. Total revenue for recycled material in 2018 was \$1,387,810 (scrap = \$347,649, auctions = \$14,921, vehicles = \$1,025,240).
- In 2018, the LVVWD generated a combined total of 5,270 pounds of hazardous waste at a cost of \$18,185. The 0.5 percent decrease in the generation of hazardous waste from the previous year is attributed to the continued focus on reducing hazardous waste generation through reducing chemical use, substituting more environmentally preferable chemicals, and reducing waste.
- Conducted closed Point of Dispensary (POD) exercise with Southern Nevada Health District as part of pandemic planning.
- Provided additional security presence for our employees during heightened customer interactions on campus and at job sites.
- "The Great ShakeOut 2018" earthquake drill.



Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
**Environmental, Health, Safety & Corporate Security**  
Fiscal Year Ending June 30, 2020

***Strategic Plan Goal – Develop innovative and sustainable solutions through research and technology.***

**2019-20 Performance Objectives**

- Enhance security blotter system to track theft, vandalism and suspicious activity accurately.
- Evaluate mobile technologies to improve efficiency.
- Actively participate in the Avantis 6.2 software upgrade facilitating future mobility functionality in all warehouses.
- Lexray – digital common operating picture and body cams to increase situational awareness for decision makers observing field operations remotely or simultaneously.
- LifeSize System – increased our ability to conduct video teleconferencing with internal and external stakeholders, increasing interoperability and efficiency.
- Wireless router in the Department Operations Center (DOC) – established redundant wireless connectivity independent from enterprise network and established as a preferred customer for cellular WiFi network to increase wireless resiliency during an emergency or extended power outage.
- Alert Media Internal Mass Notification System – established ability to communicate with all employees through multi-media notification system which includes text, talk and email messaging capabilities.

- Implement battery operated weather radios for situational awareness during extended power outages.

**2018-19 Major Accomplishments**

- Improved security and reliability of gate function by installing Wallace gates at AMSWTF.
- Security Center capability to monitor over 700 cameras by using video analytics in the current camera system.
- Implemented Origami as the single means of tracking and storing accident/injury investigations and EHS audit data as well as information for Safety Action Requests.
- On-going design of Origami Phase III, which will include sections for an automated Discharge Monitoring Report and Supervisor/Manager/Safety Action Team automated spot audit.
- Improved security and reliability of gate function by installing Wallace gates at AMSWTF.
- Converted from security blotter to Origami system. Origami provides more detail and reporting features.
- Began installation of Medeco electronic key system on pumping plants and offices.
- Replacing LobbyGuard access control system with Condeco visitor management system.
- Began installation of Nightlock door security devices on safe rooms at LVVWD, MCC and Springs Preserve.
- Installation of security film on Human Resources and Information Technology Software Development area exterior doors and windows.

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
**Environmental, Health, Safety & Corporate Security**  
Fiscal Year Ending June 30, 2020

- Texas A&M Engineering Extension (TEEX) Water Sector Emergency Course.
- Preparedness Center for Domestic Preparedness at Anniston, AL.
- Various Emergency Management Institute (EMI) courses.

***Strategic Plan Goal – Ensure organizational efficiency and manage financial resources to provide maximum customer value.***

**2019-20 Performance Objectives**

- Identify new regulations and policy changes and collaborate with other pertinent agencies.
- Assess all security processes, priorities and resource utilization to improve efficiency.
- Continue to develop and implement Inventory Management strategy realigning materials management to be consistent and cost effective across the LVVWD network to minimize duplication and improve customer service.
- Manage \$1.5M reduction in operating inventory through modernization and implementation of Best Practice inventory management and reporting.

**2018-19 Major Accomplishments**

- Adjusted instructor-led EHS training schedule to ensure critical safety training is offered more frequently.
- Actively monitored changes to OSHA related to silica and cranes. Successful implementation of newly developed silica program. The crane standard is being reviewed for program plans development.

***Strategic Plan Goal – Strengthen and uphold a culture of service, excellence and accountability.***

**2019-20 Performance Objectives**

- Engage in future construction and maintenance contracts to ensure security issues and concerns are addressed at the earliest stages.
- Conduct management, leadership team and divisional staff meeting to update employees on all major projects and communicate status changes and challenges.
- Conduct instructor-led EHS training for LVVWD employees.
- Provide EHS information updates to the LVVWD through electronic Management Advisory and Safety Alert messages, Pipeline and Hydroweb articles.
- Provide diverse learning opportunities in all department disciplines.
- Recognize employees/teams for their unique talents and accomplishments.
- Lost-time accident history: LVVWD Material Services – 24 years, SNWS Material Services – 17 years, Mail Services – 6 years.
- Received an unmodified opinion for a near-perfect inventory accuracy audit from external auditors, PBT&K, for the LVVWD and SNWS Material Services warehouses.

**2018-19 Major Accomplishments**

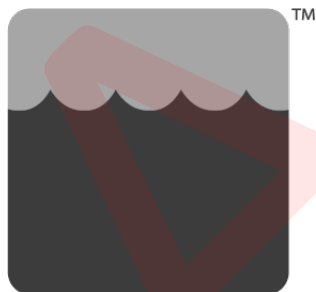
- Completed the annual EHS trend report which highlights major EHS accomplishments throughout 2018.
- Received zero OSHA citations in 2018.
- Received 13 Safety Action Requests,

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Environmental, Health, Safety & Corporate Security**  
Fiscal Year Ending June 30, 2020

each of which were tracked and monitored to ensure corrective actions were implemented.

- Developed and implemented the 101 Critical Days of Summer safety campaign.
- Applied Origami software risk accident/incident tracking and reporting process through the Security Center.
- Continued 100 percent ID badge checks at all entrance points to facilities, maintaining tighter control of access points.
- The LVVWD was selected by AWWA as the winner of the Wendell LaDue Safety award for the Class IV (>500 employees) division.
- Participated in several professional development courses while continually searching for and participating in relevant low or no-cost training opportunities.
- Achieved 2018 Safety Stand Down Day participation of over 265 employees.
- EHS monitored 18 scheduled outage events and worked with respective work groups to ensure employee safety; zero injuries occurred during the outages.
- EHS worked with the Springs Preserve staff to see 10 major public events successfully accomplished in 2018. EHS involvement included active participation in the planning stage as well as pre-event audits and spot audits during the events.
- Added Security Supervisor position on grave shift to allow around-the-clock coverage to respond and manage critical incidents and provide increased security presence.
- Represented LVVWD and SNWA on multiple regional and national committees and working groups for several major regional/comprehensive plans.

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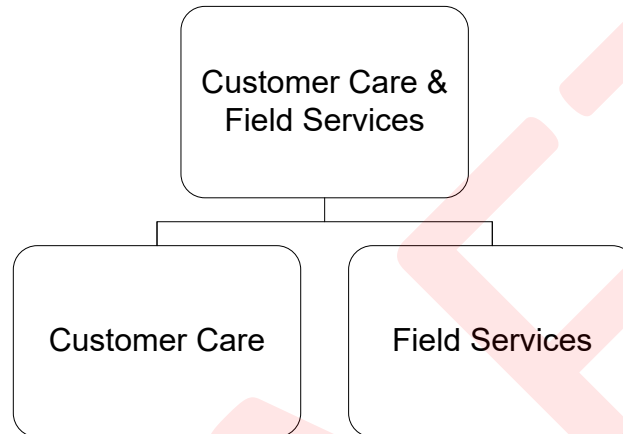


Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Customer Care and Field Services  
Fiscal Year Ending June 30, 2020

## CUSTOMER CARE AND FIELD SERVICES

Level: 2800

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### Mission

To deliver an outstanding customer experience by providing accurate service data to ensure timely billing and responsible customer concern resolution.

with the organization's efforts to reduce costs where possible while continuing to improve departmental efficiencies through both technological and performance-based enhancements to provide the optimum customer experience.

### Department Description

The Customer Care and Field Services department was created with the express goal of developing a customer facing department dedicated to delivering world class service. The department handles all customer transactions from meter to cash.

**Customer Care.** Continuing efforts to reengineer business processes and implement new technology to support the meter to cash philosophy, minimizing field impacts and enhancing the overall customer experience.

### Budget Objectives and Highlights

The 2019-20 budget for the Customer Care and Field Services department is consistent

**Field Services.** The 2019-20 Budget Plan contains funding for meter maintenance, advanced metering infrastructure, and operational costs.

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
**Customer Care and Field Services**  
Fiscal Year Ending June 30, 2020

### Expenditures

| <b>LVVWD Uses</b>                    | <b>Actual<br/>2017-18</b> | <b>Budget<br/>2018-19</b> | <b>Budget<br/>2019-20</b> |
|--------------------------------------|---------------------------|---------------------------|---------------------------|
| Materials & Supplies                 | \$ 1,254,501              | \$ 2,496,250              | \$ 2,094,250              |
| Maintenance & Repairs                | 99,255                    | 123,000                   | 2,042,500                 |
| Rental & Leases                      | -                         | -                         | -                         |
| Other Employee Expenses              | 98,566                    | 112,500                   | 155,035                   |
| Other Expenses                       | 2,250,739                 | 3,472,100                 | 7,762,000                 |
| Total Operating Expenses             | \$ 3,703,062              | \$ 6,203,850              | \$ 12,053,785             |
| Capital Expenditures                 | \$ -                      | \$ 1,665,000              | \$ -                      |
| Payroll & Related Costs              | \$ 20,217,112             | \$ 22,911,203             | \$ 24,539,171             |
| <b>Total Department Expenditures</b> | <b>\$ 23,920,174</b>      | <b>\$ 30,780,053</b>      | <b>\$ 36,592,956</b>      |
| FTE Positions                        | 149.2                     | 170.1                     | 170.5                     |

### Department Performance

In 2018-19, the Customer Care and Field Services department continued to refine business processes and advance technology in service to the Las Vegas Valley Water District's (LVVWD) customers. The department focused efforts on maximizing the customer experience through four strategic goals: Delivering an Outstanding Customer Experience; Anticipate and Adapt to Changing Climatic Conditions while Demonstrating Stewardship for our Environment; Develop Innovative and Sustainable Solutions through Research and Technology; Strengthen and Uphold a Culture of Service, Excellence, and Accountability.

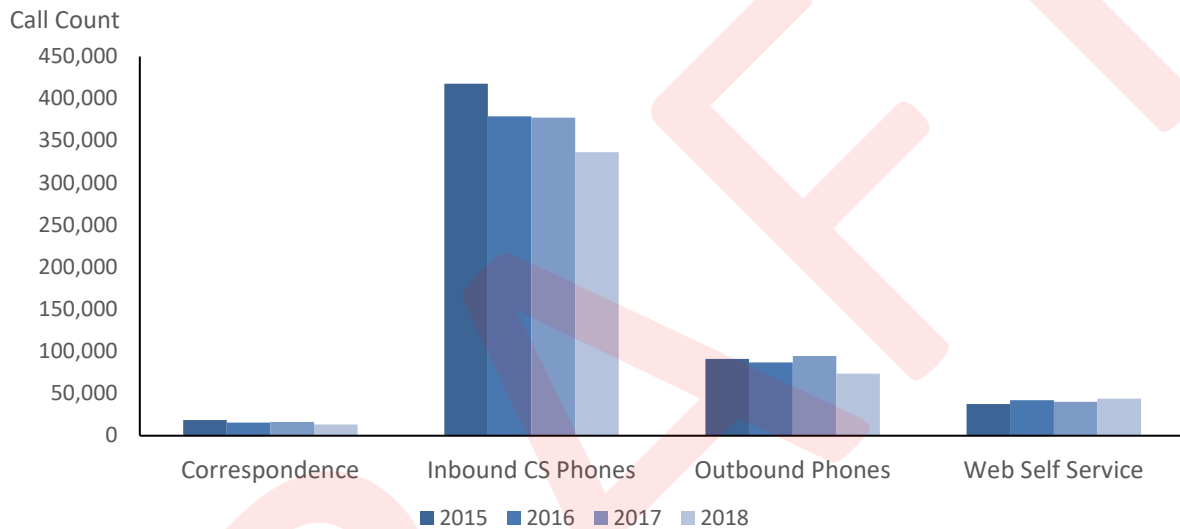
**Customer Care.** The Customer Care division serves as the primary point of contact for internal and external service inquiries—supporting approximately 397,000 active services. The division manages the customer care phones, web requests, correspondence and walk-in requests. Customer Care handles payments, pay arrangements, collection courtesy calls, delinquent account processing, high consumption requests, water-waste complaints, 24/7 emergency phone coverage, along with providing monthly billing to the LVVWD's customers.

Customer care continues its proactive approach to customer education and service through outbound customer service calls and customer notifications.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Customer Care and Field Services**  
 Fiscal Year Ending June 30, 2020

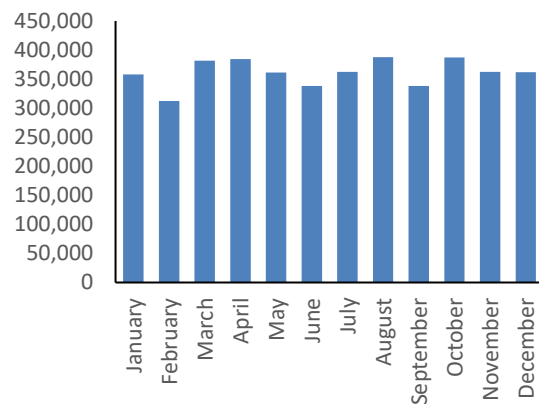
The following graph illustrates the shift in volume distribution over the past four years as process and technical innovations advance the meter to cash philosophy.

### Customer Care Phone and Correspondence Volume



Advancements in processes and technology have improved service performance and bill outcomes. These efforts are best illustrated in a low percentage of estimated bills. Customer Care and Field Services manages the monthly billing process from meter to cash for residential customers, large services, developer accounts, adjustments, investigations, quality control, supplemental, fire protection services, consumption notifications and mobile meters.

### Bills Generated 2018



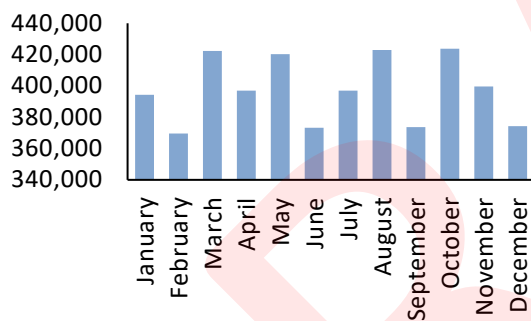
The following chart depicts the total number of bills generated monthly in 2018.

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
**Customer Care and Field Services**  
Fiscal Year Ending June 30, 2020

**Field Services:** The Field Services division is responsible for reading and maintaining meters for approximately 397,000 services in Las Vegas, Searchlight, Blue Diamond, Kyle Canyon, Laughlin and Jean. The division also responds to leak investigations, low pressure, high consumption, water waste inquiries, billing requests, and turn ons/shut offs.

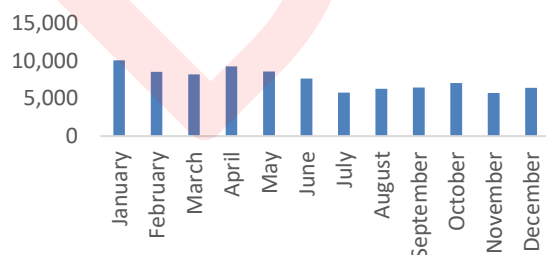
The 2018 Meter Reads chart illustrates the number of meter reads processed by Field Services in 2018 (Over 4.6 million total).

**Meter Reads 2018**



The following chart illustrates the number of work orders processed by Field Services in 2018 (Over 90,000 processed).

**Field Activities Completed 2018**



## Strategic Plan Objectives and Accomplishments

### *Strategic Plan Goal – Deliver on Outstanding Customer Service Experience.*

#### 2019-20 Performance Objectives

- Continued assessment of customer satisfaction; establish benchmarks and identify all avenues for enhancement.
- Assure BBWD field activities and customer interactions are completed within LVVWD standards by extensive training efforts.
- Redesign bill to updated format to improve communications to our customers.
- Establish culture of continuous improvement of processes and practices using feedback from our customers, customer care stakeholders as well as affiliated departments throughout the LVVWD.
- Work with IT for continued integration of state of the art technologies to enhance the customer experience, increase efficiencies, create multi-channel platform capabilities as well as eliminate external vendor dependencies.
- Identify and assess the viability of additional technologies aimed at the promotion of efficiencies, reduction of appurtenant expenses as well as informational integration.
- Provide continuous training and development to ensure a quality customer service experience.



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Customer Care and Field Services**  
Fiscal Year Ending June 30, 2020

- Communicate with and receive continuous feedback from employees on organizational policy changes and procedural/process improvements.
- Monitor and collaborate with other organizations/industries to identify innovations, best practices and ways to improve the customer experience.
- Enhancement of the Quality Assurance initiatives to improve call assessment, incorporate more feedback and interactional based development.
- Expanded the functionality of My Account to improve overall customer experience.
- Assess customer satisfaction results against overall quality outcomes for actionable improvement.
- Continue to improve customer care technologies, tools, training and implementation.
- Created and implemented team to advance and improve quality assessment practices in order to increase technician accuracy and enhance customer experience.
- Convert drive by reading system to an Automated Metering Infrastructure, bringing on-demand reads to our customer base.
- Continued additional training to staff for water waste compliance to assist in educating our customers.
- Benchmarked with over 70 water utilities in the U.S. on best practices for water conservation and metering.
- Supported the development of a new water waste reporting tool for mobile devices.
- Conducted 7 media segments on water waste.
- Collected 3.4 billion hourly reads to help customers with their consumptive use.
- Completed 58 Water Waste Educational Visits for customers with onsite issues.
- Restructured literature left onsite to provide customers increased opportunities to provide feedback on field staff performance.
- Converted Big Bend Water District billing and call center operations to improve customer billing and support.

***Strategic Plan Goal – Anticipate and Adapt to Changing Climatic Conditions while Demonstrating Stewardship for our Environment.***

**2019-20 Performance Objectives**

**2018-19 Major Accomplishments**

- Deployed business processes and training critical to annual PCI compliance standards.
- Continue to refine safety measures for securing employees in the event of an evacuation or office emergency.
- Reduce and dispose of waste responsibly.
- Maintain proper disposal of scrap and waste products, especially lithium batteries.
- Continue to support organizational water conservation efforts through improved technology, customer and interdepartmental communication.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Customer Care and Field Services**  
Fiscal Year Ending June 30, 2020

- Educate customers on water usage and trends through all contact center activities.

**2018-19 Major Accomplishments**

- Disposed of toxic waste material in compliance with OSHA regulations.
- Introduced new Water Waste Reporting Tool to allow customers to report violations from their mobile devices.
- Enhanced proactive notice of water leaks to notify customers more promptly.
- Provided cross training to other LVVWD departments to increase visibility of water waste enforcement and employee engagement.
- Mailed 5,468 water waste letters in 2018.
- Completed 5,736 Water Waste investigations resulting in \$61,200 in fees assessed.
- Large Services completed over 5,400 Field Activities.
- Dedicated staff handled over 9055 Springs Preserve related inquiries in 2018.
- Used analytics to notify customer that they are watering on Sunday.
- Using data analytics to improve efficiencies around residential zero consumption on active accounts.

***Strategic Plan Goal - Develop Innovative and Sustainable Solutions through Research and Technology.***

**2019-20 Performance Objectives**

- Develop and strengthen global partnerships to leverage resources and advance innovations in Customer Service.
- Continued identification, assessment and implementation of customer care technologies, tools and resources.
- Leverage Business Process Reengineering to identify improvements and prepare for the upgrade to a new and improved Customer Information System.
- Upgrade Kiosk technology to improve ease of pay.
- Continued improvements to My Account to support conservation efforts including watering groups and customer notifications for leaks
- Launch chat channel for customers to engage with the organization through a digital platform.
- Upgraded Field Services dispatching application to enhance business process and customer service.
- Replaced Field Services laptop docking stations to improve reliability and work performance.
- Improve technology solutions for revenue protection and greater collection gains.
- Continue to educate customers using advanced meter reading data.
- Evaluating current meter population to create and implement an appropriate preventative maintenance plan and schedule.
- Enhancing and expanding current field and dispatch Quality Monitoring program.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Customer Care and Field Services**  
Fiscal Year Ending June 30, 2020

- Host and participate in education and technical venues for business advancement throughout 2019.
- Continue to use data Analytics to identify equipment nearing failure in order to provide proactive maintenance and replacement.

**2018-19 Major Accomplishments**

- Lobby payments and transactions continue to decline with successful expanded payment and self-service options, reducing lobby traffic and carbon footprint.
- Collected event and more refined interval data from the meter reading system to reduce truck rolls and increase customer service.
- Upgraded contact center infrastructure to better manage overall operations.
- Leveraged existing meter read and interval data to significantly reduce field work.
- Integrated hourly interval data into business processes.

***Strategic Plan Goal – Strengthen and Uphold a Culture of Service, Excellence, and Accountability.***

**2019-20 Performance Objectives**

- Provide and seek timely feedback on individual, team and departmental performance to enhance collaboration, accountability and excellence.
- Ensure timely and consistent communication with team to provide

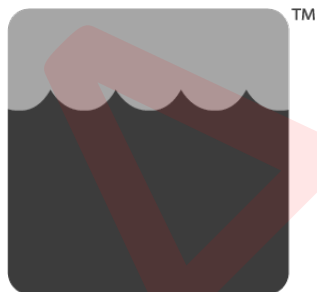
feedback and solicit recommendations.

- Maintain weekly communications to keep the team informed of business impacts and process improvements.
- Continuous communication forum between workgroups to address interdepartmental challenges and business impacts.
- Leverage the existing resources for expert training classes to employee skill development.

**2018-19 Major Accomplishments**

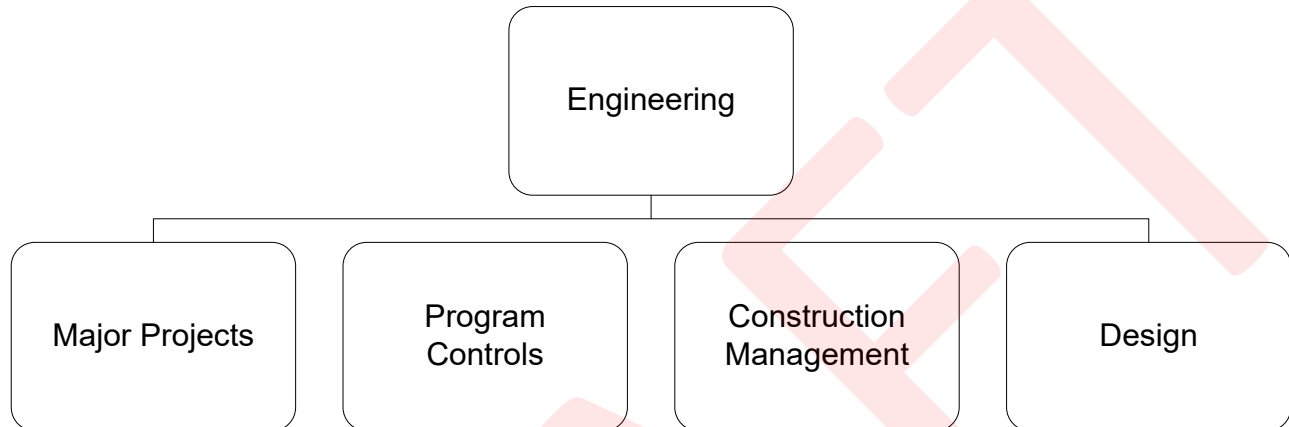
- Revamped doorhanger notifications that will allow feedback from our customer base.
- Increased Quality Monitoring to enhance the functional capabilities of the individual, team and departmental performance.
- Utilized various subject matter experts throughout the department to support training initiatives.
- Restructured Credit & Collections processing to improve field operations and increase communications with past due customers.
- Adopted Agile methodologies in key areas to improve project management and collaboration.

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## ENGINEERING

Level: 3400



### Mission

The mission of the Engineering department is to provide excellence in the field of engineering and related support services for a reliable and cost-effective water system.

### Department Description

The Engineering department is responsible for implementing capital improvements projects for the Las Vegas Valley Water District (LVVWD), the Southern Nevada Water Authority (SNWA), and Big Bend Water District (BBWD).

The LVVWD's capital projects are currently focused on the rehabilitation and replacement of aging pipelines, along with design and construction of new reservoirs, pumping stations, and related components of the large water distribution system spread across the Las Vegas Valley and in nearby rural areas. These projects are described in the LVVWD Capital Improvements Plan (LVVWD

CIP). Several new facilities are also being designed and constructed to meet long term operational requirements. In coordination with the Operations, Resources and Facilities, and Infrastructure Management departments, Engineering provides design and construction services for many of the LVVWD CIP projects.

The SNWA owns and operates the regional water supply system, the Southern Nevada Water System (SNWS), which treats Colorado River water and delivers it to SNWA purveyor members in the Las Vegas Valley. Improvement projects for the SNWS are identified in the Major Construction and Capital Plan (MCCP). The MCCP describes ongoing projects and initiatives related to establishing and maintaining reliable system capacity, providing necessary support facilities, and developing access to new water resources. In coordination with the Operations, Resources and Facilities, and Infrastructure Management departments, Engineering provides design and construction

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Engineering**  
Fiscal Year Ending June 30, 2020

services for many of the MCCP projects.

The SNWA is also responsible for the facilities providing erosion protection in the Las Vegas Wash, as defined in the Las Vegas Wash Capital Improvements Plan (Wash CIP). Engineering accomplishes the planning, design and construction of all projects defined

by the Wash CIP.

Engineering also provides project controls, construction management, inspection, permitting, surveying, and rights-of-way support services to other departments for their operating and capital projects.

### Expenditures

| <b>LVVWD Uses</b>                    | <b>Actual<br/>2017-18</b> | <b>Budget<br/>2018-19</b> | <b>Budget<br/>2019-20</b> |
|--------------------------------------|---------------------------|---------------------------|---------------------------|
| Materials & Supplies                 | \$ 91,636                 | \$ 141,200                | \$ 95,550                 |
| Maintenance & Repairs                | 1,853                     | 1,300,000                 | 1,375,000                 |
| Rental & Leases                      | 1,043,246                 | -                         | -                         |
| Other Employee Expenses              | 45,294                    | 139,950                   | 124,550                   |
| Other Expenses                       | 57,780                    | 180,900                   | 1,496,950                 |
| <b>Total Operating Expenses</b>      | <b>\$ 1,239,808</b>       | <b>\$ 1,762,050</b>       | <b>\$ 3,092,050</b>       |
| <br>Capital Expenditures             | <br>\$ 16,713,765         | <br>\$ 68,120,490         | <br>\$ 96,663,950         |
| <br>Payroll & Related Costs          | <br>\$ 12,522,498         | <br>\$ 14,642,038         | <br>\$ 16,619,088         |
| <b>Total Department Expenditures</b> | <b>\$ 30,476,071</b>      | <b>\$ 84,524,578</b>      | <b>\$ 116,375,088</b>     |

|               |      |      |      |
|---------------|------|------|------|
| FTE Positions | 71.4 | 81.7 | 88.3 |
|---------------|------|------|------|

### Budget Objectives and Highlights

The 2019-20 Engineering department budget demonstrates significant ongoing commitment for the major projects associated with Lake Mead Intake No. 3 and the Wash CIP. In addition, a major portion of the department staff will continue to be focused on many projects directly supporting the Operations, Resources and Facilities, and Infrastructure Management departments in

preserving the facilities needed to assure a reliable, quality water supply.

The Intake No. 3 tunnel and intake project was completed and became operational in 2015. This achieved the goal of access to better quality water deep in Lake Mead, but does not, on its own, protect against lost system capacity if lake levels drop below the operational levels of the two existing intake pumping stations. Accordingly, in 2015 the

**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Engineering**

Fiscal Year Ending June 30, 2020

SNWA launched design and construction activities for a Low Lake Level Pumping Station (L3PS) that would function at levels as deep as possible for the new intake tunnel and preserve system capacity well below the operational levels of the existing intakes. Capital expenditures for the new pumping station will continue through project completion in 2020.

Work continued on the Alfred Merritt Smith Water Treatment Facility (AMSWTF) filter media replacement with five filters completed. The remaining 15 filters to be upgraded are currently under contract with completion scheduled for 2021.

The Engineering department will also advance various capital projects for the LVVWD by designing and managing construction of projects to install new facilities, replace water mains, rehabilitate valve or meter vaults, install backflow prevention devices and perform other necessary system improvements.

## **Department Performance**

The Engineering department is organized around five functional areas.

**Major Projects.** Teams are organized, as needed, to successfully manage completion of major capital projects of the LVVWD and the SNWA capital plans. Currently, the L3PS is the one active major project effort. Staff are dedicated to that project activity. The team will also be responsible for managing a feasibility study for the future South System Expansion.

**Design.** The design team is comprised of

professional engineers, technicians, permit coordinators, and support staff who work with operators, planners and asset managers in other departments to define project requirements and incorporate those requirements into design and construction packages. These packages are generally prepared for public bidding to construction contractors. The design team members work closely with their clients and the construction managers to assure design requirements are clear, compliant with the approved scope of work, align with schedule and budget, and consistent with generally accepted engineering standards. Design also coordinates with in-house Legal, Safety, Risk Management, and Purchasing staff to ensure contract provisions are appropriate.

**Construction Management.** The construction management team is comprised of engineers and inspectors who have extensive experience in the construction of public works for water utilities and manage the construction of necessary facilities and inspection of new developer-installed facilities. These team members also participate in the development of design packages to assure construction complexities are properly considered and addressed prior to inviting contractor bids. They also coordinate with the Legal department to assure laws, regulations, and contract provisions are properly observed.

**Program Controls.** A technical team organized to assist with the implementation and management of the LVVWD and SNWA capital programs through the establishment of consistent project management practices and reporting systems for effective cost and schedule control. This team provides cost and



**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Engineering**

Fiscal Year Ending June 30, 2020

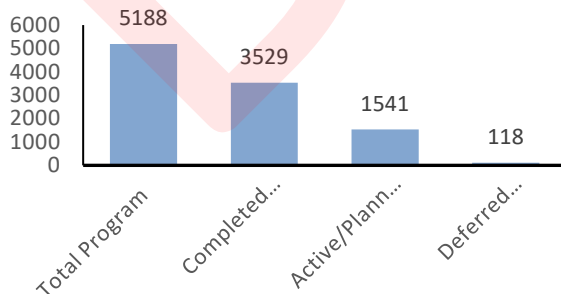
schedule reports and analysis of capital projects. This team makes use of computer-based tools which compile relevant project data from various departments. This team also performs a vital function in collecting projected capital expenditures as a tool for forecasting future funding requirements and coordinates closely with the Finance department.

**Survey, Property Management and Infrastructure Mapping Services.**

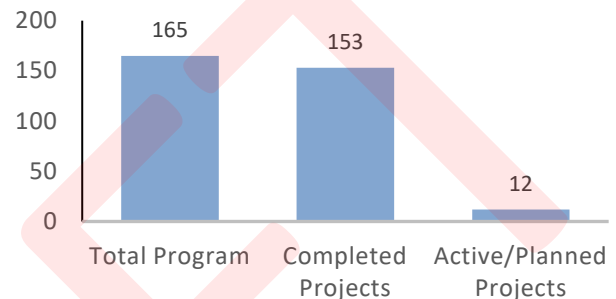
Professional staff within the department support design and construction of infrastructure by providing land surveying, water rights surveying, line location, right of way acquisition and property management and as-built record drawings for both the LVVWD and SNWA systems. These services are vital to the efficient management of property controlled by the LVVWD and SNWA and the infrastructure installed within public rights of way.

The following charts compare completed projects to active and planned projects for each of the SNWA's capital plans and give perspective for the magnitude of the capital plan activities.

**Major Construction &  
Capital Plan Status  
As of March 2019**

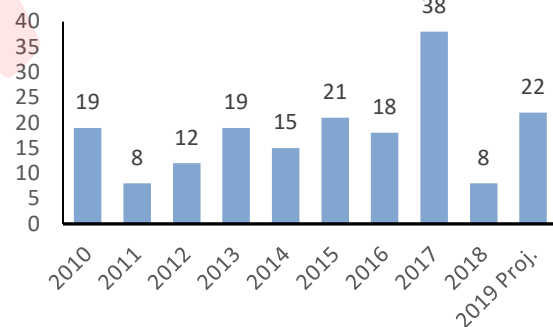


**Las Vegas Wash Capital  
Improvements  
As of March 2019**



The chart below (Completed LVVWD Construction Projects) represents the number of the LVVWD construction projects completed by Engineering since 2010 and the number expected to be completed in 2019.

**Completed LVVWD  
Construction Projects**

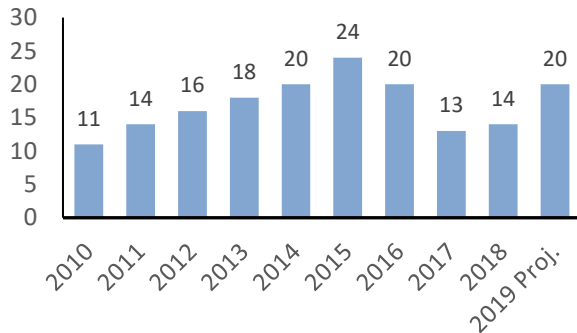


The following chart (Completed LVVWD Design Projects) illustrates the number of projects Engineering has designed since 2010 to support the infrastructure management requirements of the LVVWD.



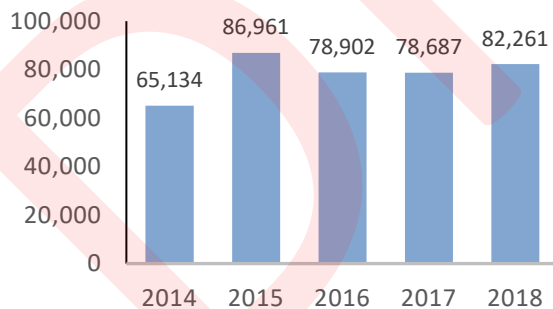
**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Engineering**  
Fiscal Year Ending June 30, 2020

**Completed LVVWD  
Design Projects**



The chart below shows how many thousands of features related to water facility assets constructed under capital projects for both the LVVWD and SNWA that have been edited (added or updated) within the geographic information system facility database over the past five years. The chart mirrors the increase in development activities experienced in the service area over this time.

**Number of GIS Project-  
Related Feature Edits**



**Strategic Plan Objectives and Accomplishments**

***Strategic Plan Goal – Assure quality water through reliable and highly efficient systems.***

**2019-20 Performance Objectives**

- Complete design and construction of projects in accordance with forecasted capital budgets, the cost estimates and schedules identified in the capital plans.
- Complete the above ground construction and facility testing and commissioning for the L3PS contract as planned.
- Begin the feasibility study for the future South System Expansion.
- Provide the Infrastructure Management, Resources and Facilities, and Operations departments with a high level of technical services and capital project support.
- Consolidate project tracking applications and align work processes to improve staff efficiency.
- Improve methods for direct electronic capture field inspection of attributes for constructed water facilities.
- Complete combination of SNWA Facility Engineering Guides and LVVWD Design Guidance Documents into a single Engineering Design Guides document.

**2018-19 Major Accomplishments**

- Completed both the underground portion and the electrical substation and power supply for the L3PS.
- Completed construction of 22 LVVWD projects valued at \$35 million related to improvement of the LVVWD's facilities.
- Awarded 24 LVVWD construction contracts valued at \$45 million related to improvement of the LVVWD's

**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Engineering**

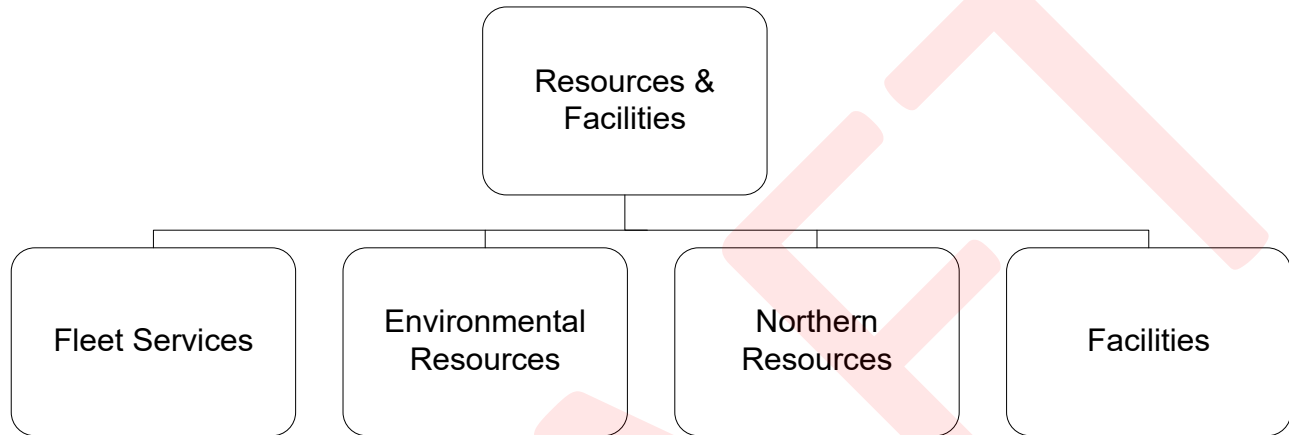
Fiscal Year Ending June 30, 2020

facilities.

- Completed two weirs valued at \$14.3 million related to the Las Vegas Wash Capital Improvements Plan.
- Awarded four SNWA construction contracts valued at \$37.8 million related to the third phase of the Filter Improvement Project at AMSWTF, Sodium Hypochlorite System Upgrades at RMWTF and tortoise fence improvements at numerous facilities.
- Performed inspections on approximately 600 different developer related projects, involving over 40,000 individual inspection actions.

## RESOURCES & FACILITIES

Level: 3600



### Mission

The mission of the Resources & Facilities department is to sustainably manage the Southern Nevada Water Authority's (SNWA) land and environmental resources through sound policy, applied science and advanced technology; and, to sustainably manage the SNWA and the Las Vegas Valley Water District (LVVWD) facilities and fleet assets through cost effective strategies supporting operations and organizational business.

### Department Description

The Resources & Facilities department consists of four divisions that include the Fleet Services division, Facilities division, Northern Resources division and Environmental Resource division. Additional responsibilities assigned to the department include, climate change science and policy analysis, and leadership in organizational sustainability.

### Budget Objectives and Highlights

The 2019-20 Resources & Facilities department budget contains funding for a wide-range of initiatives discussed below.

**Facilities.** The Facilities division budget contains \$6 million in operational funding for the repair, maintenance, cleaning and servicing of all the LVVWD and the SNWA buildings and facilities, including landscape, roadways, office and meeting space, lighting, and building heating and cooling systems.

**Fleet Services.** The Fleet Services division budget contains approximately \$6.17 million for new & replacement vehicles and related equipment having reached their end of life cycle. An additional \$53,000 for a new key storage system replacing our old system that has become obsolete. Fleet Services is also requesting \$520,000 for replacement of two-way radios that are becoming obsolete and will soon be inoperable on the Southern Nevada Area Communications Council (SNACC) radio system.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2020

**Environmental Resources.** The Environmental Resources division budget contains \$2 million in operational funding for environmental planning, compliance, permitting, and resource management activities. The division will continue to provide environmental support and ensure regulatory compliance for the Northern Resources, Water Resources, Engineering, Energy Management, Operations, and other departments. The division will also continue to manage the Las Vegas Wash program and the Warm Springs Natural Area property to meet agreements and further the SNWA resource management objectives. In fiscal year 2019-20, the division anticipates receiving \$483,800 in revenue from Federal and State grants and local contributions.

**Northern Resources.** The Northern Resources division gross budget totals \$5.8 million, of which, \$3.0 million allocated to operations, \$355,000 is for livestock inventory purchase and \$1.6 million capital improvements to develop, utilize and maintain primary

groundwater rights. Total gross revenues are projected to exceed \$2.3 million for commodity sales. The Northern Resources division consists of seven individual properties that have been consolidated into one coordinated operating entity. The consolidation and management of these ranch properties has created operational efficiency and increased productivity. Program enhancements including water development, nutrient management, cropping structure, and propagation of systematically bred livestock have created sustainable revenue centers supporting operations. The primary goal for this division is to integrate the management of water, land and agricultural resources such that environmental and social conflicts are minimized and the Groundwater Development (GWD) Project is maintained as a viable and sustainable alternative future source of supply.

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Resources & Facilities  
Fiscal Year Ending June 30, 2020

### Expenditures

| LVVWD Uses                           | Actual<br>2017-18    | Budget<br>2018-19    | Budget<br>2019-20    |
|--------------------------------------|----------------------|----------------------|----------------------|
| Materials & Supplies                 | \$ 2,756,048         | \$ 3,274,000         | \$ 4,164,000         |
| Maintenance & Repairs                | 1,951,826            | 2,469,000            | 2,305,000            |
| Rental & Leases                      | 743,326              | 1,912,270            | 2,032,500            |
| Other Employee Expenses              | 59,651               | 165,460              | 127,150              |
| Other Expenses                       | (5,920)              | 117,800              | 113,300              |
| Total Operating Expenses             | \$ 5,504,931         | \$ 7,938,530         | \$ 8,741,950         |
| Capital Expenditures                 | \$ 4,400,514         | \$ 6,852,000         | \$ 5,480,624         |
| Payroll & Related Costs              | \$ 8,785,611         | \$ 8,537,590         | \$ 9,353,447         |
| <b>Total Department Expenditures</b> | <b>\$ 18,691,056</b> | <b>\$ 23,328,120</b> | <b>\$ 23,576,021</b> |
| FTE Positions                        | 67.1                 | 63.7                 | 65.1                 |

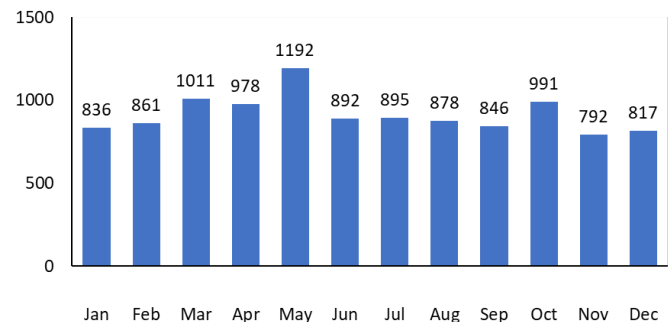
### Department Performance

**Facilities.** The Facilities division is divided into three (3) subsets: Facilities Maintenance, Facilities Services, and Buildings and Grounds. The division is responsible for ensuring the four (4) major epicenters and the two hundred seven (207) offsite properties totaling 1,452 acres exceed the LVVWD standards for appearance, quality and cost-effectiveness. Additionally, Facilities supports numerous rural system sites including Big Bend Water District, Warm Springs, Mount Charleston, Jean, Searchlight, Northern Resource Properties, and others. The division provides support during the design and construction of new facilities, as well as, site

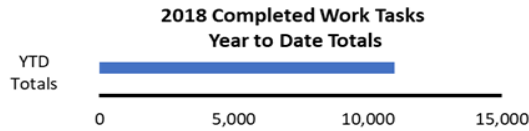
remodeling and/or retro-fit support for existing structures.

The following charts depict the total work orders completed by month and calendar year.

**2018 Completed Work Tasks By Month**



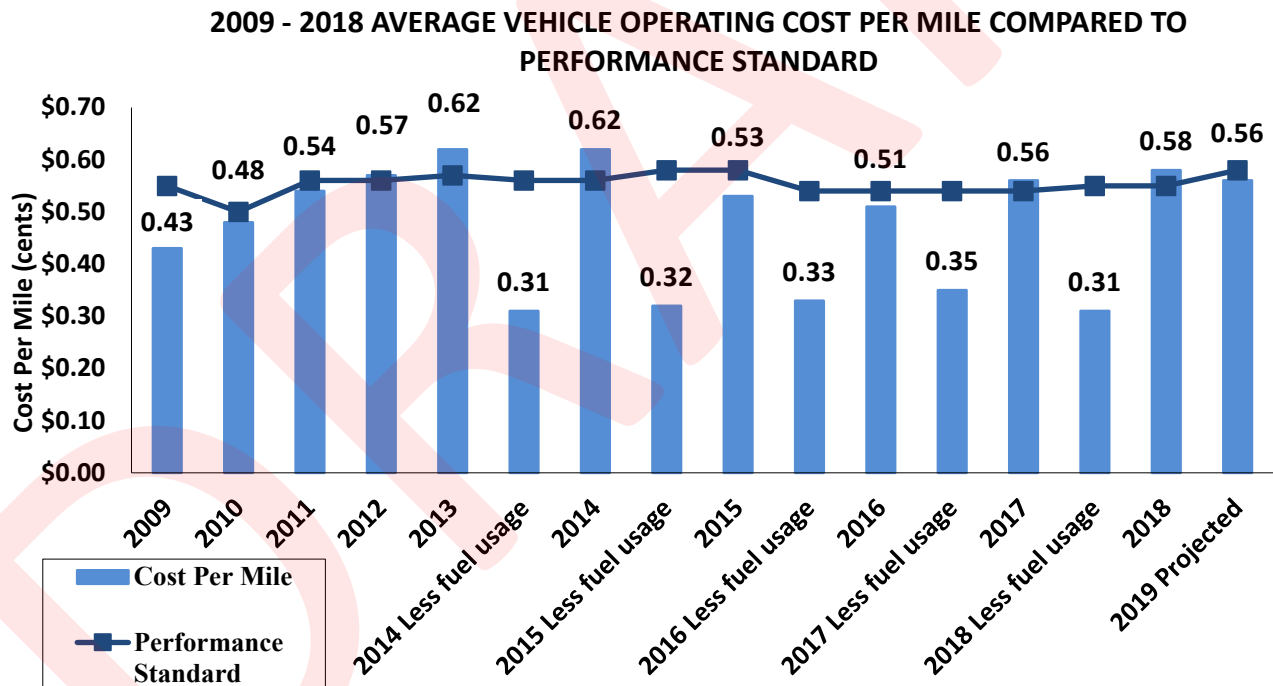
Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Resources & Facilities  
Fiscal Year Ending June 30, 2020



**Fleet Services.** The mission of the Fleet Services division is to provide safe, reliable and functional vehicles, equipment, tools, fuel, and communications equipment to the LVVWD, SNWA, LVSP, and BBWD operations. Currently the division maintains more than 1,500 vehicles and support equipment pieces and 1,200 pieces of communications

equipment for the organization. This includes services for repair, maintenance, acquisition and disposition of all vehicles, support equipment, communications equipment and loanable tools. Fleet Services also operates seven service facilities and seven fueling facilities located in Las Vegas, Boulder City, Henderson and White Pine County.

The following chart reflects the LVVWD's average vehicle operating cost per mile compared to accepted performance standards.



**Environmental Resources.** The Environmental Resources division is responsible for conducting environmental planning, monitoring, and management to ensure compliance with environmental laws, permits, and agency agreements. This includes preparing environmental compliance documents for resources and infrastructure,

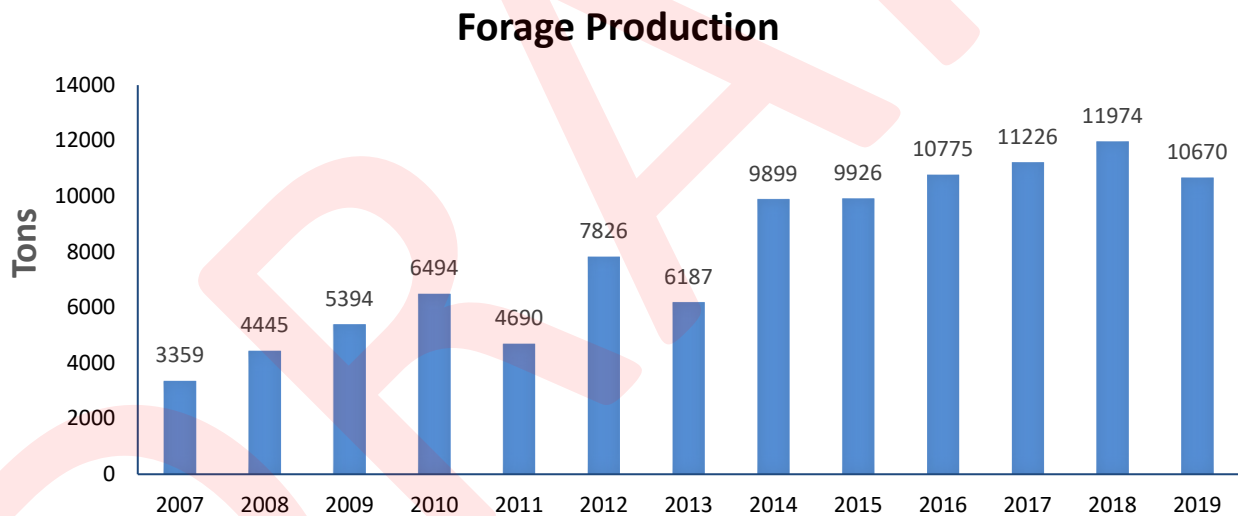
conducting natural resources studies, and completing environmental compliance monitoring and reporting, in accordance with Federal environmental regulations, state water right rulings, and interagency environmental agreements. The division is also responsible for fulfilling organizational responsibilities related to management and

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2020

restoration of the Las Vegas Wash, and the Warm Springs Natural Area.

**Northern Resources.** The Northern Resources division is a single operating entity engaged in agricultural production and has developed and sustained global markets for sales of internally produced agricultural products, including beef calves, lambs, wool and alfalfa. These commodities represent approximately \$2.3 million in projected ranch revenue for fiscal year 2019-20. Improvements in agricultural practices, livestock genetics, program diversity and husbandry have

resulted in increased efficiency and effectiveness in utilizing Federal rangeland and private forage, and added alfalfa acreage to increase overall production. The strategic plan for Ranch Operations is to place ranch water rights, the ranch has the ability to produce and deliver quality products and service, exhibit scientific based stewardship and, demonstrate financial and organizational efficiency. Ranch operations also support cross-departmental initiatives concerning the collection of environmental and hydrologic monitoring data and various other aspects of the GWD Project.



## Strategic Plan Objectives and Accomplishments

***Strategic Plan Goal – Assure quality water through reliable and highly efficient system.***

### 2019-20 Performance Objectives

- Maintain critical equipment and building systems to ensure a safe and comfortable work environment;

measure equipment uptime percentage.

- Develop and implement 10 year rolling asset management plan.
- Comply with environmental permit requirements for operation of erosion control facilities in Las Vegas Wash.
- Conduct research and public outreach for the Las Vegas Wash in accordance with agreements and the Las Vegas Wash Comprehensive Adaptive Management Plan.



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2020

- Create and implement a long-term operating plan for the Las Vegas Wash.
- Provide environmental compliance and acquire permitting to construct new water infrastructure.
- Ensure compliance with permit requirements for LVVWD, developer-driven, and Small Systems facilities.

**2018-19 Major Accomplishments**

- Conducted threatened and endangered bird, fish, vegetation, and invertebrate surveys along the Las Vegas Wash.
- Conducted compliance monitoring and reporting in support of weir construction on the Las Vegas Wash without a single incident of non-compliance.
- Received Clean Water Act Section 404 permit closure for the Clark County mitigation wetlands.
- Re-vegetated approximately 20 acres along the Las Vegas Wash and conducted vegetation monitoring on approximately 510 acres.
- Surveyed 600 acres for noxious weeds, treated 10- acres, and removed approximately 3 acres of tamarisk.
- Conducted two Wash Green-Up events, where more than 800 volunteers planted approximately 18 acres.
- Coordinated and hosted a two-day science symposium for more than 250 high school students as part of World Wetlands Day.
- Educated approximately 100 fifth grade students about the Las Vegas Wash and Lake Mead.

- Provided four tours of the Las Vegas Wash for elected officials, agency regulators, conference attendees, organizations, and other interested stakeholders.
- Provided public outreach promoting the Las Vegas Wash and the Las Vegas Wash Coordination Committee at 15 local events.
- Gave the desert tortoise education program to 271 contractors and staff.
- Completed environmental compliance and permitting for new Big Bend Water District water supply well.
- Finalized an environmental compliance protocol for LVVWD developer and developer-driven projects.
- Supported the establishment of a Pahrump poolfish refugia and relict leopard frog population at the Springs Preserve.

***Strategic Plan Goal – Deliver an Outstanding Customer Service Experience.***

**2019-20 Performance Objectives**

- Achieve an 80 percent or greater satisfaction rating for facilities-related customer interactions.
- Continue to include customers in the specification process of new and/or replacement vehicles and equipment.
- Partner with all departments to better assess vehicle/equipment needs and improve end products provided.
- Minimize equipment down time through the use of technology, technician training and good parts availability.



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2020

- Continue to provide the best possible equipment choices to the departments to assist them in meeting their goals efficiently and effectively.
- Respond to changing customer needs and implement and/or change services to better support the mission.

#### **2018-19 Major Accomplishments**

- Enhanced customer service in outlying areas through the use of technology, improved parts availability, and scheduling of technicians.
- Fleet Services completed 10,826 work orders and over 14,690 repair tasks on vehicles and equipment over the past 12 months.
- Maintained Automotive Service Excellence (ASE) "Blue Seal of Service Award".
- Maintained Automotive Service Excellence (ASE) "World Class Technician Status".
- Managed and facilitated the move of 110 Customer Care employees to the Molasky or Field Services Building in a prompt and efficient manner, significantly reducing anticipated downtime.
- Completed the installation of insulation in the north soffit of the AMSWTF Administration Building to eliminate all cold complaints.
- Facilitated major internal events including: all Divisional holiday parties, Safety Stand-Down Day, Celebrating You week.
- Implemented successful proactive disinfection program to minimize employee impact during the flu season.

***Strategic Plan Goal – Anticipate and Adapt to Changing Climatic Conditions while Demonstrating Stewardship of our Environment.***

#### **2019-20 Performance Objectives**

- Continue to lead and develop the alternative fuel vehicle program in support of clean air in the Las Vegas Valley.
- Recondition and reuse service bodies for light duty vehicles.
- Expand the Districts plug-in electric vehicles fleet.
- Expand the use of compressed natural gas as an automotive fuel.
- Maintain environmental permits and support water rights for the SNWA's central-eastern Nevada groundwater.
- Sustainably manage the Great Basin Ranches such that annual gross revenue covers at least 100 percent of direct costs, measured as a five-year running average.
- Develop and certificate 100 percent of ranch water rights.
- Maintain Great Basin Ranch assets, including property, facilities, water rights, and grazing allotments in accordance with annual work plans and permits.
- Inspect 100 percent of ranch irrigation, stock, and domestic wells at least annually, and maintain at least 90 percent of the wells at full operational capacity.
- Complete environmental compliance and monitoring for existing SNWA and LVVWD infrastructure.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2020

- Collaborate on all major local and regional climate change initiatives relevant to the SNWA.
- Make progress towards achieving the goals of the Recovery Plan for rare aquatic species on the Muddy River (Moapa dace).
- Provide public access and public outreach at the Warm Springs Natural Area.
- Reduce fire fuels and maintain fire breaks annually at the Warm Springs Natural Area in accordance with the property Fire Management Plan.
- Communicate sustainability goals and progress to the organization.
- Added 422 head of replacement cows to the herd. Converted old population to 100% Black Angus animals.
- Added 905 head of replacement ewes to the herd.
- Installed a transmission pipeline from Swallow Spring to the Shoshone agriculture fields.
- Designed, source materials and constructed a sheep processing facility at the Phillips Ranch.
- Drilled and developed a new irrigation well at the Kerr ranch, well will allow pumping of actual water right.
- Completed the installation of WACO modular house at Wahoo. This expands seasonal housing which supports seasonal labor needs.

**2018-19 Major Accomplishments**

- Developed an annual plan to maintained ranch assets through roof repairs or replacement on the McCoy house, Phillips sheep barn, Huntsman barn, and the completion of electrical upgrades at the Huntsman feedlot.
- Installed truck fill station, irrigation screen, transmission building, light, heat and security light on ranch sign at the Harbecke Ranch.
- Drilled new domestic well at Harbecke, installed new electrical, replaced plumbing, pressure tank and controls, which provides safe drinking water for field and ranch staff.
- Completed the install of power to Huntsman feedlot and completed the construction of the hospital and storage building.
- Constructed the third hay storage barn at Huntsman Ranch.
- Expanded dog kennel facility to support ranch growing population.
- Replaced shop doors and concrete at the Wahoo shop – allows for a wash bay area to clean equipment.
- Replaced one mile of perimeter fence at Wahoo 5 for security and safety reasons.
- Replaced security doors on commissary building.
- Met or exceeded the projected Ranch Revenue budget and operated within the operations budget.
- Replaced older diesel and gasoline powered vehicles with flex fuel vehicles, lowering capital cost and reducing the Districts carbon foot print.
- Selected as one of the 100 Best Fleets “Top 100 Fleets in North America” and “Top Green Fleets in North America”.
- Supported preparation of legal briefs and oral arguments in defense of the

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2020

federal right-of-way for the future development of SNWA's central-eastern Nevada groundwater rights.

- Prepared a Moapa dace assessment report supporting SNWA's water rights in the Lower White River Flow System.
- Monitored more than 300 fixed monitoring locations across SNWA's Great Basin Ranch grazing allotments.
- Coordinated extensively with local ranchers in central-eastern Nevada and the BLM regarding management of shared grazing allotments; supported the filing of legal protests on BLM grazing use decisions.
- Conducted raptor, dark kangaroo mouse, sage grouse, northern leopard frog, and other sensitive species surveys in Clark County and central eastern Nevada.
- Responded to 11 calls for dangerous animals at SNWA and LVVWD facilities.
- Conducted in-depth review of 229 external projects, legislative and regulatory proposals, and prepared 11 comment letters.
- Acquired two new parcels as part of the Warm Springs Natural Area and began tenant improvements for building to be used as Warm Springs operations facility.
- Established volunteer program to staff the Warm Springs public use area on weekends.
- Conducted bi-annual Moapa dace counts on the upper Muddy River, and the winter dace population increased 34 percent.
- Conducted threatened and endangered bird species and marsh bird surveys at the Warm Springs

Natural Area and monitored bird population recovery from the 2010 wildfire and habitat restoration.

- Hosted the Audubon Society Christmas Bird count that counted over 300 birds of about 81 different species in the Upper Moapa Valley.
- Grew over 5,000 native plants at the Warm Springs greenhouse for restoration areas on both Warm Springs and the Las Vegas Wash.
- Trimmed 133 palm trees and mowed and maintained 9,000 feet of fire breaks to protect infrastructure and Moapa dace streams at the Warm Springs Natural Area.
- Monitored 10 ecological restoration sites at Warm Springs Natural Area for restoration success.
- Provided public outreach to 80 students from Moapa Valley Future Farmers of America who assisted in planting and property cleanup, 118 local fifth-graders for repotting event and World Wetlands Day information, and Boy Scouts of America Eagle Scout candidates who installed over 2,600 native plants, removed 100 palm trees, installed a foot bridge and 150 feet of trail, and installed 400 feet of split rail fencing.
- Monitored climate change science and potential impacts to the SNWA through coordinated activities with the Water Utilities Climate Alliance and Association of Metropolitan Water Agencies.
- Participated in the annual holiday drive, recycling over 2,500 Christmas trees.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2020

- Continued to employ energy efficient upgrades in the lighting and climate control applications.
- Facilitated the Sustainability CDT, which met more than six times to coordinate the organization's sustainability goals.

***Strategic Plan Goal – Ensure Organizational Efficiency and Manage Financial Resources to Provide Maximum Customer Value.***

**2019-20 Performance Objectives**

- Without compromising safety and/or service level, reduce operating costs through standardization opportunities, inactive inventory reduction, and continuous process improvements.
- Reduce the overall cost per mile/hour of operation for the LVVWD's vehicles and equipment.
- Annual department expenditures remain within budget.
- Continue to seek grant funding and provide support to other departments who are applying for grant funding.
- Facilitate renovation projects utilizing in-house labor whenever possible.

**2018-19 Major Accomplishments**

- Produced 17,422 bales of forage or 10,670 tons of marketable products with a value of \$2.1M, presently sold \$1.6M, balance is in inventory.
- The ranch produced 1720 beef calves, sold 1213 head at 614,656 pounds of beef with a value of \$1.01M and added 495 beef replacement females to the inventory with a value of \$891,000.

- The ranch produced 4274 lambs, sold 2887 at 232,235 pounds for \$344,806. Ranch added 907 ewe lambs valued at \$226,750. Additionally, the sheep produced 48,968 pounds of wool with a value of \$128,965.
- Replace older diesel and gasoline powered vehicles with flex fuel vehicles, saving an estimated \$200,000 in capital replacement costs.
- Replaced 83 vehicles and equipment pieces that were no longer cost effective to operate and maintain and added an additional 33 pieces for organizational growth and improve capabilities of the organization.
- Recovered over \$1,041,739 in vehicle resale at auction.
- Recovered over \$55,377 in vehicle warranty repairs through our in-house warranty programs.
- Recovered over \$40,886 from insurance companies for the in-house repair of not at fault vehicle accident damage.
- Obtained \$483,800 in Federal and State grant funding to support water quality monitoring, archaeological resources, program management, revegetation, and public outreach for the Las Vegas Wash.
- Continued to provide proper care and operation of fire protection and life safety systems, climate control for personnel and mission-critical areas, repair and maintenance of plumbing systems, and integrity of facility components including: lighting, building facades, sidewalks, roofs, roads, and perimeter walls.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Resources & Facilities  
Fiscal Year Ending June 30, 2020**

***Strategic Plan Goal – Strengthen and Uphold  
a Culture of Service, Excellence and  
Accountability.***

**2019-20 Performance Objectives**

- Department average annual incident rate exhibits a downward trend, based on a five-year average.
- Ensure 90 percent of Facilities preventive maintenance work is completed by the due date.
- Ensure 98 percent or greater, fire and life safety inspections or tests are completed by the due date.
- Continue to partner with other departments to create vehicle/equipment committees to better assess needs and improve end products provided.
- Provide comprehensive preventive and predictive maintenance.
- Team safety. Zero lost-time accidents.
- Train and certify maintenance and service personnel in new technology and repair techniques.
- Maintain Automotive Service Excellence (ASE) “World Class Technician Status.”
- Maintain I-CAR Platinum Class Certification for Fleet Services paint and body operations.

**2018-19 Major Accomplishments**

- Renovations for safer operation of El Tejon Ranch irrigation lift station; replacement of hazardous irrigation electrical CT stand at Shoshone.
- The Facilities division comprised of a team of custodians reliably maintains

an orderly, clean and compliant environment at all sites.

- Created vehicle/equipment committees with key customers in order to better assess needs and improve end products provided.
- Maintained Automotive Service Excellence (ASE) “Blue Seal of Service Award.”
- Maintained Automotive Service Excellence (ASE) “World Class Technician Status.”
- Maintained I-CAR Platinum Class Certification for Fleet Services paint and body operation.
- Completed 10,826 work orders and over 14,690 repair tasks on vehicles and equipment over the past 12 months.
- No lost-time accidents occurred.

***Strategic Plan Goal – Develop innovative  
and sustainable solutions through research  
and technology.***

**2019-20 Performance Objectives**

- Continue to equip fleet facilities with state-of-the-art testing and diagnostic equipment in order to properly diagnose and repair vehicle and equipment failures in a timely cost-effective manner.
- Implement GPS/telematics technology throughout the fleet in order to enhance fleet management capabilities, save fuel and improve fleet utilization.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2020

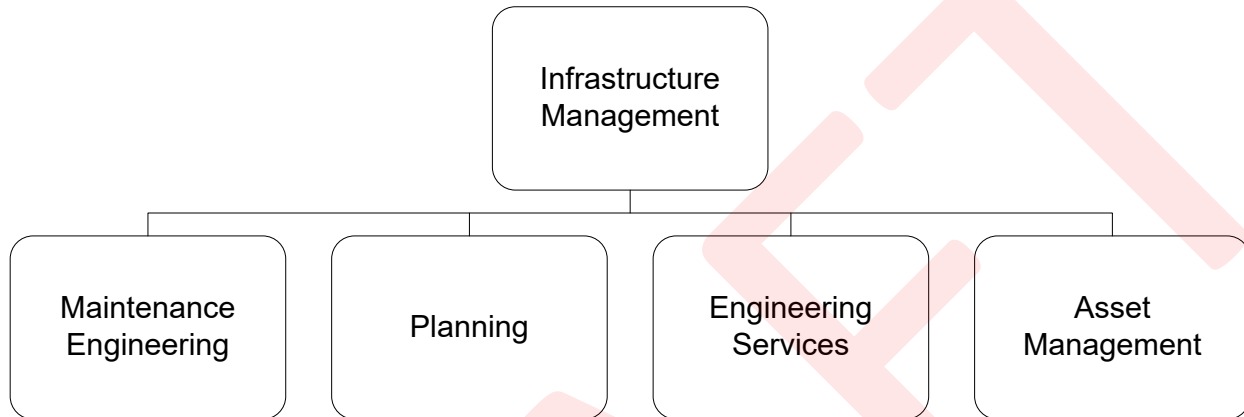
**2018-19 Major Accomplishments**

- Equipped all fleet repair facilities with state-of-the-art manufacture specific diagnostic equipment, reducing vehicle down time and repair costs.
- Provided online technical training and diagnostic information to technicians at all repair locations.



## INFRASTRUCTURE MANAGEMENT

Level: 3700



### Mission

To provide world-class stewardship of the existing water system infrastructure through comprehensive asset assessment, protection, and renewal in the most fiscally responsible manner possible.

### Department Description

The primary responsibility of the Infrastructure Management department is to manage the Las Vegas Valley Water District (LVVWD) and the Southern Nevada Water Authority (SNWA) assets by developing and maintaining the asset management program. To accomplish this, the Engineering Services division reviews water plan submittals for proposed development to ensure they meet the LVVWD's construction standards. The Planning division ensures new developments have adequate water pressure and fire flow, evaluates future system requirements, and develops future capital cost projections. The Maintenance Engineering division provides technical support and develops capital

projects for the Operations, Resources and Facilities, and Water Quality and Treatment (WQ&T) departments. The Asset Management division conducts pumping unit efficiency tests, provides inspection support, tests for leaks on large diameter pipelines, and maintains the LVVWD and the SNWA cathodic protection systems. The Startup Team division coordinates the safe integration of new equipment, components, and facilities in the LVVWD, SNWA, and the Big Bend Water District (BBWD) operating systems. These efforts are directly in support of the department's mission.

### Budget Objectives and Highlights

The 2019-20 Infrastructure Management department budget contains a comprehensive view of ongoing efforts to maintain existing service levels, provides funding to continue the development and maintenance of the asset management program, and demonstrates a commitment to providing daily operational support for the LVVWD's and SNWA's projects.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Infrastructure Management**  
Fiscal Year Ending June 30, 2020

Infrastructure Management's total operating expense budget between the LVVWD and the SNWA decreased \$1,103,925 from budget year 2018-19 to 2019-20. Contributing factors to the increased operating expense budget include SNWA, BBWD, and LVVWD emergency

and maintenance work, joint replacements, innovation projects and initiatives, and reservoir improvements. The department will continue to focus efforts on maintaining cathodic protection, SCADA, and the 4-1-1 developer review process.

### Expenditures

| <b>LVVWD Uses</b>                    | <b>Actual<br/>2017-18</b> | <b>Budget<br/>2018-19</b> | <b>Budget<br/>2019-20</b> |
|--------------------------------------|---------------------------|---------------------------|---------------------------|
| Materials & Supplies                 | \$ 66,263                 | \$ 373,580                | \$ 387,205                |
| Maintenance & Repairs                | 1,424,862                 | 3,661,500                 | 2,181,500                 |
| Rental & Leases                      | -                         | -                         | -                         |
| Other Employee Expenses              | 70,140                    | 116,765                   | 124,915                   |
| Other Expenses                       | 225,830                   | 216,950                   | 378,450                   |
| <b>Total Operating Expenses</b>      | <b>\$ 1,787,096</b>       | <b>\$ 4,368,795</b>       | <b>\$ 3,072,070</b>       |
| Capital Expenditures                 | \$ 23,878,620             | \$ 11,177,500             | \$ 13,165,000             |
| Payroll & Related Costs              | \$ 12,070,383             | \$ 13,147,535             | \$ 13,764,330             |
| <b>Total Department Expenditures</b> | <b>\$ 37,736,098</b>      | <b>\$ 28,693,830</b>      | <b>\$ 30,001,400</b>      |
| FTE Positions                        | 58.7                      | 64.6                      | 66.2                      |

## Department Performance

**Maintenance Engineering.** The Maintenance Engineering division is responsible for the engineering design enhancements and modifications needed to operate and maintain pumping stations, rate-of-flow-control stations, reservoirs, water treatment facilities, the distribution and transmission pipelines, and wells in a safe and efficient manner. Specific responsibilities of Maintenance Engineering include

PLC/HMI/SCADA programming and 24x7 support, SNWA communications network management and 24x7 support, engineering design, project management, construction management, and operations engineering support. Specific projects include THM mitigation, motor control center and switchgear upgrades, vault and pipeline repairs/replacements, cathodic protection installations, tank re-coating, pump and valve installations and facilities improvements. The division provides engineering analysis in the



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Infrastructure Management**  
Fiscal Year Ending June 30, 2020

form of electrical coordination studies, arc flash studies, load analysis, structural integrity evaluations, new equipment and technology evaluations, and water treatment tracer tests. The division also provides day-to-day engineering support for the LVVWD, SNWA, BBWD, Alfred Merritt Smith Water Treatment Facility (AMSWTF), River Mountains Water Treatment Facility (RMWTF), and rural systems.

The division is currently managing over 250 projects between the LVVWD and the SNWA, with a capital budget of more than \$25 million. Major projects include the LVVWD SCADA upgrade; multi-site ROFC valve and venturi replacements; south valley lateral actuator replacements; AMSWTF VPSA blower replacement; medium voltage transformer replacements; the AMSWTF electrical distribution upgrade; electrical distribution and engine controls upgrade at Campbell Pump Station; THM mitigation system installation at Elkhorn reservoir; reservoir joint replacements at Campbell and Luce Pump Stations; emergency power system upgrade at Stewart Pump Station; and the build out of the fiber optic communications network.

**Startup Team.** The Startup Team division was formed in FY 2018-19 to coordinate the safe integration of new equipment, components, and facilities into the LVVWD, SNWA, and BBWD operating systems. The division will provide appropriate plans, policies, procedures, and instructions for the control and performance of the systematic testing, startup, and initial operations of new facilities, systems, and equipment. The division will also establish a contract 'Warranty Management' tracking process during startup,

continuing through the contract warranty period, for each project. The division will be composed of one Senior Process Control Engineer, a Construction Engineer, and an Engineering Technician to support LVVWD and SNWA new construction projects that require integration into the existing control systems (SCADA).

**Planning.** The Planning division provides research, analytics, statistical analytics, modeling, and forecasting to support several activities at both the LVVWD and the SNWA. The division provides long-term forecasts, estimates of customer demand curves, analysis of changing demand patterns, and conservation model results to the SNWA as inputs into regional water resource planning. The division provides economic analysis, water demand projections, population distributions, statistical support and water demand distributions to the LVVWD as inputs into financial planning and rate setting, infrastructure planning, operations planning, and small system analysis. This data is utilized for the evaluation of system additions initiated by the LVVWD and large system additions initiated by developers. The data is also used for hydraulic criticality assessment of distribution system components to ensure system reliability. The division maintains an industry leading hydraulic model of the distribution system, with cutting edge modeling capabilities, which is utilized for engineering analysis and decision support. The division locates, sizes, and schedules new pumping stations, reservoirs, wells, and major pipelines. The division also maintains the Asset Management model which is used to prioritize asset renewal projects and provide capital cost projections. The division reviews pressure

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Infrastructure Management**  
Fiscal Year Ending June 30, 2020

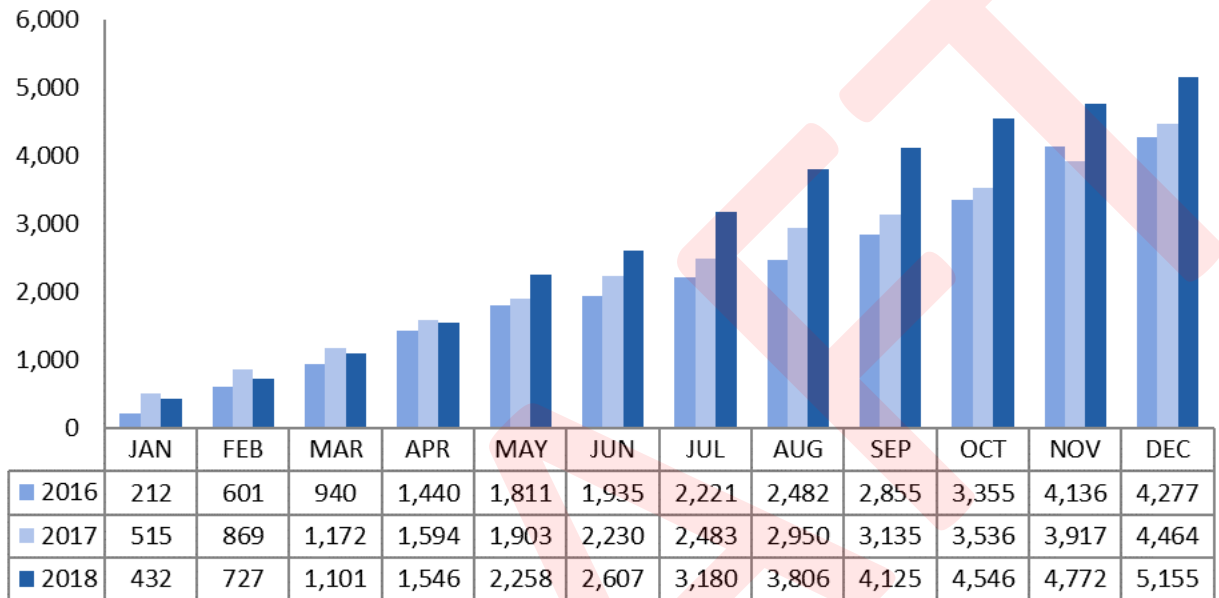
and fire flow availability for new developments and writes cost sharing agreements for the design and construction of major water facilities. The division collaborates with the WQ&T and Operations departments to address water quality compliance issues, to research and develop alternative technologies applicable to the LVVWD water distribution system, and to plan for capital improvements and required monitoring for regulatory compliance. The division conducts distribution system pressure and flow investigations in support of Customer Care and Field Services, Operations and Public Information. The division also performs planning for small systems, recycled water distribution systems, and out-of-valley transmission systems.

**Engineering Services.** The Engineering Services division is responsible for reviewing

plans for additions and modifications to the systems of the LVVWD and the SNWA, initiated by developers, utilities, and public entities. The division approves the water plans for these system additions, and ensures system additions meet the LVVWD's and the SNWA's requirements for reliability and maintainability, calculates fees, processes agreements, commits water resources to new developments, and ensures water facility construction is per the LVVWD's standards. The division coordinates with other public works construction to minimize both the LVVWD costs and inconvenience to the public. The division is responsible for the evaluation and testing of products for use in the water distribution system and oversees the LVVWD Approved Products List. The following chart represents the LVVWD's cumulative data representing new service points.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Infrastructure Management**  
Fiscal Year Ending June 30, 2020

**New Service Points**  
**2016-2018 Cumulative New Service Points Received**



**Asset Management.** The Asset Management division assesses infrastructure conditions and forecasts short and long-term capital renewal needs to meet service level expectations. Asset Management performs condition assessments on LVVWD pipelines with the latest technology such as acoustic leak detection, pipe wall measurements, and CCTV internal inspections to determine the remaining useful life of the pipelines and identify pipelines in need of rehabilitation. Reservoirs are inspected while in service with divers or the LVVWD owned Remote Operated Vehicle (ROV) or are inspected while out of service with Magnaflux Leakage Technology (MFL) and a visual assessment. Pump performance evaluations are conducted utilizing SCADA data without the need for field testing to determine the current pump efficiency. The division is responsible for managing the corrosion control program

for the LVVWD, SNWA, and associated small systems. The goal of the corrosion control program is to extend the life of steel pipe and other steel structures by applying and maintaining cathodic protection (CP). Corrosion Control Systems Technicians collect annual corrosion data on over 2,762 CP test stations and 17 impressed current rectifiers for the LVVWD, as well as 1,025 CP test stations and 73 impressed current rectifiers for the SNWA. The division also maintains CP system components, installs new anodes and test stations, and performs corrosion assessments.

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Infrastructure Management  
Fiscal Year Ending June 30, 2020

## Strategic Plan Objectives and Accomplishments

***Strategic Plan Goal – Assure quality water through reliable and highly efficient systems.***

### 2019-20 Performance Objectives

- Complete the SCADA upgrade at BBWD to the Wonderware System Platform.
- Continue to build out fiber optic communications network over the next five years.
- Maintain a capital improvements program for the LVVWD, SNWA, and small systems, and review development submittals in a timely manner.
- Monitor and evaluate water quality in the distribution system and recommend improvements in response to changing water quality and regulatory conditions.
- Develop an internal pipeline inspection program utilizing the LVVWD's new CCTV pipeline equipment.

### 2018-19 Major Accomplishments

- Completed cost sharing agreements with land developers for the design and construction of the Rome 2860 Zone North Water Facility Improvements and the Cougar 3090 Zone Reservoir.
- Finalized the Emerson Ovation SCADA system upgrade at SNWA.
- Completed fiber network installations at Montessori, Cactus, and Levi pump

stations. Continued fiber work at Carlton Square, Gowan, Fort Apache, Decatur, and Tropical pump stations.

- Completed the THM mitigation installations at the Durango, Luce, and Pico sites.
- Implemented the LVVWD's first surge tank pressure vessel inspection program.
- Worked with the City of Las Vegas on Interlocal Agreements for three Betterment Projects: Flamingo – Boulder Highway North; 6th Street Pedestrian and Bicycle improvements; and Downtown Pedestrian and Bicycle Improvements, 3rd Street Phase 1.

***Strategic Plan Goal – Deliver an outstanding customer service experience.***

### 2019-20 Performance Objectives

- Maintain efficiency in reviewing water plan submittals, network analyses, and hydraulic grade line requests.
- Continue the 4-1-1 review process for developer projects; four-week first review, one-week resubmittal review, and one-week for final Mylar review/approval; with a target success rate of 90 percent.
- Encourage pre-submittal meetings with developers, the agency, and their engineers to identify potential issues and/or special conditions resulting in one less plan review required per project.
- Continue to work with other agencies to include water facility upgrades and replacements in road improvement projects.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Infrastructure Management**  
Fiscal Year Ending June 30, 2020

**2018-19 Major Accomplishments**

- Approved 5,155 new water service connections, 491 hydraulic grade line and fire flow information requests, 270 water network analyses, and 868 sets of development plan requests.
- Reviewed 4,240 sets of developer, utility, and public works plans for the LVVWD and the SNWA, including brand new submittals, re-submittals, and revisions.
- Hosted 379 project review meetings with developers and engineers.
- Implemented cellular communications at pressure monitoring stations and pressure reducing stations to reduce the time to bring developer projects online.

***Strategic Plan Goal – Ensure organizational efficiency and manage financial resources to provide maximum customer value.***

**2019-20 Performance Objectives**

- Update master planning areas and associated facilities needed to serve developed and vacant acreages based on new development trends.
- Continue to utilize the latest condition assessment technologies to determine the true condition and expected remaining life of the infrastructure.
- Maintain an industry leading hydraulic model, with state-of-the-art modeling tools, of the distribution system for effective decision support and further automate the hydraulic model and tools for maintenance, calibration, asset rehabilitation, emergency

response, shutdown analysis, and water quality applications.

- Collaborate with Clark County Public Works to perform pipeline replacement in Las Vegas Boulevard as part of the proposed County pavement replacement project from Sahara Avenue to I-215.

**2018-19 Major Accomplishments**

- Updated LVVWD's Table 1 demand factors used by developers to size pipelines and facilities to reflect current water demand usage patterns.
- Completed 172 Maintenance Engineering projects, at a cost of \$12.5 million.
- Utilized a remote submarine to inspect critical infrastructure, such as the low-level intake structure and several reservoirs to reduce costs with diver services and used Magnaflux Leakage (MFL) technology to scan steel tank floors to measure wall thickness and identified holes.

***Strategic Plan Goal - Strengthen and uphold a culture of service, excellence and accountability.***

**2019-20 Performance Objectives**

- Provide updated cost curves and risk assessments for the LVVWD and the SNWA pipelines.
- Continue to conduct Uniform Design and Construction Standards (UDACS) training sessions for engineering firms; addressing each firm's needs and assisting them in submitting more accurate plans.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Infrastructure Management**  
Fiscal Year Ending June 30, 2020

- Collaborate with Clark County and the City of Las Vegas Fire Departments to enhance onsite fire flow analyses, and train consultants on including pertinent information in civil plans.

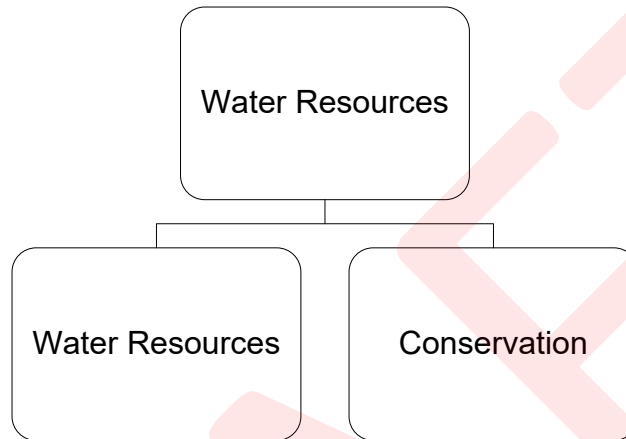
**2018-19 Major Accomplishments**

- Processed 489 record drawing requests for developer and public works projects.
- Completed two UDACS' training seminars with engineering firms and a Developer Forum.
- Supported the Nevada Division of Environmental Protection (NDEP) and the water utilities in Nevada by providing engineering expertise in a state-wide working group and suggested edits to the Nevada Administrative Code.
- Completed 11 vault and backflow installations to address safety or regulatory issues.

## WATER RESOURCES

### Level: 3800

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### Mission

The mission of the Water Resources Department is to ensure adequate water resources are available to meet the community's current and future water needs in the face of climate uncertainty.

### Department Description

The Water Resources Department manages SNWA's water resource portfolio to ensure a reliable water supply for the community. Primary responsibilities include the management of existing water supplies, the acquisition of new water supplies, water demand management, and monitoring of regional hydrologic and water-quality conditions. The department supports policy initiatives on the Colorado River, conducts forward planning for water resource needs, assesses future water supply risks, provides

technical support for the operations of LVVWD and SNWA production, artificial-recharge, and irrigation wells, and administers regional water conservation programs.

### Budget Objectives and Highlights

The department's budget is \$66,306,231, which represents an increase compared to the fiscal year 2018-19 budget. Increases are primarily attributed to investigating new well production sites in the Las Vegas Valley and increased conservation activities including water waste enforcement. Budgets for other ongoing Colorado River activities, and environmental compliance costs remain similar to previous years' budgets. The budget for conservation activities reflects SNWA's long-term commitment to increased water conservation.



Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Water Resources  
Fiscal Year Ending June 30, 2020

### Expenditures

| LVVWD Uses                           | Actual<br>2017-18 | Budget<br>2018-19   | Budget<br>2019-20   |
|--------------------------------------|-------------------|---------------------|---------------------|
| Materials & Supplies                 | \$ 51,544         | \$ 193,000          | \$ 126,750          |
| Maintenance & Repairs                | -                 | 10,000              | 35,000              |
| Other Employee Expenses              | 395               | 2,300               | 17,300              |
| Other Expenses                       | 2,784             | 79,000              | 77,750              |
| Total Operating Expenses             | \$ 54,723         | \$ 284,300          | \$ 256,800          |
| Capital Expenditures                 | \$ -              | \$ 3,352,500        | \$ 2,625,000        |
| Payroll & Related Costs              | \$ 295,737        | \$ 457,574          | \$ 1,586,310        |
| <b>Total Department Expenditures</b> | <b>\$ 350,460</b> | <b>\$ 4,094,374</b> | <b>\$ 4,468,110</b> |
| FTE Positions                        | 1.6               | 2.5                 | 9.4                 |

### Department Performance

**Water Resources.** The Water Resources Division is responsible for securing and managing regional and local groundwater and surface water resources to ensure a reliable water supply for Southern Nevada. This responsibility involves managing existing Colorado River allocations and agreements including those for river-related environmental compliance; conducting regional water resource planning, including integrated water resource planning, population forecasting, regional water demand forecasts and analyses, and water use accounting and reporting; identifying, evaluating, and developing sources of additional groundwater and surface water supplies; managing banked resources; establishing hydrologic and climatological monitoring networks; securing water rights

from the Nevada State Engineer's (NSE) Office; and ensuring all water-resource assets remain in good standing.



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Water Resources**  
Fiscal Year Ending June 30, 2020

| SNWA Permanent and Temporary Resources |  |                 |
|--|--|-----------------|
|  | Supply   | Consumptive Use |
| Permanent                              | Colorado River (SNWA)  | 272,205 AFY     |
|  | Nevada Unused Colorado River (Non-SNWA)                        | 0-21,067 AFY    |
|  | Tributary Conservation/ Imported Intentionally Created Surplus | 40,000 AFY      |
|  | Las Vegas Valley Groundwater Rights                            | 46,961 AFY      |
|  | Direct-Reuse   | 21,800 AFY      |
| Temporary                              | Southern Nevada Groundwater Bank                               | 335,410 AF      |
|  | Interstate Banks (California and Arizona)                      | 931,266 AF      |
|  | Intentionally Created Surplus (storage in Lake Mead)           | 582,302 AF      |

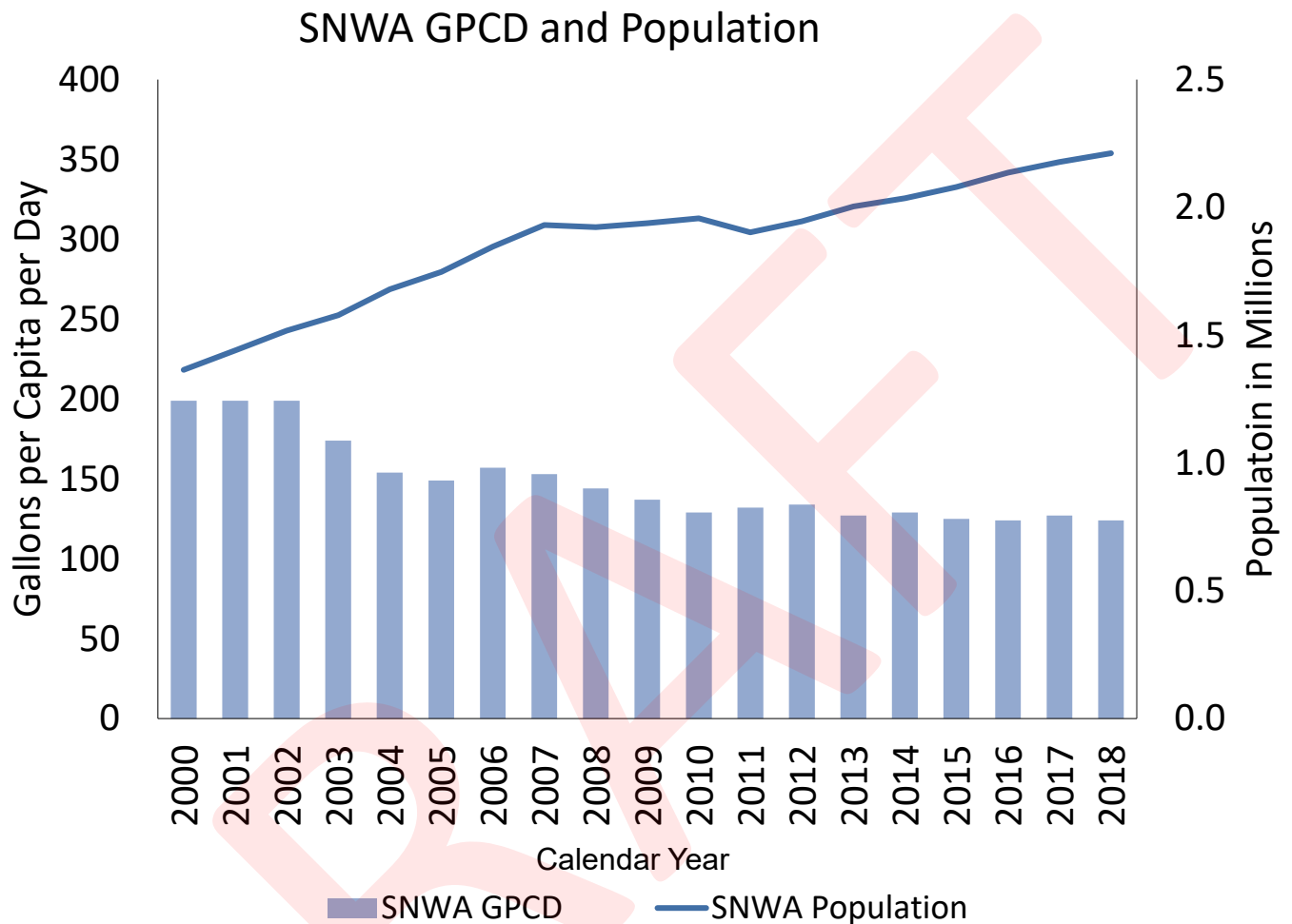
**Conservation.** The Conservation division develops and implements demand reduction programs and strategies with emphasis on consumptive uses. The SNWA monitors water use in terms of Net Gallons Per Capita per Day (GPCD), since SNWA agencies recycle nearly all indoor water use, either through return-flow credits or direct reuse. Net GPCD more accurately reflects the community's use of

water resources and improves comparability with other communities. The SNWA's net GPCD was 124 in 2018. This is a reduction of 38 percent, since onset of drought policies in 2002.

In 2018, the SNWA supported 2,328 projects comprising 3.6 million square feet of landscape conversion. These conversions will produce perpetual annual savings of more than 200 million gallons. The cumulative benefit of landscape conversions completed since 2000 reduced the SNWA's 2018 consumptive water use by more than 10.5 billion gallons.

The Conservation division employs three water-efficiency strategies: education, incentives, and regulation. Education strategies include multi-media (managed through the Public Information division), customer contacts, publications, videos, special events, demonstration projects, and a comprehensive website. The incentive strategy utilizes rebates to promote landscape conversions and use of water-efficient technology and accounts for the largest share of conservation funding. The regulatory strategy relies on coordination with other jurisdictions to implement efficient development standards, time-of-day watering requirements, water waste penalties and tiered water rate structures. Beginning in FY20, the Conservation Division will increase expenditures for enforcement of water use regulations.

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Water Resources  
Fiscal Year Ending June 30, 2020



## Strategic Plan Objectives and Accomplishments

***Strategic Plan Goal 1 – Assure quality water through reliable and highly efficient system.***

### 2019-20 Performance Objectives

- Cooperate with other Colorado River water users on programs that protect critical elevations in Lake Powell and Lake Mead.
- Ensure reliability of Colorado River supplies through active participation

in environmental compliance and management programs.

- Inspect the SNWA and the LVVWD wells annually to ensure appropriate operational capacity for each service area. Manage, develop, and certificate water rights, as appropriate.

### 2018-19 Major Accomplishments

- Continued implementation of the Colorado River Pilot System Conservation Program. Lake Mead contains approximately 25 feet of

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Water Resources**  
Fiscal Year Ending June 30, 2020

- additional water from the program and other storage initiatives.
- Completed all compliance monitoring and reporting for LVVWD groundwater rights, and permits to recharge, store, and recover water from the Southern Nevada Water Bank.
  - Administered LVVWD groundwater rights to optimizing operation flexibility.
  - Constructed high-capacity production well, W124, to replace well W027.
  - Performed an evaluation of production well W104 and designed and installed a liner to improve the quality of the production water.
  - Performed an evaluation at three reservoir sites in Las Vegas Valley to determine suitability of the sites for future production wells.
  - Prepared scientific reports for the NSE in support of water rights SNWA owns within the Lower White River Flow System.
  - Maintained and perfected SNWA groundwater and surface water rights while optimizing operation flexibility.
  - Provided well design, construction oversight, and project management for the Riverbank Filtration Well for Big Bend Water District.
  - Implemented a maintenance and repair plan to optimize efficiencies of irrigation wells and the development of water rights associated with the NR Ranch properties.
  - Constructed a high-capacity irrigation well to replace the Kerr irrigation well at Great Basin Ranch.

- Constructed a replacement well for the Harbecke Ranch quasi-municipal well.
- Continued funding and/or participation in the Lower Colorado River Multi-Species Conservation Program and the Glen Canyon Dam Adaptive Management Program.
- Cooperate with Colorado River stakeholders to update the economic damages model used by the Salinity Control Forum in their efforts to establish goals for triennial Plans of Implementation.

***Strategic Plan Goal 2 – Deliver an Outstanding Customer Service Experience.***

**2019-20 Performance Objectives**

- Maintain 90 percent or greater client satisfaction rating for delivery of the Water Smart Landscapes program.
- Expand single family Site Evaluation Pilot Program to make it available to multiple agencies as a tool to assist high water use inquiries.

**2018-19 Major Accomplishments**

- Conservation customer satisfaction rating increased to 94.8 percent (4.74/5-point scale).
- Developed program and process to offer rebates for smart leak detector devices.
- Developed a pilot program to offer consulting services to residential customers with disproportionately-high water use.
- Taught 23 English and Spanish landscaping/irrigation classes at the

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Water Resources  
Fiscal Year Ending June 30, 2020

Springs Preserve to more than 600 residents.

***Strategic Plan Goal 3 – Anticipate and Adapt to Changing Climatic Conditions while Demonstrating Stewardship of our Environment.***

**2019-20 Performance Objectives**

- Cooperate with other Colorado River water users on programs that protect critical elevations in Lake Powell and Lake Mead.
- Complete actions as required under the SNWA / Department of Interior Stipulated Agreements.
- Publish annual updates to SNWA's Water Resource Plan and Water Budget.
- Ensure compliance with terms of the SNWA Cooperative Agreement and Section 5 contracts with the Secretary of the Interior to fully utilize Nevada's 300,000 acre-feet of Colorado River apportionment.
- Communicate conservation goals and progress to the organization.
- Develop and submit the 2019-2023 5-Year Conservation Plan.
- Support conservation plans that benefit endangered and threatened species to ensure access to current and future water supplies.
- Monitor, and when appropriate participate in, external activities that might interfere with SNWA's access to current and future water supplies.

**2018-19 Major Accomplishments**

- Developed the 5-year Conservation Plan.
- Issued more than 5,000 conservation rebates saving the community nearly 260 million gallons per year.
- Piloted storage of approximately 56,000 acre-feet of conserved NV Colorado River water in Lake Mead to protect reservoir elevations.
- Participated in the ongoing implementation of the Pilot System Conservation Program.
- Conducted Colorado River modeling in support of ongoing negotiations and resource management activities.
- Partnered with Colorado River stakeholders to identify and prioritize research initiatives that would improve the accuracy of hydrological forecasts, enhance the performance of predictive and decision support tools, and to reduce uncertainty related to future supply and demand conditions in the CRB.
- Maintained a regional monitoring network in east central and southern Nevada to collect long-term hydrologic and climatological data.
- Designed and oversee construction of replacement wells within the Las Vegas Valley and for the ranches.
- Achieved 2018 Net GPCD of 124.
- Partnered with NV Energy, Southwest Gas, and the Desert Research Institute to supply 1,000 Water and Energy home retrofit kits to schools through a school sustainability curriculum.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Water Resources**  
Fiscal Year Ending June 30, 2020

- Implemented a uniform conservation policy for water features among all municipalities.
- Published the combined SNWA 2018 Water Resource Plan & Water Budget.
- Created approximately 32,000 acre-feet of Tributary Conservation ICS and over 740 acre-feet of System Conservation water from the Muddy and Virgin Rivers to Lake Mead.
- Delivered 13,500 acre-feet of water for interstate banking in Arizona.

***Strategic Plan Goal 4 – Develop Innovative and sustainable solutions through research and technology.***

**2019-20 Performance Objectives**

- Increase participation in SNWA conservation incentive programs such as Water Smart Landscapes Program and Water Efficient Technologies Program
- Host 12th Annual WaterSmart Innovations Conference.
- Continue to collaborate with water efficiency technology incubators and accelerators, including WaterStart, ImagineH2O, the Metropolitan Water District of Southern California, the Alliance for Water Efficiency and others.
- Participate in a multi-agency, national research initiative on cooling technology and water demand.
- Collaborate with WaterStart on a study of water efficiency technology for resort and large facility management.

- Develop the first of its kind coupon/research program for Leak Detection Devices.
- Participate in the implementation of Minute No. 323, “Extension of Cooperative Measures and Adoption of a Binational Water Scarcity Contingency Plan in the Colorado River Basin”.

**2018-19 Major Accomplishments**

- Developed a 2-hour, state-approved continuing education course for Community Association Managers.
- Implemented a new incentive and research program for residential leak detection devices.
- Increased Water Smart Landscapes incentive 50 percent and experienced a doubling of residential applications.
- Implemented a program to provide additional support to member agencies to enforce watering restrictions.
- Ongoing collaboration with the State of Nevada’s WaterStart program and ImagineH2O to review water efficiency technology and select award recipients.
- Completed development of a national water efficiency rating system for new homes in conjunction with RESNET.
- Partnered with the Alliance for Water Efficiency and major utilities to fund and develop a research venture to explore water conserving approaches to cooling.
- Hosted approximately 1,000 attendees at the 11th Annual WaterSmart Innovations Conference and Expo, the nation’s largest event

**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Water Resources**  
Fiscal Year Ending June 30, 2020

for exhibiting and presenting water efficiency programming and technology.

- Partnered with the Metropolitan Water District of Southern California and Central Arizona Project to implement the Innovative Conservation Program.
- Participated in the development of a scope of work for the study of water desalination opportunities in the Sea of Cortez.

***Strategic Plan Goal 5 – Ensure Organizational Efficiency and Manage Financial Resources to Provide Maximum Customer Value.***

**2019-20 Performance Objectives**

- Implement hydrologic monitoring efficiencies with remote data collection.
- Leverage conservation research dollars through regional/national projects that attract funding and participation from peer utilities.
- Implement a new business system to streamline workflows, maintain accountability, reduce labor intensity through automation and expand use of electronic documents.

**2018-19 Major Accomplishments**

- Continued installation of Geostationary Operational Environmental Satellite telemetry systems to monitor and provide real-time access to important hydrologic sites in remote locations and reduce travel-related expenses.

- Collected \$300,000 in grant funding to support conservation programs.
- Partnered with Lower Basin water users to fund a study to explore opportunities for desalinization of sea water along the Sonoran coast of the Sea of Cortez.

***Strategic Plan Goal 6– Strengthen and uphold a culture of service, excellence and accountability***

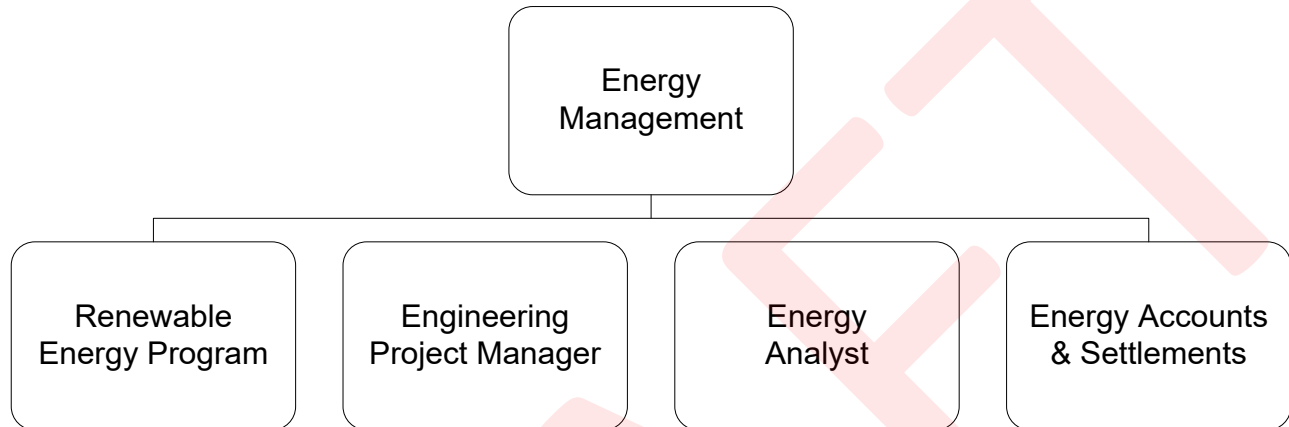
**2018-19 Major Accomplishments**

- Developed an interdepartmental dashboard to track and report conservation achievements.



## ENERGY MANAGEMENT

Level: 3900



### Mission

The mission of the Energy Management department is to manage an energy resources portfolio for the members of the Silver State Energy Association (SSEA), including the Southern Nevada Water Authority (SNWA) and its member agencies, which yields predictable prices; considering the overall value of sustainability and cost minimization.

### Department Description

The Energy Management department was established in fiscal year 2005-06 to manage the procurement and utilization of energy resources necessary to pump, treat, and deliver water to the member agencies. The SNWA, in collaboration with the Colorado River Commission of Nevada (CRC), initially purchased energy supplies for its own water pumping needs and later began supplying power for the water pumping and wastewater needs of the SNWA member agencies, including the Las Vegas Valley Water District (LVVWD), the City of Las Vegas, the City of

Henderson, the Clark County Water Reclamation District and the City of North Las Vegas.

In 2007, the SNWA, along with the CRC, Lincoln County Power District No. 1, Overton Power District No. 5 and the City of Boulder City, formed the SSEA, a joint action agency charged with procuring and managing power resources for its members. Today, Energy Management personnel and CRC personnel, acting as the staff of the SSEA, manage the procurement and utilization of energy resources for the SNWA and its member agencies needs and the needs of the other SSEA members.

Key functions performed by Energy Management personnel on behalf of the SSEA include energy trading and procurement, accounting and settlements, energy risk management, forecasting, analytical support, and project planning and development. In addition to the functions performed on behalf of the SSEA, Energy Management personnel also support the renewable energy initiatives

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Energy Management  
Fiscal Year Ending June 30, 2020

of the SNWA and the LVVWD.

## Budget Objectives and Highlights

The fiscal year 2019-20 Energy Management department budget contains funding for all expenses associated with the procurement and management of energy resources for the SNWA's electrical loads. Expenses for the LVVWD, other SNWA member agencies, and other SSEA members, are not included in this

budget. The majority of budget funding is for energy commodities and services purchased by the SSEA from the energy and financial marketplace to meet the SNWA's needs. Other expenditures include transmission, distribution and ancillary services; operation and maintenance expenses associated with transmission and generating assets; and administrative and general expenses for CRC and the personnel of the SNWA.

### Expenditures

| LVVWD Uses                           | Actual<br>2017-18 | Budget<br>2018-19 | Budget<br>2019-20 |
|--------------------------------------|-------------------|-------------------|-------------------|
| Materials & Supplies                 | \$ -              | \$ -              | \$ -              |
| Maintenance & Repairs                | -                 | -                 | -                 |
| Rental & Leases                      | -                 | -                 | -                 |
| Other Employee Expenses              | -                 | -                 | -                 |
| Other Expenses                       | -                 | -                 | -                 |
| Total Operating Expenses             | \$ -              | \$ -              | \$ -              |
| Capital Expenditures                 | \$ -              | \$ -              | \$ -              |
| Payroll & Related Costs              | \$ 32,448         | \$ -              | \$ -              |
| <b>Total Department Expenditures</b> | <b>\$ 32,448</b>  | <b>\$ -</b>       | <b>\$ -</b>       |
| FTE Positions                        | 0.4               | -                 | -                 |

## Department Performance

**Silver State Energy Association (SSEA).** The SNWA has been instrumental in the formation and development of the SSEA, which has brought significant benefits to the SNWA, its member agencies and the SSEA members. In order to properly manage the energy needs of

the SNWA, a certain minimum size of labor and infrastructure is required. The employees and systems of the Energy Management department and the CRC Energy Services group have met this need for many years now.

Expanding the energy portfolio managed by this group to include the SNWA member



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Energy Management**  
Fiscal Year Ending June 30, 2020

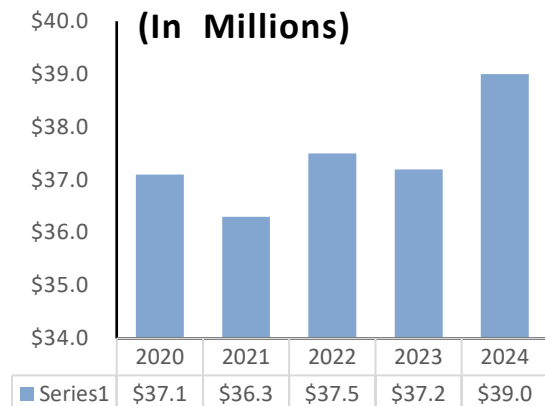
agencies and the members of the SSEA has brought significant economies of scale and portfolio synergies to each of the participants, including the SNWA. Furthermore, the energy portfolio has been able to be expanded in this way with only a minimal increase in the size of the labor and overhead required to properly manage it. Over \$1 million per year of general overhead and operating costs are now being paid for by non-SNWA entities, costs that otherwise would be paid for by the SNWA.

Some of the benefits the SNWA realizes by participating in the SSEA include 1) economies of scale when purchasing energy; 2) lower overhead costs; 3) lower balancing, imbalance and ancillary services costs due to the synergies of serving a single larger portfolio vs. serving the different load shapes of each individual entity; 4) federal hydropower optimization, which can only be realized by serving the combined portfolio; 5) economies of scale, shared resources, and shared costs of project development work; and 6) additional opportunities to work cooperatively with the other public entities in the overall energy portfolio.

**Energy Price Stability.** Energy Management measures its success on the basis of how well it is meeting its objective to provide energy to the SSEA members yielding stable, low and predictable prices. Consistent with the SSEA's Energy Risk Procedures the price exposure of the SNWA's energy portfolio has largely been eliminated through calendar year 2023. The SSEA locks in its energy portfolio costs by

securing a combination of physical market resources (generation assets or contracts for the delivery of electricity) as well as electric and gas financial products to meet the needs of its members. Physical contracts for electricity are secured whenever there are sufficient buyers and sellers to create liquid markets. Financial products are secured when physical contracts are unavailable or market liquidity is unacceptably low. Financial products protect against price movements in the market and can be converted to physical supplies at a later time when physical power markets are more liquid. Because the SNWA portfolio cost is substantially fixed through calendar year 2023, changes in the market price of energy are expected to have little effect on the SNWA's expected costs during this period. The chart below shows the SNWA's actual and projected energy costs through fiscal year 2024 as of the end of January 2019.

**SNWA 2020-2024**  
**Fiscal Year Ending**  
**Projected Energy Costs**  
**(In Millions)**



Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Energy Management  
Fiscal Year Ending June 30, 2020

Energy Management has met its objective of providing energy at stable and predictable prices. This long-term management approach has allowed the SNWA and its members to budget for energy costs with a high degree of confidence years in advance. To ensure the commitment to long-term price stability is met, a Risk Control Committee comprised of the SNWA and its member agencies meets quarterly to review standardized reports produced by the SSEA, and to monitor the SSEA's adherence to its Risk Control Procedures.

The SNWA's energy costs are expected to be approximately \$36 million, excluding the estimated cost of capital associated with the SNWA's energy assets for the fiscal year 2019-20. This amount is recovered through the SNWA wholesale water delivery charge

**SSEA Eastern Nevada 230 kV Transmission Project.** For the past several years, the SSEA members have been working cooperatively to develop the Eastern Nevada Transmission Project (ENTP), a 230 kV transmission system that would allow for the interconnection of SSEA members' electrical systems with each other and with the Mead Substation. Mead is the major regional wholesale market access point in Southern Nevada. The SSEA has completed an Environmental Assessment and received full project right-of-way grant and permits from the Bureau of Land Management. Management is presently evaluating various opportunities to move this project forward into the design phase.

**SNWA and LVVWD Sustainability Initiatives.** The SNWA continues to pursue economical energy contributing to the SNWA's and the LVVWD's goal of providing 25 percent of the

supply portfolio with renewable energy by 2025 and currently stands at 18 percent.

## Strategic Plan Objectives and Accomplishments

***Strategic Plan Goal – Assure quality water through reliable and highly efficient systems.***

### 2019-20 Performance Objectives

- Complete the installation of the 2 MW Solar Covered Parking project at the LVVWD Campus.
- Negotiate and execute a 50 MW Power Purchase Agreement and a Transmission Wheeling Agreement with a solar developer in support of our renewable energy goals.
- Negotiate and execute new Portfolio Energy Credit (PEC) agreements for the sale of all SNWA certified PECs.
- Install metering and communications sufficient to enable the correlation of L3PS power and water consumption.

### 2018-19 Major Accomplishments

- Finalized an agreement to install solar covered parking at the LVVWD campus. The project will include 2 MW of solar panels.
- Evaluated a microgrid application integrating the solar carport energy with battery storage at the LVVWD campus.
- Performed a Request for Interest for the supply of 50 MW of solar power in support of the ENTP project. Began negotiations with the preferred solar developer.
- Determined the 69kv system configuration and capacity to serve the L3PS project. Advised on a sequence of

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Energy Management  
Fiscal Year Ending June 30, 2020

installations for lines and substations to connect temporary and permanent power to the loads for the L3PS project.

***Strategic Plan Goal – Deliver an outstanding customer service experience.***

**2019-20 Performance Objectives**

- Facilitate the transition of water and wastewater pumping loads as requested by member agencies to the SSEA energy management program.
- Provide advisory services to the SNWA member agencies as they evaluate various alternatives for serving their future energy needs.
- Ensure the customers who have been allocated federal hydropower are receiving the maximum benefits from the resource.
- Develop and launch a revised SSEA member website and document portal.

**2018-19 Major Accomplishments**

- Provided advisory and consulting services to the City of Las Vegas and the City of Henderson in their effort to understand the energy landscape and evaluate options for meeting their future energy needs.
- Implemented data exchange protocol to deliver SSEA bills directly into Henderson's new billing system.
- Provided FERC compliance training to all network power customers.
- Provided quarterly educational presentations to all network power customers on the Risk Control Committee.

***Strategic Plan Goal – Ensure organizational efficiency and manage financial resources to provide maximum customer value.***

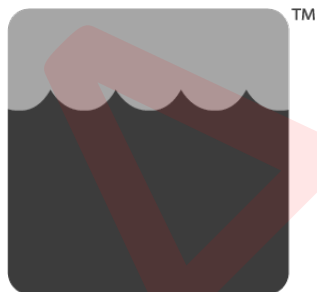
**2019-20 Performance Objectives**

- Coordinate the month-ahead scheduling process with scheduling contractors and implement improvements as needed.
- Maintain a managed portfolio of energy resources for all Silver State Energy requirements within all hedge guidelines and procedures.
- Cross train middle office personnel on mission critical systems and processes.
- Begin processing Hoover Dam energy payments for LVVWD.

**2018-19 Major Accomplishments**

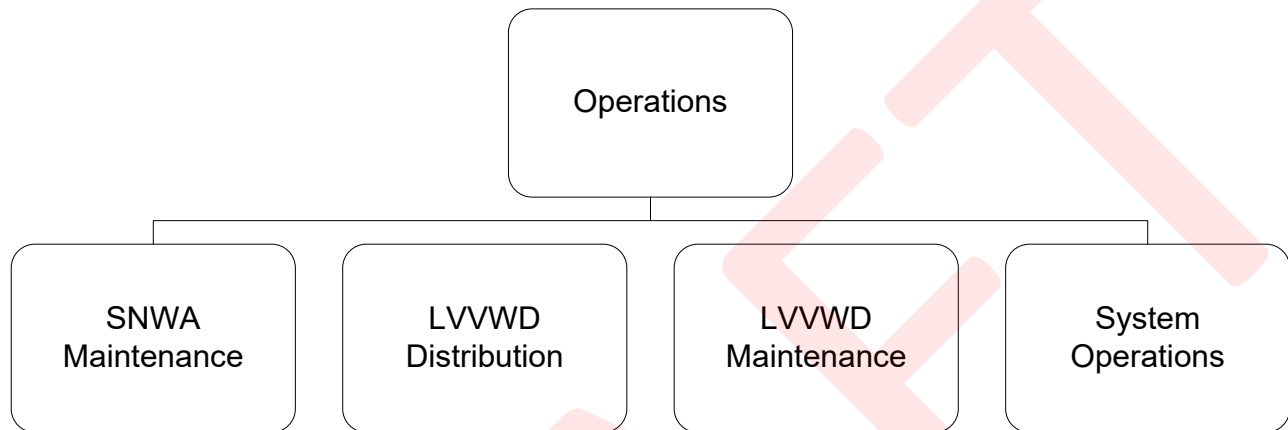
- Implemented regular meetings between energy trading and risk management personnel to facilitate communication and enhance financial performance.
- Created a report to facilitate the tracking of Portfolio Energy Credits and worked with the Public Utilities Commission of Nevada to certify them in a timely manner.
- Worked with the SSEA's scheduling entity to establish a process for recovering damages from energy suppliers due to non-delivery of energy resources.
- Enhanced energy accounting system to provide more robust cost versus actual comparison reports.
- Investigated alternative methods for customer collateral posting.
- Performed a comprehensive review and amendment to the SSEA Risk Management Procedures.

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## OPERATIONS

Level: 4100



### Mission

To serve the Southern Nevada Water Authority (SNWA) customers by delivering high quality drinking water to the greater Las Vegas area through efficient, reliable, state-of-the-art delivery systems. To support the Las Vegas Valley Water District's (LVVWD) mission by delivering water to customers that is adequate to meet their needs and proven safe through a system that is effectively operated and maintained.

### Department Description

The LVVWD system is comprised of a wide variety of facilities which include various pumping stations ranging in size from 7,500 gallon per minute (GPM) to 93,000 GPM and various reservoirs ranging in size from 10 million gallon (MG) to 50 MG, for a total storage of just over 900 MG. The LVVWD has 64 potable wells capable of producing 200 MGD, 31 specially constructed wells dedicated to recharging the groundwater basin with treated Colorado River water

during the winter months, and two recycled water distribution systems that include two reservoirs, five pumping stations and four wells.

The SNWA system consists of 31 pumping plants, 36 rate-of-flow control stations (ROFCS) also referred to as metering sites, 163 miles of large diameter pipeline, and over 60 regulating tanks, reservoirs and surge towers.

Operations also serves customers located not only in the metropolitan Las Vegas area, but also the small service areas of Blue Diamond, Jean, Kyle Canyon, Searchlight, Eldorado Valley, Coyote Springs/Moapa, Sloan and Laughlin.

### Budget Objectives and Highlights

In October 2014, the SNWA/Southern Nevada Water System (SNWS) and the LVVWD Operations department's divisions and functions were merged into a single department. Building on this action, the department was further reorganized in October 2015 to create a combined Systems

**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Operations**

Fiscal Year Ending June 30, 2020

Operations division with separate maintenance divisions for the LVVWD and the SNWA.

Operations' divisions are responsible for the day-to-day and long-term operations of a complex network of pumping stations, reservoirs, ROFCS, sodium hypochlorite facilities, and ground water wells necessary to meet water delivery demands. Wholesale customers of the SNWA include the LVVWD, City of Henderson, City of North Las Vegas, Boulder City, Nellis Air Force Base, and the Park Service. Retail customers of the LVVWD receiving water from Lake Mead include residents of unincorporated Clark County and the City of Las Vegas. The department also operates small ground water systems for the communities of Blue Diamond, Jean, Mt. Charleston, Searchlight, the Sloan Army Reserve Center, and the Moapa Water Treatment Plant.

**Equipment and Project Budget.** The Operations department combined equipment and project budget reflects the new items to establish improved maintenance practices, replacement of existing equipment items no longer supportable by the manufacturer, and capital projects the divisions manage. The total request is \$7,600,000 for the fiscal year 2019-20 Budget Plan between the LVVWD and the SNWA.

**Operating Expense Budget.** The department's Operating Expenses budget continues to focus on Reliability Centered Maintenance (RCM) aspects of keeping the overall water delivery system fully operational and reliable. The Operating Expenses for fiscal year 2019-20 Budget Plan are shown on the following table.

Operations' fiscal year 2019-20 overall budget totals \$70,230,043 between the LVVWD and the SNWA.

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
**Operations**  
Fiscal Year Ending June 30, 2020

**Expenditures**

| <b>LVVWD Uses</b>                    | <b>Actual<br/>2017-18</b> | <b>Budget<br/>2018-19</b> | <b>Budget<br/>2019-20</b> |
|--------------------------------------|---------------------------|---------------------------|---------------------------|
| Purchased Water                      | \$ 20,540                 | \$ 39,000                 | \$ 39,000                 |
| Energy                               | 9,771,761                 | 10,676,500                | 10,056,500                |
| Materials & Supplies                 | 4,569,533                 | 4,349,302                 | 4,371,802                 |
| Maintenance & Repairs                | 508,472                   | 2,474,500                 | 2,107,000                 |
| Rental & Leases                      | 24,672                    | -                         | -                         |
| Other Employee Expenses              | 184,000                   | 225,150                   | 251,150                   |
| Other Expenses                       | 31,753                    | 395,350                   | 396,600                   |
| Total Operating Expenses             | \$ 15,110,730             | \$ 18,159,802             | \$ 17,222,052             |
| Capital Expenditures                 | \$ 941,708                | \$ 1,450,984              | \$ 4,904,500              |
| Payroll & Related Costs              | \$ 29,776,307             | \$ 30,376,170             | \$ 31,888,045             |
| <b>Total Department Expenditures</b> | <b>\$ 45,828,745</b>      | <b>\$ 49,986,956</b>      | <b>\$ 54,014,597</b>      |
| FTE Positions                        | 186.4                     | 189.3                     | 190.0                     |

## Department Performance

**SNWA Maintenance.** The SNWA Maintenance division is responsible for the repair and maintenance of the production facilities and distribution system. The division ensures the system, facilities and equipment are maintained at a level to fulfill the SNWA's contracted water delivery commitments. This is a large, complex system consisting of 31 pumping plants, 36 metering sites called rate-of-flow control stations (ROFCS), 163 miles of large diameter pipeline, and over 60 regulating tanks, reservoirs and surge towers.

The Electrical/Electronics section consists of two teams of technicians responsible for all levels of reactive, preventive and predictive maintenance, emergency repair, new construction, retrofitting and installation, and upgrading of all equipment and process control systems belonging to the SNWS. All the SNWS pumping stations and ROFCS are fully automated and remotely controlled. This allows the SNWS to operate a 900 million-gallon per day water system with minimal staff. The Electrical/Electronics section is comprised of a workforce to maintain systems from 24 VDC to 13.8KV, working closely with the Colorado River Commission (CRC).



**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Operations**

Fiscal Year Ending June 30, 2020

The Mechanical section, consisting of two teams, is responsible for the maintenance and repair of the large pumping units, pneumatic/hydraulic valve actuating systems for the pump discharge control valves, the rate of flow valves and operators at the system pumping stations delivery points. These sections are also responsible for the heavy support maintenance and repair of all the in-valley and out-valley SNWS mechanical equipment consisting of motors and gear reduction units, valves and valve actuators, canal gates, air compressors and chemical feed systems utilized by treatment. A full capacity machine shop provides for in-house repair and fabrication of equipment needed to support the mission.

**LVVWD Distribution.** The Distribution division (Distribution) is responsible for maintaining 6,773 miles of pipeline and laterals, 128,288 valves, 401,112 service laterals, 39,695 fire hydrants, and all related appurtenances comprising the LVVWD's distribution system. In fiscal year 2017-18, Distribution crews completed 8,405 work orders consisting of repairs to pipelines, and the repair and replacement of valves and fire hydrants; additionally, 2,060 leaking service laterals were replaced. Distribution is in the process of replacing the estimated 80,000 polyethylene services installed within the LVVWD's distribution system between 1971 and 1989. These services have been problematic and very unreliable, with multiple failures. Approximately 62,995 of these services have been replaced, leaving 17,005 in unreliable service. Distribution also assists other departments, such as Asset Management and Inspections, by installing cathodic test stations, valve corrections, and water quality.

Distribution continues the preventive maintenance valve program which locates, operates, and maintains valves within the distribution system. Distribution located and exercised 10,285 valves in fiscal year 2017-18, keeping them in good working order and improving Distribution staff's ability to quickly perform main shutdowns in case of a leak or large emergency. This has helped Distribution staff lower the average time to shut down a leaking water main in an emergency and reduce non-revenue water losses.

The Backflow Prevention section administers the LVVWD's Backflow Prevention Program. This is a service protection program involving annual testing and repair of all backflow assemblies in the LVVWD distribution system. An active backflow program ensures contaminated water cannot enter the potable water system if a backflow, backpressure or back siphonage condition exists. The backflow technicians are certified by the California/Nevada section of the American Water Works Association (AWWA). They are currently managing approximately 30,600 backflow prevention devices.

**LVVWD Maintenance.** The LVVWD Maintenance division is comprised of five sections:

- Field Booster Pump/Valve Repair
- Pump System Repair
- Electrical
- Telemetry
- Well Crew

The Field Booster Pump/Valve Repair section maintains, repairs, and installs mechanical equipment found at major pumping stations,

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
**Operations**

Fiscal Year Ending June 30, 2020

select small system sites, and recycled water valve vaults.

The Pump System Repair section expedites repair of major pumps and motors. This is accomplished using machinists, mechanical, and coating and painting skills of the section members. The section also implements the predictive maintenance tool of vibration analysis on the LVVWD's more than 300 motors. Another major responsibility is to maintain the natural gas industrial engines at the Campbell Pumping Station and field deployed emergency generators.

The Electrical section maintains, repairs, and installs electrical equipment typically used as a control voltage for starting electrical motors. This involves performing preventive maintenance as determined by the RCM process and implementing the infrared predictive maintenance technology, knowing and understanding the controls, power and mechanics of the water system, and having a working knowledge of the LVVWD's pumping strategies.

The Telemetry section maintains and repairs all instrumentation pertaining to water system operation and security, including monitoring water pressure, flow, level, drawdown, and chlorination instrumentation and systems, field computer systems, and associated devices for the SCADA system, multiple address radios and repeater system, spread spectrum radios and repeater system, microwave radio communications equipment, and security equipment in support of field sites.

The Well Crew section performs predictive, preventive, and corrective maintenance on all well pumps, artificial injection wells, and

control valves. This section further plays a significant role in the evaluation of pump efficiencies and works in concert with Maintenance Engineering within Infrastructure Management to recommend well rehabilitation schedules for the well bore and pumping equipment.

**Systems Operations.** The Systems Operations division is comprised of the management team, LVVWD Systems Operations, SNWS Systems Operations, the Disinfection Reservoir shop, and a Small Systems section.

The management team is responsible for ensuring the sections have the necessary resources to accomplish their specific functions. Along with the section supervisors, the team consists of a manager, administrative staff, and an energy analyst. The energy analyst is integral in compiling the monthly water usage for which the SNWA bills its customers.

The LVVWD SCADA Operations section provides around-the-clock monitoring and control of all retail water distribution systems using the SCADA computer system. Daily tasks include coordinating water deliveries from SNWS and operating pumps and wells to maintain reservoir levels and water system pressure. This section remains dedicated to preparing daily pumping plans to fine tune pumping decisions which improve distribution system water quality and saves electricity costs.

The SNWS SCADA Operations section provides around-the-clock monitoring and control of wholesale water transmission and distribution system equipment using the SCADA computer system. Daily tasks include coordinating water and power orders from

**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Operations**

Fiscal Year Ending June 30, 2020

the LVVWD. They also operate pumps and valves at all pumping stations, and monitor flows, tank levels, system pressures, chlorine residuals and other information through the SCADA network. Purveyor, wholesale customer, demands are met by pumping water through the distribution system to the ROFCS, where the water is metered for billing. The SCADA system data is used to develop trends, reports and statistical information required for effective system operation.

*The Disinfection and Reservoir section is a vital part of the potable delivery system for the Las Vegas Valley Water District. They manage reservoir networks that represent most assets of a water utility. Their principal responsibilities are the management and disinfection of the potable water storage network of reservoirs and wells to meet standards required for human consumption. These networks are managed to achieve long-term sustainability of the District's critical assets. They continually find ways to incorporate innovative water technologies to optimize operational performances of the disinfection systems, including injection principles and methods to reduce or eliminate current water quality concerns. Just as important are the sodium hypochlorite storage and delivery systems that are maintained and operated to a standard that meets or exceeds current American Water Works Association (AWWA) and the National Sanitation Foundation (NSF) standard 60 protocols*

*The Small Systems section oversees operations and maintenance of the rural water systems located in Blue Diamond, Coyote Springs (Moapa), Jean, Kyle Canyon,*

*Searchlight, and Sloan. This group is comprised of two rural systems operators (RSOs) and a Small Systems Superintendent. The RSOs perform daily inspections of rural sites to operate, maintain, and repair water distribution mains, service lines, meters, tanks, reservoirs, chemical feed systems and other related appurtenances. The Superintendent handles the day-to-day administrative aspects of the rural areas, including planning, budgeting, supervising the RSOs and correlating the Small Systems' needs with other maintenance work groups. The Superintendent also leads the Small Systems Cross Departmental Team (CDT) which is comprised of personnel from the LVVWD and SNWA organizations. The CDT's purpose is to ensure sound decision-making and transparency for each of the rural water systems.*

### **Strategic Plan Objectives and Accomplishments**

***Strategic Plan Goal – Assure quality water through reliable and highly efficient systems.***

#### **2019-20 Performance Objectives**

- Both SCADA groups will collaborate on the final SCADA system alarm philosophy, displays, and control strategy to allow for the installation of a common SCADA system for both groups.
- LVVWD SCADA operations will produce a comprehensive delivery system vulnerability assessment to guide future capital projects geared toward improving overall system reliability.
- SNWS SCADA operations will participate in the integration of L3PS

**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Operations**

Fiscal Year Ending June 30, 2020

- data into SCADA. They will also participate in point-to-point testing and initial start-up activities.
- The Disinfection Shop will revitalize the diver supported reservoir inlet/outlet valve exercising program. Results will include prompt verification of valve status and immediate initiation of repair activities.
  - Small Systems will partner with several internal work groups to utilize Army Corp of Engineer funding to upgrade piping in Blue Diamond and Searchlight water systems.
  - Small Systems will initiate an expense reporting process for use at the Town Advisory Board meetings. This will increase transparency so customers will be able to fully appreciate the relationship between rates and system reliability.
  - Continue motor refurbishments on the A and C Laterals.
  - Establish temporary generator power emergency preparedness program for all In-Valley ROFCS.
  - Valve actuator replacement project on the South Valley Lateral.
  - Replace the failing variable frequency drive at IPS2 Unit No.1.
  - BPS2 Unit No. 9 and PP2A Unit No. 5 pump rebuilds.
  - Foothills Pumping Station Unit No. 7 cone valve rebuild.
  - Remove and reinstall IPS2 Unit No. 6 pump.
  - Install flow control valves at Hacienda ROFCS.
  - Install new venturis at Unit Nos. 6A, 6B and 6C.
  - Install final control valve and REXA operator at Flamingo ROFCS.

- Install new isolation valves at Horizon Ridge ROFC.
- Remove and install a replacement VFD at IPS2 Unit No. 1.
- Remove and install a replacement VFD at BPS2.
- Install automatic transfer switch (ATS) at PS1C to provide redundant power to critical items within the station.
- Install ATS at Foothills Pumping Station to provide redundant power to critical items within the station.
- Replace RTU/PLC cabinet at Sloan Pumping Station.
- Refurbish Motor No. 4 at Pumping Station 6.
- Install new ROTORK control valve actuators on South Valley Lateral.

**2018-19 Major Accomplishments**

- LVVWD SCADA operations supported the first-ever Broadbent Forebay outage for various maintenance projects. Reverse bypass flow into Rice Reservoir for 30 days provided ample time for the replacement of a 54-inch dismantling valve.
- SNWS SCADA Operations oversaw the planning and execution of 58 individual site and equipment outages. Expert planning and involvement by all concerned resulted in no impact to overall water deliveries to the purveyors.
- SNWS SCADA Operations supported three impromptu requests for tracer studies on the RMWTF finished water.
- Disinfection Shop staff initiated and completed an eye wash station weatherization project. This saved well over \$20,000 in equipment related failures associated with the

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Operations**

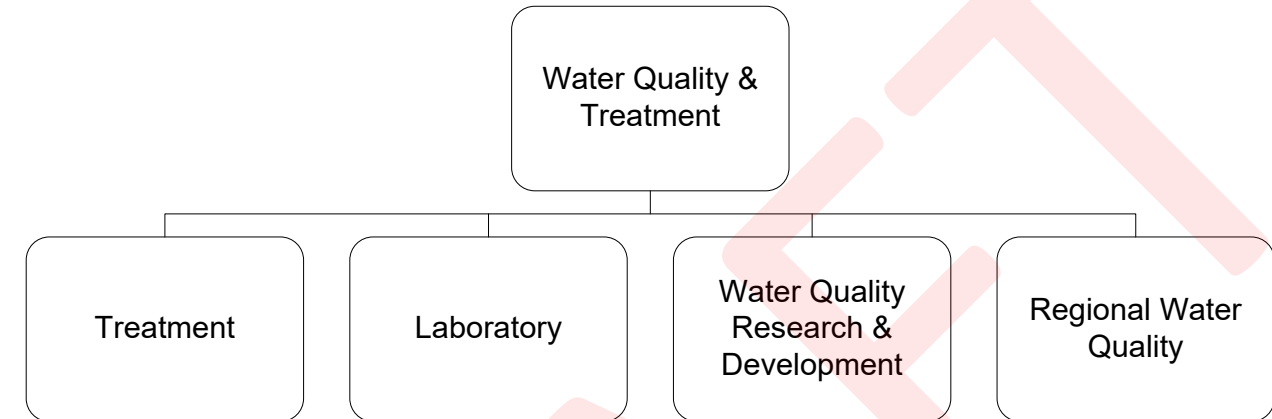
Fiscal Year Ending June 30, 2020

freezing temperatures felt in January and February.

- Small Systems averted a complete water outage for the Jean system by constantly monitoring the nitrogen packer and turbidity of the Midway Well. This afforded the Well Crew the seven days needed to replace Gold Strike Well pump and motor.
- Small Systems partnered with Distribution to save an historic cottonwood tree in Blue Diamond. The tree was in the easement for the system's water main and required the combination use of a backhoe, vacuum truck, and hand-digging to expose the leak area and make a repair.
- Conducted both a table-top and practical field exercise of loss of SCADA scenario within the LVVWD system. Staff responded to pumping equipment start and/or stop, as needed; field level measurements were taken, and after 48 hours of exercising, the lessons learned list was prepared and shared.
- Executed 57 major SNWS outages in support of maintenance, engineering, or construction projects.
- Replaced PS2C Unit No. 5 48-inch suction isolation valve.
- Replaced all four discharge control valves at PP3.
- Replaced the Park Service flow meter.
- Rebuilt Unit No. 2 sleeve valve at Emergency Bypass ROFCS.
- Installed 48-inch inlet butterfly and 48-inch outlet gate isolation valves at Hacienda ROFCS.
- Installed 30- and 36-inch outlet isolation valves at Simmons ROFCS.
- Installed 36- and 42-inch flow control valves at Oakey ROFCS.
- Replaced the variable frequency drive at Booster Pumping Station 1A.
- Upgraded surge tank controls at Foothills Pumping Station.
- Upgraded and replaced batteries and chargers at ROFCS No. 3.
- Removed and installed PLC cabinet at Decatur Pumping Station.
- Installed wiring for the gantry crane at Hacienda ROFCS.
- Replaced the hydraulic air compressor skids at Pumping Station 6.
- Installed the UPS battery back-up at Decatur Pumping Station.
- Replaced 23-year-old Ronzone Pumping Station valve actuators.
- Replaced the Blue Diamond well pumping equipment and upgraded well site to meet State requirements and provide for a more reliable source of water for the community.
- Refurbished the Jean Midway well to provide backup well capacity.
- Replaced Carlton Square 3000 kVa electrical transformer due to age and oil condition.

## WATER QUALITY & TREATMENT

Level: 4500



### Mission

To provide world-class water service through innovative and effective water quality stewardship and reliable and efficient treatment operations.

### Department Description

Presently, the functions under the Water Quality and Treatment (WQ&T) department include: Treatment, Laboratory, Water Quality Research and Development (R&D), and Regional Water Quality. The primary responsibility of the WQ&T department is to ensure the water quality provided to the Southern Nevada Water Authority (SNWA) purveyor members meets or surpasses all Safe Drinking Water Act (SDWA) standards. In order to do this, all of the divisions in the

WQ&T department have specific roles. The Treatment division is responsible for the operation and maintenance of the treatment process to supply high quality drinking water to the Las Vegas Valley. The Laboratory division is responsible for ensuring the finished water quality is compliant with the SDWA monitoring and reporting requirements. The Research and Development (R&D) division is responsible for performing research and process optimization studies to ensure the Treatment division is prepared for changing and emerging water quality challenges. The Regional Water Quality division is responsible for coordinating water quality in the SNWA source waters. All of these efforts are in support of the primary responsibility for the department.



Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
**Water Quality & Treatment**  
Fiscal Year Ending June 30, 2020

### Expenditures

| <b>LVVWD Uses</b>                    | <b>Actual<br/>2017-18</b> | <b>Budget<br/>2018-19</b> | <b>Budget<br/>2019-20</b> |
|--------------------------------------|---------------------------|---------------------------|---------------------------|
| Materials & Supplies                 | \$ 2,132                  | \$ -                      | \$ -                      |
| Maintenance & Repairs                | -                         | -                         | -                         |
| Rental & Leases                      | -                         | -                         | -                         |
| Other Employee Expenses              | 4,869                     | -                         | -                         |
| Other Expenses                       | 3,131                     | -                         | -                         |
| <b>Total Operating Expenses</b>      | <b>10,132</b>             | <b>-</b>                  | <b>-</b>                  |
| Capital Expenditures                 | 692,912                   | -                         | -                         |
| Payroll & Related Costs              | \$ 362,671                | \$ 106,228                | \$ 173,139                |
| <b>Total Department Expenditures</b> | <b>\$ 1,065,715</b>       | <b>\$ 106,228</b>         | <b>\$ 173,139</b>         |
| FTE Positions                        | 3.9                       | 0.4                       | 0.4                       |

### Department Performance

**Treatment.** The Treatment division is responsible for the operation and maintenance of three treatment facilities: the Alfred Merritt Smith Water Treatment Facility controls all water treatment, chemical dosages, filter backwashing, and water quality. Treatment plant operators have direct responsibility for the operation of the water treatment facilities. The operator must comply with the SDWA, the Surface Water Treatment Rule and optimize treatment while minimizing cost.

Each operator must be certified for water treatment by the Nevada Division of Environmental Protection (NDEP) to the appropriate level for their responsibilities. The American Water Works Association

(AMSWTF), the River Mountains Water Treatment Facility (RMWTF), and the Big Bend Water District (BBWD), with a combined design treatment capacity of 1 billion gallons per day. The division, through a Supervisory Control and Data Acquisition System (SCADA), (AWWA) certifies operators at journeyman level and above as laboratory analysts. The water treatment process consists of ozonation for disinfection, followed by flocculation and filtration, as well as corrosion control, fluoridation and chlorination.

**Laboratory.** The Laboratory division is responsible for routine water quality monitoring, testing, and reporting. The sections within the Laboratory include Chemistry, Microbiology, Monitoring, and Laboratory Services. The analytical capabilities of the Laboratory cover a broad



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Water Quality & Treatment**  
Fiscal Year Ending June 30, 2020

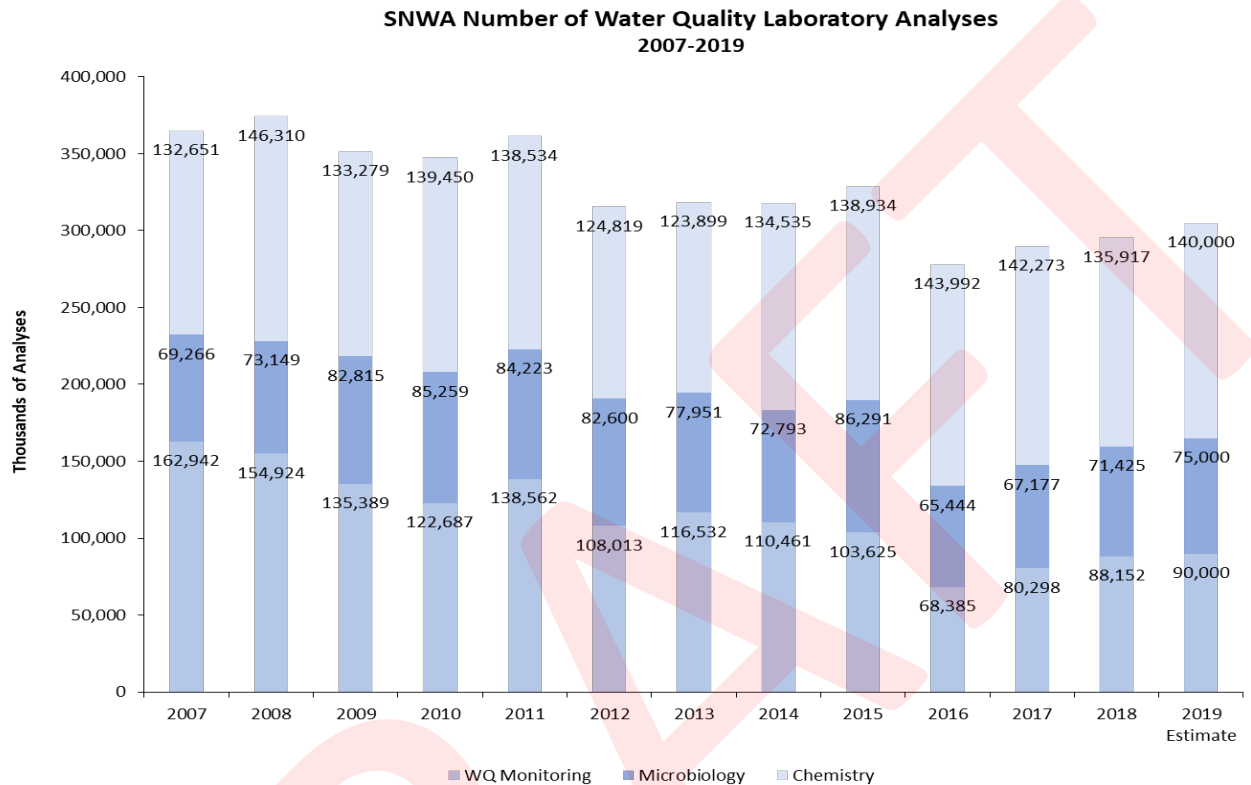
spectrum including: trace organic, trace inorganic, macro constituent, physical, wet-chemical, bacteriological, virological, protozoan, amoebas, and limnological analyses.

(2019 estimate). The number of analyses can fluctuate year-to-year depending on the year's monitoring requirements.

Analyses associated with the SDWA compliance testing are the highest priority in the Laboratory. The SDWA requires each public water system to perform or have performed a comprehensive set of analyses on its delivered water. The Laboratory Services section is responsible for scheduling all the routine and non-routine sampling events and receiving these samples into the laboratory. In addition, staff in this section serve as the primary point of contact for all Laboratory customers, including the private laboratories contracted for analytical services. The Monitoring section is responsible for collecting samples in the distribution systems of the SNWA purveyors. The Monitoring, Chemistry and Microbiology sections subsequently perform a variety of analyses on these samples. In addition, the Laboratory completed all the 2018 SDWA monitoring requirements for the 15 Clark County public water systems it serves.

The Laboratory conducts numerous analyses on samples from Lake Mead and its sources. Results of this work provide a general indication of the quality of water that will be received by the regional water treatment plants. The Laboratory also provides analytical support to the R&D division pilot plant and grant-funded research projects. With 36 employees, approximately 88,152 samples were collected and 295,494 analyses performed in 2018. The following chart presents the total number of laboratory analyses through calendar years 2007-2018

**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Water Quality & Treatment  
Fiscal Year Ending June 30, 2020**



**Water Quality Research and Development.**

The R&D division is involved in cutting-edge investigations of low-level environmental contaminants and water treatment plant processes. The low-level environmental contaminant research is generally in support of existing or future compliance monitoring requirements mandated by the U.S. Environmental Protection Agency (EPA) under the SDWA. The water treatment plant process research involves bench or pilot plant

investigations to optimize existing treatment or evaluate alternative treatment technologies to meet future regulatory requirements. The R&D division is comprised of Research and Development, Analytical Research and Development, and Applied Water Quality Research sections. The chart below represents the cumulative amount of water quality research funding received from outside sources through calendar years 2002 - 2018.

**Regional Water Quality.** The Regional Water Quality division is responsible for coordination of regional water quality issues within the SNWA and other local, state, and federal agencies. Another essential function is to collect data in the Muddy and Virgin Rivers and the Las Vegas Wash, and to compile, validate, and analyze all water quality data

collected in these water bodies, as well as the data collected from Lake Mead and Lake Mohave by other agencies and the SNWA. All data collected is uploaded into the Lower Colorado River Regional Water Quality Database (Database) available at: [www.snwawatershed.org/members](http://www.snwawatershed.org/members).

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Water Quality & Treatment**  
Fiscal Year Ending June 30, 2020

Data is also analyzed to assess impacts of nutrients, quagga mussels, perchlorate, total dissolved solids, selenium, Microcystis, and other contaminants on the water quality in Lake Mead and the drinking water supply. The division continued its efforts to integrate data and understanding of Colorado River dynamics upstream of Lake Mead including Lake Powell, the Colorado River through Grand Canyon, and releases during High Flow Experiments.

In 2019-20, the Regional Water Quality division will continue to update the Lake Mead Water Quality Model with current data, including data collected from the sampling platforms. The abundance of data will result in more accurate and robust model calibrations, which will lead to increased predictive capability of the model. The model will continue to be used to study scenarios

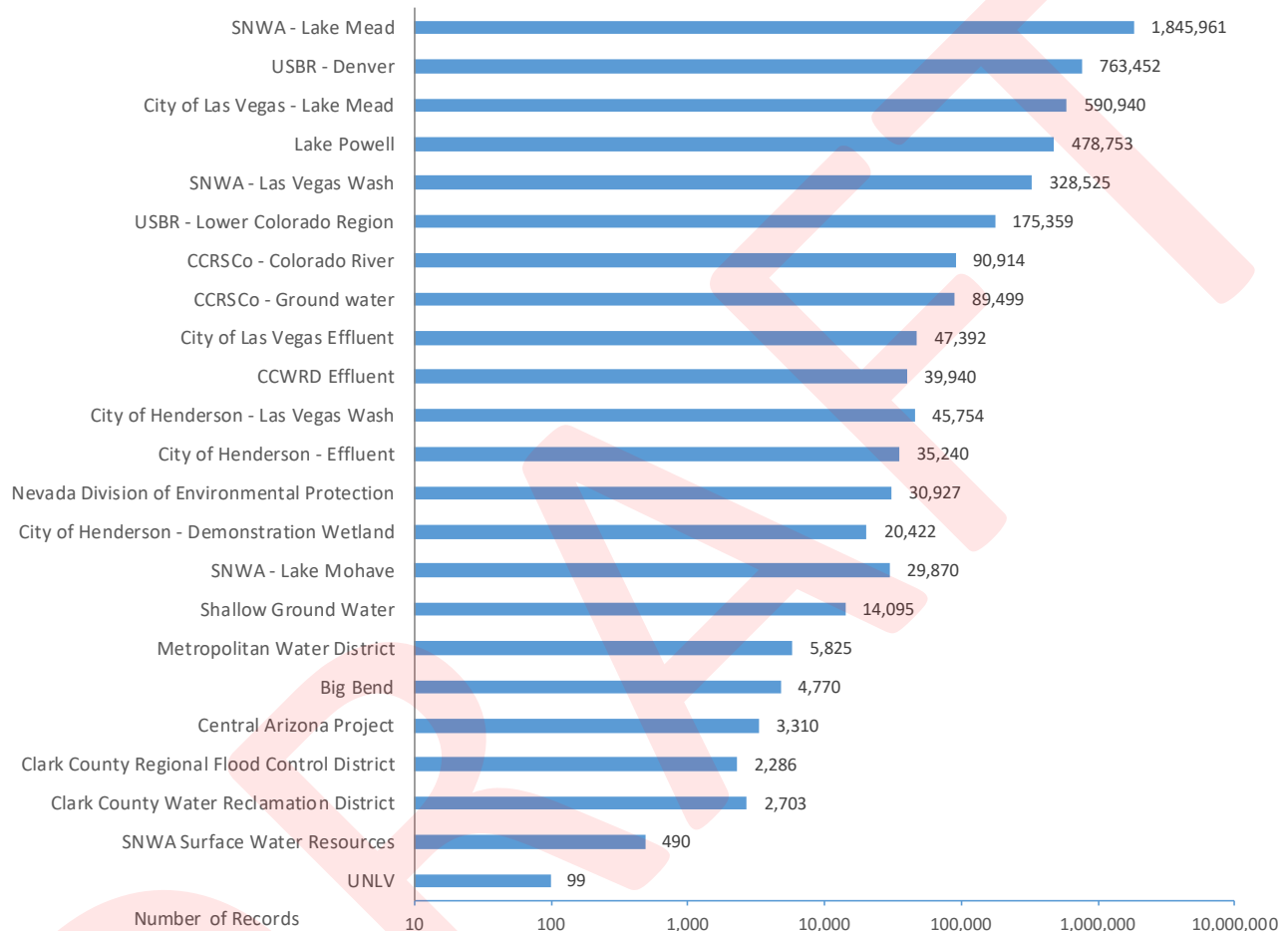
deemed important to the Southern Nevada Water Authority, including but not limited to predicting sediment loads at the third intake as lake levels decline.

The division continued to coordinate the Lake Mead Monitoring and Ecosystem and the Interagency Monitoring Workgroups works with the Nevada Division of Environmental Protection on regional water quality issues.

The division actively seeks out new sources of data for the Database. Water quality information can be found in the Colorado River from Lake Powell to the international border with Mexico, which makes the Database a truly regional database. There are currently over 4.6 million records in the Database. The following chart is a summary of the data that has been uploaded by each agency into the Database.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Water Quality & Treatment  
Fiscal Year Ending June 30, 2020**

**SNWA Number of Records in Lower Colorado River  
Water Quality Database (Logarithmic Scale - December 2018)**



## Strategic Plan Objectives and Accomplishments

***Strategic Plan Goal – Assure quality water through reliable and highly efficient systems***

### 2019-20 Performance Objectives

- Continue development of a linked model to describe water quality in Lake Mead and the treatment of this water through the drinking water treatment process. This work will be done in conjunction with UNLV

utilizing grant funding from the USBR WaterSMART program. This work will allow for the exploration of potential future conditions and changes to the water treatment system that may be required.

- Work closely with Information Technology (IT) to complete the upgrade of ChemWare Laboratory Information Management System (LIMS) software and become proficient in use of the new upgrade.
- Continue to enhance Operator-in-training.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Water Quality & Treatment**  
Fiscal Year Ending June 30, 2020

- Refurbish AMSWTF Filters 16-20 and conduct performance study.
- Refurbish AMSWTF Fluorosilicic Acid (fluoride) storage system.
- Refurbish RMWTF Sodium Hypochlorite manufacturing system and reconfigure with several dilution options.
- Complete the AWWA Partnership for Safe Drinking Water for both the AMSWTF and the RMWTF for the “Excellence in Water Treatment” award.

**2018-19 Major Accomplishments**

- Continued to analyze Lake Mead and Mohave water quality data and to advise Water Quality and Treatment staff on possible impacts to the treatment system.
- Refurbished AMSWTF Filters 3, 4 and 5 and conducted filter performance study.
- Initiated annual eight-hour Treatment Operations training.
- Developed strategy to use chloramines to eliminate biological activity in the filters at Big Bend Water District (BBWD).
- Completed Phase IV of the AWWA Partnership for Safe Drinking Water for both the AMSWTF and the RMWTF for the “Excellence in Water Treatment” award.

***Strategic Plan Goal – Deliver an outstanding customer service experience***

**2019-20 Performance Objectives**

- Complete all Unregulated Contaminant Monitoring Rule 4 (UCMR4) monitoring required in 2018 for Henderson and LVVWD.
- Continue support of various ongoing research projects by providing quality data in a timely manner, including extensive lake and sources monitoring, complex storage/distribution system trihalomethane (THM) monitoring, as well as ad-hoc water quality monitoring requests.
- Obtain UV Disinfection Credit for BBWD.
- Continue serving the International Ozone Association – Pan American Group (IOA-PAG) as President and Administrative Communications Officer.
- Continue to interact with internal and external customers of Lake Mead, Lake Mohave, Lower Colorado River and Las Vegas Wash water quality data to ensure a leadership role for SNWA in environmental issues.
- Implement updated water quality monitoring equipment and real-time data transfer capabilities for the Las Vegas Wash to support the activities of the Las Vegas Valley Watershed Advisory Committee.

**2018-19 Major Accomplishments**

- The Water Quality Monitoring and Microbiology sections worked together to implement a new instrument, Endetec TECTA detection system, allowing for early detection of total coliform (TC) and *E. coli* (EC) in a sample. This new procedure allows the laboratory to provide customers with

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
**Water Quality & Treatment**  
Fiscal Year Ending June 30, 2020

quicker results than current TC and EC procedures.

- Supported R&D division, LVVWD Operations, and Rainbow Canyon residents with quick-turn analysis for various analytical parameters related to corrosion control and lead and copper issues.
- Provided support service and guidance to the IOA-PAG resulting in a surplus of \$44,000 from the 2018 IOA-PAG Annual Conference in Las Vegas, NV.
- Developed a predictive, model-based relationship between Lake Mead elevations and the temperature and pH of water withdrawn through the BMI intake for the City of Henderson and the Nevada Division of Wildlife to access water quality under future water surface elevation predictions.

***Strategic Plan Goal – Anticipate and adapt to changing climatic conditions while demonstrating stewardship of our environment***

**2019-20 Performance Objectives**

- Use the AEM3D Lake Mead water quality model to evaluate changes in the quality of water leaving Lake Mead and entering Lake Mohave at various lake surface elevations.
- Continue rehabilitation of filters at AMSWTF.
- Water quality conversion to input data into Avantis for RMWTF.
- Operate, maintain and perform challenge testing for water quality instrumentation at the AMSWTF Star Lab. Develop standard operation procedures for the online

instrumentation.

- Supply data and attend the project meeting to discuss the final report for Water Research Foundation (WRF) Project 4636 titled “An Integrated Modeling and Decision Framework to Evaluate Adaptation Strategies for Sustainable Drinking Water Utility Management Under Drought and Climate Change.”

**2018-19 Major Accomplishments**

- Awarded a US Bureau of Reclamation (USBOR) grant through WaterSMART Drought Response Program: “Building long-term resiliency to drought by employing riverbank filtration to improve water quality”.
- Regional Water Quality has continued to analyze Lake Mead water quality data in the context of changing climactic conditions. In 2018 – 2019, this analysis has focused on the impact of the ongoing drought in the Colorado River Basin.
- Deployed five operational buoys, each containing a suite of on-line water quality monitoring sensors, in Lake Mead.

***Strategic Plan Goal – Develop innovative and sustainable solutions through research and technology***

**2019-20 Performance Objectives**

- Complete development of a linked model to describe water quality in Lake Mead and the treatment of this water through the drinking water treatment process. This work will be done in conjunction with

Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
**Water Quality & Treatment**  
Fiscal Year Ending June 30, 2020

UNLV utilizing grant funding from the USBR WaterSMART program.

- Expand the collection of Lake Mead water quality data through the use of automated data collection and analysis.
- Coordinate ongoing high-turbidity filter study with R&D division.
- Investigate the use of Dissolved Air Flotation (DAF) to enhance filter performance.
- Investigate use of Next Generation Sequencing of Deoxyribonucleic acid (DNA) to differentiate between the types of microorganism present in our source waters.
- Continue support of R&D division projects involving algal toxin monitoring, Polymerase Chain Reaction (PCR) analysis, and other microbial methods.
- Continue work on externally-funded projects by WRF (Projects 4691, 4719, 4716, 4711, 4912, 4913, 4914, 17-05), NSF, DOD SERDP and US Department of Agriculture (USDA).

#### **2018-19 Major Accomplishments**

- Operated copper sulfate injection system for biological control of pilot plant and raw water sampling pipe.
- Fully implemented the electronic tablet-based Horizon Logbook Manager (HLM) for Water Quality Monitoring.
- Evaluated the use of ATP and flow cytometry for early detection of harmful algal blooms.
- Completed WaterStart research project with Riventa.
- Completed externally-funded projects with WRF 4692 and WRF U2R13.

***Strategic Plan Goal – Ensure organizational efficiency and manage financial resources to provide maximum customer value***

#### **2019-20 Performance Objectives**

- Enhance cross-training efforts of staff at RMWTF and AMSWTF.
- Pursue solicited and unsolicited externally-funded research grants from the WRF (e.g., Tailored Collaboration Project on disinfection framework for biofilters), US EPA, National Science Foundation and the USBOR.
- Renovate the RMWTF pilot plant into a new research microbiology laboratory.
- Maintain Phase IV AWWA Partnership for Safe Drinking Water standards at both the AMSWTF and the RMWTF.

#### **2018-19 Major Accomplishments**

- Operator-in-training completed training and advanced to Operator I position.
- The laboratory collaborated with procurement to negotiate a significant five-year discount for quality control standard and samples from its proficiency testing vendor.
- Received over \$470,000 from external grants.
- Awarded the Phase IV AWWA Partnership for Safe Drinking Water for both the AMSWTF and the RMWTF for the “Excellence in Water Treatment” award.



**Las Vegas Valley Water District  
Operating and Capital Budget  
Department Budgets  
Water Quality & Treatment  
Fiscal Year Ending June 30, 2020**

***Strategic Plan Goal – Strengthen and uphold a culture of service, excellence and accountability.***

**2019-20 Performance Objectives**

- Investigate AWWA performance awards at the BBWD.
- Continue presenting scientific research at conferences and publishing on research projects.
- Maintain Phase IV AWWA Partnership for Safe Drinking Water standards at both the AMSWTF and the RMWTF.

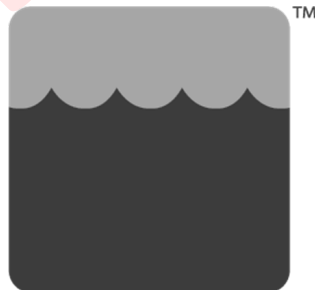
**2018-19 Major Accomplishments**

- Awarded the AWWA Partnership for Safe Drinking Water for both the AMSWTF and the RMWTF for the “Excellence in Water Treatment” award.
- NDEP completed annual sanitary survey and found no deficiencies in the treatment process.
- Published 39 articles in scientific journals.
- Presented 7 papers at the 2018 American Water Works Association (AWWA) Water Quality Technology Conference.
- Presented 5 papers at the 2017 IOA World Congress.
- Submitted 3 papers at the 2018 AWWA Annual Conference and Exposition.

# SECTION 6

## CAPITAL PLANS

|                                |      |
|--------------------------------|------|
| Capital Budget.....            | 6-1  |
| Capital Improvement Plan ..... | 6-10 |



**LAS VEGAS VALLEY WATER DISTRICT**  
FISCAL YEAR 2019-20  
OPERATING AND CAPITAL BUDGET



## Capital Budget

The Las Vegas Valley Water District (LVVWD) maintains a long-range facility planning process to determine the type, size and location of water distribution facilities needed to meet the water services demands of the areas in Clark County served by the LVVWD. As water system facilities are defined, they are added to the LVVWD's overall construction program. The ongoing capital equipment and construction program is a dynamic program, with projects added, changed, or deleted as necessary to meet the changing conditions in the LVVWD's Service Areas. The construction program consists of new pumping stations, reservoirs and wells, land acquisition, new water pipelines, and other distribution system facilities. The capital equipment budget consists of vehicles, Information Technology equipment, water works and diverse industrial equipment. The LVVWD is planning to acquire over \$5.3 million in capital equipment during the next fiscal year. Some of the capital projects will become operational by the end of fiscal year 2019-20, while other projects will be completed in subsequent fiscal years.

In January 2017, the LVVWD Board of Directors approved a 10-year Capital Improvement Plan (CIP) that will guide decisions related to asset management, necessary water system expansion and water quality compliance activities. The plan represents an investment of \$616 million (2016 dollars) over a 10-year planning horizon to construct new facilities and make improvements to key system components, ensuring a reliable water system for the LVVWD's customers. The CIP is included at the end of this section.

### Impact of Construction Program on Operation and Maintenance Expenses

For the LVVWD water distribution facilities, in the near term, the LVVWD does not anticipate any impact on maintenance expenses and only minimal expenses associated with the operation of the new facilities added to the LVVWD's water distribution system through its overall construction program. This is due to the following three factors:

- First, the facilities being added to the LVVWD's system are new and typically require minimal maintenance.
- Second, the facilities are designed and constructed with the latest available technology and are not accepted by the LVVWD until they are fully inspected and tested and ready for operation.
- Third, over the past several years the LVVWD has conducted numerous process improvement investigations and adopted recommendations that have resulted in significant on-going operational and maintenance efficiencies and savings.

Over the long term, the LVVWD anticipates incurring maintenance expenses for the rehabilitation of facilities such as reservoirs, pump stations, and pipelines. However, these costs are minimized through the LVVWD's use of state-of-the-art diagnostic equipment and testing procedures, which significantly lower maintenance costs and reduces the rate of catastrophic failures. Finally, these facilities were, and are being constructed, for new customers who generate additional operating

**Las Vegas Valley Water District  
Operating and Capital Budget  
Capital Plans**

Fiscal Year Ending June 30, 2020

revenues. These revenues in the past have offset, and in the future are anticipated to continue to offset, the added long-term maintenance expenses.

Projecting long-term additional operating expenses driven by the addition of capital assets to the LVVWD's water system is not easily quantified.

The LVVWD's overall construction program is funded by municipal bond proceeds, the LVVWD's State Revolving Fund Loans (SRF) and pay-as-you-go funding sources. The projects consist of new pumping stations, reservoirs and wells, land acquisition, new water pipelines and recycled water distribution system facilities. The LVVWD capital project-related expenditures are estimated to be approximately \$128 million.

In December 2014, the LVVWD entered into an agreement with the State of Nevada Department of Conservation and Natural Resources to receive a loan from the SRF to finance construction of water infrastructure.

It is projected the LVVWD will ultimately receive \$50 million in SRF loans, the first loan was for \$20 million. A second loan of \$15 million was part of the 2015-16 Adopted Budget Plan. The final \$15 million was included in the 2016-17 adopted Budget Plan.

The SRF loan is secured by a general obligation bond that the LVVWD provided to the State of Nevada as collateral for the loan. The SRF loan will be funded on a reimbursement basis, i.e. the LVVWD must first fund the construction expenditures with its own assets and then be reimbursed by the SRF loan. Until the loan is fully funded, the LVVWD is obligated to pay interest only on the outstanding amount of the loan. After the loan is fully funded, the LVVWD is obligated to make roughly equal semiannual payments of principal and interest over the remaining portion of the 20-year term.

The tables on the following pages show a listing of the specific capital equipment and capital projects included in the LVVWD's capital expenditures for the next fiscal year.

Las Vegas Valley Water District  
Operating and Capital Budget  
**Capital Plans**  
Fiscal Year Ending June 30, 2020

**LVVWD: CAPITAL BUDGET 2019-20**

**CAPITAL EQUIPMENT**

**2300 - Information Technology**

|                             |                   |
|-----------------------------|-------------------|
| Document Scanning Equipment | \$ 41,000         |
| Infoblox Appliance Upgrade  | 72,000            |
| Tape Library Relocation     | 90,000            |
| Additional VxRails          | 96,000            |
| Storage Growth              | 102,000           |
| Backup Storage Upgrades     | 150,000           |
| General Infrastructure      | 150,000           |
| Converged Systems           | 225,000           |
| <b>Subtotal</b>             | <b>\$ 926,000</b> |

**2500 - Public Services**

|   |                  |
|---|------------------|
| Hybrid Vehicles Utilized to Investigate Water Waste | \$ 70,000        |
| <b>Subtotal</b>                                     | <b>\$ 70,000</b> |

**3400 - Engineering**

|   |                  |
|---|------------------|
| GPS Base Station Receivers and Antennas | \$ 63,500        |
| <b>Subtotal</b>                         | <b>\$ 63,500</b> |

**3600 - Resources & Facilities**

|  |           |
|--|-----------|
| 200 Gallon Trailer Mounted Weed Sprayer      | \$ 15,000 |
| Honda Pioneer 700 UTV                        | 17,000    |
| Mechanics Tool Set with Box                  | 25,000    |
| Mid-Size SUV 4X4                             | 35,000    |
| 3/4 Ton Extended Cab Short Bed 4X2 Pickup    | 40,000    |
| Automated Key Storage System                 | 53,000    |
| 1 Ton SRW Extended Cab Utility 4X4           | 54,000    |
| 3/4 Ton Long bed, Crew Cab Utility Truck 4X4 | 54,000    |
| 2 Each Mid-Size Sedan Hybrids                | 56,000    |
| Trains of America Passenger Coach            | 110,000   |
| Extended Cab 4-Yard Dump Truck               | 120,000   |

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Capital Plans**  
Fiscal Year Ending June 30, 2020

|  |                     |
|--|---------------------|
| Crew Cab Utility with Lift Gate                      | 143,015             |
| Valve Service Utility Truck                          | 159,609             |
| Reg. Cab Utility Valve Service Truck                 | 167,000             |
| 1 Lot of 13 Replacement Equipment Pieces             | 178,000             |
| LVVWD - HVAC Unit Replacement                        | 200,000             |
| Bucket Truck with 60' Working Height                 | 221,000             |
| Painters Truck with Blaster and Painting Equipment   | 225,000             |
| Extended Cab Utility w/ Crane District Service Truck | 263,000             |
| 1 Lot of 15 Replacement Vehicles                     | 1,970,000           |
| <b>Subtotal</b>                                      | <b>\$ 4,105,624</b> |
| <br><b><u>3700 - Infrastructure Management</u></b>   |                     |
| Mobile Echoshore TX Leak Detection Nodes             | \$ 100,000          |
| <b>Subtotal</b>                                      | <b>\$ 100,000</b>   |
| <br><b><u>4100 - Operations</u></b>                  |                     |
| 50 Ton Spreader Bar                                  | \$ 14,500           |
| Replace Cliff's Edge THM System Diesel Generator     | 40,000              |
| <b>Subtotal</b>                                      | <b>\$ 54,500</b>    |
| <b>TOTAL CAPITAL EQUIPMENT</b>                       | <b>\$ 5,319,624</b> |



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Capital Plans**  
Fiscal Year Ending June 30, 2020

## **CAPITAL PROJECTS**

### **2300 - Information Technology**

|   |                     |
|---|---------------------|
| Big Springs Theater Audio/Video Upgrade | \$ 260,000          |
| Genesys Call Center                     | 700,000             |
| Enterprise Content Management System    | 1,350,000           |
| Advanced Metering Systems (AMI and C2M) | 4,000,000           |
| <b>Subtotal</b>                         | <b>\$ 6,310,000</b> |

### **2500 - Public Services**

|   |                     |
|---|---------------------|
| Springs Preserve Cafe Flooring                                  | \$ 65,000           |
| Springs Preserve Exhibit Upgrades                               | 75,000              |
| Springs Preserve Origen Loading Dock Safety Upgrades            | 75,000              |
| Springs Preserve Wayfinding Project                             | 92,500              |
| Sustainability Gallery Exhibit Acquisition                      | 100,000             |
| Springs Preserve Good Neighbor/Bad Neighbor Area Conversion     | 250,000             |
| Springs Preserve Butterfly Playground                           | 250,000             |
| Spring Preserve Event Site                                      | 1,075,000           |
| Springs Preserve Gardens Electrical Service Expansion, Phase II | 1,250,000           |
| <b>Subtotal</b>   | <b>\$ 3,232,500</b> |

### **3400 - Engineering**

|  |           |
|--|-----------|
| Redondo Ave Pipeline from Rancho Vista Dr to Rancho Bel Air Dr (3447)  | \$ 10,000 |
| Karen Ave and Karen Ct Pipeline Installation and Replacement           | 10,000    |
| Pipeline Installation in Reno Ave East of Valley View Blvd             | 10,000    |
| Chaparral Summit Dr Pipeline from Homestretch Dr to Northern Dancer Dr | 10,000    |
| Palos Verdes St Between Albert Ave and Twain Ave                       | 17,000    |
| Viking Rd and Pacific St ACP Replacement                               | 20,000    |
| Pipeline Installation in 21st St From Sunrise Ave to Fremont St        | 24,900    |
| 3435 Zone North Pipeline, Phase IV                                     | 25,000    |
| 3435 Zone North Pipeline Phase III                                     | 25,000    |
| Harrison Dr Pipeline from Harmon Ave to Lippizan Cir                   | 28,200    |
| Washington Pipeline from Donner St to Ridgemount Dr                    | 30,000    |
| Cottonwood Grove Trail & Evaluate Clark St Pumping Station             | 35,000    |
| Pipeline Replacement in Boulder Hwy Between Nellis Blvd and Harmon Ave | 36,000    |
| Pipeline Replacement in St Louis Ave Between Maryland Pkwy and 10th St | 40,000    |
| Pipeline Installation at Montara Cir                                   | 43,500    |

**Las Vegas Valley Water District  
Operating and Capital Budget  
Capital Plans**

Fiscal Year Ending June 30, 2020

|  |         |
|--|---------|
| Wyoming Ave, Lamb Blvd to Arden St Pipeline Replacement                                  | 45,000  |
| Francisco Park Pipeline Replacement  | 50,000  |
| Miscellaneous Large Backflow Installations, Phase VI                                     | 50,000  |
| Miscellaneous Large Backflow Installations, Phase VIII                                   | 50,000  |
| Miscellaneous Large Backflow Installations, Phase IX                                     | 50,000  |
| Miscellaneous Large Backflow Installations, Phase X                                      | 50,000  |
| Miscellaneous Large Backflow Installations, Phase VII                                    | 50,000  |
| 3665 Zone North Pipeline, Phase I  | 50,000  |
| Pipeline Replacement in Torrey Pines Dr Between Charleston Blvd and Del Ray Ave          | 55,000  |
| Pipeline Replacement in Spring Mountain Rd Between Sammy Davis Jr. Dr and Las Vegas Blvd | 70,000  |
| Well Derrick Restoration   | 100,000 |
| On-Call Pavement Replacement Services  | 100,000 |
| Cougar 3090 Zone Inlet/Outlet Pipeline   | 100,000 |
| Cougar 3090 Zone Reservoir   | 100,000 |
| Reeder Cir 6-Inch ACP Waterline Replacement  | 102,000 |
| Pipeline Replacement in Maryland Pkwy Between Desert Inn Rd and Vegas Valley Dr          | 115,000 |
| Pipeline Installation in Hacienda Ave and Pecos Rd                                       | 130,000 |
| Fayle Reservoir Perimeter Fence Improvements   | 150,000 |
| Pipeline Installation in Tropicana Ave Between Mojave Rd and Sandhill Rd                 | 192,600 |
| Paradise Rd Water Line Replacement   | 200,000 |
| Valley View Asphalt Repair and Resurfacing, Phase II                                     | 200,000 |
| West Admin Renovation  | 250,000 |
| Miscellaneous Pipeline Replacements, Phase II  | 300,000 |
| Miscellaneous Reservoir Modifications  | 315,000 |
| 2150 Zone & Christy Ln Emergency Prvs  | 400,000 |
| Rehab SCCP in Sahara Ave   | 450,000 |
| East Admin IT Area Plumbing Upgrade  | 450,000 |
| Operations Building Power Improvements   | 500,000 |
| Replace SCCP & ACP On Flamingo Rd  | 500,000 |
| Medical District Zone Conversion   | 500,000 |
| Miscellaneous Pipeline Replacements, Phase I   | 500,000 |
| Linq and Audrie Pipeline Replacement   | 500,000 |
| Summerlin 3665 Zone Reservoir  | 500,000 |
| Rome 2745 Reservoir, 2975 Zone Pumping Station & 2975-2860 Zone Prv                      | 500,000 |
| Miscellaneous Pipe Installations   | 850,000 |
| Reservoir Sliding Hatch Replacement  | 900,000 |
| East Admin Roof Replacement  | 950,000 |

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Capital Plans**

Fiscal Year Ending June 30, 2020

|   |                      |
|---|----------------------|
| Pipeline Replacement in Paradise Rd Between Twain Ave and Karen Ave | 1,000,000            |
| Miscellaneous Pipeline Replacements, Phase III                      | 1,105,000            |
| Miscellaneous Large Backflow Installations, Phase IV                | 1,200,000            |
| Pipeline Replacement, Washington Ave/Decatur Blvd                   | 1,300,000            |
| Pavement Replacement Services, Phase III                            | 1,500,000            |
| Miscellaneous Vaults, Reconstruction and Repair, Phase XXIII        | 1,500,000            |
| East Admin Human Resources Renovation                               | 2,000,000            |
| Pavement Replacement Services, Phase II                             | 2,500,000            |
| 4125 Zone North Reservoir   | 2,500,000            |
| Shaumber 3205 North Pipeline, Phase II and Prv                      | 2,750,000            |
| Pavement Replacement Services, Phase I                              | 2,800,000            |
| Egan Crest 3090 Zone North Pipeline, Phase III                      | 3,000,000            |
| Backflow Retrofit Program   | 3,500,000            |
| Backflow Retrofit Survey and Row Support                            | 5,000,000            |
| 4125 Zone Pumping Station   | 7,000,000            |
| Miscellaneous Main Replacement, The Dales Subdivisions              | 7,000,000            |
| Las Vegas Blvd Improvements, Phase I                                | 10,000,000           |
| Centennial 2635 Zone Reservoir and 2745 Zone Pumping Station        | 11,000,000           |
| Las Vegas Blvd Improvements, Phase III                              | 19,206,250           |
| <b>Subtotal</b>   | <b>\$ 96,600,450</b> |

**3600 - Resources & Facilities**

|   |                     |
|---|---------------------|
| Springs Preserve Energy Conservation                        | \$ 25,000           |
| Springs Preserve Plumbing Upgrade                           | 50,000              |
| Valley View Sodium Hypo Bldg HVAC Upgrades                  | 70,000              |
| Springs Preserve Building C2 AC Upgrade                     | 100,000             |
| LVVWD - Miscellaneous Projects                              | 130,000             |
| LVVWD - Reconfigure Engineering Workspaces                  | 200,000             |
| Springs Preserve Miscellaneous                              | 200,000             |
| Springs Preserve Replacement A/C Units Buildings A,B1,B2,C1 | 250,000             |
| Remodel Operations Building Lab Space                       | 350,000             |
| <b>Subtotal</b>   | <b>\$ 1,375,000</b> |

**3700 - Infrastructure Management**

|   |           |
|---|-----------|
| Kyle Canyon - Rainbow Well Discharge Pipeline Relocation        | \$ 10,000 |
| LVVWD - Multi-Site - Fire Alarm Signal Monitoring               | 25,000    |
| LVVWD - District Service Area - Campus NaOCl UPS System Removal | 40,000    |
| Well 51 Piping Modifications to Pump Directly into Zone         | 50,000    |

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Capital Plans**

Fiscal Year Ending June 30, 2020

|  |                      |
|--|----------------------|
| LVVWD - Feasibility and Design for Control Room Upgrades                                   | 50,000               |
| LVVWD Campus Site - Facilities Material Storage Bin Installations                          | 75,000               |
| Campbell Pumping Station Fire Safety Improvements  | 85,000               |
| District Service Area - Multi-Site Fence Installations                                     | 100,000              |
| Well Waste Line to Incorporate Flapper Valve and Air Gap                                   | 100,000              |
| Elkhorn Site - Install Permanent THM System  | 100,000              |
| Multi-Site Transformer Replacements  | 100,000              |
| LVVWD - SCADA - PC/Server Hardware Upgrades  | 100,000              |
| LVVWD - Network Switch Upgrades  | 100,000              |
| Developer Assisted Service Upgrades  | 100,000              |
| Install PRVs to Support SVL Outages  | 150,000              |
| LVVWD Campus Site - Coating and Blast Booth Installation                                   | 175,000              |
| District Service Area - Cathodic Protection Test Station Installation/Repair               | 180,000              |
| LVVWD Campus Site - NaOCL Main Storage Building Shade Structures                           | 200,000              |
| Blue Diamond Tanks - Recoat Exterior   | 200,000              |
| Multi-Site - Vault Pipe Coating  | 200,000              |
| South Well Field/LVVWD Campus Site - Fleet Service Building Electrical Upgrade             | 200,000              |
| Miscellaneous Concrete and Restoration   | 200,000              |
| LVVWD - Control Logix Hardware Upgrades  | 200,000              |
| District Service Area - Impressed Current Cathodic Protection System for CO 272 and CO 383 | 250,000              |
| LVVWD Campus - Telvent Upgrade   | 300,000              |
| District Service Area - Misc. Vault Repair   | 350,000              |
| Springs Preserve Site Landscape Lighting Improvement                                       | 400,000              |
| District Service Area - Multi-Site Large Backflow Installations                            | 450,000              |
| Rice North Site Electrical Upgrades  | 450,000              |
| LVVWD - Replace PLC 5 Remote Racks from Sites  | 500,000              |
| El Capitan Site - Electrical Equipment Replacement   | 525,000              |
| Jean Well J4 Midway Well Site - Equip New Well J-8   | 800,000              |
| District Service Area - Replace and Equip Wells at End of Service Life                     | 800,000              |
| Oversizing Project   | 1,000,000            |
| LVVWD - Multi-Site - Fiber Optic Cable Installation  | 1,500,000            |
| Pipeline Participation Projects (City/County)  | 3,000,000            |
| <b>Subtotal</b>  | <b>\$ 13,065,000</b> |

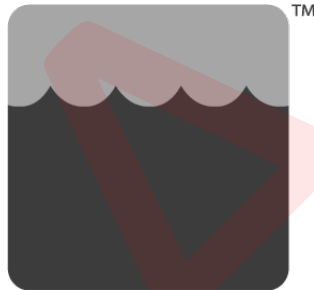
**3800 - Water Resources**

|  |            |
|--|------------|
| Drill Replacement Well for Jean Well J-4 (Midway)        | \$ 125,000 |
| Construct New Well to Replace LVVWD Production Well W026 | 1,000,000  |

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Capital Plans**  
Fiscal Year Ending June 30, 2020

|   |                       |
|---|-----------------------|
| Land Acquisition for New LVVWD Production Well Sites            | 1,500,000             |
| <b>Subtotal</b>   | <b>\$ 2,625,000</b>   |
| <br><b><u>4100 - Operations</u></b>                             |                       |
| Repair or Replace System Valves                                 | \$ 50,000             |
| Electric Motors Repair or Replace                               | 50,000                |
| Motor Control Center, Starters, Transformers, and Other Repairs | 50,000                |
| Replace Large Magnetic Flow Meters                              | 50,000                |
| Annual Pump Repair  | 75,000                |
| Rehabilitate 1350 Feet of 18-Inch ACP at I-15 and Shelbourne    | 275,000               |
| Replace Aging/Failed Surveillance and Networking Equipment      | 500,000               |
| Well and Pump Rehabilitation                                    | 1,000,000             |
| Service Line Replacement  | 2,800,000             |
| <b>Subtotal</b>   | <b>\$ 4,850,000</b>   |
| <b>TOTAL CAPITAL PROJECTS</b>                                   | <b>\$ 128,057,950</b> |
| <b>TOTAL CAPITAL BUDGET</b>                                     | <b>\$ 133,377,574</b> |

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# LAS VEGAS VALLEY WATER DISTRICT CAPITAL IMPROVEMENTS PLAN 2017



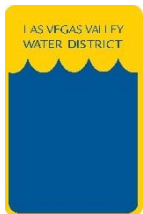
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LAS VEGAS VALLEY  
WATER DISTRICT



DRAFT



**LAS VEGAS VALLEY WATER DISTRICT**  
**Capital Improvement Plan 2017-2027**

## About the Las Vegas Valley Water District

The Las Vegas Valley Water District (LVVWD) is a subdivision of the State of Nevada. The agency was created by a special act of the Nevada Legislature in 1947 to acquire and distribute water, primarily in the Las Vegas Valley. The not-for-profit LVVWD commenced operations in July 1954 and has served as the Southern Nevada region's largest municipal water provider since that time. As of 2017, the water distribution system comprises more than 6,500 miles of pipeline, 53 pumping stations, 70 reservoirs/tanks, 76 production wells, approximately 400,000 water meters and a 3.1 megawatt solar-electric system.

### Vision

The Las Vegas Valley Water District's aims to be a global leader in service, innovation and stewardship.

### Mission

The Las Vegas Valley Water District's strives to provide world class water service in a sustainable, adaptive and responsible manner to our customers through reliable, cost effective systems.



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# CAPITAL IMPROVEMENT PLAN

## EXECUTIVE SUMMARY

---

The Capital Improvement Plan (CIP) outlines the District's plan for achieving organizational goals and objectives. The plan outlines the projected capital needs over a 10-year period.

### Doing Business

For much of its past, the District focused on developing new facilities to meet the evolving needs of the community. Between 1980 and 1998, Clark County was among the fastest-growing communities in the nation, which necessitated major capital investments in new infrastructure. However, beginning in late 2007, these conditions changed significantly when much of the nation began to experience significant economic disruption. Local expansion efforts halted abruptly and many projects in progress were put on hold.

During this time and continuing today, the Water District's focus shifted from system expansion to asset management, with an increased emphasis on customer care. In accordance with its mission, the District works to provide a safe, reliable water supply to more than 1.4 million residents within the City of Las Vegas and unincorporated portions of Clark County, Nevada. All functions in support of this mission—from maintaining infrastructure to ensuring accurate metering and protecting water quality—require properly functioning physical assets.

### Capital Improvement Plan

Capital improvements are needed to reliably operate and maintain the District's extensive water distribution system, as well as to address state-mandated water quality issues and new development needs. This 10-Year Capital Improvement Plan serves to guide decisions related to maintaining and, as required, replacing those assets, as well as necessary water system expansion and water quality compliance activities.

The following provides a brief introduction to system needs, which are further detailed in the latter portions of this document. Costs represented herein are intended only to detail the size and scope of improvements needed over the 10-year planning

horizon. Cost authorizations for improvements will be considered by the Board of Directors annually as part of the organization's regular budget process.

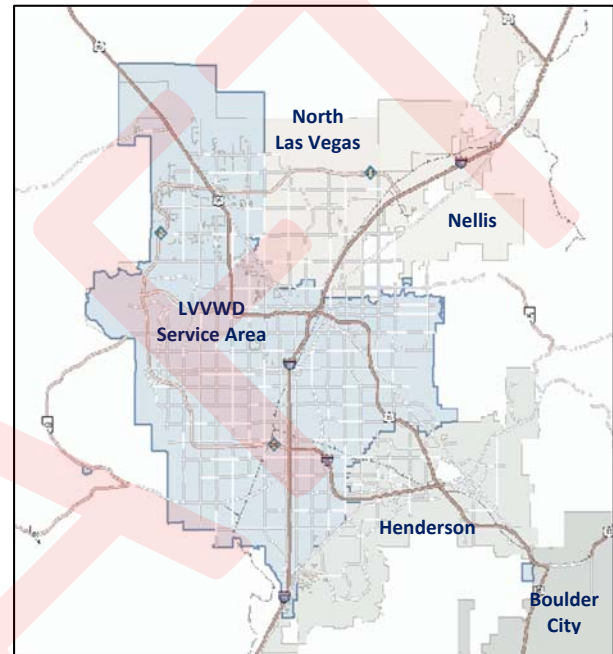


Image: LVVWD Service Area

### Asset Management Improvements

The Infrastructure Management department is primarily responsible for overseeing the organization's physical assets, with considerable input and support from the Engineering, Operations, Water Quality and Finance work groups. Because the service life of individual components comprising a large water system can vary by decades, Infrastructure Management uses sophisticated planning tools to develop repair/replacement schedules, allowing for orderly and fiscally prudent implementation.

The agency's infrastructure management strategy is based on five foundational principles:

- Extend infrastructure life and prevent failures through timely maintenance and repairs
- Protect system assets through continual condition assessments
- Assess and prioritize projects to ensure critical

system operations remain functional

- Minimize financial impacts through orderly, phased implementation
- Minimize financial outlays by maximizing asset life cycle

A substantial percentage of the community's water system was constructed in the 1980s to address increasing demands. As a result, numerous facilities now exceed 30 years of age. Research has demonstrated that replacing or repairing utility components under emergency conditions—for instance, a broken water main—is both more expensive and disruptive to customers than affecting maintenance through a systematic approach. Key system components that must be addressed during the 10-year planning horizon include:

- Reservoirs
- Pumping Stations
- Pipelines and Service Laterals
- Valves and Vaults
- Meters
- Water Quality Systems
- Groundwater Wells
- Facilities and Building Improvements
- Electrical Systems
- Communication Systems

Cumulative costs associated with the repair and/or replacement of these hundreds of thousands of components—measures necessary to maintain current service levels, system reliability and water quality—are projected to be approximately \$390 million over the next decade.

### Maintaining Water Quality

As a Public Water System, the LVVWD is responsible for ensuring compliance with all water quality regulations, enforced by the Environmental Protection Agency and the Nevada Division of Environmental Protection's Bureau of Safe Drinking Water. In addition to rigorous testing for more than 100 constituents—the Water District collects more than 33,000 water samples annually for analysis—it must comply with mandates from these agencies designed to protect water quality.

Chief among these mandates is what is termed "backflow protection," a mechanism that prevents the reintroduction of water from private properties into the

municipal water system. Compliance with this State requirement will entail the installation of approximately 35,000 backflow prevention devices on meters throughout the District's service area.

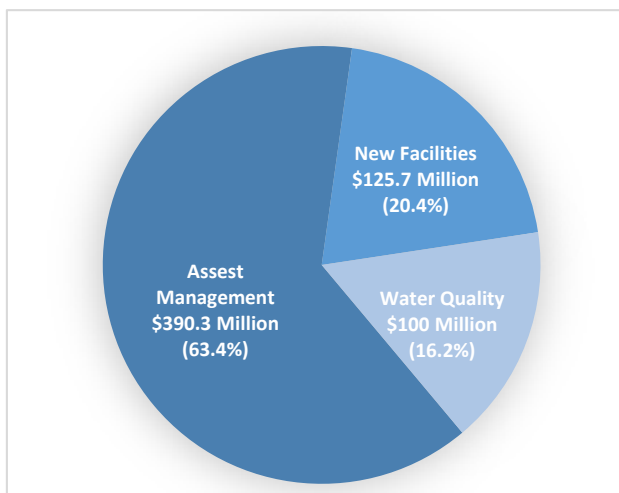
### New Development Improvements

During the recession, the District deferred all non-essential construction projects. While this decision was fiscally prudent, it required engineers to devise mid-term solutions that could provide access to the municipal water supply for residents and businesses in newly developed areas without investing in additional reservoirs and pumping stations. While those solutions proved effective, the absence of core infrastructure in affected areas undermines system reliability and subjects customers to vulnerability that is inconsistent with organizational standards.



Image: LVVWD Field Repair

To address this issue and ensure these customers receive the same level of reliability as their counterparts in other parts of the valley, the District plans to construct a total of four reservoirs, four pumping stations and associated appurtenances during the planning horizon. The District anticipates to expend approximately \$125.7 million to design and construct these facilities, which will both serve existing customers and support additional development. Additional costs associated with facilities needed to support new communities will be borne by developers.



**Figure 1.2:** Cost Distribution by Improvement Type

## 10-Year Capital Planning

In total, the asset management, water quality protection and system expansion activities outlined in this document represent an investment of \$616 million over the 10-year planning horizon. These improvements will help the District to maintain current service and water quality standards, ensuring continued reliability for the residents and businesses that depend upon this vital resource.

# CAPITAL IMPROVEMENT PLAN

## ORGANIZATIONAL OVERVIEW

---

### Introduction

The Nevada State Legislature created the Las Vegas Valley Water District in 1947 to help manage local groundwater supplies. The newly-formed agency acquired the assets of its predecessor and began operations in 1954 as the municipal water provider for Las Vegas and unincorporated Clark County.

### Transition and Growth

In the period between its creation and the early 1970s, the District got to work repairing and expanding the water system to meet the growing needs of the community. These efforts included installing more than 800 linear miles of pipeline and increasing reservoir storage to approximately 160 million gallons. At the same time, the District also entered into an agreement with what is now known as Basic Management Inc. for expansion of its small industrial line to deliver Colorado River water to the District's service area. These efforts decreased the community's reliance on groundwater supplies and marked the organization's first major initiative to help stabilize the local water table.

Post-war expansion paled in comparison to the unprecedented population growth that occurred over the years that followed. In the 1980s and '90s, Las Vegas ranked as the nation's fastest-growing city virtually every year. In response and to fulfill its mission of meeting the community's water needs, the District engaged in an infrastructure construction initiative without parallel in the United States. At the same time, water demands soared, necessitating a cohesive, regional approach to resource management. This resulted in the creation of the Southern Nevada Water Authority (SNWA), of which the District serves as the administrative entity.

### Current Environment and Operating Priorities

Beginning in 2007, the nation began to experience the most significant economic downturn since the Great Depression. Southern Nevada was hit harder than almost any other region in the nation, and this period of recession marked the first time in decades

that the Las Vegas area experienced a sustained period of little or no growth. During this time, most new residential and commercial development projects came to a halt. While economic recovery is occurring, the massive booms of prior decades have not returned. As a result, the District's operational priorities have changed in response to meet the evolving needs of the community. While expanding the water system to accommodate new customers remains a core responsibility, the emphasis has shifted to ongoing operations and infrastructure management.

Today, the District provides water service to an area approximately 300 square miles in size, serving more than 375,000 residential and commercial customers through a network of approximately 6,500 linear miles of pipelines and service laterals. Accomplishing this task requires the agency to maintain millions of individual components, ranging in size from the small service laterals that deliver water to individual homes to massive pumping stations and reservoirs.

### Strategic Approach

As a public, not-for-profit water agency, the District is committed to managing its finances and assets responsibly. The system represents a significant community investment; in total, the agency's capital assets were valued at \$1.7 billion as of the last fiscal year. As with all capital assets, depreciation is inevitable, although the rate and degree thereof are influenced by many factors. The responsibility for optimizing the value of these assets—maximizing service life while maintaining the reliability of water delivery—rests with the LVVWD's infrastructure management and maintenance programs.

Calculating the necessary rate of replacement for water facilities is the responsibility of the District's Infrastructure Management department, which maintains an inventory of water system components categorized by type, age and material. The service life of a given pipeline, pump or valve is influenced by a variety of factors, but knowing when to replace assets is the key to operational efficiency, as well as minimizing leaks and service interruptions. These engineering professionals also work to optimize



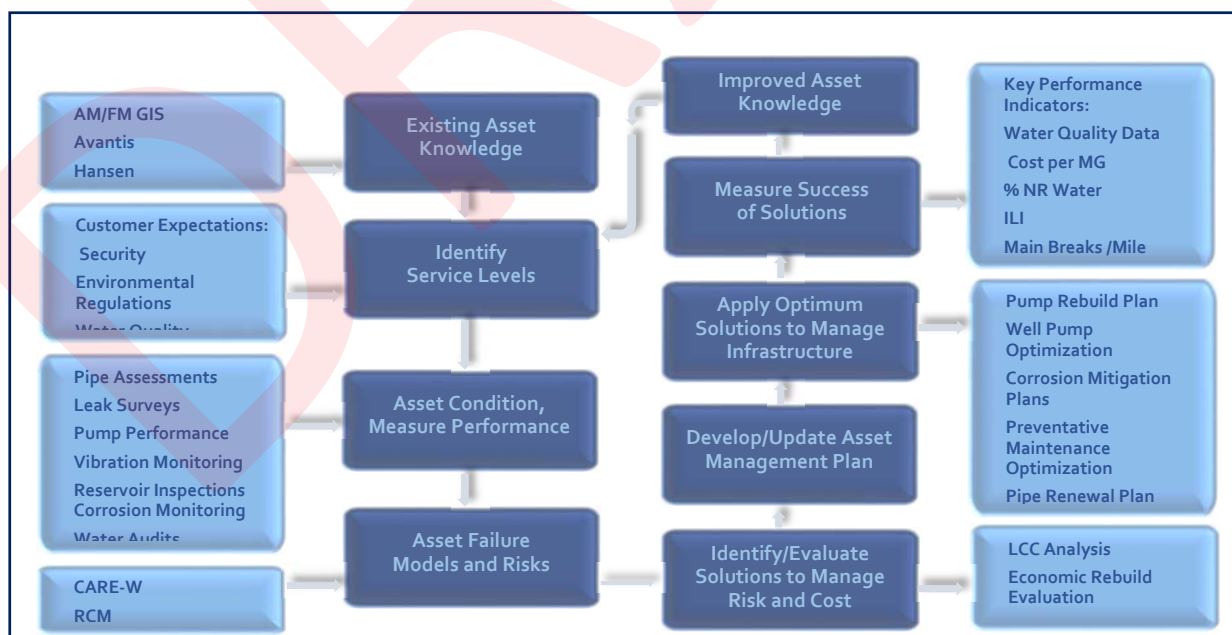
infrastructure value by refurbishing equipment when possible instead of prematurely replacing it.

Given that the community's water system comprises millions of discrete components—from small 5/8" laterals serving individual homes to massive pumping stations that move water to the Las Vegas Strip—fully accounting for the entirety of an infrastructure network is a significant challenge. Infrastructure Management, Operations and Engineering work in concert to ensure that facilities are maintained in working condition and upgraded or replaced when needed.

As shown in Figure 1.3, the LVVWD evaluates the condition of its assets to identify potential issues, manage operational risks and reduce costs. By maintaining a comprehensive infrastructure inventory and reflecting factors such as age, material type, operating environment and historical failure rates, LVVWD is able to project capital reinvestment needs over decades, phasing projects to minimize spikes in financial outlays while maintaining the system's integrity. This strategy has proven highly effective; LVVWD customers enjoy one of the nation's most reliable water systems, with a leak rate far below the national average and an efficiency rating that has been classified as "world-class" by the International Water Association.

As with all systems, age is becoming a factor for the LVVWD infrastructure network. Some system components are now approaching or are more than 50 years old. The issue of aging infrastructure is hardly unique to Southern Nevada. To the contrary, the LVVWD's system is relatively young compared to other metropolitan communities. It is incumbent upon the LVVWD to undertake strategically guided rehabilitation and replacement initiatives in order to assure that Las Vegas does not experience similar service outages and leak rates such as have befallen other metropolitan communities. In total, current estimates by the American Water Works Association indicate that communities in the United States will need to collectively invest more than \$1 trillion over the next 25 years to restore and expand public water systems.

To finance capital projects associated with system maintenance and expansion, the LVVWD uses funds generated through a combination of bond proceeds, water rate revenue and low-interest loans from the State Revolving Fund for drinking water systems. These three revenue streams provide access to funds for necessary improvements and save ratepayers money by reducing interest costs, a benefit of the LVVWD's AA Standard & Poor's rating and Aa1 Moody's rating.



**Figure 1.3:** LVVWD Asset Management Life Cycle

Maintaining a fiscal balance between the “pay-as-you-go” approach and long-term financial instruments is key. Overuse of bonds can negatively impact the agency’s credit rating, resulting in higher interest rates, while funding all projects as they occur results in financial instability and significant rate fluctuations. Another important aspect related to project financing is maintaining appropriate reserves; strong reserves positively impact credit ratings and improve the agency’s ability to respond to short-term capital needs or economic fluctuations.

This Capital Improvement Plan is intended to reflect projected capital improvement needs in the LVVWD service area over a 10-year planning horizon (2017 – 2027). The precise timing and cost of individual elements will be prioritized from year to year based on need and accounted for as part of the LVVWD’s annual budget process. The following section provides an overview of purpose and need, and estimated cost in the areas of asset management, new facilities and water quality improvements.

# CAPITAL IMPROVEMENT PLAN

## ASSET MANAGEMENT

### Introduction

In the context of a public water system, asset management refers to the proactive approach employed by utilities to reduce the life-cycle cost of infrastructure while maintaining high levels of reliability and meeting water-quality standards. At the District, this initiative is spearheaded by the Infrastructure Management department with considerable support and input from the Engineering, Operations and Finance work groups. Given the millions of individual water system components that must be evaluated based upon age, materials and projected service life, the District's asset management process is complex. However, the objective is simple: optimize system efficiency and the use of ratepayer dollars.

Achieving this goal requires the District to balance several factors, including cost, quality, reliability and safety. An excessively conservative approach could result in higher cost, particularly if equipment and facilities are replaced well before the end of their useful life cycle. Conversely, too little vigilance opens the door to frequent service outages, high leak rates and compromised water quality.

The LVVWD's infrastructure management strategy is based on several foundational principles:

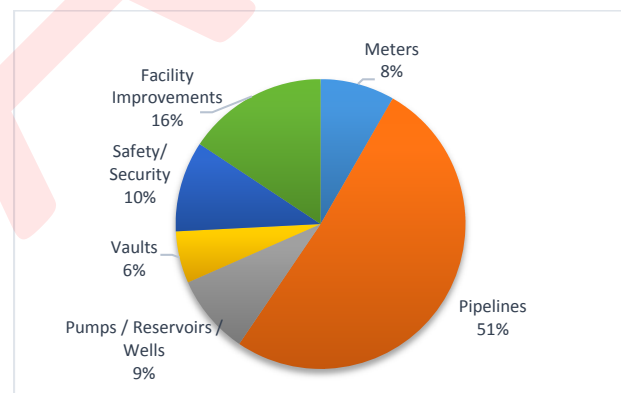
- Extend infrastructure life and prevent failures through timely maintenance and repairs
- Protect system assets through continual condition assessments
- Assess and prioritize projects to ensure critical system operations remain functional
- Minimize financial impacts through orderly, phased implementation
- Minimize financial outlays by maximizing asset life cycle

While it is not unusual to implement numerous asset management-related projects simultaneously, the overall program must be managed on a longer-term basis to execute activities in an orderly manner. For the LVVWD, that means anticipating needs and

scheduling work over a 10-year planning horizon. On an annual and ongoing basis, the LVVWD will conduct assessments to gauge progress and identify any necessary course adjustments.

The agency projects that an investment of approximately \$390 million will be required over the planning horizon to maintain system infrastructure in a manner that meets current service levels and water quality standards. As shown in the Figure 1.5, key projects include: reservoir and pumping station maintenance and rehabilitation; replacement and renewal of vaults and valves; pipeline and service lateral replacement; cyclical water meter replacement; upgrades to the Supervisory Control and Data Acquisition (SCADA) operations control system and improvements to existing facilities throughout the valley.

**Figure 1.5: Cost Distribution (%) by Asset Type**



### Asset Management Activity Detail

A detailed overview of major asset management activities included in the District's 10-year Capital Improvement Plan is provided below. While this plan reflects long-term projected expenditures, it does not represent a blanket authorization of funding for these improvements. Projected expenditures will be considered before the Board of Directors through an annual budgeting process for consideration and authorization. Each individual project also requires further authorization, with a majority of the projects requiring Board approval. This ensures that the Board is provided timely and complete information about asset management priorities and associated annual

costs, and has the opportunity to assess progress related to the plan's implementation.

## **Reservoirs**

The Las Vegas Valley's bowl-like topography features approximately 2,000 feet of elevation change from downtown to the far reaches of the community, effectively precluding a "direct delivery" water system. Instead, water is pumped to higher-elevation storage reservoirs and delivered to customers via gravity. Reservoirs provide far greater reliability than direct-delivery systems, which are vulnerable to service interruptions caused by outages. In total, the District maintains more than 70 reservoir basins and tanks throughout the Las Vegas Valley. Collectively, these facilities hold nearly a billion gallons of water for delivery to customers.



**Image:** Alta Reservoir

District reservoirs are typically constructed of concrete and installed below ground. This design protects them from the elements, helps safeguard water quality, stabilizes temperatures and provides for an exceptionally long service life if properly maintained. The District also maintains a small number of above-ground steel tanks as dictated by operating conditions and location. In addition to regular inspections of reservoir components critical to protecting water quality, these facilities are fully assessed every five years and serviced as needed. Typical capital reinvestment needs associated with these facilities include replacement of basin inlet and outlet valves, cathodic protection anodes, valve actuators, mixers, aeration systems, vent screening and back-up electrical generators. Over the next 10 years, the District projects that annual costs associated with maintaining reservoirs will be less than \$500,000, bringing the cumulative 10-year total to approximately \$4.65 million.

## **Pumping Stations**

Most of Southern Nevada's drinking water comes from the Colorado River, drawn from pipelines within Lake Mead. The regional entity responsible for treating this water, the Southern Nevada Water Authority, sells water to local purveyors like the District at a wholesale rate and delivers it through facilities called Rate-of-Flow-Control Stations into receiving reservoirs.



**Image:** LVVWD Pumping Station

For most customers, this is only the beginning of their water's journey. From these receiving reservoirs, water is pumped to dozens of District-operated reservoirs located

throughout the valley. During summer months, when water use is highest, the District delivers more than 400 million gallons a day to its customers. To accomplish this, the agency operates more than 50 pumping stations that collectively produce 90,000-plus horsepower and have the capacity of 1.2 million gallons of water per minute. This is sufficient to meet even the highest "peak" demand. The ability to move water quickly around the valley is especially critical for fire suppression; there are approximately 30,000 fire hydrants within the District service area.

While variables such as the manufacturer and usage patterns affect the service life of individual pumps and ancillary equipment, a full pumping station is estimated to have a 100-year service life. The District evaluates pump performance semiannually by using an analysis of SCADA data to identify any issues. Major rehabilitation is typically performed at intervals of 35 and 65 years, while individual pumps undergo regular preventative maintenance. Performance monitoring systems automatically shut pumps down if anomalies occur, minimizing the impact of a failure. Several of the LVVWD's major pumping stations are



at or beyond the 35-year threshold and require refurbishment.

Expenditures associated with pumping stations are expected to be relatively modest given the District's successful ongoing maintenance activities. The cumulative 10-year cost associated with asset management on these facilities will be approximately \$6.7 million.

### **Pipelines and Service Laterals**

If pumping facilities represent the water system's heart, pipelines and service laterals are the veins that keep the community's lifeblood flowing. From the 5/8" service laterals that connect homes to the water mains beneath neighborhood streets to enormous 7-foot pipelines, the District must maintain approximately 6,500 miles of pipes, all constructed during different decades from a variety of materials.

The type of material from which pipelines are manufactured largely dictates their service life. In many parts of the District's service area, water mains are more than 40 years old. Where feasible, engineers incorporate auxiliary interconnections into the design that allow water to be rerouted to a property in the event of a pipeline break. Areas without such interconnections are most vulnerable to service outages, making their maintenance or replacement an even greater priority.

Given the immensity of the pipeline and service lateral network, it is not surprising that this category of infrastructure represents the largest reinvestment need for the organization. The pipeline system consists primarily of ACP (cement), PVC, steel and ductile-iron, while service laterals are fabricated largely from copper with a small percentage of polyethylene lines. Service life projections vary dramatically by material. For instance, polyethylene (an industry standard during the 1970s and '80s) has a far shorter service life than copper, exemplified by a failure rate 50 times that of copper. As a result, the District is aggressively replacing these laterals, which pose an unacceptable risk to the organization's high service reliability standards.

The District uses an array of tools—including acoustic wave technology—to perform pipe condition assessments, often without excavation. Based upon data collected in the field and service life status, the

Asset Management team prioritizes replacement activities. To minimize disruption to customers and commuters during replacement, the District coordinates with other entities that may be executing construction projects such as road repaving or sewer system upgrades. For example, the District has developed a comprehensive master plan for replacement of the major pipelines serving the Las Vegas Strip; given the implications of major construction-related traffic impacts to employees and businesses in that corridor, the District will work in tandem with other agencies to minimize the duration of construction windows.



Image: LVVWD Pipeline Repair

Throughout the distribution system, the LVVWD is scheduling replacement of older sections of pipeline based upon leak incidence, breakage history and direct assessments. Addressing these issues systematically and proactively is critical given the implications of a prolonged service interruption for residential and commercial customers. Over the next decade, the LVVWD projects pipeline replacement costs of \$130 million, with an additional \$70 million required for service lateral replacements.

### **Valves**

Most people are familiar with the water valves used in their landscape irrigation system. Within the context of a community water system, valves serve much the same function, but on a far larger scale—allowing water to be quickly shut off or rerouted in the event of a pipeline break or other failure. Given the importance of an uninterrupted water supply in this desert community, the ability to isolate a failed pipeline or appurtenance does more than simply reduce water loss. It also expedites the repair or replacement of the faulty component, minimizing the duration of service interruptions. Operations crews work to ensure that

the system's approximately 120,000 valves are maintained in working condition, "cycling" them periodically to prevent seizing and replacing them as necessary. Valves are also systematically changed out when the water main they serve is replaced. As a result of these efforts, the average elapsed time between notification of a pipeline break and shutdown is less than one hour.

Valves associated with large-diameter pipelines are housed in below-ground concrete structures called vaults; within the District's service area, there are approximately 2,300 vaults, which allow working access to underground equipment for testing, maintenance and replacement without excavating streets or private property. There are two categories of vaults: system vaults and meter vaults. System vaults house the isolation valves and are installed in public rights-of-way. Meter vaults, which house equipment used for accounts with meters sized 3" and larger, are located on individual properties. While both types of vaults are structurally designed to withstand traffic and soil loadings, they do have a finite service life. Inspections are conducted on a three-year cycle, with repair/replacement conducted as warranted by conditions.

On average, the District anticipates the need to replace 240 valves and execute 40 vault rehabilitation projects per year, in addition to "cycling" nearly 10,000 valves annually to ensure that they remain functional. The total cost associated with these activities is cumulatively projected at \$22.5 million during the next decade.

## **Meters**

In the early days of the District, the introduction of meters to measure water use was controversial, which is not surprising given that the average person used more than 600 gallons per day. Today, our community is among the world's leaders in water conservation, and meters are the foundation of a system that rewards efficiency by directly linking costs with water consumption. In addition to providing an equitable way to share costs for both the water and the infrastructure necessary to deliver it, metering encourages water efficiency. Allowing customers to track their water consumption is one of the tools Southern Nevada has used to cumulatively save more than half a trillion gallons of water during the current Colorado River drought.

The LVVWD is responsible both for installing meters at new services and for maintaining approximately 375,000 water meters already installed in the LVVWD service area. There are currently 11 different meter sizes in the system, ranging from the 5/8" units that serve many homes to 12" meters that support large-scale water users such as resort properties. New technology allows meter reading to be performed remotely, saving on labor costs.

However, as with all mechanical devices, meters have a finite service life and must be replaced periodically.



Image: Valve/Vault Repair

Additionally, because meter technology has changed significantly over time, many meters—particularly large meters serving businesses—can no longer be repaired because the parts have become obsolete and are no longer

manufactured. As meters age, they can begin to under-report usage, resulting in customers using more water than is accounted. Potential revenue loss associated with this is estimated to be as much as \$1 million annually.

To address failing meters, the District has implemented a Preventative Maintenance Program to replace aging metering equipment. In addition to ensuring that customers' bills are commensurate with their demand, replacing high-volume meters with new technology—such as turbine meters—mitigates pressure loss, improving those properties' level of service. The LVVWD anticipates that costs associated with this program will be approximately \$3.25 million annually over the next decade. A portion of those outlays will be recovered as those customers' water use is more accurately billed through the new meters.

## Water Quality Controls

Although water delivered to the District from the Southern Nevada Water Authority and groundwater wells has been treated and tested to ensure it meets all state and federal health standards, the integrity of customers' drinking water must be maintained and carefully monitored all the way to the tap. For instance, chlorine levels dissipate over time, requiring periodic rechlorination to prevent bacteria from entering the water. Conversely, levels of chlorination byproducts—which themselves can have harmful effects—must be carefully managed.

To maintain water quality in the distribution system, the District operates scores of sampling stations, from which more than 30,000 samples are drawn annually for analysis. Additionally, the centralized Supervisory Control and Data Acquisition (SCADA) center allows operators to monitor the water system 24 hours a day, including the use of in-line sensors to detect subtle changes in water quality.

Costs associated with this critical function are relatively modest. The high-tech SCADA center, for instance, is projected to require approximately \$6 million in upgrades over the planning horizon—much of it associated with upgrades to rapidly-advancing computer hardware and software. Other investments in water quality are embedded in broader facility maintenance initiatives that cover security enhancements and a host of other water quality protection-oriented projects.



**Image:** Supervisory Control and Data Acquisition (SCADA) center.

## Groundwater Wells

Originally the sole source of water for Las Vegas residents, groundwater today represents about 10 percent of the District's supply. Despite its relatively modest role as a resource, groundwater is integral to meeting summer peak demand. The ability to supplement water from Lake Mead with this renewable supply reduces the strain on the region's water treatment facilities and extends our community's Colorado River allocation. Additionally, wells—which can be operated if necessary by generators—represent an excellent emergency water source.

To prevent adverse hydrologic impacts associated with withdrawals, groundwater pumping is distributed through more than 70 wells, largely located in the central and western parts of the Las Vegas Valley. Some of these wells are also used to store water saved through the community's successful conservation efforts; by reversing the powerful pumps, water can be injected into the aquifer for storage and future use.

A well system is comprised of two major components: the pumping equipment, and the wellbore itself. The service life expectancy of a wellbore can vary significantly depending upon its composition. Newer



**Image:** LVVWD Groundwater Well window.

wells have an expected lifespan of 75 years, while older wells typically last between 40 and 60 years. Pumping equipment has a far shorter service life, rarely exceeding 13 years. Technicians monitor pumping efficiency to determine the optimal replacement or refurbishment

Over the next 10 years, 13 wellbores will require significant rehabilitation or redrilling, while five well pumps require replacement or rebuilding annually. During the 10-year planning horizon, the District anticipates that well- and pump-related costs will be approximately \$15.6 million.



## Facilities and Capital Improvements

Treating and delivering water requires a tremendous amount of electrical energy; from pumping stations and reservoirs to well facilities and the LVVWD's main campus, maintaining the reliability of the power supply is critical to the agency's operations. This entails assessing and servicing transformers and electrical panels throughout the valley. In support of its sustainability initiatives, the LVVWD also operates several solar photovoltaic generation facilities, which are co-located with existing infrastructure and provide electrical power to support operations.

Information systems also play a crucial role in ensuring that the community's water supply remains both reliable and safe. As noted above, the SCADA control center—which monitors water quality and production levels in virtually real-time—relies upon an extensive communications network. In addition, electronic facility intrusion detection and cyber-security are central to the ongoing protection of the community's water system.

The District maintains a fleet of more than 600 automotive vehicles and a similar number of heavy machines, including cranes, used to support facility maintenance and replacement, respond to emergency service outages, and conduct routine functions like valve cycling and meter reading. This award-winning fleet is housed at the District's main campus on Valley View Boulevard, which also serves as the base for the agency's customer service center,

equipment warehouse, fleet maintenance center, administrative offices and other core functions. This 300,000-square-foot complex encompasses numerous buildings with all of the associated electrical, HVAC, communications and office infrastructure, and equipment.

Security, safety and fleet-related expenditures are projected at approximately \$3.9 million annually over the next decade. Costs associated with electrical, telemetry and other related infrastructure is budgeted at \$3.45 million per year over the next 10 years, with an additional \$2.7 million annually for repair, replacement, and upgrades to infrastructure and equipment housed at the primary campus.

## Asset Management Summary

A summary of forecasted Asset Management activities and associated costs over the 10-year planning horizon is detailed in Figure 1.6. Costs are represented in aggregate; however, LVVWD work efforts will be executed in a phases based on asset assessment results and need. Proposed expenditures to support this work will be presented to the Board of Directors for consideration and authorization as part of the annual budget process.

Figure 1.6: Projected Asset Management Activity and Cost by Asset Type

| ACTIVITY                                | 10-YEAR                | PERCENTAGE |
|---|------------------------|------------|
| Meter Program                           | \$32.4 million         | 8%         |
| Vault Program                           | 22.5 million           | 6%         |
| Service Laterals                        | 70.0 million           | 18%        |
| Pipeline Rehabilitation and Replacement | 130.0 million          | 33%        |
| Facilities Improvements                 | 27.0 million           | 7%         |
| SCADA                                   | 6.0 million            | 2%         |
| Pump Stations                           | 6.7 million            | 2%         |
| Reservoirs                              | 4.65 million           | 1%         |
| Wells                                   | 15.6 million           | 4%         |
| Reclaimed Water                         | 1.7 million            | <1%        |
| Fleet, Safety and Security              | 39.3 million           | 10%        |
| Misc. Capital                           | 34.5 million           | 9%         |
| <b>TOTAL</b>                            | <b>\$390.3 million</b> |            |

## CAPITAL IMPROVEMENT PLAN

# WATER QUALITY

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The District is responsible for ensuring that municipal water supplies meet strict state and federal health standards. To accomplish this, the agency collects more than 33,000 water samples a year and analyzes them for more than 100 regulated and unregulated contaminants. The instrumentation used to test water quality can detect some compounds at one part per trillion, the equivalent of one teaspoon of water in 2,100 Olympic-size swimming pools. Additionally, the LVVWD's high-tech SCADA operations center uses advanced instrumentation to detect minute changes in water quality, providing a greater degree of protection.

To support its mission of providing customers with a safe, reliable water supply, the District works closely with the State of Nevada to identify and reduce any potential vulnerabilities to water contamination, including conditions known as backsiphonage or backpressure, more commonly referred to as backflow. This occurs when negative pressure in the system causes water to reverse its flow. There are a number of situations that can potentially cause this to occur. For example, a sudden decrease of water pressure due to a main break or a significant draw on hydrants for firefighting efforts can potentially cause backflow conditions. When this occurs, water from an individual property's plumbing system can be drawn back into the public portion of the water distribution network.

To prevent this from occurring, the State of Nevada in the mid-1990s began requiring the installation of backflow prevention devices on all new properties except single-family homes. These valve-like devices protect the community's drinking water system by preventing water from being siphoned back into water mains from private properties. This mandatory program is managed by the Nevada Division of Environmental Protection and requires that all backflow devices be tested annually by a certified technician.

### System Needs

Approximately 35,000 meters within the District's service area require backflow protection. To fulfill state requirements, the District prioritized backflow installations based on their degree of risk to the system and has begun systematically retrofitting properties that require backflow protection. An annual cost of \$10 million is needed over the 10-year planning horizon to implement its backflow retrofit program. The cost of individual retrofits varies by meter size and range from approximately \$3,000 for small meters to more than \$33,000 for 10" meters. The projected cost is anticipated to address approximately one-third of outstanding retrofit needs over the next decade. The quantity of devices involved and labor-intensive nature of the installations precludes a more aggressive approach.



Image: Commercial Backflow Assembly

## CAPITAL IMPROVEMENT PLAN

### NEW FACILITIES

Since its inception, the District has worked to develop, operate and maintain its water distribution system in a manner that meets the needs of the community. This includes ensuring the reliable delivery of high-quality water to all customers. Over the decades, this has required the agency to install thousands of miles of water mains, hundreds of millions of gallons worth of reservoir storage and massive pumping stations necessary to move water around the valley.

When the recession that began in 2007 brought commercial and residential development to a virtual standstill, the District quickly responded by curtailing facility expansion and reliability enhancement projects, and by deferring many of the major asset management needs discussed in the preceding section. In total, hundreds of millions of dollars' worth of construction activities were postponed, which increased the strain on the community's water system. Given the uncertain financial climate, it was determined this action to be in the best interest of both ratepayers and the organization.

#### System Needs

Today, development activity has resumed in Southern Nevada, although certainly not to the degree experienced in the decades prior to the recession. Accordingly, the LVVWD has resumed planning activities associated with expansion of the community's water delivery system. This action is necessary for the organization to fulfill its mission of providing a safe, reliable water system to all municipal water customers in its service area.

Below is a summary of three major system improvement projects planned for development within the 10-year planning horizon. None of these projects are being constructed exclusively for prospective development; rather, all simultaneously benefit existing customers while facilitating access to the municipal water supply for planned developments.

#### NEW FACILITIES

##### *Northwest Major Facilities (NW)*

Within the northwest portion of the Las Vegas Valley, approximately 21,000 customers in three separate pressure zones are serviced by a single pumping

station and a single reservoir; a major development currently under construction is anticipated to bring that number to nearly 30,000 customers. In the event of a service interruption, current reservoir storage is inadequate to support customers for extended periods of time. New facilities are needed to address the strain on existing infrastructure and to reduce residents' vulnerability to service interruptions associated with scheduled or emergency outages.

New facilities planned for construction include the development of two new water storage reservoirs—one with a capacity of 10 million gallons, the other with a capacity of 5 million gallons—along with two pumping stations and associated appurtenances. The estimated cost of these improvements is \$61.8 million.

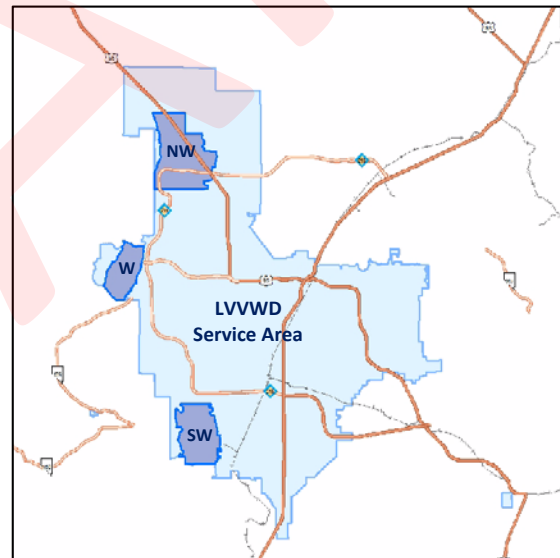


Figure 1.7: Customers to be served by new facilities

##### *West Major Facilities (W)*

Unlike the vast majority of customers in the District's service area, residents and businesses in this portion of the valley depend on direct delivery for their water service. As discussed previously, direct delivery is less reliable and impacts could arise in the event of scheduled and unanticipated outages, such as a water main break. Without storage or other redundant systems, customers could experience immediate service impacts.

New facilities planned for construction in this service area include the development of a 10-million-gallon water storage reservoir, a pumping station and associated appurtenances. Constructing this long-planned but deferred reservoir will reduce vulnerability and enhance overall system reliability. Additionally, it will provide additional capacity and emergency storage for any additional residential or commercial expansion that may occur in the area. The estimated cost of these improvements is \$30.1 million.

### **Southwest Major Facilities (SW)**

Within the southwest portion of the valley, there are more than 6,600 customers served by a single water storage reservoir and pumping station. These facilities are located approximately 3 miles away from

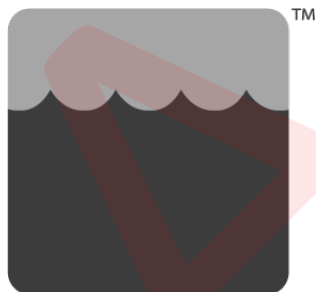
their furthestmost service connection. In the event of a service interruption, current reservoir storage is inadequate to support customers for extended periods of time. New facilities are needed to address the strain on existing infrastructure and reduce residents' vulnerability to service interruptions associated with scheduled or emergency outages.

New facilities planned for construction include a 10-million-gallon water storage reservoir, pumping station and associated appurtenances. In addition to providing an emergency water supply in close proximity to customers, the proposed reservoir will alleviate pressure variability issues associated with the current engineering configuration. This benefits existing customers not only in terms of reliability, but in service quality as well. The estimated cost of these improvements is \$33.8 million.

**Figure 1.8:** Projected Activity and Cost by Asset Type

| ACTIVITY   | COST                   |
|--|------------------------|
| <b>Northwest Facilities</b>                        |                        |
| 5 MG Reservoir & Associated Inlet/Outlet Pipeline  | \$10.6 million         |
| 10 MG Reservoir & Associated Inlet/Outlet Pipeline | 26.0 million           |
| Pumping Station & Discharge Pipeline               | 13.6 million           |
| Pumping Station & Discharge Pipeline               | 10.9 million           |
| Pressure Reducing Valves                           | 700,000                |
| <i>Subtotal</i>                                    | <i>\$61.8 million</i>  |
| <b>Summerlin Facilities</b>                        |                        |
| 10 MG Reservoir & Inlet/Outlet Pipeline            | \$22.5 million         |
| Pumping Station                                    | 7.6 million            |
| <i>Subtotal</i>                                    | <i>\$30.1 million</i>  |
| <b>Southwest Facilities</b>                        |                        |
| 10 MG Reservoir                                    | \$20.8 million         |
| Pumping Station                                    | 12.3 million           |
| Pressure Reducing Valves                           | 700,000                |
| <i>Subtotal</i>                                    | <i>\$33.8 million</i>  |
| <b>TOTAL</b>                                       | <b>\$125.7 million</b> |

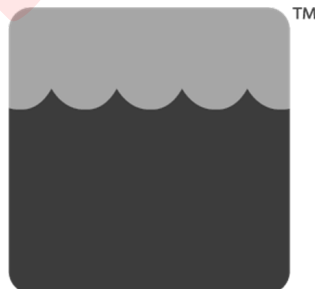
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# SECTION 7

## DEBT MANAGEMENT POLICY

|   |      |
|---|------|
| Introduction .....  | 7-3  |
| Affordability of Debt .....                               | 7-5  |
| Supported by Water System Pledged Revenues.....           | 7-5  |
| Supported by the SNWA Pledged Revenues .....              | 7-9  |
| Debt Capacity.....  | 7-10 |
| Debt Comparison (per capita and assessed valuation) ..... | 7-10 |
| Policy Statement for Sale of Debt.....                    | 7-11 |
| Operation Costs and Revenue Sources for                   |      |
| Projects in Capital Improvement Plan.....                 | 7-13 |
| Miscellaneous Items .....                                 | 7-14 |
| Chief Financial Officer Information.....                  | 7-17 |
| Appendix .....  | 7-18 |



**LAS VEGAS VALLEY WATER DISTRICT**  
FISCAL YEAR 2019-20  
OPERATING AND CAPITAL BUDGET





## Debt Management Policy

In Accordance With  
NRS 350.013



**LAS VEGAS VALLEY  
WATER DISTRICT™**

June 30, 2019

Las Vegas Valley Water District  
Operating and Capital Budget  
Debt Management Policy  
Fiscal Year Ending June 30, 2020

## Table of Contents

|  |             |
|--|-------------|
| <b>Introduction .....</b>  | <b>7-3</b>  |
| <b>Affordability of Debt .....</b>   | <b>7-5</b>  |
| <b>Supported by Water System Pledged Revenues .....</b>                                  | <b>7-5</b>  |
| <b>Supported by the SNWA Pledged Revenues.....</b>                                       | <b>7-9</b>  |
| <b>Debt Capacity .....</b>   | <b>7-10</b> |
| <b>Debt Comparison (per capita and assessed valuation).....</b>                          | <b>7-10</b> |
| <b>Policy Statement for Sale of Debt.....</b>  | <b>7-11</b> |
| <b>Operation Costs and Revenue Sources for Projects in Capital Improvement Plan.....</b> | <b>7-13</b> |
| <b>Miscellaneous Items.....</b>  | <b>7-14</b> |
| <b>Chief Financial Officer Information .....</b>   | <b>7-17</b> |
| <b>Appendix - Debt Service and Pledged Revenue Tables.....</b>                           | <b>7-18</b> |

## Debt Management Policy

### NRS 350.013 Subsection 1(c)

#### Introduction

The Las Vegas Valley Water District (LVVWD) is a quasi-municipal corporation created by the State of Nevada (State) pursuant to a Special Act (the Act) of the Legislature in March 1947. The Las Vegas Valley Water District Act is available online at:

<https://www.leg.state.nv.us/SpecialActs/65-LasVegasValleyWater.html>

The LVVWD was created for the purpose of obtaining and distributing water, primarily in the Las Vegas Valley, which includes the metropolitan area of Clark County (County) and the City of Las Vegas. Because the County Board of Commissioners serves as the LVVWD Board of Directors (Board), the LVVWD is included as a blended component unit within the County's Comprehensive Annual Financial Report. A component unit can be a legally separate organization for which the elected officials of the primary government are financially accountable. For purposes of this report, the LVVWD alone is the reporting entity.

The LVVWD's current debt structure is presented in the Appendix. The LVVWD has three options to issue debt:

- The LVVWD can issue debt in its own name. Standard & Poor's rates the LVVWD bonds "AA+", and Moody's Investors Service rates them "Aa1". This rating makes the LVVWD Bonds

"high investment" grade.

- The LVVWD can issue debt through the Clark County Bond Bank. Standard & Poor's rates County bonds "AA+", and Moody's Investors Service rates them "Aa1".
- The LVVWD can issue debt through the State Bond Bank. Standard & Poor's rates State bonds "AA", and Moody's Investors Services rates them "Aa2".

By contract, the LVVWD operates the Southern Nevada Water Authority (SNWA), and the LVVWD has issued debt for the SNWA, which is additionally secured by the SNWA's Pledged Revenues. See the Appendix for a listing of the LVVWD debt secured by the LVVWD revenues, and debt the LVVWD has issued for the SNWA, additionally secured by the SNWA's Pledged Revenues.

The proceeds of debt issued by the LVVWD is restricted for the purchase and/or construction of capital assets. The LVVWD Capital Improvement Plan is a phased construction program outlining current construction expenditures, as well as projected future expenditures for construction of capital assets. In addition to issuing debt to fund the purchase and/or construction of capital assets, the LVVWD also budgets a portion of operating revenues to fund capital assets on a pay-as-you-go basis.

This document is not intended to review the LVVWD's total financial position. In addition to being required by state law, this analysis

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2020

of the LVVWD's debt position is important for capital asset planning purposes, and to determine if the LVVWD rates and charges are sufficient to cover current and future operating expenses and debt service. Decisions regarding the use of debt will be based in part on the long-term needs of the LVVWD and the amount of funds dedicated in a given year to capital expenditures.

Below are excerpts from Nevada Law which requires local governments to submit a debt management policy:

*NRS 350.013 Municipalities to submit annually statement of current and contemplated general obligation debt and special elective taxes, statement of debt management policy, plan for capital improvement or alternate statement and certain information regarding chief financial officer; update of information; exceptions.*

*(1) Except as otherwise provided in this section, on or before August 1 of each year, the governing body of a municipality which proposes to issue or has outstanding any general obligation debt, other general obligations or special obligations, or which levies or proposes to levy any special elective tax, shall submit to the department of taxation and the commission:*

*(c) A written statement of the debt management policy of the municipality, which must include, without limitation;*

*(1) A discussion of its ability to afford existing general obligation debt, authorized future general obligation debt and proposed future general obligation debt;*

*(2) A discussion of its capacity to incur*

*authorized and proposed future general obligation debt without exceeding the applicable debt limit;*

*(3) A discussion of its general obligation debt that is payable from property taxes per capita as compared with such debt of other municipalities in the state;*

*(4) A discussion of its general obligation debt that is payable from property taxes as a percentage of assessed valuation of all taxable property within the boundaries of the municipality;*

*(5) Policy regarding the manner in which the municipality expects to sell its debt;*

*(6) A discussion of its sources of money projected to be available to pay existing general obligation debt, authorized future general obligation debt and proposed future general obligation debt; and*

*(7) A discussion of its operational costs and revenue sources, for the ensuing 5 fiscal years, associated with each project included in its plan for capital improvement submitted pursuant to paragraph (d), if those costs and revenues are expected to affect the tax rate.*

*(d) Either:*

*(1) Its plan for capital improvement for the ensuing 5 fiscal years, which must include any contemplated issuance of general obligation debt during this period and the sources of money projected to be available to pay the debt; or*

*(2) A statement indicating that no changes are contemplated in its plan for capital improvement for the ensuing 5 fiscal years.*

Las Vegas Valley Water District  
Operating and Capital Budget  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2020

*(e) A statement containing the name, title, mailing address and telephone number of the chief financial officer of the municipality.*

*(2) The governing body of a municipality may combine a statement or plan required by subsection 1 with the corresponding statement or plan of another municipality if both municipalities have the same governing body or the governing bodies of both municipalities agree to such a combination.*

*(3) Except as otherwise provided in subsection 4, the governing body of each municipality shall update all statements and plans required by subsection 1 not less frequently than once each fiscal year.*

*(4) In a county whose population is 100,000 or more, the governing body of each municipality shall update all statements and plans required by subsection 1 not less often than once each fiscal year and not more often than twice each fiscal year, except that a municipality may update a statement or plan required by subsection 1 more often than twice each fiscal year.*

## **Affordability of Debt**

Response to NRS 350.013 1(c):

*(1) A discussion of its ability to afford existing general obligation debt, authorized future general obligation debt and proposed future general obligation debt; and*

*(6) A discussion of its sources of money*

*projected to be available to pay existing general obligation debt, authorized future general obligation debt and proposed future general obligation debt*

### **Existing, Authorized and Proposed General Obligation/Revenue Supported Bond Indebtedness of the LVVWD Supported by Water System Pledged Revenues ("LVVWD Water Bonds").**

The LVVWD Water Bonds constitute direct and general obligations of the LVVWD, and the full faith and credit of the LVVWD is pledged to the payment of principal and interest due thereon. The LVVWD Water Bonds are payable from general property taxes on all taxable property in the LVVWD service area, subject to Nevada constitutional and statutory limitations on the aggregate amount of property taxes. The LVVWD Water Bonds are secured additionally by certain pledged revenues described below. The LVVWD has never levied a property tax because the LVVWD's revenues have been sufficient to pay debt service on all of the LVVWD's bonds and obligations secured by such revenues.

In any year in which the total property taxes levied within the LVVWD service area by all applicable taxing units (e.g. the State of Nevada, Clark County, the Clark County School District, any city, or any special district including the LVVWD) exceed such property tax limitations, the reduction to be made by those units must be in taxes levied for purposes other than the payment of their bonded indebtedness, including interest on such indebtedness.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Debt Management Policy**  
Fiscal Year Ending June 30, 2020

Nevada statutes provide that no act concerning the LVVWD Water Bonds or their security may be repealed, amended, or modified in such a manner as to impair adversely the Bonds or their security until all of the Bonds have been discharged in full or provision for their payment and redemption has been fully made.

The payment of the LVVWD Water Bonds is not secured by an encumbrance, mortgage or other pledge of property of the LVVWD, and no property shall be liable to be forfeited or taken in payment of the LVVWD Water Bonds, provided the payment of the bonds is secured by the proceeds of general (*property*) taxes and the LVVWD's revenues, which are pledged for the payment of the Bonds. Furthermore, section 350.606 of the Bond Act provides that no recourse shall be had for the payment of principal or interest, or any prior redemption premiums due in connection with municipal securities such as the LVVWD Water Bonds, or for any claim based thereon or otherwise upon the resolution authorizing their issuance, against any individual trustee, officer, employee or other agent of the LVVWD, past, present or future, either directly or indirectly by virtue of any statute or rule of law.

**Pledged Revenues.** The LVVWD Water Bonds are additionally secured by the revenue received from the sale and distribution of water, connection charges or otherwise derived from the works or property of the LVVWD, after payment of reasonable and necessary costs of the operation and maintenance expenses of the water system (Water System) and the

general expenses of the LVVWD (Net Pledged Revenues). Operation expenses generally include the costs of the purchase of water from the SNWA, power and pumping, purification, transmission and distribution, materials and supplies, maintenance and repairs, purchased and professional services, and customer accounting and collection.

The LVVWD Act authorizes the Board to establish, from time to time, reasonable rates and charges for the products and services furnished by the LVVWD's works and properties. Subject to the limitation that rates and charges must be reasonable, the Board must fix rates and charges which will produce sufficient revenues to pay (1) operating and maintenance expenses of the Water System, (2) the general expenses of the LVVWD, and (3) the principal of and interest on the LVVWD's first lien bonds and second lien bonds (the "Superior Lien Bonds") including any required sinking fund payments, and (4) debt service on all other securities payable from Net Pledged Revenues. It is the general intent of the LVVWD Act and policy of the Board that rates and charges be adequate to provide for all costs and that reliance on property taxes is to be avoided. There has, historically, been no reliance on property taxes to support the LVVWD's operations and there is no current plan or intention to call upon property taxes to support the LVVWD's financial requirements.

**Authorized and Proposed Future LVVWD Water Bonds.** During fiscal year 2014-15, the LVVWD issued a \$20 million new money

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2020

bond as collateral to the State of Nevada for a State Revolving Fund (SRF) Loan. In fiscal year 2015-16, the LVVWD issued a \$15 million new money bond as collateral to the State for a SRF loan. In fiscal year 2016-17, the LVVWD issued a \$15 million new money bond as collateral to the State for a SRF loan. The LVVWD has three separate SRF loans which cumulatively total \$50 million. The SRF Loans are funded on a reimbursement basis. As of December 31, 2018, the LVVWD was reimbursed approximately \$40.1 million. The remainder of the \$50 million in SRF loans are projected to be reimbursed in fiscal year 2019-20. With each SRF loan, until the principal amount has been completely reimbursed, the LVVWD is obligated to pay only interest on the amount reimbursed. After the principal amount has been completely reimbursed, the LVVWD will begin making equal semiannual payments, amortized over the remainder of each SRF Loan's 20-year loan term.

**Bonded Indebtedness.** The following table sets forth the LVVWD's outstanding general obligation bonded indebtedness supported by water system pledged revenues as of June 30, 2019.

**Debt Service Requirements.** See Appendix for a table showing the debt service to maturity on the LVVWD Water Bonds.

**Property Tax Rate Impact.** Principal and interest on the LVVWD Water Bonds is payable from the Water System pledged revenues. There will be no direct impact on the property tax rate as long as pledged revenues are sufficient to pay debt service on the outstanding bonds. See Appendix for a table illustrating the LVVWD's historic pledged revenues and debt service coverage.



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2020

EXISTING GENERAL OBLIGATION INDEBTEDNESS  
SUPPORTED BY WATER SYSTEM PLEDGED REVENUES  
Las Vegas Valley Water District, Nevada  
As of June 30, 2019

| Description             | Issued | Original<br>Amount | Outstanding           |
|-------------------------|--------|--------------------|-----------------------|
| LVVWD 2008 Clean Energy | Jul-08 | \$ 2,520,000       | \$ 672,000            |
| LVVWD 2010A BABS        | Jun-10 | 75,995,000         | 75,995,000            |
| LVVWD 2010B             | Jun-10 | 31,075,000         | 26,145,000            |
| LVVWD 2011D             | Oct-11 | 78,680,000         | 48,520,000            |
| LVVWD 2012A             | Sep-12 | 39,310,000         | 39,310,000            |
| LVVWD 2014 SRF Loan #1  | Dec-14 | 19,929,329         | 18,491,969            |
| LVVWD 2015A             | Jun-15 | 172,430,000        | 123,025,000           |
| LVVWD 2016B             | Apr-16 | 108,220,000        | 98,185,000            |
| LVVWD 2016D             | Jul-16 | 125,650,000        | 113,650,000           |
| LVVWD 2016 SRF Loan #2  | Sep-16 | 15,000,000         | 15,000,000            |
| LVVWD 2017 SRF Loan #3  | May-17 | 15,000,000         | 15,000,000            |
| LVVWD 2017A             | Mar-17 | 130,105,000        | 125,555,000           |
| LVVWD 2018A             | Jun-18 | 100,000,000        | 98,395,000            |
|                         |        |                    | <u>\$ 797,943,969</u> |

*SOURCE: Las Vegas Valley Water District*

Las Vegas Valley Water District  
Operating and Capital Budget  
Debt Management Policy  
Fiscal Year Ending June 30, 2020

**Existing Authorized and Proposed General Obligation Indebtedness of the LVVWD Supported by the SNWA Pledged Revenues ("SNWA Water Bonds").**

The LVVWD has issued general obligation bonds for the SNWA. The SNWA Water Bonds constitute direct and general obligations of the LVVWD, and the full faith and credit of the LVVWD is pledged to the payment of principal and interest due thereon. The SNWA Water Bonds are payable from property taxes on all taxable property within the LVVWD service area, subject to Nevada constitutional and statutory limitations on the aggregate amount of property taxes. The SNWA Water Bonds are additionally secured by certain pledged revenues (the "SNWA Pledged Revenues") as set forth in NRS 350.13 (4). The SNWA Pledged Revenues currently consist of fees and charges for water imposed by the SNWA upon its wholesale water customers (the LVVWD, Henderson, North Las Vegas, and Boulder City). Under the SNWA Revenue Act, the SNWA is required to maintain its fees and charges for water at a level sufficient to allow it to meet its obligations to the LVVWD to pay the LVVWD's SNWA Water Bonds.

Nevada statutes provide that no act concerning the SNWA Water Bonds or their security may be repealed, amended, or modified in such a manner as to impair adversely the Bonds or their security until all of the Bonds have been discharged in full or provision for their payment and redemption has been fully made.

The payment of the SNWA Water Bonds is not secured by an encumbrance, mortgage or other pledge of property of the SNWA (other than the SNWA Pledged Revenues) and no property shall be liable to be forfeited or taken in payment of the SNWA Water Bonds, provided the payment of the Bonds is secured by the proceeds of general (property) taxes and the SNWA Pledged Revenues, which are pledged for the payment of the Bonds. Furthermore, section 350.606 of the Bond Act provides no recourse shall be had for the payment of the principal of, interest on, or any prior redemption premiums due in connection with municipal securities such as the SNWA Water Bonds, or for any claim based thereon or otherwise upon the resolution authorizing their issuance, against any individual trustee, officer, employee or other agent of the LVVWD, past, present or future, either directly or indirectly by virtue of any statute or rule of law.

The LVVWD has never levied a property tax to pay the SNWA Water Bonds because SNWA Pledged Revenues have always been sufficient to pay debt service on all of the LVVWD's bonds and obligations secured by such revenues.

**Debt Service Requirements.** See Appendix for a table that shows the debt service to maturity for the SNWA Water Bonds.

**Property Tax Rate Impact.** Principal and interest on the SNWA Water Bonds are payable from the SNWA Pledged Revenues. There will be no direct impact on the property tax rate as long as pledged

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2020

revenues are sufficient to pay debt service on the outstanding bonds.

The following table sets forth the LVVWD's bonds issued for the SNWA as of June 30, 2019.

EXISTING GENERAL OBLIGATION INDEBTEDNESS  
SUPPORTED BY SNWA PLEDGED REVENUES  
Las Vegas Valley Water District, Nevada  
As of June 30, 2019

| Description                      | Issued | Original Amount | Outstanding             |
|----------------------------------|--------|-----------------|-------------------------|
| SNWA Tax-Exempt Commercial Paper | Mar-04 | \$ 400,000,000  | \$ 400,000,000          |
| SNWA 2011A                       | May-11 | 58,110,000      | 40,050,000              |
| SNWA 2011B                       | Oct-11 | 129,650,000     | 91,180,000              |
| SNWA 2011C                       | Oct-11 | 267,815,000     | 198,945,000             |
| SNWA 2012B                       | Jul-12 | 360,000,000     | 324,520,000             |
| SNWA 2015 Refunding Bonds        | Jan-15 | 332,405,000     | 332,405,000             |
| SNWA 2015B                       | Jun-15 | 177,635,000     | 144,115,000             |
| SNWA 2015C                       | Jun-15 | 42,125,000      | 33,920,000              |
| SNWA 2016A                       | Apr-16 | 497,785,000     | 469,215,000             |
| SNWA 2017B Refunding Bonds       | Mar-17 | 22,115,000      | 22,115,000              |
| SNWA 2018B Refunding Bonds       | Mar-18 | 79,085,000      | 70,840,000              |
| SNWA 2019A Refunding Bonds       | Feb-19 | 107,975,000     | 107,975,000             |
|                                  |        |                 | <u>\$ 2,235,280,000</u> |

SOURCE: Las Vegas Valley Water District

## Debt Capacity

Response to NRS 350.013 1(c):

*(2) A discussion of its capacity to incur authorized and proposed future general obligation debt without exceeding the applicable debt limit.*

The LVVWD does not have a specific debt limit dollar amount threshold. The LVVWD has no power to incur debt in excess of

express authorization granted by the Nevada Legislature in Chapter 167, Statutes of Nevada 1947, as amended. The LVVWD's ability to issue debt is a function of its capital needs and revenues generated from LVVWD facilities.

## Debt Comparison (per capita and assessed valuation)

Response to NRS 350.013 1(c):

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2020

*(3) A discussion of its general obligation debt that is payable from property taxes per capita as compared with such debt of other municipalities in the state.*

*(4) A discussion of its general obligation debt that is payable from property taxes as a percentage of assessed valuation of all taxable property within the boundaries of the municipality.*

Currently, the LVVWD does not have any outstanding bonds payable directly from property taxes. The existing LVVWD Water Bonds and SNWA Water Bonds are payable from pledged water revenues.

## **Policy Statement for Sale of Debt**

Response to NRS 350.013 1(c):

*(5) Policy regarding the manner in which the municipality expects to sell its debt.*

There are two ways bonds can be sold: competitive (public) or negotiated sale. NRS 350.105 to 350.195 sets forth the circumstances under which a local government will sell its bonds at a competitive or negotiated sale. The LVVWD will follow the statutory requirements in determining the method of sale for its bonds. The Government Finance Officers Association also urges “competitive sales should be used to market debt whenever feasible”.

Competitive and negotiated sales provide for one or more pricings, depending upon market conditions or other factors. Either method can provide for changing sale dates,

issue size, maturity amounts, term, bond features, etc. The timing of any sale is generally related to the requirements of the Nevada Open Meeting Law.

### **Competitive Sale.**

In a competitive sale, all underwriter(s) are invited to submit a proposal to purchase an issue of bonds. The bonds are awarded to the underwriter(s) presenting the best bid according to stipulated criteria set forth in the notice of sale. The best bid is determined based on the lowest overall interest rate.

### **Negotiated Sale.**

In a negotiated sale, an exclusive arrangement is made between the issuer and an underwriter or underwriting syndicate. At the end of successful negotiations, the issue is awarded to the underwriter.

A negotiated underwriting may be considered based upon one or more of the following criteria:

- Extremely large issue size.
- Complex financing structure (i.e. new security feature, variable rate financings, new derivatives, and certain revenue issues, etc.) which provides a desirable benefit to the LVVWD.
- Difficulty in marketing due to credit rating or lack of bids.
- Private placement, or sale to a municipality, to the state, or a federal agency.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Debt Management Policy**  
Fiscal Year Ending June 30, 2020

- Other factors which lead the LVVWD to conclude that competitive sale would not be effective, including market conditions.

It is the policy of the LVVWD to provide minority owned business enterprises, women owned business enterprises and all other business enterprises an equal opportunity to participate in the performance of all LVVWD contracts. At a competitive sale, bidders are requested to assist the LVVWD in implementing this policy by taking all reasonable steps to ensure all available business enterprises, including minority and women business enterprises, have an equal opportunity to participate in the LVVWD contracts.

**Underwriter Selection for Negotiated Sale.**

- The Chief Financial Officer (CFO) will establish a list of pre-qualified underwriters when a negotiated sale is anticipated. The list will be based, in part, on the firms who have submitted bids for LVVWD's competitive issues over the prior five years. In addition, the list may contain firms that have participated in other financings in Nevada (in competitive bids or negotiated sales), demonstrated ability and interest in LVVWD financings, or have submitted financing ideas and concepts for LVVWD's consideration over the past five years.
- The CFO will distribute, or request that LVVWD's Financial Advisors

distribute on behalf of LVVWD, a Request for Proposal (RFP) to underwriting firms on the list. The RFP will include, at a minimum, information regarding the firm's qualifications, staffing and personnel assigned to LVVWD, fees (including takedown and management fee - if any), debt structuring, marketing, expected yield, and credit strategies. Before selecting a firm or firms, the CFO may, but is not required, conduct interviews of firms who submit responses to the RFP.

- The selection of underwriter(s) will be based on the overall quality of the response, qualifications of the firm, demonstrated success in pricing bonds, understanding of LVVWD's objectives, qualifications of the banking and underwriting team to be assigned to LVVWD, fees, applicability of the marketing and credit strategy, and relevance and quality of structuring proposals.
- The CFO will designate the senior manager and book-running senior manager if there are co-senior managers, as well as the co-managers from the firms selected through the RFP process. The CFO will determine the length of time that the selected firms will serve as the syndicate for LVVWD. Such a selection can be for a single transaction or multiple transactions, but the syndicate will be reviewed, and a new RFP will be issued at intervals not greater than every five years.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Debt Management Policy**  
Fiscal Year Ending June 30, 2020

**Syndicate Policies.**

- The CFO will establish designations and liabilities. At a minimum, in a syndicate with three or more firms serving as co-managers, the designation rules will include a minimum of three firms to be designated, with a minimum of 5 percent to any firm. The CFO will also determine the maximum amount to be designated to single firm (typically 50 percent, but this can be higher or lower, depending upon the size of the syndicate and the par amount of the transaction.) In addition, the CFO will determine the appropriate allocation of liabilities and equivalent share of compensation for group net orders.
- Prior to the sale of the bonds, the senior book-running manager will submit a Syndicate Policy Memo to the CFO for approval. At a minimum, the Syndicate Policy Memo will include:
  - Average Takedown and takedown by maturity.
  - Details of Underwriter expenses, including the cost of Underwriter's Counsel.
  - Designation rules.
  - Liabilities.
  - Order priority (unless otherwise agreed by the CFO, the order priority will be Nevada Retail, National Retail, Group Net or Net Designated, Member).
  - Definition of a retail order (unless otherwise determined by the

CFO) will include orders placed by individuals, bank trust departments, financial advisors and money managers acting on behalf of individuals with a maximum of \$1 million per account.

- Assignment of SDC Credit.
- The Syndicate Policy Memo may include other relevant information (e.g., management fee or other fees, description of the sale timeline, etc.).

**Selling Group.**

The CFO may establish a selling group to assist in the marketing of the bonds as warranted (based on market conditions and size of the transaction.)

**Allocation of Bonds.**

The book-running senior manager is responsible for allotment of bonds at the end of the order period. The CFO and the LVVWD's Financial Advisors will review allotments to ensure the senior manager distributes bonds in a balanced and rational manner.

**Operation Costs and Revenue  
Sources for Projects in Capital  
Improvement Plan**

Response to NRS 350.013 1(c):

*(7) A discussion of its operational costs and revenue sources, for the ensuing 5 fiscal years, associated with each project included in its plan for capital improvement submitted*



**Las Vegas Valley Water District  
Operating and Capital Budget  
Debt Management Policy**  
Fiscal Year Ending June 30, 2020

*pursuant to paragraph (c), if those costs and revenues are expected to affect the tax rate.*

As illustrated in the Net Pledged Revenues table in the Appendix of this document, operational costs are funded with water revenues. It is the LVVWD's intent to finance future operational costs with water revenues and will therefore have no effect on property taxes. New capital improvement projects will allow the LVVWD to expand the service area, thereby expanding the revenue base. New capital improvement projects will be funded with water revenues or bonds payable from water revenues.

## **Miscellaneous Items**

### **Refundings.**

A refunding is generally the underwriting of a new bond issue whose proceeds are used to redeem an outstanding issue. Key definitions are described as follows:

- **Advance Refunding** - A method of providing for payment of debt service on a bond until the first call date or designated call date from available funds. Advance refundings are done by issuing a new bond or using available funds and investing the proceeds in an escrow account in a portfolio of U.S. government securities structured to provide enough cash flow to pay all debt service on the refunded bonds.
- **Current Refunding** - The duration of the escrow is 90 days or less.

- **Gross Savings** - Difference between debt service on refunded bonds less debt service on refunding bonds less any contribution from LVVWD's reserves or debt service fund.
- **Present Value Savings** - Present value of gross savings discounted at the refunding bond arbitrage yield to the closing date plus accrued interest less any contribution from LVVWD's reserves or debt service fund.

Prior to beginning a refunding bond issue the LVVWD will review an estimate of the savings achievable from the refunding. The LVVWD may also review a pro forma schedule estimating the savings assuming that the refunding is done at various points in the future.

The LVVWD will generally consider refunding outstanding bonds if one or more of the following conditions exist:



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2020

- For advance refundings, present value savings are estimated to be at least 5 percent of the par amount of the refunded or refunding bonds (whichever is greater) when initially presented to the Board and escrow efficiency is at least 60 percent.
- Escrow efficiency is defined as net present value savings divided by the sum of net present value savings and negative arbitrage in the escrow.
- For current refundings, present value savings are at least 3 percent of the par amount of refunded or refunding bonds.
- The bonds to be refunded have restrictive or outdated covenants.
- Restructuring debt is deemed to be desirable.

The LVVWD may pursue a refunding not meeting the above criteria if:

- Present value savings exceed the costs of issuing the bonds and the date of the option to call is 3 years or less.

**Debt Structure.**

**Maturity Structures.** The term of the LVVWD debt issues will not extend beyond the useful life of the project or equipment financed. As appropriate, debt issued by the LVVWD should be structured to provide for level debt service. Deferring the repayment of principal should generally be avoided except in instances where it will take a period of time before project or other revenues of the LVVWD are sufficient to pay debt service, or

where the deferral of principal allows the LVVWD to achieve combined level debt service on all outstanding bonds.

**Bond Insurance.** The purchase of bond insurance may be considered as part of the structure of a bond issue. A bond insurance policy may be purchased by either an issuer or by an underwriter for either an entire issue or specific maturities to guarantee the payment of principal and interest. While this security provides a higher credit rating and thus a lower borrowing cost for an issuer, such cost savings must be measured against the premium required for such insurance. The decision to purchase insurance directly versus bidder's option is based on:

- Market volatility
- Current investor demand for insured bonds
- Level of insurance premiums
- Ability of the LVVWD to purchase bond insurance from bond proceeds

Bond insurance can be purchased directly by the LVVWD prior to the bond sale (direct purchase) or at the underwriter's option and expense (bidder's option).

When insurance is purchased directly by the LVVWD, the present value of the estimated debt service savings from insurance should be greater than the insurance premium. The bond insurance company will usually be chosen based on an estimate of the greatest net present value insurance benefit (present value of debt service savings less insurance premium).

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2020

**Fixed and Variable Rate Debt.**

The LVVWD may issue fixed rate debt or variable rate debt, including (but not limited to) Commercial Paper, Variable Rate Demand Obligations, Index Bonds, or Extendible Commercial Paper.

- Fixed rate debt includes bonds that are issued generally for terms of 1 year to 30 years at a rate that does not change over the life of the bond.
- Variable rate debt includes debt that will pay an interest rate which varies, and is generally reset either daily, weekly or monthly. This rate may be based on remarketing or on a generally accepted index, such as LIBOR or SIFMA. In most markets, the interest rate on variable rate debt will be lower than the interest rate on fixed rate debt since the interest rate is based on a shorter term. But, variable rate debt has more interest rate risk as the interest rate is not set for the life of the bonds. In times of market stress, short-term interest

rates have suffered significant increases, albeit for short periods of time.

Since variable rate debt has more interest rate risk, the LVVWD will not issue more than 25 percent of its debt in the form of variable rate debt. The CFO, in consultation with the General Counsel and the LVVWD's Financial Advisors, will determine the appropriate form of variable rate debt, subject to the approval of the Board.

**Financing Sources.** The LVVWD will evaluate available State and County bond financing programs before choosing the financing source. The LVVWD will consider utilizing a State or County program if bonds can be sold by the State or County in a manner meeting the LVVWD's timing needs and if it is determined by the CFO that such program is the most cost-effective financing vehicle, and such determination is approved by the Board.

Las Vegas Valley Water District  
Operating and Capital Budget  
Debt Management Policy  
Fiscal Year Ending June 30, 2020

## Chief Financial Officer Information

### NRS 350.013 Subsection 1(e)

*A statement containing the name, title, mailing address and telephone number of the chief financial officer of the municipality.*

NAME: E. Kevin Bethel  
TITLE: Chief Financial Officer  
ADDRESS: 1001 South Valley View Boulevard  
Las Vegas, NV 89153  
TELEPHONE: (702) 822-8809

## **Appendix**

### **Debt Service and Pledged Revenue Tables**

1. Five Year Schedule of Debt Service Requirements
2. Combined Schedules of Debt Service Requirements
3. Net Pledged Revenues
4. Existing and Proposed Debt Service
5. Existing Debt Service by Company

**Las Vegas Valley Water District  
Operating and Capital Budget  
Debt Management Policy**  
Fiscal Year Ending June 30, 2020

**Five Year Schedule of Debt Service Requirements  
As of June 30, 2019**

| Type of Debt                   | Fiscal Year          |                      |                      |                      |                      |
|--------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                                | 2020                 | 2021                 | 2022                 | 2023                 | 2024                 |
| G/O Revenue/LVVWD <sup>1</sup> | \$ 70,457,009        | \$ 71,707,055        | \$ 71,839,371        | \$ 71,957,287        | \$ 71,928,195        |
| G/O Revenue/SNWA <sup>2</sup>  | 575,787,171          | 167,324,479          | 167,747,350          | 168,023,297          | 168,025,369          |
| Total <sup>3</sup>             | <u>\$646,244,180</u> | <u>\$239,031,535</u> | <u>\$239,586,722</u> | <u>\$239,980,585</u> | <u>\$239,953,565</u> |

<sup>1</sup> This is debt service on \$797,943,969 existing outstanding principal balance of LVVWD debt secured by LVVWD water system revenues.

<sup>2</sup> This is debt service on \$2,235,280,000 outstanding principal balance of LVVWD debt secured by SNWA pledged revenues in accordance with interlocal agreements.

<sup>3</sup> Fiscal year 2019-20 debt service includes \$400,000,000 of tax-exempt commercial paper notes. LVVWD expects the SNWA to pay only the interest due on those notes when they mature and roll the principal into new commercial paper notes.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2020

**Combined Schedule of Debt Service Requirements**  
**As of June 30, 2019**

| Fiscal<br>Year | Principal               | Interest                | Total                   |
|----------------|-------------------------|-------------------------|-------------------------|
| 2020           | \$ 511,052,714          | \$ 135,191,466          | \$ 646,244,180          |
| 2021           | 119,486,568             | 119,544,966             | 239,031,535             |
| 2022           | 125,564,005             | 114,022,716             | 239,586,722             |
| 2023           | 131,957,790             | 108,022,795             | 239,980,585             |
| 2024           | 138,269,953             | 101,683,611             | 239,953,565             |
| 2025           | 135,601,529             | 94,989,588              | 230,591,118             |
| 2026           | 142,409,552             | 88,249,812              | 230,659,364             |
| 2027           | 130,904,055             | 81,297,212              | 212,201,267             |
| 2028           | 90,905,075              | 75,366,515              | 166,271,589             |
| 2029           | 82,042,647              | 71,376,375              | 153,419,022             |
| 2030           | 85,046,809              | 67,565,746              | 152,612,554             |
| 2031           | 78,452,598              | 63,604,015              | 142,056,613             |
| 2032           | 98,705,055              | 59,985,213              | 158,690,268             |
| 2033           | 106,749,218             | 55,351,130              | 162,100,348             |
| 2034           | 111,865,129             | 50,393,366              | 162,258,495             |
| 2035           | 116,480,862             | 45,226,842              | 161,707,704             |
| 2036           | 121,275,283             | 39,883,334              | 161,158,617             |
| 2037           | 107,795,126             | 34,285,410              | 142,080,535             |
| 2038           | 135,800,000             | 29,173,756              | 164,973,756             |
| 2039           | 162,790,000             | 22,618,605              | 185,408,605             |
| 2040           | 63,480,000              | 14,514,675              | 77,994,675              |
| 2041           | 48,360,000              | 11,319,000              | 59,679,000              |
| 2042           | 50,675,000              | 9,004,950               | 59,679,950              |
| 2043           | 29,495,000              | 6,579,750               | 36,074,750              |
| 2044           | 30,920,000              | 5,149,950               | 36,069,950              |
| 2045           | 32,425,000              | 3,650,650               | 36,075,650              |
| 2046           | 33,995,000              | 2,078,000               | 36,073,000              |
| 2047           | 5,255,000               | 428,800                 | 5,683,800               |
| 2048           | 5,465,000               | 218,600                 | 5,683,600               |
| Totals         | <u>\$ 3,033,223,969</u> | <u>\$ 1,510,776,848</u> | <u>\$ 4,544,000,816</u> |

Secured by:

LVVWD Water  
Revenues

\$ 797,943,969      \$ 372,418,368      \$ 1,170,362,337

SNWA Pledged

Revenues      \$ 2,235,280,000      \$ 1,138,358,479      \$ 3,373,638,479

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2020

**Net Pledged Revenues**  
**For the Fiscal Years Ended June 30**

| Fiscal Year                                | 2016                 | 2017                 | 2018                 | Budgeted<br>2019     | Budgeted<br>2020     |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|
| Revenues                                   |                      |                      |                      |                      |                      |
| Operating Income                           | \$ 339,986,389       | \$ 354,888,515       | \$ 372,308,125       | \$ 388,292,527       | \$ 406,970,406       |
| Facilities Connection Charges              | 13,239,500           | 12,241,154           | 16,171,119           | 15,457,665           | 16,727,513           |
| Investment Income <sup>1</sup>             | 2,577,164            | 1,042,888            | 2,256,083            | 3,331,271            | 4,721,991            |
| Total Revenues                             | 355,803,053          | 368,172,557          | 390,735,327          | 407,081,463          | 428,419,910          |
| Operating Expenses                         | 243,312,822          | 250,732,755          | 255,815,009          | 295,865,590          | 328,292,799          |
| Net Pledged Revenues                       | 112,490,231          | 117,439,802          | 134,920,318          | 111,215,873          | 100,127,111          |
| Annual Debt Service <sup>2</sup>           | 58,809,008           | 62,150,502           | 61,471,883           | 70,601,752           | 70,457,009           |
| Net Pledged Revenues<br>After Debt Service | <u>\$ 53,681,223</u> | <u>\$ 55,289,300</u> | <u>\$ 73,448,435</u> | <u>\$ 40,614,121</u> | <u>\$ 29,670,102</u> |
| Debt Coverage Ratio                        | 1.91                 | 1.89                 | 2.19                 | 1.58                 | 1.42                 |

<sup>1</sup> Includes realized investment earnings on unrestricted assets only. Does not include unrealized gains or losses.

<sup>2</sup> LVVWD has issued debt for SNWA that is supported by a pledge of SNWA revenues. Debt service reported here is only for debt directly supported by LVVWD operating revenues. It does not include debt issued for SNWA and supported by SNWA pledged revenues.



**Las Vegas Valley Water District  
Operating and Capital Budget  
Debt Management Policy  
Fiscal Year Ending June 30, 2020**

**Existing and Proposed Debt Service**

As of June 30, 2019

| Existing Debt <sup>1</sup> |                |                |                  | Proposed Debt \$50 Million SRF Program <sup>2</sup> |               |               |               |
|----------------------------|----------------|----------------|------------------|---|---------------|---------------|---------------|
| Fiscal Year                | Principal      | Interest       | Total            | Fiscal Year   | Principal     | Interest      | Total         |
| 2020                       | \$ 34,153,000  | \$ 33,893,394  | \$ 68,046,394    | 2020  | \$ 1,364,714  | \$ 1,045,901  | \$ 2,410,615  |
| 2021                       | 35,818,000     | 32,328,010     | 68,146,010       | 2021  | 2,503,568     | 1,057,477     | 3,561,045     |
| 2022                       | 37,633,000     | 30,645,326     | 68,278,326       | 2022  | 2,561,005     | 1,000,040     | 3,561,045     |
| 2023                       | 39,513,000     | 28,883,242     | 68,396,242       | 2023  | 2,619,790     | 941,256       | 3,561,045     |
| 2024                       | 41,340,000     | 27,027,150     | 68,367,150       | 2024  | 2,679,953     | 881,092       | 3,561,045     |
| 2025                       | 43,430,000     | 25,077,950     | 68,507,950       | 2025  | 2,741,529     | 819,516       | 3,561,045     |
| 2026                       | 45,580,000     | 23,085,113     | 68,665,113       | 2026  | 2,804,552     | 756,494       | 3,561,045     |
| 2027                       | 38,775,000     | 20,918,725     | 59,693,725       | 2027  | 2,869,055     | 691,990       | 3,561,045     |
| 2028                       | 32,160,000     | 19,096,569     | 51,256,569       | 2028  | 2,935,075     | 625,971       | 3,561,045     |
| 2029                       | 33,750,000     | 17,637,501     | 51,387,501       | 2029  | 3,002,647     | 558,399       | 3,561,045     |
| 2030                       | 35,420,000     | 16,105,171     | 51,525,171       | 2030  | 3,071,809     | 489,237       | 3,561,045     |
| 2031                       | 37,170,000     | 14,495,718     | 51,665,718       | 2031  | 3,142,598     | 418,447       | 3,561,045     |
| 2032                       | 38,980,000     | 12,834,473     | 51,814,473       | 2032  | 3,215,055     | 345,990       | 3,561,045     |
| 2033                       | 31,810,000     | 11,089,553     | 42,899,553       | 2033  | 3,289,218     | 271,827       | 3,561,045     |
| 2034                       | 33,270,000     | 9,790,200      | 43,060,200       | 2034  | 3,365,129     | 195,916       | 3,561,045     |
| 2035                       | 34,820,000     | 8,423,926      | 43,243,926       | 2035  | 2,715,862     | 118,215       | 2,834,078     |
| 2036                       | 36,425,000     | 6,992,958      | 43,417,958       | 2036  | 2,040,283     | 66,827        | 2,107,110     |
| 2037                       | 19,370,000     | 5,488,309      | 24,858,309       | 2037  | 1,570,126     | 23,751        | 1,593,876     |
| 2038                       | 20,210,000     | 4,648,456      | 24,858,456       | 2038  | -             | -             | -             |
| 2039                       | 20,230,000     | 3,766,155      | 23,996,155       | 2039  | -             | -             | -             |
| 2040                       | 21,320,000     | 2,678,325      | 23,998,325       | 2040  | -             | -             | -             |
| 2041                       | 4,155,000      | 1,531,000      | 5,686,000        | 2041  | -             | -             | -             |
| 2042                       | 4,320,000      | 1,364,800      | 5,684,800        | 2042  | -             | -             | -             |
| 2043                       | 4,495,000      | 1,192,000      | 5,687,000        | 2043  | -             | -             | -             |
| 2044                       | 4,670,000      | 1,012,200      | 5,682,200        | 2044  | -             | -             | -             |
| 2045                       | 4,860,000      | 825,400        | 5,685,400        | 2045  | -             | -             | -             |
| 2046                       | 5,055,000      | 631,000        | 5,686,000        | 2046  | -             | -             | -             |
| 2047                       | 5,255,000      | 428,800        | 5,683,800        | 2047  | -             | -             | -             |
| 2048                       | 5,465,000      | 218,600        | 5,683,600        | 2048  | -             | -             | -             |
| Totals                     | \$ 749,452,000 | \$ 362,110,022 | \$ 1,111,562,022 | Totals  | \$ 48,491,969 | \$ 10,308,346 | \$ 58,800,315 |

| No Additional Debt Planned in 2019-20 |           |          |       | Existing & Proposed Combined |                |                |                  |
|---------------------------------------|-----------|----------|-------|------------------------------|----------------|----------------|------------------|
| Fiscal Year                           | Principal | Interest | Total | Fiscal Year                  | Principal      | Interest       | Total            |
| 2020                                  |           |          |       | 2020                         | \$ 35,517,714  | \$ 34,939,295  | \$ 70,457,009    |
| 2021                                  |           |          |       | 2021                         | 38,321,568     | 33,385,487     | 71,707,055       |
| 2022                                  |           |          |       | 2022                         | 40,194,005     | 31,645,366     | 71,839,371       |
| 2023                                  |           |          |       | 2023                         | 42,132,790     | 29,824,498     | 71,957,287       |
| 2024                                  |           |          |       | 2024                         | 44,019,953     | 27,908,242     | 71,928,195       |
| 2025                                  |           |          |       | 2025                         | 46,171,529     | 25,897,466     | 72,068,995       |
| 2026                                  |           |          |       | 2026                         | 48,384,552     | 23,841,606     | 72,226,158       |
| 2027                                  |           |          |       | 2027                         | 41,644,055     | 21,610,715     | 63,254,770       |
| 2028                                  |           |          |       | 2028                         | 35,095,075     | 19,722,540     | 54,817,614       |
| 2029                                  |           |          |       | 2029                         | 36,752,647     | 18,195,900     | 54,948,547       |
| 2030                                  |           |          |       | 2030                         | 38,491,809     | 16,594,408     | 55,086,217       |
| 2031                                  |           |          |       | 2031                         | 40,312,598     | 14,914,165     | 55,226,763       |
| 2032                                  |           |          |       | 2032                         | 42,195,055     | 13,180,463     | 55,375,518       |
| 2033                                  |           |          |       | 2033                         | 35,099,218     | 11,361,380     | 46,460,598       |
| 2034                                  |           |          |       | 2034                         | 36,635,129     | 9,986,116      | 46,621,245       |
| 2035                                  |           |          |       | 2035                         | 37,535,862     | 8,542,142      | 46,078,004       |
| 2036                                  |           |          |       | 2036                         | 38,465,283     | 7,059,784      | 45,525,067       |
| 2037                                  |           |          |       | 2037                         | 20,940,126     | 5,512,060      | 26,452,185       |
| 2038                                  |           |          |       | 2038                         | 20,210,000     | 4,648,456      | 24,858,456       |
| 2039                                  |           |          |       | 2039                         | 20,230,000     | 3,766,155      | 23,996,155       |
| 2040                                  |           |          |       | 2040                         | 21,320,000     | 2,678,325      | 23,998,325       |
| 2041                                  |           |          |       | 2041                         | 4,155,000      | 1,531,000      | 5,686,000        |
| 2042                                  |           |          |       | 2042                         | 4,320,000      | 1,364,800      | 5,684,800        |
| 2043                                  |           |          |       | 2043                         | 4,495,000      | 1,192,000      | 5,687,000        |
| 2044                                  |           |          |       | 2044                         | 4,670,000      | 1,012,200      | 5,682,200        |
| 2045                                  |           |          |       | 2045                         | 4,860,000      | 825,400        | 5,685,400        |
| 2046                                  |           |          |       | 2046                         | 5,055,000      | 631,000        | 5,686,000        |
| 2047                                  |           |          |       | 2047                         | 5,255,000      | 428,800        | 5,683,800        |
| 2048                                  |           |          |       | 2048                         | 5,465,000      | 218,600        | 5,683,600        |
| Totals                                | \$ -      | \$ -     | \$ -  | Totals                       | \$ 797,943,969 | \$ 372,418,368 | \$ 1,170,362,337 |

<sup>1</sup> Excludes debt issued on behalf of SNWA

<sup>2</sup> State Revolving Fund Loans. Maximum of \$50 million to be drawn in three loans of \$20, \$15, and \$15.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Debt Management Policy  
Fiscal Year Ending June 30, 2020**

**Existing Debt Service by Company**

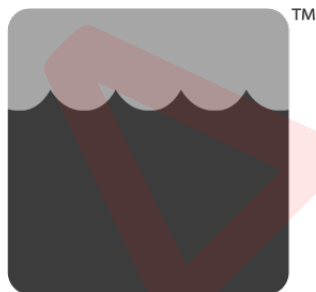
As of June 30, 2019

| Supported by LVVWD Pledged Revenues |                |                |                  | Supported by SNWA Pledged Revenues |                  |                  |                  |
|-------------------------------------|----------------|----------------|------------------|------------------------------------|------------------|------------------|------------------|
| Fiscal Year                         | Principal      | Interest       | Total            | Fiscal Year                        | Principal        | Interest         | Total            |
| 2020                                | \$ 35,517,714  | \$ 34,939,295  | \$ 70,457,009    | 2020                               | \$ 475,535,000   | \$ 100,252,171   | \$ 575,787,171   |
| 2021                                | 38,321,568     | 33,385,487     | 71,707,055       | 2021                               | 81,165,000       | 86,159,479       | 167,324,479      |
| 2022                                | 40,194,005     | 31,645,366     | 71,839,371       | 2022                               | 85,370,000       | 82,377,350       | 167,747,350      |
| 2023                                | 42,132,790     | 29,824,498     | 71,957,287       | 2023                               | 89,825,000       | 78,198,297       | 168,023,297      |
| 2024                                | 44,019,953     | 27,908,242     | 71,928,195       | 2024                               | 94,250,000       | 73,775,369       | 168,025,369      |
| 2025                                | 46,171,529     | 25,897,466     | 72,068,995       | 2025                               | 89,430,000       | 69,092,122       | 158,522,122      |
| 2026                                | 48,384,552     | 23,841,606     | 72,226,158       | 2026                               | 94,025,000       | 64,408,206       | 158,433,206      |
| 2027                                | 41,644,055     | 21,610,715     | 63,254,770       | 2027                               | 89,260,000       | 59,686,496       | 148,946,496      |
| 2028                                | 35,095,075     | 19,722,540     | 54,817,614       | 2028                               | 55,810,000       | 55,643,975       | 111,453,975      |
| 2029                                | 36,752,647     | 18,195,900     | 54,948,547       | 2029                               | 45,290,000       | 53,180,475       | 98,470,475       |
| 2030                                | 38,491,809     | 16,594,408     | 55,086,217       | 2030                               | 46,555,000       | 50,971,338       | 97,526,338       |
| 2031                                | 40,312,598     | 14,914,165     | 55,226,763       | 2031                               | 38,140,000       | 48,689,850       | 86,829,850       |
| 2032                                | 42,195,055     | 13,180,463     | 55,375,518       | 2032                               | 56,510,000       | 46,804,750       | 103,314,750      |
| 2033                                | 35,099,218     | 11,361,380     | 46,460,598       | 2033                               | 71,650,000       | 43,989,750       | 115,639,750      |
| 2034                                | 36,635,129     | 9,986,116      | 46,621,245       | 2034                               | 75,230,000       | 40,407,250       | 115,637,250      |
| 2035                                | 37,535,862     | 8,542,142      | 46,078,004       | 2035                               | 78,945,000       | 36,684,700       | 115,629,700      |
| 2036                                | 38,465,283     | 7,059,784      | 45,525,067       | 2036                               | 82,810,000       | 32,823,550       | 115,633,550      |
| 2037                                | 20,940,126     | 5,512,060      | 26,452,185       | 2037                               | 86,855,000       | 28,773,350       | 115,628,350      |
| 2038                                | 20,210,000     | 4,648,456      | 24,858,456       | 2038                               | 115,590,000      | 24,525,300       | 140,115,300      |
| 2039                                | 20,230,000     | 3,766,155      | 23,996,155       | 2039                               | 142,560,000      | 18,852,450       | 161,412,450      |
| 2040                                | 21,320,000     | 2,678,325      | 23,998,325       | 2040                               | 42,160,000       | 11,836,350       | 53,996,350       |
| 2041                                | 4,155,000      | 1,531,000      | 5,686,000        | 2041                               | 44,205,000       | 9,788,000        | 53,993,000       |
| 2042                                | 4,320,000      | 1,364,800      | 5,684,800        | 2042                               | 46,355,000       | 7,640,150        | 53,995,150       |
| 2043                                | 4,495,000      | 1,192,000      | 5,687,000        | 2043                               | 25,000,000       | 5,387,750        | 30,387,750       |
| 2044                                | 4,670,000      | 1,012,200      | 5,682,200        | 2044                               | 26,250,000       | 4,137,750        | 30,387,750       |
| 2045                                | 4,860,000      | 825,400        | 5,685,400        | 2045                               | 27,565,000       | 2,825,250        | 30,390,250       |
| 2046                                | 5,055,000      | 631,000        | 5,686,000        | 2046                               | 28,940,000       | 1,447,000        | 30,387,000       |
| 2047                                | 5,255,000      | 428,800        | 5,683,800        | 2047                               | -                | -                | -                |
| 2048                                | 5,465,000      | 218,600        | 5,683,600        | 2048                               | -                | -                | -                |
| Totals                              | \$ 797,943,969 | \$ 372,418,368 | \$ 1,170,362,337 | Totals                             | \$ 2,235,280,000 | \$ 1,138,358,479 | \$ 3,373,638,479 |

| LVVWD & SNWA Combined Debt Service |                  |                  |                  |
|------------------------------------|------------------|------------------|------------------|
| Fiscal Year                        | Principal        | Interest         | Total            |
| 2020                               | \$ 511,052,714   | \$ 135,191,466   | \$ 646,244,180   |
| 2021                               | 119,486,568      | 119,544,966      | 239,031,535      |
| 2022                               | 125,564,005      | 114,022,716      | 239,586,722      |
| 2023                               | 131,957,790      | 108,022,795      | 239,980,585      |
| 2024                               | 138,269,953      | 101,683,611      | 239,953,565      |
| 2025                               | 135,601,529      | 94,989,588       | 230,591,118      |
| 2026                               | 142,409,552      | 88,249,812       | 230,659,364      |
| 2027                               | 130,904,055      | 81,297,212       | 212,201,267      |
| 2028                               | 90,905,075       | 75,366,515       | 166,271,589      |
| 2029                               | 82,042,647       | 71,376,375       | 153,419,022      |
| 2030                               | 85,046,809       | 67,565,746       | 152,612,554      |
| 2031                               | 78,452,598       | 63,604,015       | 142,056,613      |
| 2032                               | 98,705,055       | 59,985,213       | 158,690,268      |
| 2033                               | 106,749,218      | 55,351,130       | 162,100,348      |
| 2034                               | 111,865,129      | 50,393,366       | 162,258,495      |
| 2035                               | 116,480,862      | 45,226,842       | 161,707,704      |
| 2036                               | 121,275,283      | 39,883,334       | 161,158,617      |
| 2037                               | 107,795,126      | 34,285,410       | 142,080,535      |
| 2038                               | 135,800,000      | 29,173,756       | 164,973,756      |
| 2039                               | 162,790,000      | 22,618,605       | 185,408,605      |
| 2040                               | 63,480,000       | 14,514,675       | 77,994,675       |
| 2041                               | 48,360,000       | 11,319,000       | 59,679,000       |
| 2042                               | 50,675,000       | 9,004,950        | 59,679,950       |
| 2043                               | 29,495,000       | 6,579,750        | 36,074,750       |
| 2044                               | 30,920,000       | 5,149,950        | 36,069,950       |
| 2045                               | 32,425,000       | 3,650,650        | 36,075,650       |
| 2046                               | 33,995,000       | 2,078,000        | 36,073,000       |
| 2047                               | 5,255,000        | 428,800          | 5,683,800        |
| 2048                               | 5,465,000        | 218,600          | 5,683,600        |
| Totals                             | \$ 3,033,223,969 | \$ 1,510,776,848 | \$ 4,544,000,816 |

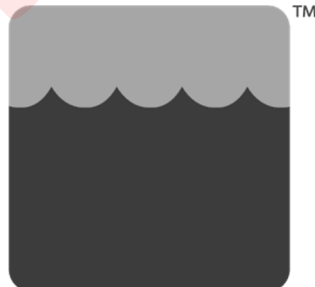
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# SECTION 8

## STATISTICAL INFORMATION

|   |      |
|---|------|
| Table of Contents .....   | 8-1  |
| Demographic Statistics .....  | 8-2  |
| Top Ten Employers .....   | 8-3  |
| Residential Real Estate.....  | 8-4  |
| Secured Tax Roll.....   | 8-5  |
| Temperature & Rainfall.....   | 8-6  |
| Average Monthly Consumption per Active Service .....                                | 8-7  |
| Average Annual Water Billed per Active Service by Class of Service.....             | 8-8  |
| Percent of Total Water Billed by Class of Service .....                             | 8-9  |
| Average Consumption and Monthly Revenue from<br>Water Sales per Active Account..... | 8-10 |
| Water Billed by Month.....  | 8-11 |



**LAS VEGAS VALLEY WATER DISTRICT**  
**FISCAL YEAR 2019-20**  
**OPERATING AND CAPITAL BUDGET**



**Las Vegas Valley Water District  
Statistical Summary**

| <b><u>Page</u></b> | <b><u>Description</u></b>  |
|--------------------|--|
| 8-1                | Cover Page   |
| 8-2                | Demographic Statistics   |
| 8-3                | Top Ten Employers  |
| 8-4                | Residential Real Estate  |
| 8-5                | Secured Tax Roll   |
| 8-6                | Temperature & Rainfall   |
| 8-7                | Average Monthly Consumption Per Active Service                     |
| 8-8                | Average Annual Water Billed per Active Service By Class of Service |
| 8-9                | Percent of Total Water Billed by Class of Service                  |
| 8-10               | Average Consumption and Revenue from Water Sales                   |
| 8-11               | Water Billed by Month  |

**Las Vegas Valley Water District  
Operating and Capital Budget  
Statistical Information**

Fiscal Year Ending June 30, 2020

**Demographic Statistics  
Clark County, Nevada  
Five Calendar Years**

| Calendar Year | Clark County Population <sup>(1)</sup> | Per Capita Income <sup>(2)</sup> | Clark County Personal Income (In Million \$) <sup>(2)</sup> | Median Household Income <sup>(3)</sup> |
|---------------|--|----------------------------------|---|--|
| 2018          | 2,284,616                              | N/A                              | N/A   | N/A                                    |
| 2017          | 2,248,390                              | 44,217                           | 97,457  | 54,882                                 |
| 2016          | 2,205,207                              | 42,284                           | 91,150  | 52,629                                 |
| 2015          | 2,147,641                              | 41,915                           | 88,412  | 51,575                                 |
| 2014          | 2,102,238                              | 39,860                           | 82,306  | 52,070                                 |

| Calendar Year | LVVWD Service Area Population | School Enrollment <sup>(4)</sup> | Total Labor Force <sup>(5)</sup> | Unemployment Rate <sup>(6)</sup> |
|---------------|-------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 2018          | 1,527,068                     | 322,266                          | N/A                              | N/A                              |
| 2017          | 1,502,604                     | 322,436                          | 1,072,593                        | 5.2%                             |
| 2016          | 1,475,458                     | 322,122                          | 1,048,043                        | 5.8%                             |
| 2015          | 1,436,617                     | 320,339                          | 1,039,435                        | 6.9%                             |
| 2014          | 1,405,583                     | 318,592                          | 1,019,945                        | 8.0%                             |

**Sources:**

(1) Clark County Comprehensive Planning Department.

(2) U.S. Bureau of Economic Analysis as reported for the Las Vegas-Paradise MSA (which is comprised of Clark County).

(3) U.S. Census Bureau, American Community Survey.

(4) Clark County School District, Average Daily Membership. Based on school Year.

(5) The Department of Employment, Training & Rehabilitation.

(6) Bureau of Labor Statistics (annual averages).



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Statistical Information**  
Fiscal Year Ending June 30, 2020

**Top Ten Employers<sup>(1)</sup>**  
**Clark County, Nevada**  
**Calendar Year 2018**

| <b>Employer Trade name</b>     | <b>Employees <sup>(2)</sup></b> | <b>Ranking</b> |
|--------------------------------|---------------------------------|----------------|
| Venetian Hotel & Casino        | 10,000 or More                  | 1              |
| Aquarius Casino Resort         | 5,000 to 9,999                  | 2              |
| Caesars Palace Las Vegas Hotel | 5,000 to 9,999                  | 3              |
| Flamingo Hotel                 | 5,000 to 9,999                  | 4              |
| Las Vegas Metropolitan         | 5,000 to 9,999                  | 5              |
| Las Vegas Metropolitan Police  | 5,000 to 9,999                  | 6              |
| Las Vegas Sands Corp           | 5,000 to 9,999                  | 7              |
| Mandalay Bay                   | 5,000 to 9,999                  | 8              |
| MGM Grand                      | 5,000 to 9,999                  | 9              |
| Orleans Hotel & Casino         | 5,000 to 9,999                  | 10             |

Total Labor Force 1,072,593

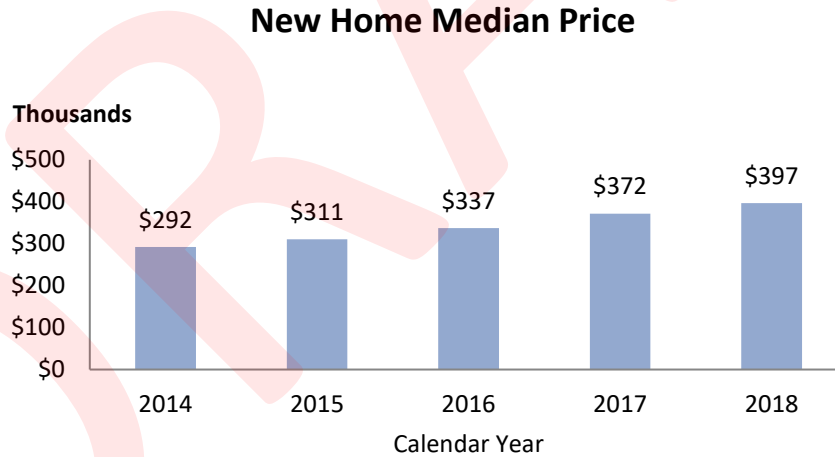
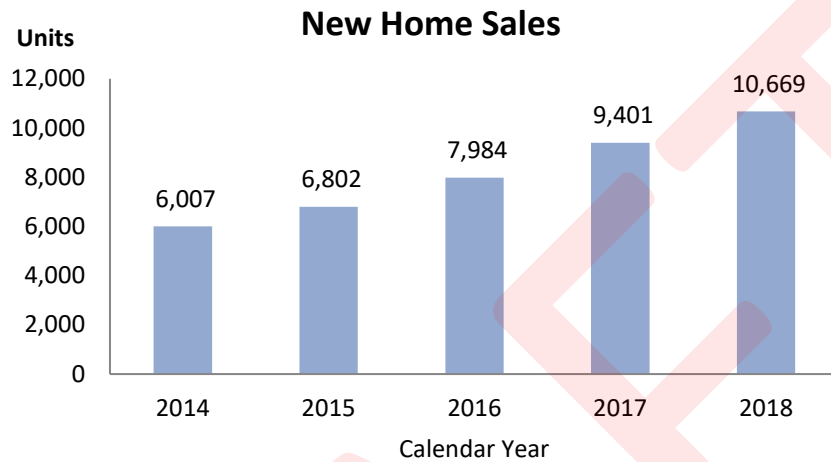
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Sources:

(1) Nevada Department of Employment, Training & Rehabilitation (DETR). The data is for the second half of the calendar year 2018. In 2018, DETR changed the data source from internally created to a third party provider (Infogroup). Infogroup collects the data at the establishment level not rolled up into a collective whole. For example in the current method, the data set lists each school and/or department separately instead of aggregating it.

(2) Nevada law prohibits the disclosure of exact employee counts. All employee counts are shown in ranges.

## Residential Real Estate Clark County, Nevada



Sources:

(1) New Home Sales are sourced from the Home Builders Research, Inc. - The Las Vegas Housing Market Letter.

(2) New Home Median Prices are as of December of each year and are sourced from the Home Builders Research, Inc. - The Las Vegas Housing Market Letter.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Statistical Information**

Fiscal Year Ending June 30, 2020

**Secured Tax Roll  
Clark County, Nevada  
2018 - 19**

| <u>Taxpayer</u>                 | <u>Taxable Assessed</u> | <u>Taxable Appraised</u> |
|---------------------------------|-------------------------|--------------------------|
| 1. MGM Resorts International    | \$ 2,983,831,250        | \$ 8,525,232,143         |
| 2. NV Energy                    | 1,758,478,701           | 5,024,224,860            |
| 3. Caesar's Entertainment Corp. | 1,613,171,094           | 4,609,060,269            |
| 4. Wynn Resorts Limited         | 790,930,929             | 2,259,802,654            |
| 5. Las Vegas Sands Corporation  | 778,386,751             | 2,223,962,146            |
| 6. Station Casinos LLC          | 709,047,214             | 2,025,849,183            |
| 7. Boyd Gaming Corporation      | 428,466,235             | 1,224,189,243            |
| 8. Howard Hughes Corporation    | 393,465,355             | 1,124,186,729            |
| 9. Hilton Grand Vacations       | 265,373,448             | 758,209,851              |
| 10. Nevada Property 1 LLC       | 260,179,963             | 743,371,323              |
|                                 | <u>\$ 9,981,330,940</u> | <u>\$ 28,518,088,401</u> |

SOURCE: Clark County Assessor's Report Dated April 1, 2018

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Statistical Information**

Fiscal Year Ending June 30, 2020

## Temperature and Rainfall

Average Maximum and Minimum Daily Temperature  
in Degrees Fahrenheit and Monthly Rainfall in Inches

| Month   | 2013        |             |            | 2014        |             |            | 2015        |             |            |
|---|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|
|   | Temperature |             |            | Temperature |             |            | Temperature |             |            |
|   | Max.        | Min.        | Rainfall   | Max.        | Min.        | Rainfall   | Max.        | Min.        | Rainfall   |
| January   | 56          | 36          | 0.4        | 64          | 42          | 0.0        | 62          | 44          | 0.9        |
| February  | 62          | 41          | 0.0        | 68          | 46          | 0.3        | 71          | 49          | 0.5        |
| March   | 75          | 54          | 0.2        | 74          | 52          | 0.0        | 78          | 56          | 0.3        |
| April   | 82          | 58          | 0.0        | 81          | 59          | 0.0        | 80          | 58          | 0.3        |
| May   | 89          | 67          | 0.0        | 90          | 67          | 0.0        | 85          | 64          | 0.2        |
| June  | 104         | 79          | 0.0        | 101         | 77          | 0.0        | 104         | 80          | 0.0        |
| July  | 105         | 84          | 0.3        | 105         | 83          | 0.2        | 101         | 80          | 0.2        |
| August  | 100         | 79          | 0.3        | 99          | 78          | 0.4        | 104         | 82          | 0.7        |
| September   | 91          | 71          | 0.4        | 96          | 74          | 0.6        | 98          | 76          | 0.0        |
| October   | 78          | 56          | 0.0        | 86          | 63          | 0.0        | 84          | 65          | 1.2        |
| November  | 67          | 48          | 1.4        | 70          | 49          | 0.0        | 64          | 45          | 0.0        |
| December  | 57          | 38          | 0.1        | 58          | 44          | 0.3        | 56          | 38          | 0.0        |
| <b>Average Annual Temperature/<br/>Total Rainfall</b> | <b>80.5</b> | <b>59.1</b> | <b>3.0</b> | <b>82.6</b> | <b>61.3</b> | <b>1.8</b> | <b>82.2</b> | <b>61.3</b> | <b>4.3</b> |

| Month   | 2016        |             |            | 2017        |             |            | 2018        |             |            |
|---|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|
|   | Temperature |             |            | Temperature |             |            | Temperature |             |            |
|   | Max.        | Min.        | Rainfall   | Max.        | Min.        | Rainfall   | Max.        | Min.        | Rainfall   |
| January   | 57          | 40          | 0.5        | 57          | 42          | 0.9        | 63          | 44          | 1.5        |
| February  | 70          | 46          | 0.1        | 65          | 49          | 0.6        | 64          | 44          | 0.0        |
| March   | 75          | 53          | 0.0        | 77          | 54          | 0.0        | 70          | 50          | 0.3        |
| April   | 79          | 58          | 2.3        | 81          | 59          | 0.0        | 84          | 61          | 0.0        |
| May   | 86          | 65          | 0.0        | 89          | 66          | 0.1        | 90          | 68          | 0.2        |
| June  | 105         | 81          | 0.5        | 105         | 79          | 0.0        | 103         | 79          | 0.0        |
| July  | 107         | 84          | 0.2        | 107         | 85          | 0.1        | 107         | 85          | 0.8        |
| August  | 102         | 80          | 0.2        | 103         | 81          | 0.2        | 105         | 84          | 0.1        |
| September   | 93          | 71          | 0.0        | 92          | 72          | 0.5        | 100         | 77          | 0.0        |
| October   | 84          | 64          | 0.2        | 84          | 60          | 0.0        | 79          | 61          | 0.1        |
| November  | 71          | 51          | 0.0        | 73          | 53          | 0.0        | 68          | 48          | 0.2        |
| December  | 57          | 40          | 0.8        | 63          | 42          | 0.0        | 55          | 40          | 0.2        |
| <b>Average Annual Temperature/<br/>Total Rainfall</b> | <b>82.1</b> | <b>61.0</b> | <b>4.8</b> | <b>82.9</b> | <b>61.7</b> | <b>2.4</b> | <b>82.3</b> | <b>61.5</b> | <b>3.4</b> |

Las Vegas Valley Water District  
Operating and Capital Budget  
Statistical Information  
Fiscal Year Ending June 30, 2020

### Average Monthly Consumption Per Active Service Thousands of Gallons

| Month                 | 2014         | 2015         | 2016         | 2017         | 2018         | Average      |
|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| January               | 13.9         | 13.3         | 14.8         | 13.6         | 15.1         | 14.1         |
| February              | 15.0         | 14.2         | 13.5         | 12.3         | 13.3         | 13.7         |
| March                 | 18.1         | 17.6         | 19.3         | 17.1         | 17.6         | 17.9         |
| April                 | 22.3         | 22.8         | 22.2         | 22.7         | 20.3         | 22.1         |
| May                   | 26.3         | 25.8         | 21.7         | 25.6         | 26.0         | 25.1         |
| June                  | 33.8         | 29.5         | 30.7         | 33.0         | 31.0         | 31.6         |
| July                  | 35.2         | 34.3         | 33.6         | 34.0         | 32.7         | 34.0         |
| August                | 34.7         | 31.6         | 33.1         | 34.7         | 32.3         | 33.3         |
| September             | 27.2         | 28.1         | 29.7         | 29.6         | 30.2         | 29.0         |
| October               | 21.2         | 23.5         | 25.5         | 24.1         | 25.9         | 24.0         |
| November              | 20.5         | 20.6         | 17.3         | 19.5         | 18.4         | 19.3         |
| December              | 13.1         | 14.2         | 14.5         | 15.3         | 15.3         | 14.5         |
| <b>Total for Year</b> | <b>281.3</b> | <b>275.5</b> | <b>275.9</b> | <b>281.5</b> | <b>278.1</b> | <b>278.5</b> |
| <b>Average Month</b>  | <b>23.4</b>  | <b>23.0</b>  | <b>23.0</b>  | <b>23.5</b>  | <b>23.2</b>  | <b>23.2</b>  |
| <b>Maximum Month</b>  | <b>35.2</b>  | <b>34.3</b>  | <b>33.6</b>  | <b>34.7</b>  | <b>32.7</b>  | <b>34.0</b>  |
| <b>Minimum Month</b>  | <b>13.1</b>  | <b>13.3</b>  | <b>13.5</b>  | <b>12.3</b>  | <b>13.3</b>  | <b>13.7</b>  |

Las Vegas Valley Water District  
Operating and Capital Budget  
Statistical Information  
Fiscal Year Ending June 30, 2020

## Average Annual Water Billed Per Active Service By Class of Service Thousands of Gallons

| Class of Service                  | 2014          | 2015          | 2016          | 2017          | 2018          |
|-----------------------------------|---------------|---------------|---------------|---------------|---------------|
| Residential - single service      | 137           | 133           | 131           | 133           | 133           |
| Residential - duplex/tri&fourplex | 242           | 242           | 240           | 248           | 242           |
| Apts. Condos, & townhomes         | 3,505         | 3,475         | 3,587         | 3,747         | 3,837         |
| Residential, other                | 1,336         | 6,535         | 3,990         | 5,144         | 5,184         |
| Hotels                            | 41,179        | 39,408        | 40,893        | 40,962        | 40,558        |
| Motels                            | 4,172         | 4,716         | 4,797         | 4,780         | 4,781         |
| Community facilities              | 1,948         | 1,828         | 1,922         | 2,144         | 2,105         |
| Schools                           | 2,166         | 2,503         | 2,510         | 2,627         | 2,532         |
| Fireline                          | 104           | 107           | 119           | 97            | 100           |
| Irrigation                        | 2,313         | 2,114         | 2,117         | 2,245         | 2,133         |
| Commercial/business               | 1,042         | 991           | 1,021         | 1,048         | 1,056         |
| Recreational                      | 2,784         | 3,139         | 2,983         | 3,190         | 3,187         |
| Industrial                        | 987           | 997           | 1,033         | 1,077         | 1,114         |
| Construction water                | 253           | 299           | 310           | 294           | 395           |
| Other                             | 2,368         | 2,261         | 1,723         | 1,900         | 1,368         |
| <b>TOTAL ALL CLASSES</b>          | <b>64,535</b> | <b>68,748</b> | <b>67,375</b> | <b>69,636</b> | <b>68,725</b> |

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Statistical Information**  
Fiscal Year Ending June 30, 2020

## Percent of Total Water Billed by Class of Service

| <b>Class of Service</b>               | <b>2013</b>  | <b>2014</b>  | <b>2015</b>  | <b>2016</b>  | <b>2017</b>  | <b>2018</b>  |
|---------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Residential - Single Service          | 44.6%        | 44.6%        | 44.1%        | 43.5%        | 43.3%        | 43.6%        |
| Residential - Duplex/Triplex/Fourplex | 0.7%         | 0.7%         | 0.7%         | 0.7%         | 0.6%         | 0.6%         |
| Apts. Condos, & Townhomes             | 14.7%        | 14.4%        | 14.8%        | 15.0%        | 15.1%        | 15.4%        |
| Residential, Other                    | 1.0%         | 1.9%         | 1.7%         | 1.0%         | 1.0%         | 1.0%         |
| <b>Subtotal (Residential)</b>         | <b>61.0%</b> | <b>61.6%</b> | <b>61.3%</b> | <b>60.2%</b> | <b>60.0%</b> | <b>60.7%</b> |
| Hotels                                | 9.2%         | 9.0%         | 9.1%         | 9.4%         | 9.0%         | 9.0%         |
| Motels                                | 1.1%         | 1.0%         | 1.2%         | 1.2%         | 1.1%         | 1.1%         |
| Community Facilities                  | 1.9%         | 1.8%         | 1.9%         | 1.9%         | 2.1%         | 2.0%         |
| Schools                               | 1.6%         | 1.6%         | 1.6%         | 1.6%         | 1.7%         | 1.6%         |
| Fireline                              | 0.4%         | 0.5%         | 0.5%         | 0.6%         | 0.5%         | 0.5%         |
| Irrigation                            | 14.0%        | 13.8%        | 13.3%        | 13.4%        | 14.0%        | 13.4%        |
| Commercial/Business                   | 8.1%         | 8.0%         | 8.1%         | 8.3%         | 8.2%         | 8.3%         |
| Recreational                          | 0.2%         | 0.2%         | 0.2%         | 0.2%         | 0.2%         | 0.2%         |
| Industrial                            | 1.2%         | 1.2%         | 1.2%         | 1.3%         | 1.3%         | 1.3%         |
| Construction Water                    | 0.7%         | 0.9%         | 1.0%         | 1.4%         | 1.5%         | 1.4%         |
| Other                                 | 0.6%         | 0.6%         | 0.5%         | 0.6%         | 0.6%         | 0.6%         |
| <b>Subtotal (Non-Residential)</b>     | <b>39.0%</b> | <b>38.4%</b> | <b>38.7%</b> | <b>39.8%</b> | <b>40.0%</b> | <b>39.3%</b> |
| <b>TOTAL</b>                          | <b>100%</b>  | <b>100%</b>  | <b>100%</b>  | <b>100%</b>  | <b>100%</b>  | <b>100%</b>  |



Las Vegas Valley Water District  
Operating and Capital Budget  
Statistical Information  
Fiscal Year Ending June 30, 2020

**Average Consumption and Monthly Revenue from Water Sales  
Per Active Account (kgal - million)**

| <u>Month</u>           | <b>2013</b>         |                         | <b>2014</b>         |                         | <b>2015</b>         |                         |
|------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|
|                        | <u>Avg.<br/>Use</u> | <u>Avg.<br/>Revenue</u> | <u>Avg.<br/>Use</u> | <u>Avg.<br/>Revenue</u> | <u>Avg.<br/>Use</u> | <u>Avg.<br/>Revenue</u> |
| January                | 14.0                | \$65.0                  | 13.9                | \$65.5                  | 13.3                | \$65.0                  |
| February               | 13.7                | 61.8                    | 15.0                | 67.7                    | 14.2                | 64.6                    |
| March                  | 17.9                | 76.9                    | 18.1                | 79.1                    | 17.6                | 79.4                    |
| April                  | 22.5                | 91.2                    | 22.3                | 92.2                    | 22.8                | 95.6                    |
| May                    | 26.9                | 106.0                   | 26.3                | 106.7                   | 25.8                | 106.7                   |
| June                   | 34.7                | 143.5                   | 33.8                | 142.0                   | 29.5                | 131.7                   |
| July                   | 35.2                | 134.9                   | 34.3                | 132.5                   | 33.6                | 127.3                   |
| August                 | 34.7                | 140.1                   | 31.6                | 129.8                   | 33.1                | 137.1                   |
| September              | 27.2                | 110.5                   | 28.1                | 116.0                   | 29.7                | 123.8                   |
| October                | 21.2                | 87.2                    | 23.5                | 96.7                    | 25.5                | 105.5                   |
| November               | 20.5                | 85.4                    | 20.6                | 86.5                    | 17.3                | 77.4                    |
| December               | 13.1                | 60.5                    | 14.2                | 65.5                    | 14.5                | 68.0                    |
| <b>Monthly Average</b> | <b>23.5</b>         | <b>\$96.9</b>           | <b>23.5</b>         |                         | <b>23.1</b>         | <b>\$98.5</b>           |

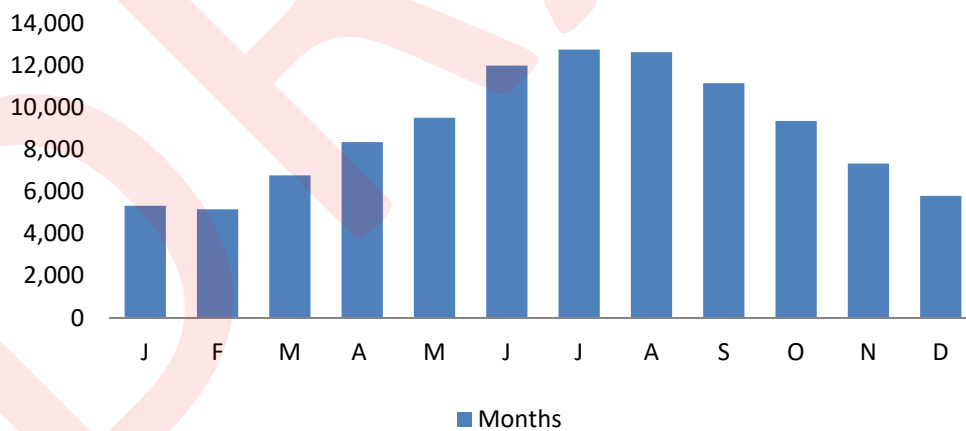
| <u>Month</u>           | <b>2016</b>         |                         | <b>2017</b>         |                         | <b>2018</b>         |                         |
|------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|
|                        | <u>Avg.<br/>Use</u> | <u>Avg.<br/>Revenue</u> | <u>Avg.<br/>Use</u> | <u>Avg.<br/>Revenue</u> | <u>Avg.<br/>Use</u> | <u>Avg.<br/>Revenue</u> |
| January                | 14.8                | \$72.3                  | 13.5                | \$73.1                  | 15.1                | \$83.8                  |
| February               | 13.5                | 72.4                    | 12.3                | 71.0                    | 13.3                | 78.4                    |
| March                  | 19.3                | 89.7                    | 17.1                | 88.7                    | 17.6                | 93.9                    |
| April                  | 22.2                | 98.4                    | 22.7                | 105.6                   | 20.3                | 102.8                   |
| May                    | 21.7                | 97.7                    | 25.6                | 118.8                   | 26.0                | 124.0                   |
| June                   | 30.7                | 140.8                   | 33.0                | 150.8                   | 31.0                | 151.6                   |
| July                   | 34.0                | 135.4                   | 33.2                | 145.3                   | 32.7                | 147.1                   |
| August                 | 34.7                | 149.4                   | 34.0                | 154.5                   | 32.3                | 153.1                   |
| September              | 29.6                | 128.3                   | 28.5                | 133.3                   | 30.2                | 142.8                   |
| October                | 24.1                | 105.8                   | 23.4                | 110.8                   | 25.9                | 124.7                   |
| November               | 19.5                | 89.7                    | 20.2                | 97.3                    | 18.4                | 95.4                    |
| December               | 15.3                | 75.7                    | 16.5                | 85.0                    | 15.3                | 85.7                    |
| <b>Monthly Average</b> | <b>23.3</b>         | <b>\$104.6</b>          | <b>23.3</b>         | <b>\$111.2</b>          | <b>23.2</b>         | <b>\$115.3</b>          |

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Statistical Information**  
Fiscal Year Ending June 30, 2020

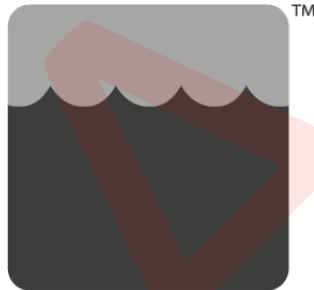
**Water Billed by Month**  
**(Thousands of Gallons)**

| Month        | 2014           | 2015           | 2016           | 2017           | 2018           |
|--------------|----------------|----------------|----------------|----------------|----------------|
| January      | 5,063          | 4,928          | 5,577          | 5,205          | 5,880          |
| February     | 5,475          | 5,275          | 5,107          | 4,749          | 5,217          |
| March        | 6,605          | 6,546          | 7,302          | 6,602          | 6,900          |
| April        | 8,159          | 8,487          | 8,448          | 8,786          | 7,961          |
| May          | 9,632          | 9,618          | 8,231          | 9,927          | 10,207         |
| June         | 12,405         | 10,988         | 11,681         | 12,783         | 12,169         |
| July         | 12,612         | 12,534         | 12,956         | 12,873         | 12,856         |
| August       | 11,660         | 12,373         | 13,272         | 13,214         | 12,699         |
| September    | 10,374         | 11,138         | 11,319         | 11,079         | 11,918         |
| October      | 8,689          | 9,594          | 9,242          | 9,105          | 10,196         |
| November     | 7,608          | 6,495          | 7,486          | 7,880          | 7,249          |
| December     | 5,253          | 5,475          | 5,881          | 6,425          | 6,031          |
| <b>Total</b> | <b>103,535</b> | <b>103,451</b> | <b>106,502</b> | <b>108,628</b> | <b>109,283</b> |

Thousands **2014 - 2018 Average Water Billed by Month**



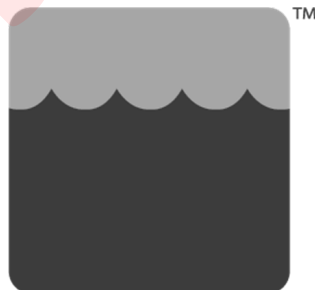
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# SECTION 9

## FINANCIAL POLICIES

|                             |     |
|-----------------------------|-----|
| Financial Policy.....       | 9-2 |
| Reserve Policy .....        | 9-5 |
| Capitalization Policy ..... | 9-7 |



**LAS VEGAS VALLEY WATER DISTRICT**  
FISCAL YEAR 2019-20  
OPERATING AND CAPITAL BUDGET



## **Financial Policy**

The Las Vegas Valley Water District (LVVWD) conducts a process to update and improve its operating policies and procedures on an ongoing basis. The attached financial policies represent a portion of the approved operating policies of the LVVWD.

DRAFT

|  |   |                     |
|--|---|---------------------|
| LAS VEGAS VALLEY<br>WATER DISTRICT<br><br>DEPARTMENT<br>POLICY | SUBJECT:<br><br>FINANCIAL POLICY        | NUMBER:<br>1        |
|  | APPROVED BY: <i>Lina Neilson</i>        | ISSUE:<br>1         |
| ISSUING DEPARTMENT:<br><br>FINANCE                             | DIRECTOR OF FINANCE<br><br>June 1, 2015 | PAGE:<br><br>1 OF 3 |

I. PURPOSE

The purpose of this policy is to establish guidelines for the planning and monitoring of financial activities in a responsible manner.

II. SCOPE

This policy applies to the Las Vegas Valley Water District (LVVWD) and other entities for which the LVVWD has fiduciary responsibility i.e., Southern Nevada Water Authority (SNWA).

III. FINANCIAL PLANNING

- A. BALANCED BUDGET – Under normal circumstances, the organization shall strive to prepare and adhere to a balanced operating budget, meaning sources of funds are greater than or equal to the uses of funds.
- B. LONG-TERM PLANNING – A long-term, entity-wide Strategic Plan shall be adopted and maintained to guide the decisions of the organization. Preparation of operating and capital budgets, as well as other financial planning activities, shall consider their long-term financial implications and reflect the Strategic Plan. Also, the organization shall strive to obtain the highest credit ratings.
- C. ASSET INVENTORY – The organization shall maintain an inventory of major capital assets and periodically assess the condition of those assets to plan for ongoing financial commitments necessary to ensure services in support of the Strategic Plan.



IV. REVENUE

- A. REVENUE DIVERSIFICATION – To the extent reasonable, revenues shall be diversified in order to improve the ability to handle fluctuations in individual sources.
- B. FEES AND CHARGES – Fees and charges are set to cover the cost of the services provided. For example:
- Water Rates pay for current water system operation and maintenance.
  - Connection Fees pay for water system infrastructure expansion to support population growth.
  - Fees pay for the annual inspection and maintenance of system facilities.
  - Fees pay for any additional administrative or operating cost burden generated by certain customer activities.
  - Deposits assure customer payment of financial obligations.
- C. USE OF ONE-TIME REVENUES – One-time revenues shall generally be matched to one-time expenditures. Ongoing financial commitments shall not be dependent upon anticipated one-time revenues.
- D. USE OF UNPREDICTABLE REVENUES – Ongoing programs or expenditure commitments shall not be dependent upon revenues that cannot be reasonably predicted. Reasonable prediction involves the use of historical data, projected data, and prudent judgment.

V. EXPENDITURES

- A. DEBT CAPACITY – The organization has no fixed aggregate monetary debt limit. The ability to issue debt is governed by state law allowing for the pledge of revenues and the assessment of ad valorem taxes with the requirement that the Board of Directors establish reasonable rates and charges for the products and services provided. The assessment of ad valorem taxes shall be avoided and emphasis shall be placed on the reliance of revenues to pay debt obligations.

- B. DEBT ISSUANCE AND MANAGEMENT – Debt shall be issued by either negotiated or competitive sale in accordance with Nevada law. Competitive sale awards shall be made to the underwriter(s) presenting bids resulting in the lowest interest rate. Negotiated sales may be utilized and underwriters will be selected in accordance with specific criteria specified in the Debt Management Policy. The Debt term shall not exceed the useful life of the project or equipment being financed and bond insurance may be utilized.
- C. RESERVES – The organization shall maintain sufficient reserves to protect against the need to reduce service levels or raise rates and fees due to temporary revenue shortfalls or unpredicted one-time expenditures. ‘Sufficient reserve’ is defined as 180 days of operating expenditures. A reserve study shall be conducted at least once every five years to determine if 180 days remains sufficient.
- D. OPERATING/CAPITAL EXPENDITURE ACCOUNTABILITY – Actual expenditures shall be periodically compared to the budget. Each department Director shall be primarily responsible for keeping their actual expenditures from exceeding their budget. Department Directors shall provide timely notification to the Director of Finance when it appears that their actual expenditures for the fiscal year will exceed their budget. Also, the Director of Finance shall monitor the actual expenditures of the entire organization and provide timely notification to the General Manager when it appears that the actual expenditures for the fiscal year may exceed the Board approved budget.

|   |  |                                   |
|---|--|-----------------------------------|
| <b>LAS VEGAS VALLEY<br/>WATER DISTRICT</b><br><br><b>BOARD POLICY</b> | <b>SUBJECT:</b><br><br><b>LAS VEGAS VALLEY WATER DISTRICT<br/>RESERVE POLICY</b> | <b>NUMBER:</b><br><br><b>11</b>   |
|   | <b>APPROVED BY:</b><br><br><b>BOARD OF DIRECTORS</b>                             | <b>ISSUE:</b><br><br><b>1</b>     |
| <b>ISSUING DEPARTMENT:</b><br><br><b>FINANCE</b>                      | <b>January 5, 2016</b>   | <b>PAGE:</b><br><br><b>1 OF 2</b> |

### Purpose

The purpose is to establish a policy for maintaining adequate reserves of cash and investments. Maintaining adequate and prudent cash reserves is an important tool in mitigating the risks of significant and unexpected decreases in sources of funds and/or increases in the uses of funds. The benefits include stable services and fees. This policy applies to all unrestricted cash and investments of the Las Vegas Valley Water District (LVVWD).

### Authority

The Government Finance Officers Association (GFOA) recommends local governments adopt a target amount of working capital to maintain in each of their enterprise funds. Because the purposes, customers, and other characteristics of enterprise funds can vary widely, the GFOA recommends that governments develop a target amount of reserves that best fits local conditions for each fund. The following are some of the key considerations for the LVVWD's reserve policy:

1. Volatility in Sources of Funds – Some of the LVVWD's sources of funds have experienced significant volatility; for example, connection charges and sales tax, in periods where the local economy suffers.
2. Likelihood of Successful Rate Increases – Although the LVVWD has enjoyed tremendous support from its Board of Directors and the community, it is possible that these conditions could change in the future, thus impacting the LVVWD's ability to adjust rates to meet increasing costs.
3. Asset Age and Condition – As the infrastructure ages, maintenance and replacement costs will increase. Also, there is the possibility of unexpected failures that can be quite expensive. Such failures could result from age-related causes, terrorism, or natural disasters.

4. Control Over Expenses – Although most of the LVVWD's expenses are predictable, there remains the possibility of large, unexpected expenditures; for example, litigation, natural disasters, increases in water, energy and chemical costs.

### Reserve Components

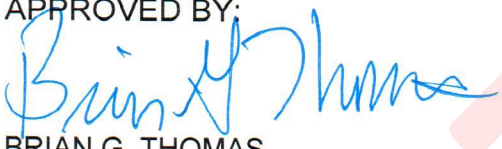
The following four components identified for the LVVWD's reserves listed by funding priority:

1. Base Operating Reserve – Adequate reserves to fund 180 days of operating and maintenance expenses. This will help insulate the LVVWD and its customers from volatility in operating revenues and expenses, as well as from other casual factors that could interrupt cash flow or impose unforeseen costs.
2. Debt Service Reserve – Adequate reserves to fund one year of the maximum annual debt service. For both credit rating considerations and prudent financial practices, the LVVWD should strive to achieve this level of reserves to ensure access to lower cost capital in future years, help mitigate the impact of disruptions in the credit markets on operations, and provide assurances to investors that the LVVWD has the financial resources necessary to make its ongoing debt service payments.
3. Capital Related Reserve – Adequate reserves to fund a one year average of future capital needs. As a method to determine future capital needs, a capital improvement plan may be used. This reserve will fluctuate over time as projects change. This level of capital reserve will enable the LVVWD to better react to capital needs as they may arise and to properly address the timing of infrastructure improvements relative to system needs. This reserve will also enable the LVVWD to continue with uninterrupted critical capital improvements during times of difficulty within the capital markets.
4. Unforeseen Events Reserve – Adequate reserves to fund one percent of assets subject to depreciation. This is to mitigate one-time, unforeseen infrastructure or major capital equipment failures and other significant non-recurring impacts to operating revenues and expenses.

### Reporting

The General Manager shall notify the Board of Directors of the status of reserves at least annually and more often as significant changes occur.



|  |  |                     |
|--|--|---------------------|
| LAS VEGAS VALLEY<br>WATER DISTRICT<br><br>DEPARTMENT<br>POLICY | SUBJECT:<br><br>CAPITALIZATION POLICY  | NUMBER:<br>1        |
|  | APPROVED BY:<br><br>BRIAN G. THOMAS<br>CHIEF FINANCIAL OFFICER<br>Effective Date: July 1, 2018 | ISSUE:<br>2018      |
| ISSUING DEPARTMENT:<br><br>FINANCE                             |  | PAGE:<br><br>1 OF 3 |

I. PURPOSE

The purpose of this policy is to define what costs are capitalized and depreciated/amortized (if applicable).

II. SCOPE

This policy applies to the Las Vegas Valley Water District (LVVWD), the Southern Nevada Water Authority (SNWA) and other entities for which the LVVWD has fiduciary responsibility.

III. CAPITAL ASSETS

- A. All land, land improvements, buildings, building improvements, vehicles, machinery, equipment, works of art and historical treasures, infrastructure, and all other tangible or intangible assets (assets that lack physical substance, such as easements, water rights, etc.) that are used in operations, with an initial individual cost greater than \$10,000 and an estimated useful life of at least three years are capitalized. Cost includes installation and delivery, but not training. The cost of designing and constructing facilities includes all direct and indirect expenditures.

Generally, the capitalization threshold is applied to individual items rather than groups of items. However, groups of assets with individual unit costs equal to or less than \$10,000 have been identified as integral to our operations and are capitalized regardless of individual unit cost. These groups are meters, service laterals, and pipelines. Assets / asset groups deemed integral may be revised only with written approval of the Chief Financial Officer.

- B. The cost of normal maintenance and repairs (any outlay that does no more than return a capital asset to its original condition, regardless of amount) are expensed and not capitalized. See Attachment A for a decision-tree to assist in defining whether expenditures are capital or operating and maintenance.

#### IV. COMPUTER SYSTEM SOFTWARE

Major on-premises computer systems software and software modifications, whether purchased or internally developed, are capitalized if the total cost exceeds \$100,000 and the useful life is at least three years. Cost includes direct and indirect expenditures within the application development stage of implementation. Training on the operation and use of software is expensed and not capitalized. Costs that take place before the final selection of the software, such as due diligence and the evaluation of alternatives, are expensed and not capitalized.

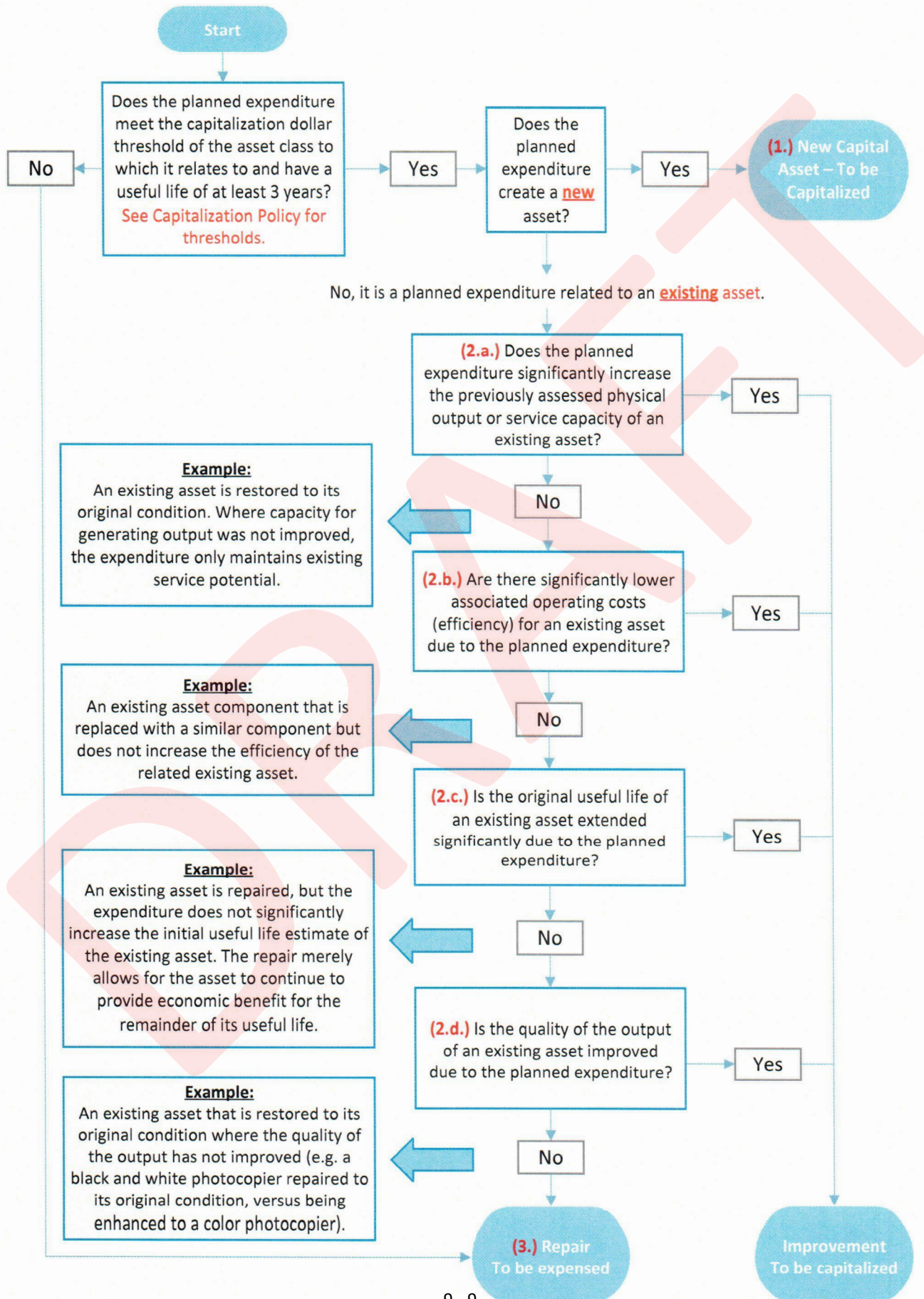
Software-as-a-Service (SaaS) will generally be expensed as a service contract and does not qualify as a capital asset unless the SaaS includes a software license component that allows both the contractual right to take possession of the software at any time during the hosting period without significant penalty, and the ability to run the software on our own hardware or contract with another party unrelated to the vendor to host the software.

#### V. DONATED FACILITIES

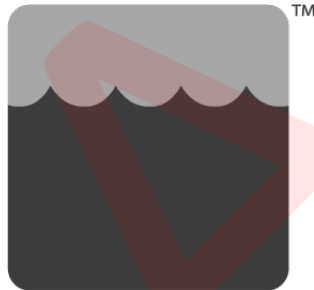
Donated developer facilities are capitalized at the engineering estimates of acquisition value at the time the assets are donated.



## New Asset vs. Improvement vs. Repair Decision Tree



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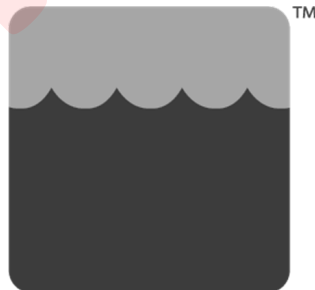




# SECTION 10

## GLOSSARY

|               |      |
|---------------|------|
| Glossary..... | 10-1 |
|---------------|------|



**LAS VEGAS VALLEY WATER DISTRICT**  
FISCAL YEAR 2019-20  
OPERATING AND CAPITAL BUDGET



Las Vegas Valley Water District  
Operating and Capital Budget  
**Glossary**

Fiscal Year Ending June 30, 2020

**Accrual Basis Accounting.** An accounting method that measures the performance and position of a company by recognizing revenue or expense events regardless of when cash transactions occur.

**Acre-Foot (AF).** A water measurement equating to 325,851 gallons or 43,560 cubic feet. An acre foot will supply the annual water needs of approximately 2 single family homes in the LVVWD's service area.

**Alfred Merritt Smith Water Treatment Facility (AMSWTF).** Built in 1971, the Alfred Merritt Smith Water Treatment Facility currently treats most of the Las Vegas Valley's drinking water. The facility can treat up to 600 million gallons a day (MGD).

**American Water Works Association (AWWA).** A 50,000-member nonprofit dedicated to science, technology, education and the managing and treating of water.

**Amortization.** Amortization is paying off a debt with a fixed repayment schedule in incremental installments over a period of time.

**Association of Metropolitan Water Agencies (AMWA).** An organization of the largest publicly owned water utilities in the USA speaking on water policy issues and programs that foster sustainable innovation.

**Automated Mapping / Facilities Management (AM/FM).** The term AM/FM/GIS mostly refers to Geographic Information Software (GIS) that allows utility users to digitize, manage and analyze their utility network data. This data is stored in an

underlying GIS database which also maintains the associations between the graphical entities and the attributes.

**Automatic Transfer Switch (ATS).** An electrical switch that switches a load between two sources.

**Automatic Vehicle Locator (AVL).** An automatic vehicle locator (AVL) is a device that makes use of a Global Positioning System (GPS) to enable a business or agency to remotely track the location of its vehicle fleet by using the Internet.

**Balanced Budget.** A budget where sources of funds are equal to uses of funds. The LVVWD is not required to issue a balanced budget.

**Big Bend Water District (BBWD).** A general improvement district created in 1983 to supply water to Laughlin, Nevada.

**Beginning Balance.** Cash and cash equivalent balances at the beginning of an accounting period. For budget years this amount is an estimate. For actual years this amount is the actual amount of cash either in demand deposits or investments.

**Bond.** A certificate of debt issued by a government or corporation guaranteeing payment of the original investment plus interest by a specified future date.

**Bond Funds.** Monies raised through debt issuance that are used for the acquisition or construction of capital assets.

**Budget.** Proposed financial plan over a given period of time, usually one year.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Glossary**

Fiscal Year Ending June 30, 2020

**Budget Calendar.** The schedule of key dates or milestones the LVVWD follows in the preparation and adoption of the budget.

**Budgetary Control.** The management or control of a governmental unit or enterprise in accordance with an approved budget to keep expenditures within limitations of available appropriations and available revenues.

**Budget Document.** The official written document prepared by the LVVWD and approved by the LVVWD's Board of Directors.

**Budgeted Positions.** A position that has been authorized (created by action of the LVVWD Board of Directors) and may be specifically funded through the budget process.

**Bureau of Labor Statistics (BLS).** A unit of the United States Department of Labor, serves as a statistical resource to the United States Department of Labor, and conducts research into how much families need to earn to be able to enjoy a decent standard of living.

**Bureau of Reclamation (BOR).** A federal agency under the U.S. Department of the Interior, which oversees water resource management, specifically as it applies to the oversight and operation of the diversion, delivery, and storage projects that it has built throughout the western United States for irrigation, water supply, and attendant hydroelectric power generation.

**Cathodic Protection (CP).** A technique used to control the corrosion of a metal surface by

making it the cathode of an electrochemical cell.

**Capital Budget.** Used to evaluate potential investments or expenditures for specific projects or purposes. Fixed assets to be acquired during a fiscal year, with a value of over \$10,000 and an estimated life of over three years.

**Capital Expenditure.** Funds used by a company to acquire, upgrade, and maintain fixed assets during a fiscal year, generally with a value of over \$10,000 and an estimated life of over three years.

**Capital Improvement Plan (CIP).** A multi-year plan, which identifies capital projects and equipment purchases, provides a planning schedule and identifies options for financing the plan.

**Citizens Advisory Committee (CAC).** A group of citizens convened to seek recommendations and help guide decision-making of the organization.

**Clark County Water Reclamation District (CCWRD).** Nevada's largest wastewater agency, treating wastewater from 248,000 accounts with over 2,000 miles of pipeline and 27 pumping stations.

**Closed-circuit Television (CCTV).** Also known as video surveillance, is the use of video cameras to transmit a signal to a specific place, on a limited set of monitors.

**Comprehensive Annual Financial Report. (CAFR).** A set of U.S. government financial statements comprising the financial report of a state, municipal or other governmental

Las Vegas Valley Water District  
Operating and Capital Budget  
Glossary

Fiscal Year Ending June 30, 2020

entity that complies with the accounting requirements promulgated by the Governmental Accounting Standards Board (GASB).

**Computer Maintenance Management System.** (CMMS)

**Computerized Work Order Maintenance Management System.** (CWOMMS)

**Colorado River Commission (CRC).** The CRC is an executive agency of the State of Nevada responsible for acquiring and managing Nevada's share of water and hydropower resources from the Colorado River.

**Conservation.** The act of reducing demands for water in the most efficient manner. Encompassing policies, strategies and activities to manage water as a sustainable resource and protect the environment while meeting current and future demands. The LVVWD achieves the benefits of conservation through education of the end user, promoting water efficient hardware, and pricing signals.

**Construction Expenditures.** Generally, expenses made to build, supervise, or provide materials used in the construction of capital assets.

**Coyote Springs Water Resources General Improvement District (CSWRD).** Created in 2006 to provide necessary water and wastewater services to the Coyote Springs community.

**Cross Departmental Team.** (CDT)

**Debt Issuance Proceeds.** Principal amount or face value of debt issues. These proceeds are used to pay for major construction expenditures incurred by the LVVWD.

**Debt Service Payments.** Funds used for the repayment of annual principal and interest charges on debt the LVVWD has issued.

**Department.** A basic organizational unit of the LVVWD that is functionally unique in its delivery of services.

**Depreciation.** A reduction in the value of a physical asset with the passage of time.

**Deoxyribonucleic Acid (DNA).** A self-replicating material which is present in nearly all living organisms as the main constituent of genetic information.

**Disbursements.** Funds actually expended.

**Dissolved Air Flotation (DAF).** A water treatment process that clarifies wastewaters (or other waters) by the removal of suspended matter such as oil or solids.

**Division.** Organizational component of a department.

**Drought Contingency Plan (DCP).** Due to the historic drought conditions since 2000, the Department of the Interior requested State Governors along the Colorado River to submit Drought Contingency Plans (DCPs) to reduce the risks the Colorado River Basin is facing for Lake Powell and Lake Mead.

**Eastern Nevada Transmission Project (ENTP).** A 230 kV transmission system that would allow for the interconnection of SSEA

**Las Vegas Valley Water District  
Operating and Capital Budget  
Glossary**

Fiscal Year Ending June 30, 2020

members' electrical systems with each other and with the mead substation.

**Escherichia coli (EC).** A bacterium commonly found in the intestines of humans and other animals, some strains of which can cause severe food poisoning.

**Emergency Response Plan (ERP).** A plan created by the EHS&CS department to prepare for and mitigate risk.

**Endangered Species Act (ESA).** Signed into law by President Richard Nixon on December 28, 1973, it was designed to protect critically imperiled species from extinction as a "consequence of economic growth and development un-tempered by adequate concern and conservation."

**Ending Balance.** Cash and cash equivalent balances at the ending of an accounting period. For budget years this amount is an estimate. For actual years this amount is the actual amount of cash either in demand deposits or investments.

**Energy.** Collective name for electricity and natural gas purchases used to treat and distribute water throughout the LVVWD's service area as well as power office buildings and other ancillary locations.

**Engineering Department Management System. (EDMS)**

**Engineering Project Management. (EPM)**

**Engineering Project Scheduling and**

**Management System. (EPSM)**

**Enterprise Funds.** Funds used to account for operations: 1) that are financed and operated in a manner similar to private business enterprises - where the intent of the governing body is that the costs (expenses, including depreciation) of providing goods and services to the general public on a continuing basis be financed or recovered primarily through user charges; or 2) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability, or other purposes.

**Environmental, Health, Safety & Corporate Security (EHS&CS).** A department of the LVVWD and SNWA. Also abbreviated as EHS.

**Environmental Protection Agency (EPA).** An agency of the U.S. federal government which was created for the purpose of protecting human health and the environment by writing and enforcing regulations based on laws passed by Congress.

**Expenditure.** The payment of cash on the transfer of property or services for the purpose of acquiring an asset, service or settling a loss.

**Fiscal Year (FY).** For the Las Vegas Valley Water District, the 12-month period begins with July 1, and ends with June 30 of the designated fiscal year; e.g. FY 2019-20 ends on June 30, 2020.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Glossary**

Fiscal Year Ending June 30, 2020

**Fringe Benefits.** Various types of non-wage compensation provided to employees in addition to their normal wages or salaries.

**Full-Time Equivalent (FTE).** The number of positions that equate to a 40-hour work week for 52 weeks, or one full year. For example, two part-time positions, each working 20 hours per week, equals one FTE.

**Full-Time Equivalent Employee (FTE).** A person employed in the capacity of a Full-Time Equivalent.

**Fund.** A fiscal and accounting tool with a self-balancing set of accounts to record revenue and expenditures.

**Fund Balance.** Also known as beginning balance and ending balance. This represents the estimated cash balance in a specific fund at the beginning or ending of an accounting period.

**Fund Equity.** The excess of an entity's assets over its liabilities.

**Gallons Per Minute (GPM).** Also known as 'flow rate', GPM is a measure of how many gallons of water flow out of your shower head each minute.

**General Obligation Debt.** Bonds where the full faith and credit of the issuer is pledged to the repayment of the bonds.

**Generally Accepted Accounting Principles (GAAP).** A body of accounting and financial reporting standards set by the Governmental Accounting Standards Board (GASB) for state and local governments, and

by the Financial Accounting Standards Board (FASB) for private sector organizations.

**Geographical Information Systems (GIS).** Geographical Information System is a system designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographical data.

**Global Positioning System (GPS).** The Global Positioning System is a space-based navigation system that provides location and time information in all weather conditions, anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellites

**Government Finance Officers Association. (GFOA).** A professional association of approximately 17,500 state, provincial, and local government finance officers in the United States and Canada. In 1984, the GFOA signed an agreement with the Financial Accounting Foundation that gave them a voice and appointments in the creation of the Governmental Accounting Standards Board (GASB).

**Governmental Funds.** The General Fund, Special Revenue Funds, Debt Service Funds, and Capital Projects Funds.

**Grant.** A contribution by a government or other organization to support a particular function. Grants may be classified as categorical or block, depending upon the amount of discretion allowed the grantee.

**Great Recession.** A global economic decline which began after 2005 and lasted roughly through the end of 2010.



**Las Vegas Valley Water District  
Operating and Capital Budget  
Glossary**

Fiscal Year Ending June 30, 2020

**Groundwater Management Fees.** Fees imposed on municipalities and individual well owners. The proceeds of these fees are used to implement artificial recharge to benefit well users, provide financial assistance to well owners who are required to connect to municipal water by the Nevada State Engineer, and pay for general maintenance costs of the groundwater management program.

**Home Owner Association (HOA).** An organization in a subdivision, planned community or condominium that makes and enforces rules for the properties within its jurisdiction.

**Intake No. 3.** One of the largest municipal water projects in the United States constructed to draw water from Lake Mead at levels as low as 1,000 feet, 75 feet lower than SNWA's highest intake.

**Intentionally Created Surplus.** A type of surplus water that has been created or credited to a water agency through actions that conserve water and increase Lake Mead storage.

**Interest Earned.** Monies earned by investing idle funds in the open market.

**Intergovernmental Revenue.** Revenue received from other governments in the form of grants, entitlements, shared revenues or payments in lieu of taxes.

**International Ozone Association – Pan American Group (IOA-PAG).** A nonprofit educational and scientific organization dedicated to the collection and dissemination of information on, and to

promote research in, any and all aspects of ozone and related oxygen species technologies.

**Investment.** Securities and real estate purchased and held for the production of income in the form of interest, dividends, rentals or base payments.

**Labor.** A budget category that includes all LVVWD employee salaries including overtime, longevity pay, and benefits. Labor can either be paid by operating funds or capital funds according to then activity/project in which it was expended.

**Laboratory Information Management System (LIMS).** A laboratory information management system is a software-based laboratory and information management system with features that support a modern laboratory's operations.

**Las Vegas Metropolitan Statistical Area (MSA).** Las Vegas metropolitan area, is in the southern part of the U.S. state of Nevada, coextensive since 2003 with Clark County, Nevada. A central part of the metropolitan area is the Las Vegas Valley, a 600 sq. mi (1,600 km<sup>2</sup>) basin that includes the metropolitan area's largest city, Las Vegas

**Las Vegas Valley Groundwater Management Program (LVVGMP).** In 1997, the Nevada Legislature directed the Southern Nevada Water Authority (SNWA) to develop the Las Vegas Valley Groundwater Management Program to protect and manage the valley's primary groundwater supply. The program protects the local groundwater basin from over-

Las Vegas Valley Water District  
Operating and Capital Budget  
**Glossary**

Fiscal Year Ending June 30, 2020

drafting and potential sources of contamination.

**Las Vegas Valley Water District (LVVWD).**

The major water retailer in southern Nevada. The LVVWD is the operating agent of the Southern Nevada Water Authority although the two companies are autonomous and produce financial records and statements independent of each other.

**Las Vegas Wash Comprehensive Adaptive Management Plan. (LVWCAMP)**

**Leading Utilities of the World (LOUW).** A global network of the world's most successful and innovative water and wastewater utilities.

**Line Item.** Unique identification number and title for an expenditure category; represents the most detailed level of budgeting and recording expenditures.

**Lower Colorado River Multi-Species Conservation Program. (LCRMSCP)**

**Low Lake Level Pumping Station (L3PS).** A significant component of the entire Intake No.3 Project, this portion includes the construction of a pumping station which will facilitate drawing water from lower levels of Lake Mead.

**Maintenance Improvement Team. (MIT)**

**Major Construction and Capital Program (MCCP).** A schedule of approved capital projects for SNWA, their estimated costs, and funding sources.

**Major Construction and Program (MCP).** A schedule of approved capital projects, their estimated costs, and funding sources.

**Megawatt Hour (MWh).** A unit of power equal to one million watt hours. Energy in watt hours is the multiplication of power in watts and time in hours.

**Million-Gallon per Day (MGD).** A unit of flow measurement. MGD is a standard measurement in the water utility industry.

**Mission.** A description of the basic purpose and responsibility of an organizational unit.

**Mobile Data Dispatch System and Mobile Data Terminals. (MDT)**

**Mobile Workforce Management System. (MWFMS)**

**Mobile Workforce Management Team. (MWM)**

**Modified Accrual Accounting.** A basis of accounting in which expenditures are accrued when liability is incurred, but revenues are recognized only when they are measurable and available as net current assets. This method of accounting is statutorily required in Nevada.

**National Environmental Policy Act (NEPA).** A United States environmental law that established a U.S. national policy promoting the enhancement of the environment.

**Net Gallons per Capita per Day (GPCD).** Measurement of water used in comparison between communities.

Las Vegas Valley Water District  
Operating and Capital Budget  
**Glossary**

Fiscal Year Ending June 30, 2020

**Net Position.** Financial liabilities minus cash and cash equivalents. Net position was formerly known as fund equity until the application of GASB 65.

**Nevada Division of Environmental Protection (NDEP).** State of Nevada agency whose mission is to preserve and enhance the environment of the State in order to protect public health, sustain healthy ecosystems, and contribute to a vibrant economy.

**Nevada Revised Statutes (NRS).** The current codified laws of the State of Nevada.

**Nevada State Engineer (NSE).** Leader of the Nevada Division of Water Resources and responsible for administering and enforcing Nevada Water Law.

**Occupational Health and Safety Administration (OSHA).** An agency of the United States Department of Labor. OSHA's mission is to "assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance".

**Operating Budget.** Authorized expenditures for on-going day-to-day services; e.g., maintenance, materials, supplies, etc.

**Operating Expenses.** This classification contains expenses such as professional services, rental expenses, research and studies, etc. that are projected to be spent in the course of operations. On a GAAP prepared financial statement, these costs will appear on the Statement of Revenues, Expenses and Changes in Net Position.

**Payroll and Related.** A budget category that includes all LVVWD employee salaries including overtime, longevity pay, and benefits. Labor can either be paid by operating funds or capital funds according to then activity/project in which it was expended.

**Period.** The date (usually a 12 month span) that expenditures, encumbrances, etc. are recorded for reporting purposes.

**Period Ending.** The last date any expenditures, encumbrances, etc. are recorded for reporting purposes. Any data received after this date will be reflected in the next report. A Period Ending may be the end of a pay period, the end of the last pay period of a month, or the end of a calendar month.

**Polymerase Chain Reaction (PCR).** A method widely used in molecular biology to make many copies of a specific DNA segment.

**Positions.** Authorized (created by the LVVWD Board of Directors) employee slots (either currently filled or vacant) that are specifically funded through the budget process.

**Potable water.** Water that has been treated and meets or exceeds standards set by the Safe Water Drinking Act.

**Power.** Electricity and natural gas costs that are used for the transportation and transmission of water throughout the LVVWD distribution system.

**Proprietary Funds.** Enterprise Funds and Pension Funds.

Las Vegas Valley Water District  
Operating and Capital Budget  
Glossary

Fiscal Year Ending June 30, 2020

**Rate-of-Flow Control Systems (ROFCS).**

Flow control in a hydraulic system is to regulate speed. The device control the speed of an actuator by regulating the flow rate.

**Recharge.** Lake water injected directly into the aquifer by wells to store it for future use.

**Reclaimed Water Distributions (RWDS).**

This is wastewater that has been treated to specific standards.

**Reliability Centered Maintenance. (RCM)**

**Remote Operated Vehicle (ROV).**

Unoccupied, highly maneuverable underwater robots, typically operated by at, or above, the water surface.

**Remote Terminal Unit, Programmable Logic Controller (RTU/PLC).** A microprocessor-controlled electronic device that interfaces objects in the physical world to a distributed control system or SCADA.

**Research and Development (R&D).** Work directed toward the innovation, introduction, and improvement of products and processes.

**Revenues.** Funds received from various sources and treated as income to LVVWD to finance expenditures.

**Revenue Bonds.** Bonds where pledges are made to dedicate specific revenue sources to repay the bonds.

**Right-of-Way (ROW).** A right of way is a type of easement granted or reserved over the land for transportation purposes, this can be for a highway, public footpath, rail transport,

canal, as well as electrical transmission lines, oil and gas pipelines.

**Risk Management.** An organized attempt to protect organization's assets against accidental loss in the most economical method.

**River Mountains Treatment Plant (RMTP).**

Facility treats up to 300 million gallons of water per day. The facility provides additional reliability and capacity to Southern Nevada's municipal water treatment and distribution capabilities. It began delivering treated water in October 2002.

**Rural System Operator. (RSO)**

**Safe Drinking Water Act (SDWA).** Act is the principal federal law in the United States intended to ensure safe drinking water for the public. Pursuant to the act, the Environmental Protection Agency (EPA) is required to set standards for drinking water quality and oversee all states, localities, and water suppliers who implement these standards.

**Significant financial impact.** Five years immediately following when a capital item is placed into service. The term is required by the Government Finance Officers Association.

**Silver State Energy Association (SSEA).** A cooperative association created to purchase energy for members consisting of the SNWA, City of Boulder Nevada, Overton Power District, Lincoln County Power District and the Colorado River Commission of Nevada.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Glossary**

Fiscal Year Ending June 30, 2020

**Southern Nevada Water Authority (SNWA).**

Formed in 1991 to manage Southern Nevada's water needs on a regional basis. The Authority comprises seven member agencies including the city of Henderson, city of Las Vegas, city of North Las Vegas, Big Bend Water District (Laughlin), the Clark County Water Reclamation District and the Las Vegas Valley Water District. SNWA provides wholesale water treatment and delivery for the greater Las Vegas Valley and is responsible for acquiring and managing long-term water resources for Southern Nevada.

**Southern Nevada Water System (SNWS).**

Refers to the system of distribution facilities that delivers raw Colorado River water from Lake Mead and delivers potable water to Southern Nevada's municipal water providers.

**Solar Photovoltaic (PV).** A technology that converts sunlight (solar radiation) into direct current electricity by using semiconductors.

**Special Assessments.** Fees that are charged to property owners in certain geographical areas for improvements. A fee is levied only to those property owners that receive direct benefit.

**State Revolving Fund (SRF).** A fund administered by a U.S. state for the purpose of providing low-interest loans for investments in water and sanitation.

**Streamlined Reliability Centered Maintenance (SRCM).** A systematic evaluation of plant equipment and maintenance requirements.

**Supervisory Control and Data Acquisition (SCADA).** Water operations control systems.

**Tax Exempt Commercial Paper Program. (TECP).** Tax-exempt commercial paper is short-term debt for which the interest payments are tax-exempt at the federal, state or local level.

**Total Coliform (TC).** A group of related bacteria that are (with few exceptions) not harmful to humans.

**Uniform Design and Construction Standards (UDACS).** The Uniform Design and Construction Standards for Potable Water Distribution Systems represent the minimum design and construction criteria for water distribution systems within the participating Agency's jurisdiction.

**Water Smart Landscape (WSL).** The SNWA's rebate of \$3 per square foot of grass removed and replaced with desert landscaping up to the first 10,000 square feet converted per property, per year.

**Warm Springs Natural Area (WSNA).** A facility opened in 2017 that includes public access walking trails and interpretive signage to educate and inform the public about its environmental resources.

**Water Quality Process Improvement Team. (WQPIT)**

**Water Quality and Treatment (WQ&T).** A department of the LVVWD/SNWA that ensures the quality of the water meets or surpasses SDWA standards.

Las Vegas Valley Water District  
Operating and Capital Budget  
Glossary

Fiscal Year Ending June 30, 2020

**Wholesale Delivery Charge (WDC).** The per acre-foot charge that SNWA charges purveyor members for the treatment and delivery of treated, potable water.

**Variable Frequency Drive (VFD).** A type of motor controller that drives an electric motor by varying the frequency and voltage supplied to the electric motor.

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