



Las Vegas Valley Water District
Operating and Capital
Budget 2022



Fiscal year ending June 30, 2022

On the cover:

Conservation efforts throughout the Las Vegas Valley remain a top Water District priority. Over the years, innovative programs, such as converting grass to water-efficient landscaping, have helped reduce the community's Colorado River consumption. Our community used 24 billion gallons less water in 2020 than in 2002, even as the population increased 52 percent during that time. While these efforts have achieved a 47-percent decline in per capita water use since 2002, even more is needed as Colorado River conditions continue to worsen, raising the prospect of shortage being declared on the river. Achieving further reductions in water use is a necessity for the Las Vegas community. Learn more at lvvwd.com.

Las Vegas Valley Water District

**Operating & Capital Budget
Fiscal Year Ending June 30, 2022**



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Manager, Fin Plan, Analysis & Rep

**Prepared by the Finance Department
1001 South Valley View Blvd., Las Vegas, Nevada 89153
702-870-2011 www.lvwd.com**

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 2021-22 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, 2020.**

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, 2020

Christopher P. Morill

Executive Director

Las Vegas Valley Water District
Operating and Capital Budget
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SECTION 1
GENERAL MANAGER’S
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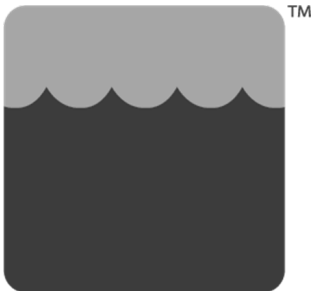
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LAS VEGAS VALLEY WATER DISTRICT
FISCAL YEAR 2021-22
OPERATING AND CAPITAL BUDGET

LAS VEGAS VALLEY WATER DISTRICT

GENERAL MANAGER'S INFORMATION REPORT

DATE: April 15, 2021

NO. 176

SUBJECT: LAS VEGAS VALLEY WATER DISTRICT
PROPOSED OPERATING AND CAPITAL BUDGET FOR FISCAL YEAR 2021-22

The Tentative Operating and Capital Budget of the Las Vegas Valley Water District (LVVWD) for fiscal year 2021-22 was submitted by April 15, 2021, to the State of Nevada Department of Taxation in accordance with NRS 354.596.

The fiscal year 2021-22 tentative budget assumes ongoing impacts caused by the COVID-19 pandemic. Over the past 12 months, with the rapidly changing developments and the State of Nevada's response and directives related to the COVID-19 pandemic, the LVVWD continues to monitor the economic impacts and adapt accordingly to mitigate its effects.

Executive Summary

During a year of uncertainty, the LVVWD adapted to a "new normal" as staff continued to maintain efforts to provide world-class water service to the LVVWD's customers. As in prior years, increasing system reliability and cost efficiency, while providing a safe drinking water supply to more than 1.5 million residents, remained a top priority. This same philosophy was applied to the operations of the other LVVWD-maintained rural water systems throughout Clark County, including Kyle Canyon, Blue Diamond, Searchlight, Jean and Laughlin (Big Bend Water District).

Pandemic Response

Like other organizations throughout Southern Nevada, the LVVWD has been affected by the COVID-19 pandemic. At the onset of the pandemic, the LVVWD immediately adjusted its normal operations by transitioning to a work-from-home operational status while only retaining limited personnel onsite to ensure critical daily operations continued. Since then, additional staff has transitioned back onsite. Currently, 55 percent of staff are performing their functions and duties onsite full-time. The remaining workforce have been working full-time remotely.

The LVVWD developed its Pandemic Readiness and Response Plan more than a decade ago to address potential influenza outbreaks and has continued to update that plan accordingly as the organization monitors and navigates the COVID-19 pandemic. The plan provides awareness, readiness, and guidance on matters before, during and after a pandemic situation.

To help mitigate financial impacts caused by the pandemic, the LVVWD Board of Directors approved a Voluntary Separation Plan (VSP) for eligible employees nearing retirement in June 2020. Many employees took advantage of this opportunity, which allowed the LVVWD to reduce payroll expenditures and save costs during a time of uncertainty. The VSP is expected to save the LVVWD approximately \$10.9 million in payroll expenses over three years and has been incorporated in the 2021-22 tentative budget.

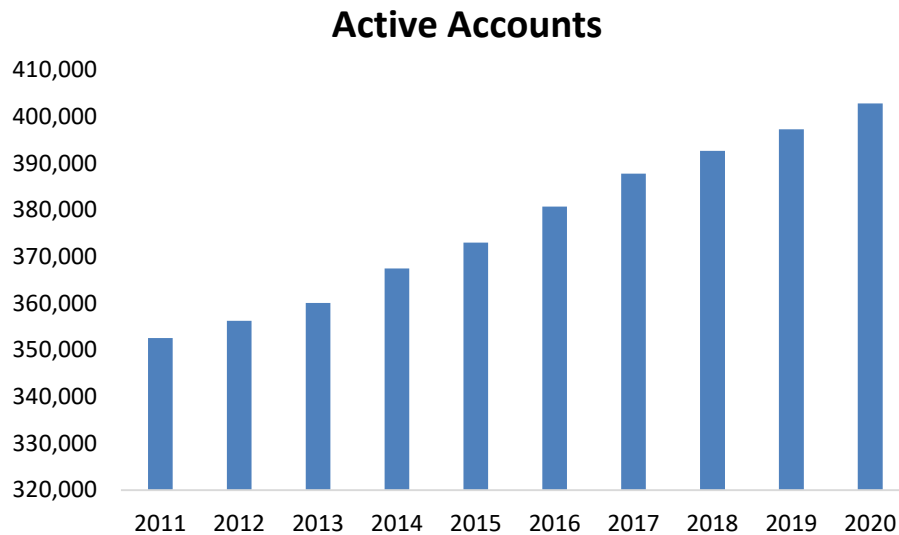
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As a result of the VSP and the response to the changing operating conditions as a result of the COVID-19 pandemic, changes were made throughout the organization including within the Executive Team. The Executive Team was reorganized to better reflect the organization's long-term priorities, and now includes a Deputy General Manager of Engineering, Deputy General Manager of Resources and Deputy General Manager of Operations, with the General Manager, General Counsel and Chief Financial Officer roles remaining unchanged.

The LVVWD remains an organization committed to service and excellence, as recognized by Forbes magazine who ranked the LVVWD the top employer in Nevada for 2020. Forbes' list was compiled by surveying 80,000 Americans working for businesses with at least 500 employees.

Finance

The long-term effects of the COVID-19 pandemic are yet to be determined, but the LVVWD continues its efforts and initiatives to maintain reliable water supplies for homes and businesses for years to come. The LVVWD serves approximately 70 percent of all Clark County residents. As such, customer account growth within the LVVWD service area is a key indicator of the community's economic health. As shown below, the number of active LVVWD service accounts has continually risen since 2011, indicating steady economic growth over the past decade. In 2020, the LVVWD had more than 402,000 active accounts.



Reserve Policy

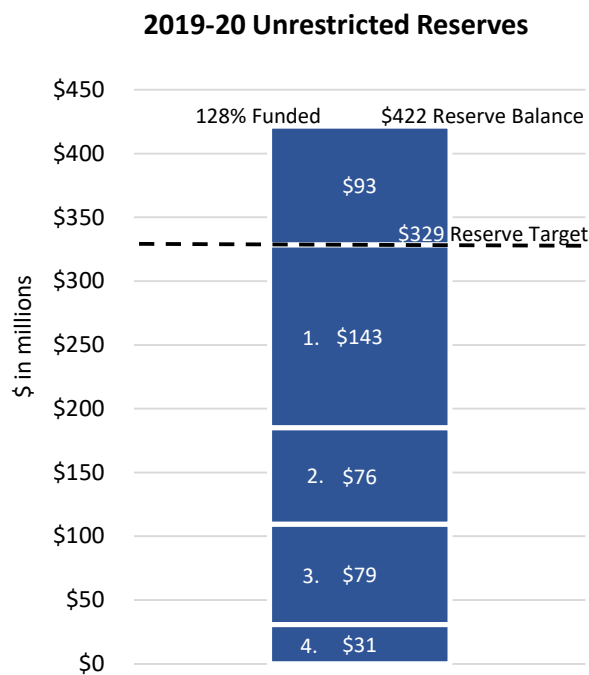
In 2016, the Board adopted a policy providing guidance for maintaining adequate cash and investment reserves. Since then, the LVVWD Reserve Policy has been a critical fixture in the organization's financial planning efforts.

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The LVVWD's reserve policy includes the following components (corresponding to the numbered dollar amounts in the chart below):

1. Adequate reserves to fund 180 days of operating and maintenance expenses
2. Adequate reserves to fund one year of the maximum annual debt service
3. Adequate reserves to fund a one-year average of future capital needs
4. Adequate reserves to fund one percent of assets subject to depreciation

During the last fiscal year, as the chart below indicates, the LVVWD met and exceeded its established unrestricted reserve target balance, an important indicator of the organization's financial health.



Project Funding

Water Rates. Tiered water rates represent a significant portion of the LVVWD's financial revenues, accounting for approximately 70 percent of the organization's ongoing funding sources. In accordance with a 2016 Citizens Advisory Committee recommendation, the LVVWD water rates have been adjusted annually in accordance with the Consumer Price Index (CPI) since January 1, 2019. In 2021, this resulted in a 1.5 percent increase to rates for consumptive water use and daily service charge. These dollars support day-to-day operations as well as projects set forth within the LVVWD's capital improvement plan (CIP).

Debt Reduction. To reduce interest costs, the Board adopted the 2021B LVVWD Refunding Bond Resolution in January 2021. By doing so, the LVVWD refunded General Obligation Water and Refunding Bonds, resulting in a net present value savings of \$6.6 million.

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Grant Funding. To help offset project costs within the LVVWD's service area and the rural water systems, staff monitors grant and low-interest loan opportunities on both state and federal levels.

This year, staff applied for and received \$1.5 million in funding from Nevada's Drinking Water State Revolving Fund Loan to improve the Big Bend Water District's system. As a result of these efforts, a \$1 million principal forgiveness loan from the State Revolving Loan Fund and a \$500,000 Capital Improvement grant will be used to increase reliability, operational efficiency and conservation, and maintain the system's water quality.

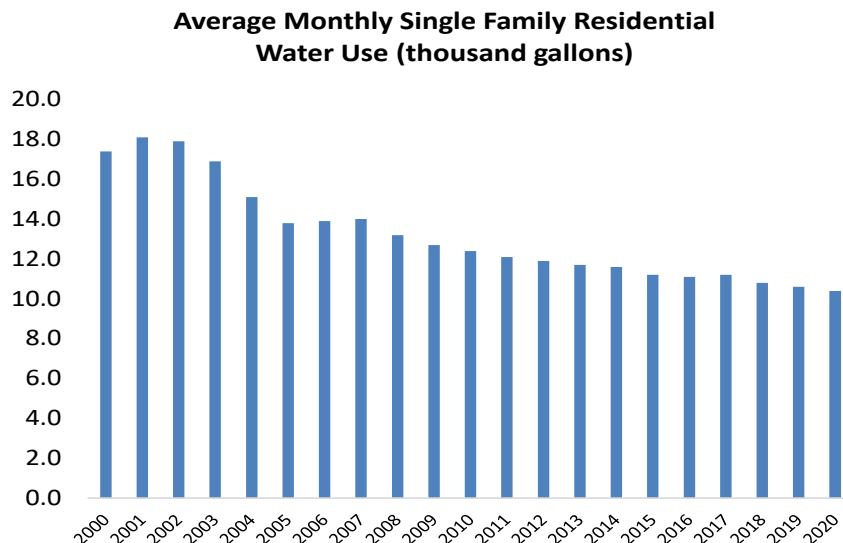
Staff also applied for and received \$848,372 in grant funding from the Bureau of Reclamation's Drought Resiliency Projects for treatment of groundwater production wells.

In addition, the Springs Preserve was awarded \$11,020 in funding from the NV Humanities organization, to increase program offerings for patrons and develop virtual and online experiences, including virtual field trips.

Water Resources and Conservation

Southern Nevada's primary water resource comes from Nevada's 300,000 acre-feet per year (AFY) Colorado River allotment, as it is drawn on to meet nearly 90 percent of the community's water demands. All remaining demands are met with groundwater rights. The LVVWD purchases Colorado River water from the Southern Nevada Water Authority (SNWA), which diverts and treats water from Lake Mead.

The LVVWD's average monthly water use for residential single services, as shown in the following chart, was approximately 10,400 gallons in 2020, representing a 40 percent decrease from fiscal year 2000 consumption. Conservation efforts continue to yield positive results; however residential single-service consumption has somewhat stagnated over the past several years.



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LVVWD staff continues to assess and pursue opportunities to increase conservation efforts throughout the community.

Drought

Persistent drought conditions and climate change impacts have reduced flows throughout the Colorado River Basin over the past two decades. To protect river supplies, joint provisions within the 2007 Interim Guidelines and the 2019 Drought Contingency Plan require the states of Nevada, California and Arizona, as well as the country of Mexico, to take shortages and make contributions if Lake Mead levels drop below predetermined elevations to reduce the risk of water levels declining to critical elevations.

Lake Mead conditions during 2021 will require Southern Nevada to make an 8,000-acre-foot contribution to the lake during the year; however, the community's conservation efforts have already met this requirement. Current river projections demonstrate a high likelihood that Lake Mead's water levels will trigger a federally declared shortage in 2022.

Since the drought began in the early 2000s, community water use has decreased by 23 percent, despite a 52 percent population increase during that same period. Ongoing community conservation efforts project to further reduce community water use moving forward.

Conservation

Conservation continues to be one of the most important components to Southern Nevada's water resource portfolio, as it not only reduces existing and future demands, but extends available supply. As the drought throughout the Colorado River Basin continues, efforts to reduce consumptive water use while seeking additional water resources are imperative.

Service Rules Update. In December, the LVVWD Board of Directors approved revisions to the LVVWD's Service Rules that will bolster water conservation efforts, curtail inefficient water use and restrict non-functional turf. These changes include:

- Prohibiting turf installations that do not meet the SNWA's Non-Functional Turf Resolution guidelines. This action ensures that the LVVWD water is only used for new turf installations that are functional for things such as parks and recreational use.
- Ceasing service to new manmade lakes and ornamental water features, except resort-hotel water features and manmade lakes that agree to participate in abatement efforts. New recreational water parks will also be required to offset their water use.
- Ceasing service to properties whose wastewater is discharged to a septic system instead of a municipal sewer system that returns resources to Lake Mead.
- Adjusting water rates, beginning January 1, 2022, for existing manmade lakes to match those rates paid by commercial and industrial businesses. New manmade lakes will pay exclusively fourth tier water rates.

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Advanced Metering Infrastructure (AMI) and Software. The LVVWD is in the process of implementing an AMI system, which is expected to be completed by January 2023. The AMI system will optimize customer and field services communication through timely meter reads and events, and support conservation by improving staff's ability to monitor and address water leaks in a more efficient manner.

With this technology, the LVVWD will be able to provide enhanced customer service and interaction, increased support for conservation initiatives, optimized service response and more efficient management.

Water Waste Enforcement

The LVVWD continues to increase its public outreach efforts, educate customers on sustainable practices and help customers self-impose additional standards to conserve water. The organization has bolstered its water waste enforcement presence and is expanding its suite of tools for citizens to report water waste.

Reporting Water Waste. The LVVWD continued utilizing the water waste reporting form on its website in 2020 to provide a convenient means by which customers can report observed water waste. A new mobile app was also launched in late 2020, with a method to easily report water waste and obtain seasonal watering clock reminders. More than 5,300 water waste reports were submitted via the form and/or mobile app, immediately notifying the LVVWD staff of the date, time, location and type of water waste occurrence so that proper investigation and citation procedures could be implemented.

Investigations. The LVVWD has strengthened water waste enforcement efforts, although there was a brief interruption in enforcement due to the COVID-19 pandemic between mid-March to mid-June 2020. Fee assessments were also paused from mid-March to mid-September 2020. Currently, there are ten full-time water waste investigation field staff.

Water Waste Investigation Efforts		
	2019	2020
Water Waste Investigations	16,804	11,109
Courtesy Notices	4,729	3,194
Formal Notices	6,230	4,982
Assessed Fees	\$260,640	\$180,720

The organization continues to improve processes by using analytical data to identify continuous flow on properties and to develop notifications for customers via different channels.

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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 operates the public water systems in Blue Diamond, Jean, Kyle Canyon, Laughlin and Searchlight. In 2020, the LVVWD delivered approximately 109 billion gallons of water to customers throughout its service area.

System Profile

The LVVWD operates and maintains a complex water distribution system which connects over 400,000 homes and businesses to the community's water supply. Key components of the water system include:

- 6,926 miles of transmission, distribution and service lines
- 80 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
- 63 production wells
- 21 dedicated recharge wells and 37 combination wells capable of storing more than 140 million gallons of water per day

These components are critical to ensure that the LVVWD's customers always have reliable access to water.

Blue Diamond Moratorium. As groundwater levels continue to decline in the town of Blue Diamond, the LVVWD Board of Directors acted to temporarily halt new water commitments and meter-size increases.

The temporary moratorium will help protect existing customers by stabilizing water demands in the Blue Diamond Water System. Water levels in the community continue to decline, only exacerbated by future decreases in precipitation and increases in temperature caused by climate change, as the wells depend on precipitation to recharge the aquifer.

The moratorium will remain in effect until the LVVWD Board of Directors determines there is adequate supply of water available to permit additional water commitments within the Blue Diamond Water System.

Capital Improvements and Asset Management

In 2017, the LVVWD Board of Directors approved a 10-year, \$616 million (in 2016 dollars) CIP. A top priority, this document guides the operation, maintenance and development of the LVVWD water distribution system, and supports the LVVWD's ongoing commitment to ensure the community water system remains stable and reliable into the future. The following projects are currently either active or have been recently completed:

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- Centennial 2635 Zone Reservoir
- Centennial 3205 Zone North Pipeline, Phases I and II
- Rome 2745 Reservoir, 2975 Zone Pumping Station, and 2975-2860 Zone Pressure Reducing Valve
- Rome Facilities Pipelines
- Skye Canyon 2860 Zone Pipeline
- Egan Crest 3090 Zone North Pipeline Phase III
- Shaumber 3205 Zone North Pipeline Phase II and Pressure Reducing Valve
- Las Vegas Boulevard Improvements, Phase B

These projects will increase capacity and reliability for current and future demand throughout the valley.

SCADA Upgrades. The LVVWD's 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 will receive an upgrade this year, which will allow for long-term maintenance, improved functionality for operators, increased vendor and integrator support and enhanced cybersecurity tools.

Customer Care

Customer service remains a top priority for the LVVWD and staff is continually pursuing opportunities to ensure customers consistently receive world-class service.

Additional Payment Kiosks. Customer Care staff strive to provide flexible options for customers to pay water bills. Later this year, two additional kiosks will be installed outdoors to provide 24-hour access for customers.

My Account Enhancements. Adding a new form on LVVWD.com to support residential customer service requests has helped decrease the volume of calls to the contact center, saving time and resources. Additionally, the creation and launch of a new mobile app has given customer's the ability to transact with the LVVWD on mobile devices.

Field Services

To adapt to changes brought on by the COVID-19 pandemic, Field Services made several adjustments to its day-to-day procedures. Staff start times shifted to reduce the number of staff in key areas of the facility, morning tailgates were conducted virtually, group chats provided team members a source for information and updates, the Dispatch Team began working remotely, and workflows were altered to focus on priorities.

Inactive Consumption. Both Data Support and Customer Care staff updated processes to accommodate the pandemic environment. Instead of sending a truck to lock a service, staff began sending letters and making phone calls to prompt customers to sign up for a service agreement.

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More than 2,400 letters have been sent with an outcome of more than 1,600 service agreements. Additionally, more than 700 phone calls were placed.

Meter Maintenance Program. The previously designed meter maintenance program was implemented after the initial stages of the COVID-19 pandemic. A rotating portion of the staff focused solely on daily maintenance to ensure that meter replacements are done consistently to help stagger and avoid a large influx of replacements at the same time. During the past year, Field Services replaced 19,940 meters, which is a 78 percent increase from the previous year.

Staff Development and Department Restructure. Field Services continued to focus on staff development by implementing new training protocols and refresher classes to ensure all staff stay current in their skillsets.

The Customer Care & Field Services department was restructured to consolidate and enhance performance. The Customer Care Senior team and the Field MSFR3 team were merged under the same supervisor, and the Dispatch team moved to Field Services, which resulted in increased communication and improved dispatching protocols.

System and Process Upgrades. Over the past year, staff expanded its list of approved vendors for repairs; vendor procedures were enhanced to ensure proper flow of information for required work; Itron handhelds were replaced with new units, designed to interact with Advanced Metering Reading devices; staff implemented new audit and permit documents which allow for centralized data and simpler field procedures.

Springs Preserve

The LVVWD owns and operates the Springs Preserve, a 180-acre facility built to inspire culture and community, promote environmental stewardship and bring the vibrant history of the Las Vegas valley to life.

Due to the COVID-19 pandemic and state directives, the Springs Preserve was closed for much of the fiscal year and operated in a limited capacity when allowed to open. The Springs Preserve opened its trails and gardens in the summer of 2020 and welcomed approximately 10,000 guests before closing again in the fall. During this time, staff retooled operations, moved to cashless payments, initiated timed reservations to increase social distancing, and increased cleaning and sanitizing. Temporary staff were removed from the schedule, reducing the overall labor budget for the remainder of the fiscal year by more than \$300,000. Booked traveling exhibits and art installations were either cancelled or deferred during closure, saving more than \$200,000 over the 2020-21 fiscal year.

The botanical garden's electrical expansion was completed early due to the facility's closure. This project provided electrical outlets throughout the gardens and inground conduit for eventual low voltage lighting/speaker installation.

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The Sustainability Gallery remodel project, funded through a state grant of \$1 million, with an additional \$250,000 from the Springs Preserve Foundation, is expected to be completed in the first quarter of fiscal year 2021-22.

In May 2018, Springs Preserve staff worked with the Nevada Department of Wildlife and the U.S. Fish and Wildlife Service (USFWS) to introduce the endangered Pahrump poolfish and imperiled Relict Leopard frogs into the ponds at the Spring Preserve's Cottonwood Grove. Research conducted this year suggests that the ponds provide a high-quality breeding and recruitment habitat and the Preserve was awarded a \$56,000 grant by the USFWS to improve conditions in two additional on-site ponds.

Financial Summary

The table on the following page contains a summary of sources and uses of funds for the LVVWD's fiscal years 2019-20, 2020-21 and 2021-22.

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Budget Summary (\$ in millions)

	Actual 2019-20	Budget 2020-21	Budget 2021-22	Budget-to-Budget Variance	
				\$	%
Sources					
Tiered Consumption	\$ 267.9	\$ 276.7	\$ 301.1	\$ 24.4	9%
Service Charge	74.0	76.9	77.9	1.0	1%
Backflow Charge	12.2	12.2	12.5	0.3	2%
Reclaimed Water	7.7	6.9	7.3	0.4	5%
Other Water Bill Charges	6.8	9.7	5.3	(4.4)	-45%
Facilities Connection Charge	17.6	4.3	8.3	4.0	93%
Application & Inspection Fees	3.1	0.7	1.0	0.3	35%
Investment Income	20.9	6.0	5.4	(0.6)	-10%
Springs Preserve	2.0	3.1	1.9	(1.2)	-39%
Other Sources	9.4	-	23.9	23.9	
Subtotal	421.6	396.5	444.6	48.0	12%
Debt Issuance Proceeds	7.9	100.0	75.0	(25.0)	-25%
LVVWD Sources	429.5	496.5	519.6	23.0	5%
Uses					
Purchased Water	101.8	97.1	105.6	8.6	9%
Energy	8.4	10.0	9.4	(0.7)	-7%
Payroll & Related	136.8	155.8	152.0	(3.8)	-2%
Operating Expenses	39.7	67.3	51.3	(16.0)	-24%
Capital Expenditures	97.5	147.6	153.9	6.3	4%
Debt Service	67.6	76.3	79.5	3.1	4%
LVVWD Uses	451.8	554.1	551.6	(2.5)	0%
LVVWD Net Surplus/(Deficit)¹	\$ (22.3)	\$ (57.6)	\$ (32.1)	\$ 25.5	
SNWA Charges					
Infrastructure Charge	\$ 119.5	\$ 120.3	\$ 123.8	\$ 3.5	3%
Commodity Charge	48.0	47.8	51.3	3.5	7%
Connection Charge	44.5	11.1	18.1	7.0	63%
Reliability Surcharge	4.0	3.9	4.2	0.3	8%
SNWA Charges	\$ 216.0	\$ 183.1	\$ 197.4	\$ 14.4	8%
Total Sources	\$ 645.5	\$ 679.6	\$ 717.0	\$ 37.4	5%
Total Uses	667.8	737.2	749.1	11.9	2%
Total Net Surplus/(Deficit)¹	\$ (22.3)	\$ (57.6)	\$ (32.1)	\$ 25.5	

¹ Any amount of Net Surplus is used to fund reserves while Net Deficit amounts are funded through the use of reserve balances.

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Sources

The fiscal year 2021-22 tentative budget's total sources of funds are projected to be \$717.0 million, or a 5 percent increase as compared to the 2020-21 Adopted Budget Plan. The growth is largely due to the increases in tiered consumption charges, Facilities Connection Charge, and other sources.

Tiered consumption charges are projected to increase \$24.4 million, or nine percent, reflecting higher consumption levels. The service charge is anticipated to increase \$1.0 million, or one percent. Tier consumption charges and service charge revenues also factored in water rate increases adopted by the Board in January 2017, and projected growth in the number of active services.

Facilities Connection Charges are expected to increase by \$4.0 million, or 93 percent. The 2020-21 Adopted Budget Plan amount was significantly affected by projected impacts from the COVID-19 pandemic in Southern Nevada, and the 2021-22 amount is higher due to those projected impacts not having as negative of an effect as anticipated.

The 2021-22 budget includes \$75.0 million in proceeds from a planned debt issuance. The debt proceeds will go towards funding the ongoing CIP.

Uses

The 2021-22 Budget Plan's total uses of funds are projected to be \$749.1 million, or a two percent increase compared to the 2020-21 Adopted Budget Plan. This is largely due to increases in pass-through charges from the SNWA. Capital expenditures are expected to increase \$6.3 million, or 4 percent. This increase is attributable to alignment with the \$616 million (2016 dollars) 10-year CIP adopted by the Board in January 2017.

Purchased water costs are projected to decrease by \$8.6 million, or nine percent, due to the projected rise in water consumption, which leads to increased wholesale water purchased from the SNWA. Energy costs are projected to decrease by \$0.7 million, or seven percent. Payroll costs are anticipated to increase by \$3.8 million, or two percent, compared to the 2020-21 Adopted Budget Plan. The full-time equivalent employee count across the entire organization is expected to remain steady in 2021-22 compared to the 2020-21 Adopted Budget Plan.

Non-payroll operating expenses are projected to decrease by \$16.4 million, or 24 percent, as the LVVWD continues to monitor spending levels during the COVID-19 pandemic. Capital Expenditures are budgeted to rise by \$6.3 million in continuation of the CIP. Debt service is anticipated to increase, compared to 2020-21, largely due to the planned \$75 million debt issuance.

Summary

Overall, the LVVWD's fiscal year 2021-22 Budget Plan presents a stable outlook as the LVVWD navigates through the COVID-19 pandemic, with recurring revenues exceeding recurring expenses and a mix of revenues, reserves, and debt proceeds funding capital expenditures.

Las Vegas Valley Water District
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General Manager's Information Report
Fiscal Year Ending June 30, 2022

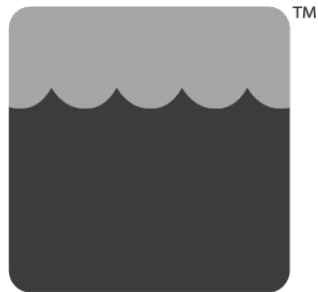
Approval

The public hearing on the LVVWD's 2021-22 Tentative Budget, and adoption of the Final Budget, is scheduled for 9:45 a.m., Monday, May 17, 2021.

A handwritten signature in black ink, appearing to read "John J. Entsminger", is written over a horizontal line.

John J. Entsminger, General Manager

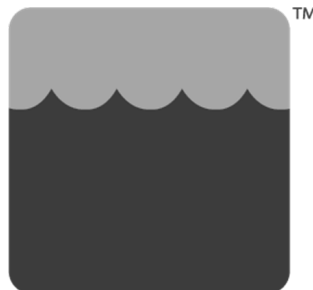
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SECTION 2

INTRODUCTION AND STRATEGIC PLAN

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LAS VEGAS VALLEY WATER DISTRICT
FISCAL YEAR 2021-22
OPERATING AND CAPITAL BUDGET

Las Vegas Valley Water District
Operating and Capital Budget
Introduction and Strategic Plan
Fiscal Year Ending June 30, 2022

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 2021-22 Budget Plan. The following describes these intergovernmental relationships.

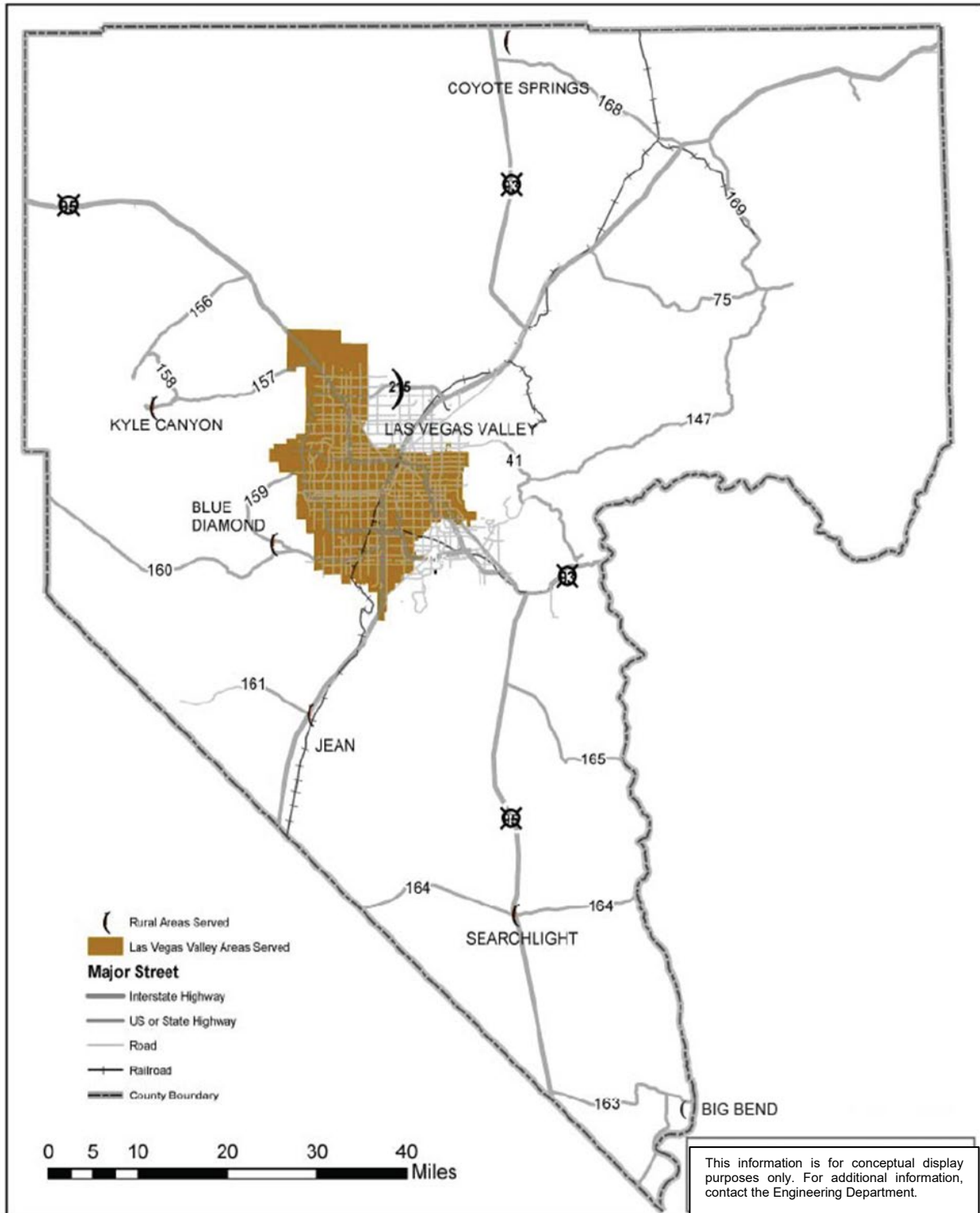
Las Vegas Valley Water District. The LVVWD serves potable water to customers in the City of Las Vegas and unincorporated urban areas of Clark County, Nevada. As the largest water purveyor in Southern Nevada, the LVVWD has taken a leadership role in conservation and regional water issues. The LVVWD provides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

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regional basis. The Board of Directors of the SNWA (SNWA Board) consists of one member selected from each of the member agencies.

Areas Currently Served



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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, 2020 are as follows: Boulder City (2.4 percent), Henderson (18.3 percent), North Las Vegas (13.8 percent), the LVVWD (65.2 percent) and others (0.2 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.

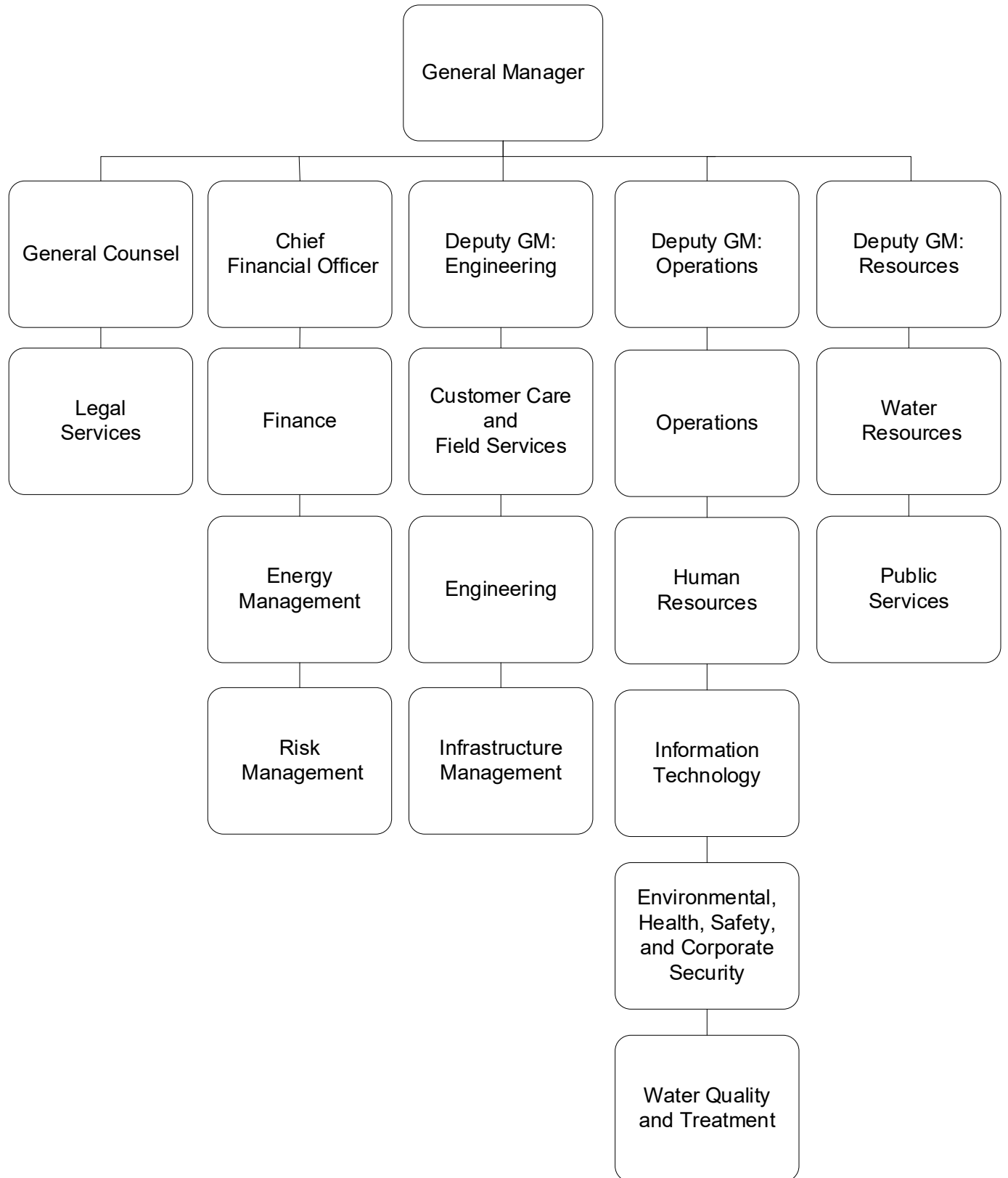
Colorado River Commission (CRC). The CRC is a Nevada State agency created in the mid-1930's to acquire and protect Nevada's right to water and power resources from the Colorado River. Colorado River water is apportioned among the seven Colorado River basin states and Mexico. The seven-member CRC consists 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. The organization chart on the following page reflects the LVVWD's current organizational structure.

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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 July 1, 2021, the LVVWD has \$804 million in outstanding general debt. All applicable bond covenants, such as ratios of net income to

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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".

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. Employee fidelity insurance in the amount of \$3 million and other miscellaneous coverage are also purchased.

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. The LVVWD provides builders risk insurance for all construction projects with a blanket limit of \$500 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 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,

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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 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 2021-22 BUDGET CALENDAR

	All Departments	Financial Services	Executive Management	Human Resources
Dec	Thu Dec 3 Budget instructions and calendar received	Thu Dec 3 Budget instructions and calendar sent to departments		Dec Organization charts available for review in Workday. Adjustments to organization charts due to Human Resources Information Systems, (HRIS) (HRIS@lvvwd.com) by Thursday, January 14, 2020
	Mon Dec 7 – Tue Dec 15 Operating expense files received	Mon Dec 7 – Tue Dec 15 Operating expense files sent. Coordination of budget process, schedule, and assigned department Analyst assistance begins		
	Tue Dec 15 Budget Kick-off Meeting (Teams)	Tue Dec 15 Budget Kick-off Meeting(Teams)	Tue Dec 15 – Thu Jan 14 Personnel related requests will be coordinated through each department's Director and Deputy General Manager	Thu Dec 17 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 14, 2020
	Tue Dec 15 – Thu Jan 14 Personnel related requests will be coordinated through each department's Director and Deputy General Manager			
	Thu Jan 14 Adjustments to organization charts submitted to Human Resources Information Systems, (HRIS) (HRIS@lvvwd.com)	Thu Jan 14 Major data processing and equipment requests submitted to Information Technology and Fleet Services for review and coordination		
Jan	Thu Jan 14 Final requests for interns and summer hire positions submitted to HRIS (HRIS@lvvwd.com)	Mon Jan 25 Begin coordination with departments incurring intercompany and overtime payroll costs		Thu Jan 14 List of existing interns and summer hire position renewals sent to Financial Services
	Thu Jan 28 Final 2021-22 operating expense budgets submitted to Financial Services			
	Thu Jan 28 Final 2021-22 capital budget equipment and project requests submitted			

FISCAL YEAR 2021-22 BUDGET CALENDAR



	All Departments	Financial Services	Executive Management	Human Resources
Feb	Mon Feb 1 Budget narrative instructions received	Mon Feb 1 Budget narrative instructions sent to departments		
	Mon Feb 22 Summaries and detail of operating expense & capital expenditure budgets received	Mon Feb 22 Summaries and detail of operating expense & capital expenditure budgets sent to departments		
		Mon Feb 22 Assisting departments in preparation for the Senior Management Team (SMT) budget meeting presentations begins		
Mar		Tue Mar 2 Budget overview briefing with Executive Management (E-Team)	Tue Mar 2 Budget overview briefing	
	Mon Mar 8 Department budget meetings with SMT and overview briefing	Mon Mar 8 Department budget meetings with SMT and overview briefing	Mon Mar 8 Department budget meetings with SMT and overview briefing	
	Mon Mar 15 Budget narratives submitted to Financial Services		Tue Mar 9 – Mon Mar 15 Final budget decisions made by Executive Management (E-Team)	
Apr		Thu Apr 1 Proposed draft budgets completed for Budget Workshops with Boards of Directors	Thu Apr 15 Board of Directors Budget Workshop for SNWA	
		Thu Apr 15 Preliminary Budgets filed with the Nevada State Department of Taxation	Mon Apr 26 Board of Directors Budget Workshop for LVVWD (including BBWD & Coyote Springs)	

FISCAL YEAR 2021-22 BUDGET CALENDAR



All Departments	Financial Services	Executive Management	Human Resources
May	Tues May 4 LVVWD, BBWD, and Coyote Springs Public hearing notice published in LVRJ Fri May 7 SNWA Public hearing notice published in LVRJ	Mon May 17 LVVWD Board of Directors public hearings conducted on proposed budgets of LVVWD, Big Bend, and Coyote Springs for possible adoption Thu May 20 SNWA Board of Directors public hearing conducted on the proposed budget for possible adoption	
	Thu May 27 Adopted budgets sent to the Nevada Department of Taxation		Thu May 20 Organization charts updated after Boards adopt budgets
	Mon Jun 21 LVVWD, SNWA, BBWD & Coyote Springs annual summary fiscal reports published in LVRJ		
	Thu Jul 22 Proof of publication of fiscal reports submitted to the Nevada State Department of Taxation		
Jun			
Jul			
Aug	Thu Aug 5 Budget Award Application submitted to the GFOA		

Las Vegas Valley Water District
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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 2021-22 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 2021-22 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 two decades, Southern Nevada has weathered unprecedented drought conditions on the Colorado River and has survived the effects of an economic recession and COVID-19 pandemic impacts. The recession impacts included a change in the community's business environment, a

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decrease in water sales, and a decrease in connection charges. Some of those same impacts have been seen from the ongoing COVID-19 pandemic. 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.

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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 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.

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- Promote a culture that is innovative, 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.

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

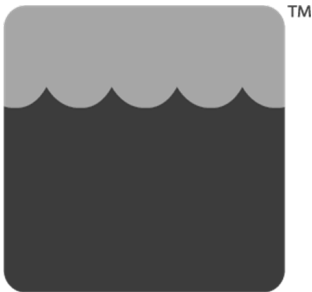
- Increase customer communication so there is a better understanding of the value of our products and services.
- Ensure predictable rates that are aligned with community expectations.
- Seek out and deploy worldwide best practices to minimize costs.
- Establish and utilize benchmarks to explore new 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.

SECTION 3
OPERATING AND
CAPITAL BUDGET PLAN

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LAS VEGAS VALLEY WATER DISTRICT
FISCAL YEAR 2021-22
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The fiscal year 2021-22 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 2021-22 Budget Plan's total sources of funds are projected to be \$717.0 million, or a five percent increase compared to the fiscal year 2020-21 Adopted Budget Plan. The fiscal year 2021-22 Budget Plan's total uses of funds are projected to be \$749.1 million, or a two percent increase compared to the fiscal year 2020-21 Adopted Budget Plan. The table below shows the Sources and Uses of Funds Summary for the 2019-20, 2020-21, and 2021-22 fiscal years.



Budget Summary

	Actual 2019-20	Budget 2020-21	Budget 2021-22	Budget-to-Budget Variance \$	%
Sources					
Tiered Consumption	\$ 267,894,931	\$ 276,681,168	\$ 301,116,788	\$ 24,435,621	9%
Service Charge	74,013,427	76,885,082	77,927,344	1,042,263	1%
Backflow Charge	12,201,034	12,187,326	12,466,647	279,321	2%
Reclaimed Water	7,705,207	6,936,938	7,306,470	369,532	5%
Other Water Bill Charges	6,782,317	9,672,690	5,298,535	(4,374,155)	-45%
Facilities Connection Charge	17,628,602	4,293,310	8,273,458	3,980,148	93%
Application & Inspection Fees	3,091,750	724,256	979,297	255,041	35%
Investment Income	20,939,787	6,034,677	5,407,983	(626,694)	-10%
Springs Preserve	1,965,658	3,127,885	1,895,496	(1,232,389)	-39%
Other Sources	9,363,359	-	23,896,563	23,896,563	
Subtotal	421,586,072	396,543,331	444,568,581	48,025,251	12%
Debt Issuance Proceeds	7,912,212	100,000,000	74,989,681	(25,010,319)	-25%
LVVWD Sources	429,498,284	496,543,331	519,558,262	23,014,931	5%
Uses					
Purchased Water	101,774,269	97,091,127	105,649,878	8,558,751	9%
Energy	8,396,835	10,009,000	9,352,000	(657,000)	-7%
Payroll & Related	136,844,084	155,777,610	151,963,017	(3,814,593)	-2%
Operating Expenses	39,702,339	67,276,623	51,282,774	(15,993,849)	-24%
Capital Expenditures	97,547,408	147,629,101	153,930,861	6,301,760	4%
Debt Service	67,560,760	76,347,958	79,453,301	3,105,343	4%
LVVWD Uses	451,825,695	554,131,419	551,631,831	(2,499,588)	0%
LVVWD Net Surplus/(Deficit)¹	\$ (22,327,411)	\$ (57,588,088)	\$ (32,073,569)		
SNWA Charges					
Infrastructure Charge	\$ 119,485,886	\$ 120,257,759	\$ 123,776,745	\$ 3,518,986	3%
Commodity Charge	48,015,245	47,778,141	51,307,514	3,529,373	7%
Connection Charge	44,514,203	11,118,873	18,133,026	7,014,153	63%
Reliability Surcharge	3,954,949	3,914,309	4,214,929	300,621	8%
SNWA Charges	\$ 215,970,283	\$ 183,069,082	\$ 197,432,214	\$ 14,363,133	8%
Total Sources	\$ 645,468,566	\$ 679,612,412	\$ 716,990,476	\$ 37,378,064	5%
Total Uses	667,795,978	737,200,501	749,064,045	11,863,545	2%
Total Net Surplus/(Deficit)¹	\$ (22,327,411)	\$ (57,588,088)	\$ (32,073,569)		

¹ Any amount of Net Surplus is used to fund reserves while Net Deficit amounts are funded through the use of reserve balances.

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Sources

The fiscal year 2021-22 Budget Plan's total sources of funds are projected to be \$717.0 million, which is a five percent increase compared to the 2020-21 Adopted Budget Plan.

The LVVWD revenue-based sources of funds are projected to rise by \$48.0 million, or 12 percent. This increase is largely due to projected increases in tiered consumption and other sources.

The LVVWD revenue-based sources of funds are also impacted by the implementation of the LVVWD Board of Directors (Board) adopted water rate adjustments. The Board adopted water rate adjustments are inflation-indexed annually. In addition to the rate adjustments, the LVVWD plans to issue \$75.0 million in bonds during 2021-22, which is discussed in further detail later in this section.

In January 2017, the Board approved the Citizens Advisory Committee (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.

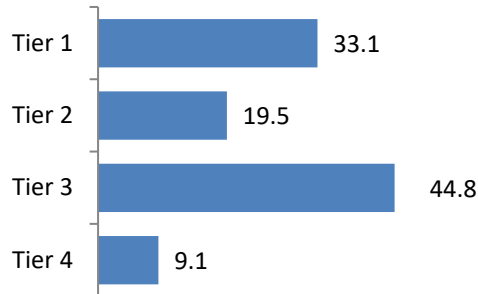
Tiered Consumption

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 – 29%
- Tier 2 – 17%
- Tier 3 – 43%
- Tier 4 – 10%

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**2021-22 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 \$1.34 per 1,000 gallons.

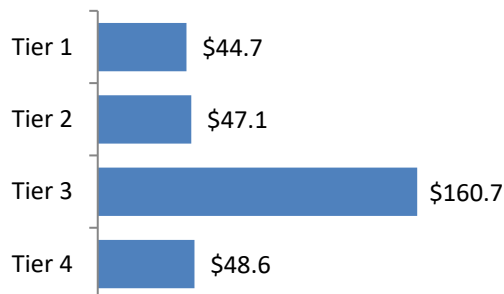
Tier 2. Tier 2 rates allow a typical small residence with very limited outdoor water use to avoid the 3rd tier. In addition, tier 2 thresholds have been compressed for residential services with a meter size of ¾” or above in order to encourage conservation. The tier 2 consumption rate is currently set at \$2.39 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 \$3.55 per 1,000 gallons.

Tier 4. Tier 4 rates are designed to encourage conservation. The tier 4 consumption rate is currently set at \$5.27 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.

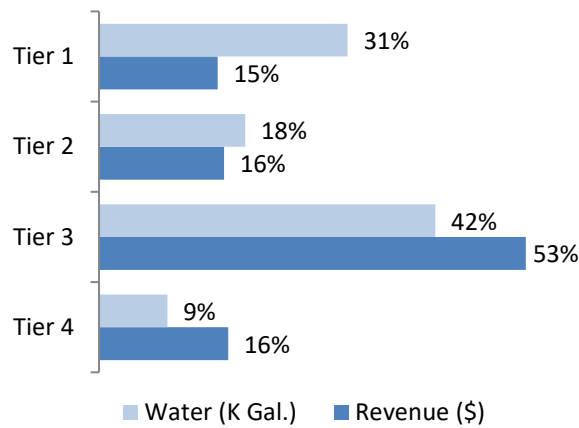
**2021-22 Budgeted
Revenue by Tier
(\$ in millions)**



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The following chart shows the percent of budgeted water deliveries and revenue by tier for the fiscal year 2021-22. 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.

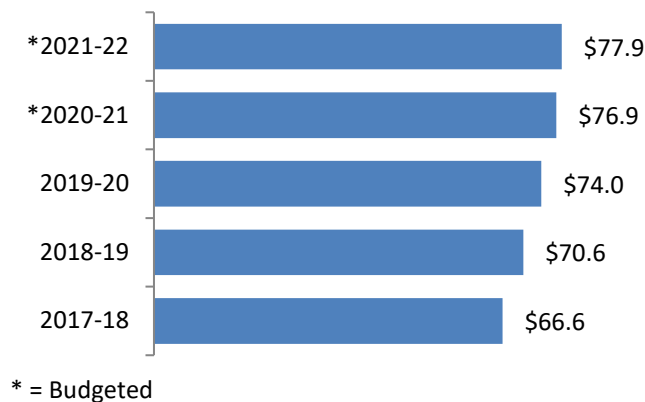
**Percent Budgeted Water
Deliveries & Revenue by Tier**



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.

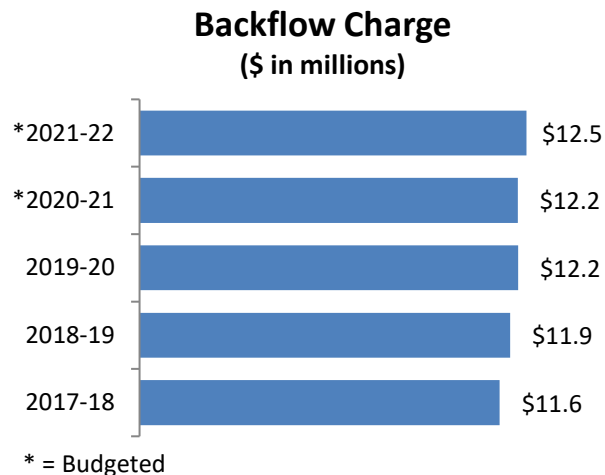
**Service Charge
(\$ in millions)**



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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 water delivered through the reclaimed water distribution system, typically to golf courses and parks. The flat rate for reclaimed 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 2021-22 Budget Plan, reclaimed water revenues are estimated to be \$7.3 million.

Other Water Bill Charges

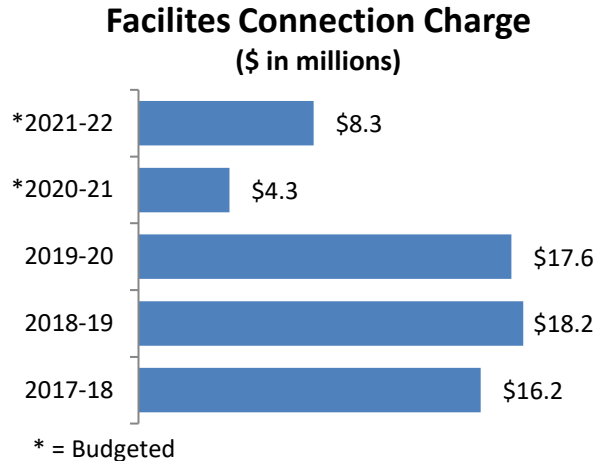
The water bill may contain various other charges which appear on customers' water bills, such as turn on charges, late fees, delinquent processing charges, lockout fees, returned check charges, etc. Also, the allowance for doubtful accounts is included in other water bill charges. For the fiscal year 2021-22 Budget Plan, other water bill charges are anticipated to total \$5.3 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 2021-22 Budget Plan, connection charges are anticipated to be \$8.3 million, which represents a \$4.0 million increase compared to the fiscal year 2020-21 Adopted Budget Plan. The facilities connection charge will be increased annually

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each March based on the Engineering News Record Construction Cost Index. These annual increases ensure the charged fee keeps pace with the expenditures required to render services.



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 2021-22 Budget Plan, application and inspection fees total \$1.0 million an increase of \$0.3 million compared to the fiscal year 2020-21 Adopted Budget Plan. This increase reflects anticipated 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 2021-22, interest earnings are anticipated to be \$5.4 million, a \$0.6 million decrease compared to the fiscal year 2020-21 Adopted Budget Plan estimate. The decrease is mostly the result of fluctuations in the reserve balances.

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.

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For the fiscal year 2021-22 Budget Plan, revenues for the Springs Preserve are anticipated to total \$1.9 million, a 39 percent decrease compared to the fiscal year 2020-21 Adopted Budget Plan. This decrease is as a result of limited operations projected due to the COVID-19 pandemic.

Other Sources

Other Sources. The 2021-22 Budget Plan includes other sources of \$23.9 million. This amount is comprised of \$20.4 million of sources from the oversizing fund and \$3.5 million in grants. The oversizing fund and grant amounts in other sources match the amounts in their corresponding uses of funds within capital expenditures.

Debt Issuance Proceeds

Municipal Bond Proceeds. The LVVWD plans to issue \$75.0 million in bonds during 2021-22. The bond proceeds are to fund capital expenditures, which is discussed in further detail later in this section.

SNWA Infrastructure Charge

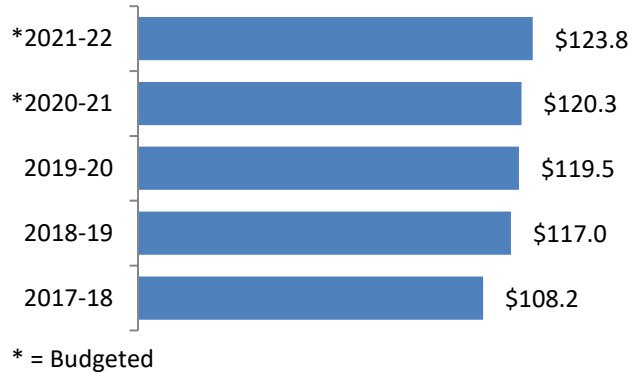
In October 2011, the SNWA Board of Directors (SNWA Board) authorized an extensive rate study and a public outreach process to study various alternative rate structures to service the SNWA's outstanding debt. Debt had been issued to fund capital projects and additional debt was issued to fund ongoing 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.

In October 2019, the SNWA Board appointed a citizens advisory committee, named IRPAC 2020, to examine Southern Nevada's long-term water planning efforts. One of the IRPAC 2020's recommendations was to implement a six-year annual increase effective January 2022 to phase-in an inflationary catch up, as well as adjust for annual inflation. All of the IRPAC 2020's recommendations were approved by the Board in September 2020, and the rate adjustments themselves were adopted by the Board in November 2020 after a public hearing. Beginning in January 2022 the infrastructure charge will increase 1.6% annually for six years to catch up the rate to current day dollars, as well as three percent to account for current year inflation. Beginning in January 2028 the infrastructure charge will be indexed to the Engineering News Record (ENR) construction cost index, which will allow the cost of services to keep pace with the associated fee structure.

This source of revenue for the SNWA is projected to generate \$123.8 million from the LVVWD customers. This represents an increase of \$3.5 million, or three percent, in the fiscal year 2021-22 Budget Plan when compared to the fiscal year 2020-21 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.

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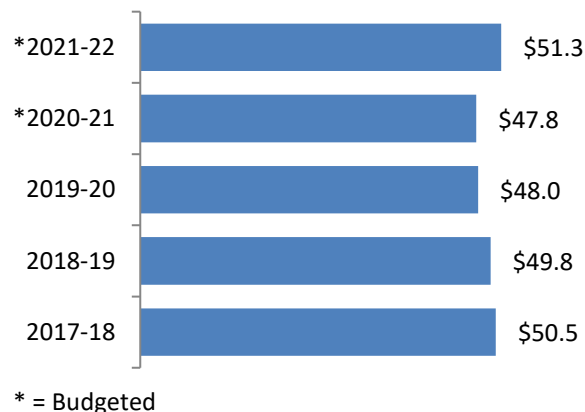
Infrastructure Charge
(\$ in millions)



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 commodity charge was implemented as a fixed fee per 1,000 gallons consumed. In November 2020 the SNWA Board approved tying the commodity charge to future annual increases in the Consumer Price Index (CPI). In addition to accounting for future inflation, additional increases of 2.3 % will take place for six years starting in January 2022 to account for inflation since the last increase in January 2017. 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 2021-22, commodity charge revenues are anticipated to be around \$51.3 million, an increase of \$3.5 million, or seven percent, compared to the fiscal year 2020-21 Adopted Budget Plan.

Commodity Charge
(\$ in millions)

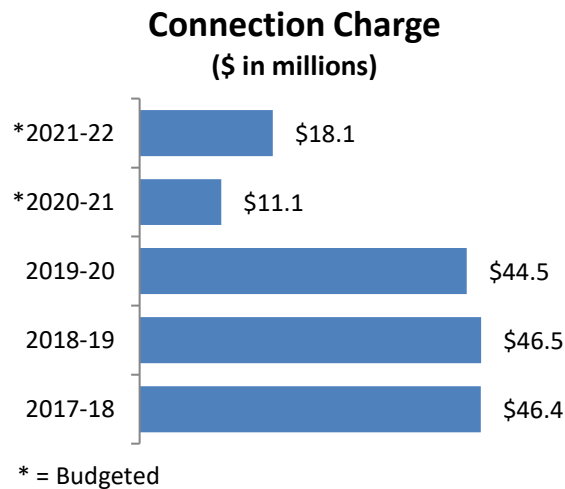


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SNWA Connection Charge

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. Similar to the infrastructure and commodity charges, the IRPAC 2020 recommended to implement a six-year annual increase effective March 2022 to phase-in catch up inflation, as well as adjust for annual inflation. 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 2021-22 Budget Plan anticipates the SNWA connection charge collections of \$18.1 million, an increase of \$7.0 million compared to the fiscal year 2020-21 Adopted Budget Plan. As with other sources of development-based revenue, this increase reflects the projected 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 2021-22 Budget Plan, it is estimated this charge will total \$4.2 million.

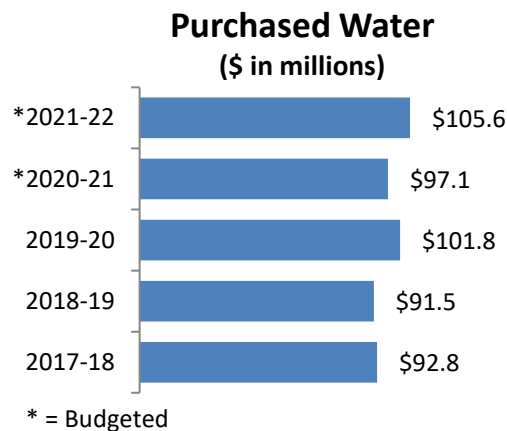
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Uses

The fiscal year 2021-22 Budget Plan's total uses of funds are projected to be \$749.1 million, which is a two percent increase compared to the 2020-21 budget.

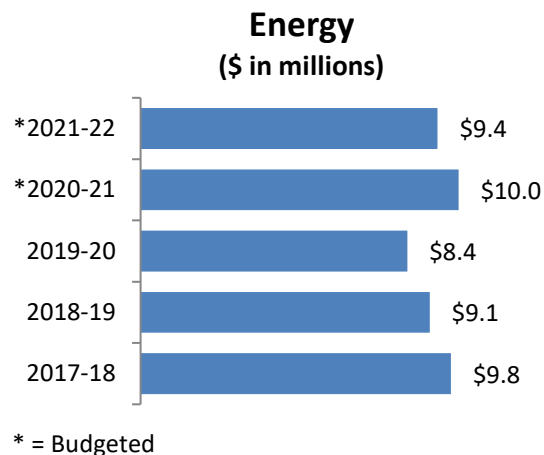
Purchased Water

The LVVWD purchases approximately 90 percent of its water from the SNWA. For the fiscal year 2021-22 Budget Plan, water costs are projected to be \$105.6 million, which is a nine percent increase compared to the fiscal year 2020-21 Adopted Budget Plan. The increase is predominantly a result of increases in purchased water. A portion of the increase can be attributed to increases in the wholesale water rate on water purchased from the SNWA.



Energy

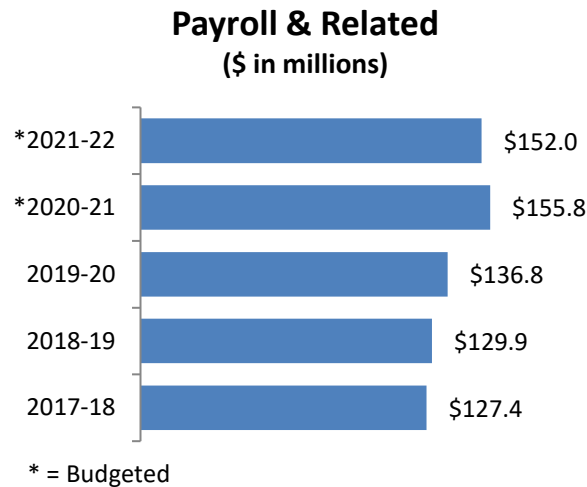
The cost of energy for fiscal year 2021-22 is projected to be \$9.4 million. This is a decrease of \$0.7 million over the prior fiscal year 2020-21.



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Payroll & Related

Payroll and related costs include wages, salaries and benefits. For the fiscal year 2021-22 Budget Plan, payroll and related expenses are anticipated to be \$152.0 million. This represents a decrease of \$3.8 million, or two percent, compared to the fiscal year 2020-21 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 decrease by approximately five FTEs compared to the fiscal year 2020-21 Adopted Budget Plan. The following chart summarizes the number of equivalent FTE positions by Department charging time to the LVVWD.

FTE Summary

<u>Department</u>	<u>Actual</u> <u>2019-20</u>	<u>Budget</u> <u>2020-21</u>	<u>Budget</u> <u>2021-22</u>
Executive Management	5.8	7.4	7.9
Legal Services	5.9	5.5	5.5
Finance	43.4	34.3	32.8
Risk Management	2.4	3.0	3.0
Customer Care & Field			
Services	148.3	171.0	172.0
Engineering	80.5	94.0	95.8
Infrastructure Management	106.9	107.9	101.0
Operations	180.3	195.4	195.4
Human Resources	21.7	26.4	25.5
Information Technology	91.8	95.4	95.4
Environmental, Health,			
Safety & Corporate Security	78.0	67.6	68.5
Water Quality & Treatment	0.6	0.5	0.5
Water Resources	4.8	14.9	16.5
Public Services	65.4	77.0	75.5
Total	835.8	900.0	895.2

**Totals may be off slightly due to rounding*

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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

	Actual	Budget	Budget
	2019-20	2020-21	2021-22
Operating Expenses			
Materials & Supplies	\$ 14.1	\$ 18.9	\$ 19.8
Maintenance & Repairs	18.6	27.3	24.5
Rental & Leases	2.5	2.5	2.6
Other Employee Expenses	1.5	2.7	2.3
Other Operating Expenses	2.9	15.9	2.1
Total	\$ 39.7	\$ 67.3	\$ 51.3

**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 2021-22 Budget Plan anticipates total expenditures of \$19.8 million for this expense category. This represents an increase of \$0.9 million, or five percent, compared to the fiscal year 2020-21 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 2021-22 Budget Plan anticipates this expense will total \$24.5 million, a decrease of \$2.8 million, or ten percent, compared to the fiscal year 2020-21 Adopted Budget Plan.

Rental and Leases. The fiscal year 2021-22 Budget Plan anticipates expenses of \$2.6 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 2020-21 Adopted Budget Plan.

Other Employee Expense. This classification includes such items as safety equipment, dues, travel and training, and tuition reimbursement. The Budget Plan anticipates a total of \$2.3 million spent within this category. This amount represents a decrease of \$0.4 million when compared to the fiscal year 2020-21 Adopted Budget Plan.

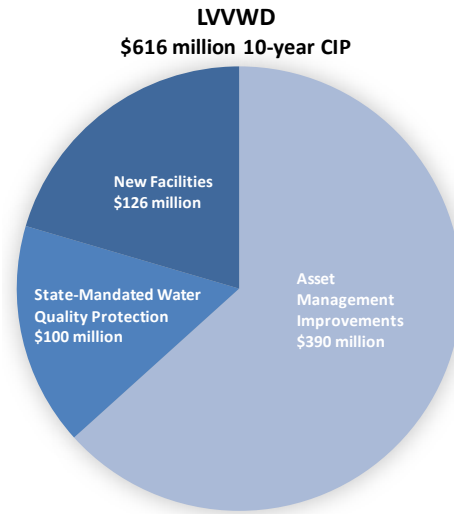
Other Operating Expense. This classification includes, but is not limited to postage, legal fees and professional services. For the fiscal year 2021-22 Budget Plan, other operating expenses are anticipated to total \$2.1 million, a decrease of \$13.8 million, or 87 percent, compared to the fiscal year 2020-21 Adopted Budget Plan.

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Capital Expenditures

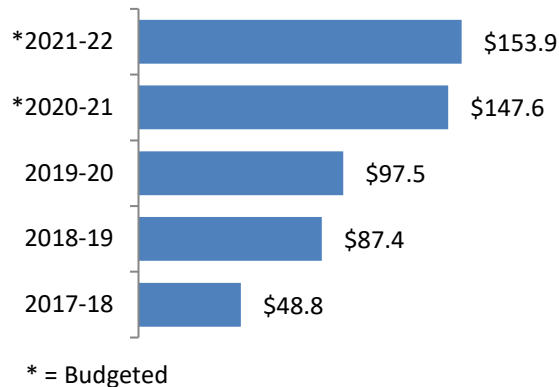
Capital expenditures are primarily driven by the need to expand and maintain the LVVWD's water storage, pumping, distribution system, facilities and equipment.

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 2021-22 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 construction expenditures and capital equipment. For the fiscal year 2021-22 Budget Plan, total construction expenditures and equipment are budgeted at \$153.9 million, or an increase of four percent, compared to the fiscal year 2020-21 Adopted Budget Plan.

Capital Expenditures
(\$ in millions)



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Capital Equipment and Vehicles. For the fiscal year 2021-22 Budget Plan, equipment purchases are anticipated to total \$4.0 million, a decrease of \$1.8 million, or 32 percent, compared to the fiscal year 2020-21 Adopted Budget Plan.

Capital Projects. For the fiscal year 2021-22 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 2021-22 budget, the LVVWD anticipates spending \$150.0 million on capital projects, an increase of \$8.1 million, or six percent, compared to the fiscal year 2020-21 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 fiscal year 2021-22 Budget Plan, and in the fiscal year 2020-21 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 debt service 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 2021-22 Budget Plan, total debt service payments are expected to total \$79.5 million. The increase of \$3.1 million, compared to the fiscal year 2020-21 Adopted Budget Plan, is largely due to the planned \$75.0 million debt issuance in 2021-22.

SNWA Charges

As described in the Sources section previously, the overall SWNA Charges for the fiscal year 2021-22 Budget Plan are expected to be \$197.4 million. This amount represents an increase of \$14.4 million, or eight percent, when compared to the fiscal year 2020-21 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 following table summarizes the estimated sources and uses of funds and changes in net assets for the fiscal year 2021-22 Budget Plan.

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Estimated Net Assets Detail
Fiscal Year 2021-22 Budget

	Invested in Capital Assets Net of Related Debt	Restricted for Debt Service	Restricted for Capital Projects	Unrestricted Net Assets	Total Proprietary Fund Net Position	Pension Trust Fund	OPEB Trust Fund	Total Net Assets
Estimated Equity June 30, 2021	\$ 837,832,030	\$ 30,542,281	\$ 189,372	\$ 355,131,834	\$ 1,223,695,517	\$ 703,187,791	\$ 23,161,540	\$ 1,950,044,848
Capital Acquisitions	(153,930,861)	-	-	-	(153,930,861)	-	-	(153,930,861)
Bond Payments								
Principal	42,228,454	(42,228,454)	-	-	(0)	-	-	(0)
Interest	-	(37,224,847)	-	-	(37,224,847)	-	-	(37,224,847)
Transfer for Debt Service	-	79,453,301	-	(79,453,301)	(0)	-	-	(0)
Operating Revenues	-	-	-	430,887,140	430,887,140	55,071,932	2,500,004	488,459,076
Operating Expenses	-	-	-	(318,247,669)	(318,247,669)	-	-	(318,247,669)
Non Operating Revenue	-	-	-	13,681,441	13,681,441	-	-	13,681,441
Estimated Equity June 30, 2022	<u>\$ 726,129,622</u>	<u>\$ 30,542,281</u>	<u>\$ 189,372</u>	<u>\$ 401,999,446</u>	<u>\$ 1,158,860,721</u>	<u>\$ 758,259,723</u>	<u>\$ 25,661,544</u>	<u>\$ 1,942,781,988</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 (\$79.5 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 2021-22, these revenues are anticipated to total approximately \$430.9 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 year 2021-22, these expenses are anticipated to total approximately \$318.2 million.
- **Pension Expense** - For the fiscal year 2021-22, 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

Las Vegas Valley Water District
Operating and Capital Budget
Operating and Capital Budget Plan
Fiscal Year Ending June 30, 2022

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.

- **Other Post Employment Benefits (OPEB) Expense** – For the fiscal year 2021-22, 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 OPEB 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.

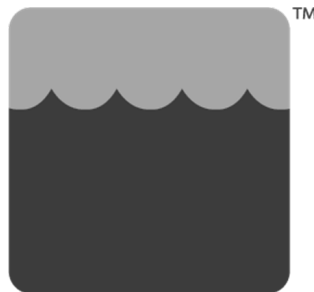
OPEB Trust Fund. LVVWD contributes to a single-employer defined benefit OPEB trust fund. During 2018-19 the OPEB trust fund was established, thus OPEB plan assets are held in a trust to provide a means to fund the post-retirement benefits provided by the LVVWD. Anticipated operating revenues shown for 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 OPEB Trust Fund, the OPEB expense included as part of the LVVWD's operations is shown.

SECTION 4

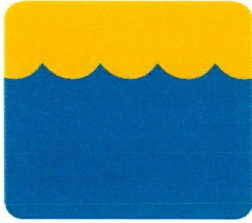
STATE OF NEVADA

BUDGET DOCUMENTS

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LAS VEGAS VALLEY WATER DISTRICT
FISCAL YEAR 2021-22
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, 2022

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 \$ 646,967,116

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:

E. Kevin Bethel
5/17/21

APPROVED BY THE GOVERNING BOARD

Marilyn K. Kirkpatrick, President

James B. Gibson, Vice-President

William McCurdy II

Ross Miller

Justin Jones

Michael Naft

Tick Segerblom

SCHEDULED PUBLIC HEARING:

(Must be held from May 17, 2021 to May 31, 2021 this year)

Date and Time: Monday, May 17, 2021 at 9:45 AM

Publication Date: May 4, 2021

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

FORM 4404LGF

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Schedule 1

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

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FULL TIME EQUIVALENT EMPLOYEES BY FUNCTION

	ACTUAL PRIOR YEAR ENDING 06/30/20	ESTIMATED CURRENT YEAR ENDING 06/30/21	BUDGET YEAR ENDING 06/30/22
General Government			
Judicial			
Public Safety			
Public Works			
Sanitation			
Health			
Welfare			
Culture and Recreation			
Community Support			
TOTAL GENERAL GOVERNMENT			
Utilities	835.8	900.0	895.2
Hospitals			
Transit Systems			
Airports			
Other			
TOTAL	835.8	900.0	895.2

POPULATION (AS OF JULY 1)	1,637,597	1,672,969	1,704,588
SOURCE OF POPULATION ESTIMATE*	NV Dept. of Taxation (https://tax.nv.gov/) Publications, Population Statistics & Reports	Population Statistics & Reports Figure Increased by Demographer's annual % increase 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

SCHEDULE A-2 PROPRIETARY AND NONEXPENDABLE TRUST FUNDS

Budget For Fiscal Year Ending June 30, 2022

Budget Summary for Las Vegas Valley Water District
(Local Government)

FUND NAME	*	OPERATING REVENUES (1)	OPERATING EXPENSES (2) **	NONOPERATING REVENUES (3)	NONOPERATING EXPENSES (4)	OPERATING TRANSFERS		NET INCOME (7)
						IN (5)	OUT (6)	
Las Vegas Valley Water District	E	\$ 604,422,792	\$ 609,742,269	\$ 33,681,441	\$ 37,224,847	\$ -	\$ -	\$ (8,862,883)
TOTAL		\$ 604,422,792	\$ 609,742,269	\$ 33,681,441	\$ 37,224,847	\$ -	\$ -	\$ (8,862,883)

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

Page: 4
SCHEDULE A-2

** Include Depreciation

FORM 4404LGF

PROPRIETARY FUND	(1) ACTUAL PRIOR YEAR ENDING 6/30/2020	(2) ESTIMATED CURRENT YEAR ENDING 6/30/2021	(3) (4) BUDGET YEAR ENDING 06/30/22	
			TENTATIVE APPROVED	FINAL APPROVED
OPERATING REVENUE				
Water Sales	\$ 368,596,916	\$ 382,363,203	\$ 404,115,785	\$ 404,115,785
Application & Inspection Fees	3,091,750	724,256	979,297	979,297
Springs Preserve	1,965,658	3,127,885	1,895,496	1,895,496
Other Operating Revenue	12,260	-	-	-
SNWA Infrastructure Charge	119,485,886	120,257,759	123,776,745	123,776,745
SNWA Commodity Charge	48,015,245	47,778,141	51,307,514	51,307,514
SNWA Connection Charge	44,514,203	11,118,873	18,133,026	18,133,026
SNWA Reliability Charge	3,954,949	3,914,309	4,214,929	4,214,929
Total Operating Revenue	589,636,867	569,284,425	604,422,792	604,422,792
OPERATING EXPENSE				
Purchased Water	101,774,269	97,091,127	105,649,878	105,649,878
Energy	8,396,835	10,009,000	9,352,000	9,352,000
Payroll & Related	127,544,943	155,777,610	151,963,017	151,963,017
Materials & Supplies	14,121,430	18,862,430	19,811,560	19,811,560
Maintenance & Repairs	18,618,874	27,327,141	24,492,441	24,492,441
Rent/Lease	2,536,648	2,485,440	2,606,000	2,606,000
Other Employee Expense	1,518,739	2,668,692	2,258,922	2,258,922
Other Operating Expense	2,906,648	15,932,920	2,113,851	2,113,851
SNWA Infrastructure Charge	119,485,886	120,257,759	123,776,745	123,776,745
SNWA Commodity Charge	48,015,245	47,778,141	51,307,514	51,307,514
SNWA Connection Charge	44,514,203	11,118,873	18,133,026	18,133,026
SNWA Reliability Charge	3,954,949	3,914,309	4,214,929	4,214,929
Depreciation/Amortization	85,511,260	100,000,000	94,062,386	94,062,386
Total Operating Expense	578,899,929	613,223,441	609,742,269	609,742,269
Operating Income or (Loss)	10,736,938	(43,939,016)	(5,319,477)	(5,319,477)
NONOPERATING REVENUES				
Capital Contributions	40,927,158	9,293,310	28,273,458	28,273,458
Investment Income - Unrestricted Funds	20,110,119	5,484,124	5,193,710	5,193,710
Investment Income - Restricted Funds	829,668	550,553	214,273	214,273
Other Nonoperating Revenue	2,134,696	-	-	-
Total Nonoperating Revenues	64,001,641	15,327,987	33,681,441	33,681,441
NONOPERATING EXPENSES				
Interest Expense	20,525,776	37,952,148	37,224,847	37,224,847
Total Nonoperating Expenses	20,525,776	37,952,148	37,224,847	37,224,847
Net Income before Operating Transfers	54,212,803	(66,563,177)	(8,862,883)	(8,862,883)
Transfers (Schedule T)				
In				
Out				
Net Operating Transfers				
CHANGE IN NET POSITION	\$ 54,212,803	\$ (66,563,177)	\$ (8,862,883)	\$ (8,862,883)

Las Vegas Valley Water District
(Local Government)

SCHEDULE F-1 REVENUES, EXPENSES AND NET POSITION

FUND ENTERPRISE

<u>PROPRIETARY FUND</u>	(1)	(2)	(3) (4) BUDGET YEAR ENDING 06/30/22	
	ACTUAL PRIOR YEAR ENDING 6/30/2020	ESTIMATED CURRENT YEAR ENDING 6/30/2021	TENTATIVE APPROVED	FINAL APPROVED
ADDITIONS				
Contributions - Employer	\$ 45,000,000	\$ 48,378,903	\$ 48,000,000	\$ 48,000,000
Contributions - Employee	601,900	200,000	600,000	600,000
Net Investment Earnings	23,036,476	10,436,271	6,471,932	6,471,932
Total Additions	68,638,376	59,015,174	55,071,932	55,071,932
DEDUCTIONS				
Administrative & General Expenses	359,803	400,000	400,000	400,000
Benefits Paid	22,418,696	22,000,000	28,000,000	28,000,000
Total Deductions	22,778,499	22,400,000	28,400,000	28,400,000
Net Increase in Net Position before Operating Transfers	45,859,877	36,615,174	26,671,932	26,671,932
Transfers (Schedule T)				
In				
Out				
Net Operating Transfers				
CHANGE IN NET POSITION	\$ 45,859,877	\$ 36,615,174	\$ 26,671,932	\$ 26,671,932

Las Vegas Valley Water District

SCHEDULE F-1 REVENUES, EXPENSES AND NET POSITION

FUND PENSION TRUST

FORM 4404LGF

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Schedule F-1.1

<u>PROPRIETARY FUND</u>	(1)	(2)	(3) (4) BUDGET YEAR ENDING 06/30/22	
	ACTUAL PRIOR YEAR ENDING 6/30/2020	ESTIMATED CURRENT YEAR ENDING 6/30/2021	TENTATIVE APPROVED	FINAL APPROVED
ADDITIONS				
Contributions - Employer	\$ -	\$ 2,000,004	\$ 2,000,004	\$ 2,000,004
Contributions - Employee	-	-	-	-
Net Investment Earnings	863,540	500,000	500,000	500,000
Total Additions	863,540	2,500,004	2,500,004	2,500,004
DEDUCTIONS				
Administrative & General Expenses	769	200,000	200,000	200,000
Benefits Paid	-	2,000,004	2,000,004	2,000,004
Total Deductions	769	2,200,004	2,200,004	2,200,004
Net Increase in Net Position before Operating Transfers	862,771	300,000	300,000	300,000
Transfers (Schedule T)				
In				
Out				
Net Operating Transfers				
CHANGE IN NET POSITION	\$ 862,771	\$ 300,000	\$ 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

FORM 4404LGF

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Schedule F-1.2

PROPRIETARY FUND	(1)	(2)	(3)	(4)
	ACTUAL PRIOR YEAR ENDING 6/30/2020	ESTIMATED CURRENT YEAR ENDING 6/30/2021	BUDGET YEAR ENDING 06/30/22 TENTATIVE APPROVED	BUDGET YEAR ENDING 06/30/22 FINAL APPROVED
A. CASH FLOWS FROM OPERATING ACTIVITIES:				
Cash Received from Customers	\$ 383,455,945	\$ 386,215,344	\$ 406,990,577	\$ 406,990,577
Cash Payments to Suppliers for Goods and Services	(154,812,907)	(174,376,750)	(166,284,652)	(166,284,652)
Cash Payments for Salaries and Benefits	(120,840,738)	(155,777,610)	(151,963,017)	(151,963,017)
Other Cash Receipts	635,448	-	-	-
Other Cash Payments	(2,861)	(15,000,000)	(10,000,000)	(10,000,000)
a. Net cash provided by (or used for) operating activities	108,434,887	41,060,984	78,742,909	78,742,909
B. CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:				
b. Net cash provided by (or used for) noncapital financing activities	-	-	-	-
C. CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:				
Acquisition and Construction of Capital Assets	(98,209,333)	(147,629,101)	(153,930,861)	(153,930,861)
Capital Contributed for Construction	26,483,121	9,293,310	28,273,458	28,273,458
Proceeds from Sale of Property and Equipment	287,828	-	-	-
Proceeds from Sale of Bonds	7,912,212	100,000,000	74,989,681	74,989,681
Bond Issue Costs	-	-	-	-
State Revolving Fund Loan Issue Costs	-	-	-	-
Principal Paid on Bonds	(35,753,518)	(38,395,810)	(42,228,454)	(42,228,454)
Interest Paid	(31,807,242)	(37,952,148)	(37,224,847)	(37,224,847)
Interest Rebate	-	-	-	-
Construction Deposits	(4,095,212)	-	-	-
c. Net cash provided by (or used for) capital and related financing activities	(135,182,144)	(114,683,749)	(130,121,024)	(130,121,024)
D. CASH FLOWS FROM INVESTING ACTIVITIES:				
Purchase of Investment Securities	(446,771,926)	(401,475,340)	(727,844,249)	(727,844,249)
Proceeds from Maturities of Investment Securities	468,848,481	398,617,446	838,137,692	838,137,692
Investment Income	10,706,770	6,034,677	5,407,983	5,407,983
d. Net cash provided by (or used in) investing activities	32,783,325	3,176,783	115,701,426	115,701,426
NET INCREASE (DECREASE) in cash and cash equivalents (a+b+c+d)	6,036,068	(70,445,982)	64,323,311	64,323,311
CASH AND CASH EQUIVALENTS AT JULY 1, 20xx	11,227,389	17,263,457	(53,182,525)	(53,182,525)
CASH AND CASH EQUIVALENTS AT JUNE 30, 20xx	\$ 17,263,457	\$ (53,182,525)	\$ 11,140,786	\$ 11,140,786

Las Vegas Valley Water District
(Local Government)

SCHEDULE F-2 STATEMENT OF CASH FLOWS

FUND ENTERPRISE

FORM 4404LGF

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Schedule F-2

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)	(11)
NAME OF BOND OR LOAN List and Subtotal By Fund	*	TERM	ORIGINAL AMOUNT OF ISSUE	ISSUE DATE	FINAL PAYMENT DATE	INTEREST RATE	BEGINNING OUTSTANDING BALANCE 7/1/2021	REQUIREMENTS FOR FISCAL YEAR ENDING 06/30/22 INTEREST PAYABLE	PRINCIPAL PAYABLE	(9)+(10) TOTAL
ENTERPRISE FUND										
LVVWD 2008 Clean Energy	2	14 Years	\$ 2,520,000	07/15/08	12/15/22	1%	\$ 336,000	\$ 3,276	\$ 168,000	\$ 171,276
LVVWD 2010A BABS	2	30 Years	75,995,000	06/15/10	03/01/40	5.6%-5.7%	75,995,000	4,311,398	-	4,311,398
LVVWD 2012A	2	20 Years	39,310,000	09/05/12	06/01/32	5.0%	39,310,000	1,965,500	-	1,965,500
LVVWD 2014 \$20 Million SRF	10	20 Years	19,929,329	12/01/14	07/01/34	2.6%	16,496,531	417,343	1,036,592	1,453,936
LVVWD 2015A	2	11 Years	172,430,000	06/01/15	06/01/27	2.0-5.0%	94,835,000	4,741,750	15,205,000	19,946,750
LVVWD 2016B	2	20 Years	108,220,000	04/06/16	06/01/36	2.5-5.0%	90,280,000	4,442,750	4,230,000	8,672,750
LVVWD 2016 \$15 Million SRF	10	20 Years	15,000,000	09/01/16	07/01/36	1.8%	13,830,034	242,708	782,334	1,025,042
LVVWD 2017 \$15 Million SRF	10	20 Years	15,000,000	05/01/17	01/01/37	2.4%	13,919,301	331,128	722,475	1,053,604
LVVWD 2017A	2	21 Years	130,105,000	03/14/17	02/01/38	4.0-5.0%	117,040,000	5,332,400	4,580,000	9,912,400
LVVWD 2018A	2	30 Years	100,000,000	06/26/18	07/01/48	5.0%	94,695,000	3,695,913	1,990,000	5,685,913
LVVWD 2020B	2	18 Years	22,240,000	02/01/20	03/01/38	2.0-5.0%	21,425,000	826,125	850,000	1,676,125
LVVWD 2020D	2	16 Years	98,080,000	03/01/20	06/01/36	2.0-5.0%	94,415,000	3,632,269	4,485,000	8,117,269
LVVWD 2020C	11	30 Years	100,000,000	07/16/20	07/16/50	2.0-5.0%	98,395,000	2,917,913	1,915,000	4,832,913
LVVWD 2021B	2	7 Years	32,795,000	03/03/21	06/01/27	2.0-5.0%	32,795,000	1,639,750	4,820,000	6,459,750
LVVWD 2021-22 Proposed	11	30 Years	75,747,152	2021-22	2051-52	2.0-5.0%	75,747,152	2,724,625	1,444,052	4,168,677
TOTAL ALL DEBT SERVICE							\$ 879,514,019	\$ 37,224,847	\$ 42,228,454	\$ 79,453,301

SCHEDULE C-1 - INDEBTEDNESS

Las Vegas Valley Water District Budget Fiscal Year 22
(Local Government)

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Schedule C-1

FORM 4404LGF

SCHEDULE OF EXISTING CONTRACTS

Budget Year 2021 - 2022

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

Total Number of Existing Contracts: 313

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2021-22	Proposed Expenditure FY 2022-23	Reason or need for contract:
1	Acme Underground, Inc.	11/01/20	10/31/22	\$ 235,000	\$ 235,000	Miscellaneous Vault Repairs
2	Adobe Communications Electronics Inc.	12/05/17	12/05/22	5,000,000	5,000,000	Network Infrastructure Upgrade Services
3	Agile For All	02/25/19	12/31/23	100,000	100,000	Certified Scrummaster Training
4	AJNC Industries LLC dba Clark Welding & F	01/21/20	01/20/25	100,000	100,000	As Needed Welding And Fabricating Services
5	Alarmco	10/01/18	09/30/23	15,000	15,000	Fire Alarm Monitoring
6	Alert Media Inc	01/01/20	12/31/20	14,950	-	Software As A Service Subscription
7	Allied Universal Security Services	03/07/17	02/28/22	1,260,000	1,260,000	Security Services
8	Allison Payment Systems LLC	04/10/18	04/09/21	300,000	-	Document Design, Production And Mailing Services
9	Altour	07/01/20	06/30/27	22,000	22,000	Travel Services
10	Amalgamated Plant Company	06/21/19	06/20/22	12,360	12,360	Plant Care
11	Annadatha V.M. Rao	03/21/19	03/20/26	60,000	60,000	Water Distribution Plan Software Development Services
12	Applications Software Technology LLC	01/01/20	12/31/20	167,812	-	Oracle Software Upgrade Services
13	ARC	08/05/20	08/05/21	30,000	-	Reprographic Services
14	Arizona Machinery, LLC. dba Stotz	12/08/16	12/07/21	99,825	-	Parts And Service For Agricultural Equipment
15	Arthur J Gallagher & Co. Insurance Brokers	03/10/20	03/09/25	75,000	75,000	Insurance Brokerage Services For Casualty Lines Of Coverage
16	Assetworks Inc	01/01/20	12/31/20	38,608	-	FleetFocus FA Software Maintenance and Support
17	ATC Group Services LLC	01/01/20	12/31/20	11,976	-	Leak Detector Recycling Services
18	ATI Autonomy Technology Inc	07/11/17	07/10/22	1,000,000	-	Motor Control Centers And Switch Gear
19	Atkins North America	12/15/18	12/15/23	114,000	114,000	Engineering Design Services
20	Atkins North America	07/06/19	07/08/26	301,000	301,000	Professional Design/Engineering Services
21	Attraction Technology LTD	02/16/16	12/31/21	50,000	-	Smart Phone Mapping Application Services
22	Automatic Door & Glass LLC	01/01/20	12/31/20	12,970	-	Door and Glass Repair Services
23	Automic Software, Inc.	12/01/16	11/30/21	108,207	-	Appworx Software Maintenance And Support
24	Baker & Hostetler LLP	03/01/17	02/28/25	25,000	25,000	Cyber Security Data Breach Prevention
25	Banctec Inc	01/29/20	05/04/24	180,000	180,000	Remittance Processing Services
26	Banctec USA	07/01/14	06/30/24	160,000	160,000	Check Payment Processing Services For Customer Care
27	BDO USA LLP	01/01/20	12/31/20	79,250	-	Audit Services
28	Black & Veatch	02/05/19	02/04/24	34,000	34,000	Professional Design/Engineering Services
29	Black & Veatch	02/06/18	02/05/25	426,000	426,000	Engineering Design Services
30	Black & Veatch	02/06/18	02/06/25	425,978	425,978	Engineering And Construction Support Services
31	Blackbaud	11/12/15	11/11/22	60,000	60,000	Software Maintenance And Support
32	Blackline Systems Inc	12/31/18	12/31/23	70,000	70,000	Account Reconciliation Subscription Services
33	Blue Locker Commercial Diving	10/01/19	09/30/24	50,000	100,000	Diver Inspection And Cleaning Services For Tanks And Reservoirs
34	Booky Oren Global	01/01/20	12/31/22	100,000	100,000	Professional Services To Provide Assistance With Water Related Innovation Solutions
35	Boomi Inc	08/02/18	08/01/24	160,000	160,000	Software Maintenance And Support
36	Bridge Works Iii, LLC	10/15/18	10/14/25	52,500	91,000	Consulting Services For Human Resources
37	Bridgeworks	02/25/19	02/24/21	91,000	-	Professional Consulting Services - Scope Of Services And Cost Limitation Clarification
38	Bright Horizons Family Solutions	01/01/20	12/31/20	279,061	-	Management Services
39	Broniec Associates	08/21/17	08/20/23	-	-	Auditing Services - Accounts Payable
40	Bugs-R-Us Pest Control	07/01/16	06/30/21	30,879	-	Pest Control
41	C.A. Group Inc	09/05/17	09/04/22	84,400	84,400	Engineering Design Services
42	CA Inc	01/01/20	12/31/20	38,542	-	UC4 Maintenance Renewal - Application Manager
43	Calltower Inc	01/01/20	12/31/20	10,199	-	Telecommunication Infrastructure Upgrade Services
44	Capitol North American	01/01/17	12/31/21	150,000	-	Installation Of Systems Furniture
45	Capitol North American	10/13/18	10/12/22	20,000	20,000	Transport And Storage Of Exhibits
46	Cardino Inc	01/10/19	01/09/26	14,000	14,000	Horizontal & Vertical Utility Location Services
47	Carollo Engineers Inc	07/15/19	07/14/26	15,000	15,000	Professional Design/Engineering Services
48	Carpenter Sealeers Del Gatto Architects	05/20/20	05/04/27	62,208	62,208	Design Services For L0088
49	Carpenter Sellers Del Gatto Architects	12/04/18	12/03/21	21,000	-	Professional Architectural/Design Services
50	Carpenter Sellers Del Gatto Architects	05/13/19	12/03/21	73,190	-	Engineering Design Services
51	CH2M Hill Engineers & Hdr Engineering	07/01/17	06/30/22	600,000	-	Professional Engineering Services - LVVWD
52	Chem-Aqua	08/15/18	08/14/23	25,000	25,000	Maintenance And Repairs
53	City Of Las Vegas	12/05/18	12/31/21	1,849,749	-	Interlocal Agree. For Water Facilities Construc.
54	City Plan Develop. dba Savi Con.	11/13/19	08/31/20	177,524	-	Field Services Build. Office Upgrade
55	Cloud Carpet One	02/03/20	02/02/25	25,000	25,000	On-Call Carpet And Vinyl Flooring Installation Services
56	CMMCM dba Muller Construction	04/19/18	04/19/23	220,000	220,000	Misc. Concrete & Restoration Services
57	Communication Electronic Systems	04/17/18	04/16/23	50,000	50,000	Fire Alarm System Inspection, Testing, And Repairs
58	Corporate Air Mechanical Services Inc	10/07/19	02/06/24	50,090	50,090	HVAC Services
59	Cosco Fire Protection Inc	08/13/18	08/12/23	100,000	100,000	Fire System Testing
60	Cox Communications Las Vegas Inc	06/13/18	05/04/25	99,000	990,000	Internet Services
61	Crawford & Company	01/23/19	01/22/24	25,000	25,000	Claims Adjusting Services
62	Crosscountry Consulting LLC	01/01/20	12/31/20	2,000,000	-	Coupa Software Implementation Services
63	Custard Insurance Adjusters, Inc.	02/25/18	02/24/23	25,000	25,000	Claims Adjusting Services

SCHEDULE OF EXISTING CONTRACTS

Budget Year 2021 - 2022

Local Government: Las Vegas Valley Water District

Contact: E. Kevin Bethel

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Daytime Telephone: 702-822-8809

Total Number of Existing Contracts: 313

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2021-22	Proposed Expenditure FY 2022-23	Reason or need for contract:
64	D & L Roofing LLC	09/18/18	09/17/23	60,000	60,000	Bldg Maintenance
65	D&R Hydrant Inc	08/09/18	08/08/24	23,930	23,930	Testing Of Below Ground And Rural Area Backflow Assemblies
66	D.R. Backflow Services	04/01/17	03/31/22	234,000	-	Backflow Inspection Services
67	D.R. Backflow Services	08/09/18	08/08/24	26,383	26,383	Testing Of Below Ground And Rural Area Backflow Assemblies
68	Darrel W. Cook & Associates	10/30/19	10/29/26	30,000	30,000	Representation On Datamatic Lawsuit
69	Design Vision Inc	03/06/18	03/05/25	50,000	50,000	Professional Architectural/Design Services
70	Design Vision, Inc. dba Southwick Landscap	05/09/19	Perpetual	263,120	263,120	Professional Architectural/Design Services
71	Dielco Crane Service	03/20/18	03/19/23	25,000	25,000	On-Call Crane Services For LVVWD
72	Digital Guardian Inc	12/29/16	12/28/21	54,000	-	Software Technical Implementation Services
73	Digital Mapping Inc	03/04/20	03/03/27	40,000	40,000	Aerial Survey And Digital Mapping Services
74	DJA Inspection Services	09/06/18	09/05/23	50,000	50,000	Storage Tank Inspection Services For Condition Assessment For Asset Management
75	DLT Solutions	07/01/03	06/30/22	1,442,098	-	Autodesk - Water Distribution System
76	Dons Window Washing Service	06/07/19	06/07/22	25,000	-	Window Washing Service
77	Dons Window Washing Service	06/07/18	06/06/23	24,630	24,630	Window Washing Services For Facilities
78	Douglas L. Wild	09/26/19	09/26/26	5,000	5,000	Decor Installation And Strike Services At The Springs Preserve Gift Shop
79	Dr Steve L Robbins	01/01/20	12/31/20	12,000	-	Inclusion Insight Workshops
80	Dratter Electric Motors	01/01/20	12/31/20	23,296	-	Motor Repair Services
81	Dynamic Graphics Inc (Ca)	01/01/20	12/31/20	12,923	-	EarthVision Annual Maintenance Renewal
82	Dyno Plumbing	11/14/18	11/13/23	25,000	25,000	On-Call Plumbing Services LVVWD
83	E-Builder Inc	12/04/18	12/03/21	167,000	-	Construction Management Software & Technical Implementation Services
84	Echologics Engineering	07/01/17	06/30/22	100,000	-	Large Pipeline Leak Detection And Assessment Services For Asset Management
85	Ecologics LLC	10/01/20	06/30/22	100,000	-	Large Diameter Pipeline Leak Detection And Assessment Services
86	Electric Power Systems	12/22/20	06/30/21	8,000	-	Tel Capitan Site Upgrades
87	Emphasys Treasury Mgmt Software	01/01/20	12/31/20	45,017	-	Treasury Desktop Subscription Renewal
88	Emtec Consulting Services LLC	02/05/18	02/04/23	100,000	100,000	Data Conversion Services
89	Epicor Software Corporation	09/28/17	09/27/24	194,483	204,207	Accounts Payable Automation Software (Docstar)
90	Epiq Ediscovery Solutions, Inc.	12/04/19	12/03/26	250,000	250,000	Exterro Public Records Request Software Implementation Services
91	Epiq Systems	02/07/15	06/30/22	500,000	500,000	Technical Services For Technical Upgrades of IT Initiatives
92	EPIQ Systems	01/08/21	01/07/22	98,985	-	Legal Dept Process Review And Recommendations
93	Evergreen Exhibitions Ltd	07/06/20	12/31/21	225,000	-	Above And Beyond Exhibit
94	Exhibits Development Group LLC	02/06/19	03/31/22	141,250	-	Toytopia Exhibit For Springs Preserve
95	Experian Information Solutions, Inc.	11/01/17	10/31/22	96,000	96,000	Risk Credit Assessment
96	Exterro Inc.	12/28/16	12/27/23	475,800	475,800	Subscription, Modules And Maintenance For Legal Hold Management Software
97	FHN Financial	01/27/20	12/31/25	167,742	167,742	Cash Flow And Investment Manager Services
98	Fireeye Inc. dba Mandiant	03/16/17	03/15/22	-	-	MSA For Software Products And Services
99	Fiserv Solutions, Inc	01/01/19	12/31/23	1,800,000	1,800,000	Electronic Payments And Related E-Bill Services
100	Fisher & Phillips LLP	01/01/20	12/31/20	31,624	-	Legal Consultation Services
101	Flairsoft Limited	03/22/18	10/21/23	325,000	325,000	Right Of Way And Property Management Software And Technical Implementation Services
102	Fleet Management Solutions Inc	11/30/18	06/30/24	28,000	28,000	District's Vehicle Tracking System Services
103	Fracta	03/14/19	Perpetual	24,999	24,999	Pipeline Breakage Risk Assessment Services
104	Frasco Investigative Services	02/02/18	02/01/23	15,000	15,000	Investigative Services
105	Freshworks, Inc	05/21/19	07/20/26	87,200	87,200	Help Desk Software And Implementation Services
106	FTN Financial Main Street Advisors	10/08/14	03/04/19	172,000	172,000	Fixed Income And Cash Investment Management Services
107	G & G Systems	06/04/18	05/31/22	25,000	25,000	Building Maintenance
108	Gatekeeper Systems	07/01/16	07/01/21	121,000	-	Software Maintenance - Mapping Software
109	GCW, Inc	05/07/19	05/06/22	430,937	-	Professional Services For The Design Of Existing Water Main Replacement
110	General Networks Corporation	05/07/19	05/06/22	1,888,930	1,888,930	Enterprise Software Integration Services
111	General Networks Corporation	06/02/20	06/01/26	50,000	50,000	Information Governance Services
112	George T. Hall	07/01/17	06/30/22	750,000	750,000	Prof. Services. For Automation Projects
113	Geotechnical & Environmental Services	11/13/18	11/12/25	1,500,000	-	Geotechnical Engineering Services
114	Geotechnical & Environmental Svs	08/20/20	08/19/27	300,000	300,000	Legal Consulting And Expert Testimony Svs
115	Gilbarco Inc	01/01/20	12/31/20	16,821	-	Gilbarco GasBoy Maintenance Renewal
116	Glass Box Technology Inc	02/21/18	02/20/23	500,000	500,000	Dell/Emc Hardware And Software Maintenance

SCHEDULE OF EXISTING CONTRACTS

Budget Year 2021 - 2022

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Total Number of Existing Contracts: ____ 313 ____

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117	GQR Global Markets	03/20/19	Perpetual	89,315	89,315	Staffing Placement Services - Scope Of Work And Cost Limitation Clarifications
118	Grantworthy Funding & Strategy	03/21/19	Perpetual	24,000	24,000	Professional Grant Writing Services
119	Gutic Enterprises	09/15/16	09/14/22	35,000	35,000	PSA For Springs Preserve
120	Hands On Technology	02/07/18	02/06/22	99,000	-	Training Customized Applications For Modern Programming Languages,
121	Harris & Harris	01/01/20	12/31/20	100,000	-	Legal Services
122	Harris Acquisition Quality	05/23/18	05/22/22	25,000	-	HVAC Repair
123	Harris Forms dba Harris Computer Systems	07/01/18	06/30/23	12,000	12,000	Form Printing
124	HDR Engineering Inc	01/22/20	01/21/27	45,000	45,000	Professional Design/Engineering Services
125	HDR Engineering Inc	01/22/20	01/21/27	137,000	137,000	Professional Design/Engineering Services
126	HDR Engineering, Inc	01/22/20	01/21/27	52,705	52,705	Design Services For C1517 Operations Building Power Improvements
127	HDR Engineering, Inc	01/22/20	01/21/27	160,141	160,141	Design Services For C1561 Rome Facilities Pipeline
128	Henderson Engineers	04/11/20	04/10/24	90,000	90,000	Engineering Services
129	Herc Rentals Inc	01/01/20	12/31/20	10,505	-	Chiller Rental Services
130	Hexagon Geospatial	01/01/20	12/31/20	11,618	-	Annual Maintenance Renewal for Intergraph
131	Hicks & Brasier PLLC	01/01/20	12/31/20	22,500	-	Legal Services
132	Hispana Comunicacion Integral	03/17/16	03/16/22	60,000	-	Spanish Language Creative And Production Development For Springs Preserve
133	Hispana Comunicacion Integral	04/06/16	04/05/22	83,000	-	Spanish-Language Marketing, Social Media And Advertising
134	Hitachi Vantara LLC	01/01/20	12/31/20	13,169	-	Hitachi Vantara Renewal
135	Hobbs, Ong And Associates	05/01/12	upon notice	-	-	Financial Advisory Services
136	Holland And Hart	09/23/08	upon notice	100,000	100,000	Environmental Legal Services
137	Holland And Hart	01/20/21	01/19/28	100,000	100,000	Legal Services
138	Holley, Driggs, Walch, Fine, Puzey, Stein & T	12/10/19	12/10/26	15,000	15,000	Contract Review
139	Hooks, Meng, Schaan, Clement	10/30/17	Upon notice	30,000	30,000	Nevada OSHA Matters
140	Horrocks Engineers	02/20/20	02/20/27	4,750	4,750	Design Services For C1518
141	Hunton, Andrews, Kurth	01/15/20	01/14/27	30,000	30,000	Cybersecurity And Data Privacy Legal Advice
142	Imagine Exhibitions Inc	05/19/20	09/30/22	190,800	-	Rescue Exhibit
143	Information Governance Solutions	01/01/20	12/31/20	31,851	-	Information Governance Services
144	InfoUSA Marketing Inc	01/01/20	12/31/20	16,800	-	Semi-annual Maintenance Renewal
145	Interworks, Inc.	12/06/18	12/05/25	300,000	300,000	Construction Management Reporting Software
146	Isle	06/24/20	06/23/27	36,000	-	Evaluate Avantis Cmms System
147	Itron Inc	02/05/13	02/04/23	564,000	564,000	AMR Meter Reading System
148	Iwater Inc	01/01/20	12/31/20	39,600	-	Annual Maintenance Renewal
149	IZ Design Studio	11/08/18	11/07/23	270,513	270,513	West Administration Building Lobby And Interior Remodel Design Services
150	IZ Design Studio	03/13/19	Perpetual	90,000	90,000	LVVWD East Remodel Design Services
151	J & J Enterprises Services	01/23/17	01/22/22	25,000	25,000	Asphalt Milling Services
152	J&J Enterprises Services, Inc	05/07/19	05/06/22	1,000,000	-	Pavement Replacement And Concrete Appurtenances Services
153	Jacob Engineering Group Inc	04/08/20	04/07/25	57,231	142,147	Design Services For Karen Ave Project
154	Jeff Solomon	05/04/20	05/03/27	100,000	100,000	Scada System Services
155	Johnson Controls Inc	12/01/19	12/31/26	100,000	100,000	Ongoing Maintenance Of The Hardware And Software For The District's Johnson Controls Access Security System
156	Joshua Tree Productions	07/01/18	06/30/23	25,000	25,000	Video Production Services
157	Joshua Tree Productions	07/01/18	07/16/23	80,000	80,000	Spring Elementary Professional Video Services
158	K Construction Inc	01/01/20	12/31/20	31,090	-	Safety Cable Installation Services
159	Kimley Horn & Assoc	10/03/18	10/01/22	842,523	842,523	Engineering Design Services
160	Kimley Horn & Assoc	04/16/18	04/15/25	123,000	123,000	Engineering Design Services
161	Kone Inc	03/06/19	03/05/24	150,000	150,000	Elevator Maintenance Services
162	KR	01/01/20	12/31/20	22,240	-	Engineering Design Services
163	Ladah Law Firm	01/01/20	12/31/20	36,000	-	Legal Services
164	Las Vegas Paving Corp.	11/09/17	11/08/22	1,395,490	1,395,490	On-Call Oper. & Main. Svc-LVVWD
165	Las Vegas Plumbing	11/01/14	10/31/21	30,000	-	Plumbing Repair Services For Meter Change-Outs By Field Services
166	Lawrence Roll-Up Doors Inc	05/14/18	05/13/22	25,000	-	Roll Up And Fire Door Preventative Maintenance And Repair Services
167	Leasequery LLC	01/01/20	12/31/20	23,220	-	LeaseQuery Subscription Services
168	Lebenson Actuarial Services, Inc.	06/01/16	05/31/23	40,000	40,000	Actuarial Services
169	LED Unplugged	04/15/19	04/14/24	20,000	20,000	Decorative Lighting Set-Up Services Sp
170	Lincoln County Telephone Sys Inc	02/18/18	02/17/25	30,250	30,250	Meet-Point Circuits
171	Louis Berger	01/07/19	01/06/24	27,500	27,000	Pipeline Replacement Engineering Services
172	Lynn Belcher Lnc Associates	01/26/18	01/25/23	15,000	15,000	Nursing Consulting Services

SCHEDULE OF EXISTING CONTRACTS

Budget Year 2021 - 2022

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Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2021-22	Proposed Expenditure FY 2022-23	Reason or need for contract:
173	Maile Concrete	08/03/20	08/02/25	240,000	240,000	Cathodic Test Station Install & Repair
174	Maile Concrete	01/07/21	06/30/21	53,680	-	Parkway Rofcs Driveway
175	Mainspring Consulting Group	06/30/20	06/29/27	54,906	54,906	Clm Project Assessment (Apttus)
176	Mainspring Consulting Group	01/06/21	01/05/22	325,137	325,137	Apttus Software Technical Consulting And Migration
177	Marcus G. Faust PC	07/01/18	06/30/24	90,000	90,000	Memorandum Of Agreement, For Assisting In Matters And Proceedings In Washington, D.C.
178	Market Decisions Corporation	04/01/17	03/31/22	150,000	-	Data Collection Services
179	Marsh USA	11/24/20	01/23/27	65,000	65,000	Captive Management Services
180	McDermott, Will & Emery, LLP	04/02/20	upon notice	30,000	30,000	Formation of Captive Insurance
181	MCS Inspection Group	06/07/18	06/06/23	90,000	90,000	Prof. Services. For Nace Level 3 Welding Insp.
182	MDC Research	04/01/17	03/31/22	150,000	-	Data Gathering
183	Microsoft Corporation	01/07/19	01/06/26	365,000	365,000	Technical Services - Commercial Cloud Migration
184	Mike's Drain & Plumbing	11/13/14	10/31/21	-	-	On Call Plumbing Services
185	Mikon Construction Co Inc	07/31/19	07/30/20	503,950	-	Pavement Replacement Services, Las Brisas Pm Service Line
186	Milliman	04/06/20	04/05/22	16,000	-	Actuarial Services For Workers Comp
187	Moapa Valley Telephone Company	03/15/12	Perpetual	14,500	14,500	T1 Communication Lines
188	Mobile Mini Inc	10/01/18	09/30/23	25,000	25,000	Communication
189	Mr Camera Inc	04/24/18	04/30/25	60,000	60,000	Video Services
190	My Next Career Path Staffing, LLC	05/28/19	08/31/26	50,000	50,000	Springs Preserve Summer Camp Counseling Services
191	Nancy Weaver	09/29/19	09/28/20	98,000	98,000	Communication Consulting Services
192	NDL Group Inc	04/04/18	04/03/23	24,500	24,500	General Contracting Services At The Springs Preserve
193	Nevada Division Of Forestry	07/01/19	06/30/23	262,500	262,500	Grounds Maintenance
194	Nevada Pneumatic	04/11/19	04/10/25	20,000	20,000	Maintenance/Repairs
195	Nevada Tap Master	01/02/18	01/01/23	25,000	25,000	Large Diameter Pipeline Hot Tap Services For Asset Management
196	Novus Architecture LLC	09/06/18	09/05/21	12,650	12,650	Professional Architectural/Design Services
197	Oasis Pool Maintenance LLC	01/01/20	12/31/20	18,738	-	Lizard Terrarium Repair and Stonework
198	Ogletree Deakins	07/20/16	Upon notice	100,000	100,000	Counsel on ADA Issues
199	Olson Precast Company	12/04/17	12/04/22	235,000	235,000	Misc. Vault Pipe Coatings
200	Olson Precast Company	12/04/20	12/03/21	235,000	-	Miscellaneous Vault Pipe Coatings
201	Olympus And Associates Inc	01/01/20	12/31/20	22,950	-	Gowan 3MG Tank Cleaning Services
202	Ontario Refrigeration	04/03/18	03/31/22	25,000	-	Chiller Maintenance
203	Opportunity Village	05/01/19	04/30/26	438,918	438,918	Custodial Services
204	Oracle America Inc	01/28/20	12/31/26	500,000	500,000	Software Implementation Services
205	Oracle America, Inc.	05/12/16	08/19/21	372,680	-	Hardware And Software Maintenance For "Supercluster" Server Systems
206	Oracle America, Inc.	05/15/18	05/14/22	231,190	-	Oracle Applications Testing Suites (Oats)
207	Origami Risk LLC	01/27/20	03/26/22	336,850	-	Risk Management Software Licenses & Services
208	Osisoft LLC	10/25/17	10/24/22	163,447	171,619	Software Licenses And Maintenance
209	Pacific Surveys	09/11/17	09/10/22	40,000	40,000	Geophysical Inspection And Well Profiling Services
210	Pacific West Injury Law	01/01/20	12/31/20	22,000	-	Legal Services
211	Par 3 Landscape & Maintenance Inc	02/20/20	02/19/25	25,000	25,000	Landscaping Services
212	Park Landscape	09/28/16	09/27/21	488,960	-	Grounds Maintenance Services
213	Parson Water & Infrastructure	07/08/21	07/07/27	98,000	98,000	Consulting Services Related To Prevailing Wage For Various Construction Projects
214	Parson Water & Infrastructure	06/23/20	06/22/27	98,000	98,000	Construction Inspections Support Services
215	Parsons Transportation Group Inc.	12/04/18	12/04/25	657,143	657,143	Implementation Of A New Project Management Information System
216	Patriot Environmental Services Inc	01/01/20	12/31/20	36,160	-	Mercury Clean Up Services
217	Peconic Solutions, Inc.	08/20/20	upon notice	107,800	107,800	Legal Services Technology Review Consultant
218	Perficient Inc	09/06/18	09/05/24	60,000	20,000	Dell Integration Software Implementation Services
219	Pica Corporation	05/08/18	05/07/23	-	-	Large Diameter Pipeline Leak Detection Service For Asset Management
220	Piercy Bowler Taylor & Kern	03/30/17	03/29/22	82,500	82,500	District/BBWD Auditor Services
221	Pitney Bowes Software Inc	01/01/20	12/31/20	89,451	-	Mailing and Postage Metering Services
222	Precision Crane & Hoist	02/06/16	02/05/22	102,430	-	Overhead Crane Maintenance And Repair Service
223	Precision Electric Inc	07/24/18	07/23/23	25,000	25,000	On-Call Electrical Services
224	Procure Technologies Inc	01/01/20	12/31/20	38,499	-	Procure Cloud-Based Construction Software
225	Progress Software Corporation	01/01/20	12/31/20	12,732	-	DevCraft Complete + PHP & JSP Developer License
226	Purcell Tire Company dba Purcell Tire And S	08/15/19	03/30/24	135,000	135,000	Tires, Tubes & Services
227	Pyro Combustion & Controls	11/14/18	11/13/23	25,000	25,000	Boiler PM And Repair Services
228	Pyro Combustion And Controls, Inc.	11/14/19	11/13/23	25,000	25,000	Preventative Maintenance
229	R&R Partners	07/01/17	06/30/22	1,000,000	1,000,000	Integrated Marketing, Communications And Public Outreach Services
230	R&R Partners Inc	05/18/17	05/17/22	50,000	-	Advertising Services
231	Rafael Construction Inc	01/01/20	12/31/20	54,049	-	Property Fence Line Installation

SCHEDULE OF EXISTING CONTRACTS

Budget Year 2021 - 2022

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Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2021-22	Proposed Expenditure FY 2022-23	Reason or need for contract:
232	Rayos Group	01/01/20	12/31/20	20,833	-	Risk Resiliency Assessment
233	Raysco	10/18/18	10/18/21	25,000	-	Floor Cleaning Services At The Springs Preserve
234	Rebel Party Rentals	09/27/18	09/26/23	20,000	20,000	Event Set-Up And Fixture Rental Services
235	Rebel Party Rentals	09/27/18	09/26/23	10,000	10,000	Fixture Rental Services For The Springs Preserve
236	Red Clay Consulting Inc	01/30/19	06/30/25	500,000	500,000	C2M Software Implementation Services
237	Reward Strategy Group	11/01/14	10/31/21	95,000	-	HR Consulting Service For Compensation
238	River Valley Air Conditioning Inc	01/01/18	12/31/23	25,000		HVAC Maintenance, Filter Changes And Related Non-Construction Services
239	Roadsafe Traffic Systems	08/05/19	08/04/24	541,130	541,130	Traffic Control And Barricade Services For Distribution, Asset Management, And Field Services
240	Robin Rockey	08/13/19	07/14/23	25,000	25,000	Community Outreach Services
241	RSVP Party Rentals	09/26/18	09/25/21	15,000	-	Event Set-Up And Fixture Rental Services
242	Ruckus Wireless Inc	01/01/20	12/31/20	15,758	-	Annual Ruckus Maintenance
243	S & S Concrete And Materials	08/03/16	08/02/22	25,000	25,000	Type II Material And Waste Disposal Services
244	Santoro Whitmire LTD.	11/06/18	11/05/25	500,000	500,000	Legal Representation A-18-778039-C
245	SAP Americas Inc	12/21/19	12/20/25	75,000	75,000	Software And Maintenance Support
246	Schneider Electric Systems USA Inc	04/10/17	04/09/22	50,000	-	Avantis Technical Services And Software Maintenance
247	Schneider Electric Systems USA Inc	04/26/16	04/25/22	100,000	100,000	Software Consulting Services
248	Schneider Electric Systems USA Inc	04/26/16	04/25/22	600,000	-	Professional Services For Scada Software
249	Sectran Security Inc.	04/01/15	03/31/22	22,500	-	Armored Car Services
250	Seduru	02/24/20	02/23/23	50,000	50,000	As Needed Software And Application Services
251	SH Architecture	03/06/18	02/28/23	29,000	29,000	Architectural Design Services
252	Sherman & Howard	07/30/15	07/29/23	100,000	100,000	Miscellaneous Bond And Financial Services
253	SHI International Corp.	05/16/17	05/15/22	500,000	-	Computer Hardware, Software, And Maintenance
254	SHI International Corp.	08/15/18	05/06/23	263,000	276,150	Adobe Document Management Software And Saas
255	SHI International Corp.	05/31/18	06/25/23	93,295	102,624	Security Software Maintenance
256	Sierra Nevada Administrators	11/01/17	10/31/22	100,000	100,000	Self-Funded Workers' Compensation Program Third Party Administration Services
257	Silver State Analytical Laboratories	07/01/18	06/30/23	20,000	20,000	Testing Of Sodium Hypochlorite Deliveries For Disinfection
258	Silver State Hydraulic Services	01/01/20	12/31/20	13,963	-	Hydraulic Snubber Repair Services
259	Simplifile	01/01/18	12/31/24	20,000	20,000	Lien Filing Service For Customer Care
260	Simpson Gumpertz & Heger Inc	01/01/20	12/31/24	40,000	40,000	Pipeline Leak Analysis For Asset Management
261	Sirius Computer Solutions	10/22/19	10/21/22	172,446	172,446	Trend Micro (TMI) On-Premise Deep Security Software
262	Sirius Computer Solutions	11/06/17	11/05/22	500,000	500,000	Software Maintenance Services On An As Needed Basis
263	Sirius Computer Solutions	03/27/19	03/26/26	158,057	165,960	Tipping Point Security Software, Hardware, Licensing And Support (Internet And Scada Systems)
264	Sirius Computer Solutions Inc	11/19/20	11/18/27	200,000	200,000	Software Managed Security Services & Implementation
265	Slater Hanifan	09/25/17	09/24/24	-	-	Engineering Services For Spring Preserve Cienega Improvements Project
266	Slater Hanifan Group	03/02/20	03/02/22	15,950	15,950	Design Services For L0161
267	So. Nevada Tba Supply Co dba Ted Wiens T	08/15/19	03/30/24	135,000	135,000	Tires, Tubes & Services
268	Sound Signature LLC	01/01/20	12/31/20	47,711	-	Audiogram Program Management Services
269	Southwest Truck Driver Training	01/01/20	12/31/20	36,500	-	CDL Training Services
270	Spatial Tech Admin & Dev	04/22/19	04/21/26	90,000	90,000	GIS Software Training Services
271	Standard Automation & Control Lp dba Won	06/13/18	06/30/25	426,709	426,709	Scada Software And Implementation Services
272	Stanley Convergent Security Solutions Inc	01/01/20	12/31/20	12,439	-	Annual Fire Extinguisher Testing & Replacements
273	Stantec Consulting	06/10/19	06/10/26	57,000	57,000	Professional Design Services For Bid C1513 Pipe Replacement
274	Stantec Consulting	08/07/19	08/06/26	635,000	635,000	Professional Design/Engineering Services
275	Statewide Fire Protection Inc	04/18/19	04/17/24	25,000	25,000	Fire Hydrant Testing And Repair Services
276	Stradling Yocca Carlson & Rauth	02/05/17	12/04/22	100,000	100,000	Bond Disclosure Counsel Services
277	Stradling Yocca Carlson & Rauth	12/05/17	12/05/24	100,000	100,000	Bond Disclosure Counsel Services
278	Sunbelt Controls	08/13/18	08/12/23	25,000	25,000	EMS Maintenance
279	Sunflower Construction	03/28/18	03/27/23	24,500	24,500	Painting Services At The Springs Preserve
280	Sunrise Paving Inc	11/18/19	11/17/22	239,500	239,500	On Call Pavement Replacement Services
281	T&M Controls	03/06/18	03/05/23	240,000	240,000	On-Call Elec. Services For LVVWD
282	Tech Impact	01/01/20	12/31/20	15,000	-	2021 TIT Awards Luncheon Services
283	Technical Inspection Agency USA	08/01/18	07/30/23	15,000	15,000	Elevator Inspection Services
284	Technical Training Institute	01/01/20	12/31/20	14,160	-	Employee Safety Training Services
285	Tek Systems, Inc.	06/21/17	06/20/22	100,000	-	Professional Services To Assist With Temporary Staffing Needs In IT
286	The Humanizing Work Company LLC	01/01/20	12/31/20	16,795	-	TAP Leadership Development Services
287	The Law Offices Of Rory Reid	06/01/18	05/31/25	31,000	31,000	Legal Services
288	The WW Williams Company LLC	01/01/20	12/31/20	13,306	-	Troubleshoot Generator / Provide Rental Backup Generator
289	Thomson Reuters - West	01/01/20	12/31/20	11,550	-	West Proflex Products and Services

SCHEDULE OF EXISTING CONTRACTS

Budget Year 2021 - 2022

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

Total Number of Existing Contracts: 313

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2021-22	Proposed Expenditure FY 2022-23	Reason or need for contract:
290	Top Bird Entertainment	09/20/18	09/19/23	14,000	14,000	PSA For Extreme Parrot Shows At The Springs Preserve
291	Topnotch Services Inc	07/10/15	07/09/22	75,653	-	Street Sweeping
292	Total-Western, Inc.	06/07/18	06/06/23	200,000	200,000	Misc. Mechanical Services For LVVWD
293	TRC Solutions	08/23/18	08/22/23	20,000	20,000	Annual Compliance Testing For Campbell Station Natural Gas Engines
294	Tree Solutions	01/01/20	12/31/20	14,850	-	Tree Pruning and Thinning Services
295	Trench Shoring	03/18/14	03/19/22	50,000	-	Rental Of Trench Shoring And Plates
296	Unified Field Services Corporation	01/01/20	12/31/20	99,500	-	Potable Water Tank Leak Repairs
297	Unifirst Corp	03/21/19	03/13/25	11,500	11,500	Cleaning Of Towels And Dust Mops
298	Unifirst Corporation	04/17/17	04/16/22	26,250	26,250	Laundry Services for Miscellaneous Industrial Items
299	United Site Services	10/02/18	09/30/24	25,000	25,000	Sewage Waste Removal
300	University Medical Center	01/01/20	12/31/20	26,910	-	Medical Examination Services
301	University Of Utah	01/02/19	01/01/24	25,000	25,000	Research/Testing Services
302	Veterinarian Aquarium Group	01/01/20	12/31/20	34,447	-	Veterinarian Services for LVSP
303	Voda.AI	04/21/20	04/20/21	200,000	-	AI Based Software
304	VPMA Global Services LLC	01/01/20	12/31/20	22,000	-	BCM Control - M Training
305	VTN Nevada	08/12/19	08/11/26	11,000	11,000	Professional Design/Engineering Services
306	Wells Fargo	07/06/17	07/06/22	17,500	-	Custody Services
307	West Charleston Upholstery	05/01/20	04/30/27	12,000	12,000	Vehicle Upholstery Work
308	Westwood Professional Services	06/27/19	06/26/26	141,000	141,000	Professional Design/Engineering Services
309	Wilson Elser Moskowitz Edleman & Dicker	10/06/15	10/05/23	100,000	100,000	Legal Services Case No. A-15-714878
310	Wilson Elser Moskowitz Edleman & Dicker	10/06/21	10/05/27	50,000	50,000	Legal services
311	Wunderlich-Malec	07/01/17	06/30/22	750,000	-	Tech. Services For Automation Projects
312	Xebialabs Inc	06/30/18	06/29/23	140,000	140,000	Application Development Software And Implementation Services
313	Zions Public Finance Inc	01/01/20	12/31/20	19,500	-	Arbitrage Rebate Computation Report Services
	Total Proposed Expenditures			\$ 55,453,787	\$ 36,623,704	

Additional Explanations (Reference Line Number and Vendor):

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Schedule 31

FORM 4404LGF

SCHEDULE OF PRIVATIZATION CONTRACTS

Budget Year 2021 - 2022

Local Government: Las Vegas Valley Water District
 Contact: E. Kevin Bethel
 E-mail Address: 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 2021-22	Proposed Expenditure FY 2022-23	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									

Page: 11

Attach additional sheets if necessary.

Schedule 32

FORM 4404LGF

AFFIDAVIT OF PUBLICATION

STATE OF NEVADA)
COUNTY OF CLARK) SS:

**LV WATER DISTRICT
1001 S VALLEY VIEW BLVD
ATTN: A/P MS340
LAS VEGAS NV 89153-0001**

**Account # 22455
Ad Number 0001144862**

Eileen Gallagher, being 1st duly sworn, deposes and says: That she is the Legal Clerk for the Las Vegas Review-Journal and the Las Vegas Sun, daily newspapers regularly issued, published and circulated in the City of Las Vegas, County of Clark, State of Nevada, and that the advertisement, a true copy attached for, was continuously published in said Las Vegas Review-Journal and / or Las Vegas Sun in 1 edition(s) of said newspaper issued from 05/04/2021 to 05/04/2021, on the following days:

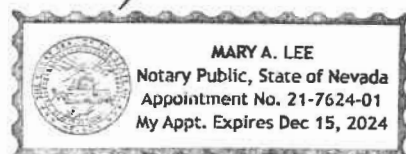
05 / 04 / 21

NOTICE IS HEREBY GIVEN
that the Board of Directors of the Las Vegas Valley Water District will hold a Public Hearing on Monday, May 17, 2021, at the hour of 9:45 a.m. in the Clark County Commission Chambers at the Clark County Government Center, 500 South Grand Central Parkway, Las Vegas, Nevada 89155, on the Tentative Budget and possible adoption of the Final Budget for the fiscal year 2021-22.
Copies of the Budget, which have been prepared on forms and in such detail as is prescribed by the Nevada Department of Taxation, are on file for public inspection at the District Offices, 1001 South Valley View Boulevard, Las Vegas, Nevada 89153.
Las Vegas Valley
Water District
PUB: May 4, 2021
LV Review-Journal

/s/ Eileen Gallagher
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 5th day of May, 2021

Mary Lee
Notary





STATE OF NEVADA
DEPARTMENT OF TAXATION

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

1550 College Parkway, Suite 115
Carson City, Nevada 89706-7937
Phone: (775) 684-2000 Fax: (775) 684-2020

RENO OFFICE
4600 Kietzke Lane
Building L, Suite 235
Reno, Nevada 89502
Phone: (775) 687-9999
Fax: (775) 688-1303

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

LAS VEGAS OFFICE
Grant Sawyer Office Building, Suite 1300
555 E. Washington Avenue
Las Vegas, Nevada 89101
Phone: (702) 486-2300 Fax: (702) 486-2373

HENDERSON OFFICE
2550 Paseo Verde Parkway, Suite 180
Henderson, Nevada 89074
Phone: (702) 486-2300
Fax: (702) 486-3377

May 26, 2021

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

Re: Final Budget – Fiscal Year 2021-2022
Las Vegas Valley Water District

Dear Mr. Bethel:

The Department of Taxation has examined your final budget in accordance with NRS 354.598. We find the budget to be in compliance with the law and appropriate regulations.

Please be advised the following tax rates will be presented to the Nevada Tax Commission on June 25, 2021 for certification:

Operating tax rate	\$ 0.0000
Voter approved rate	0.0000
Legislative override rate	0.0000
Debt service rate	<u>0.0000</u>
	\$ 0.0000

If you should have any questions, please do not hesitate to call me at (775) 684-2073. My e-mail address is klangley@tax.state.nv.us.

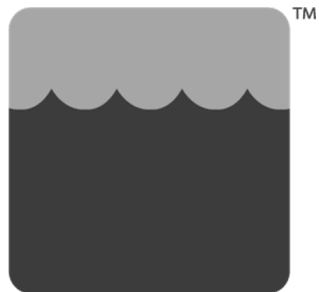
Sincerely,

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

SECTION 5

DEPARTMENT BUDGETS

Summary of Department Expenditures	5-1
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LAS VEGAS VALLEY WATER DISTRICT
FISCAL YEAR 2021-22
OPERATING AND CAPITAL BUDGET

Las Vegas Valley Water District
Operating and Capital Budget
Department Budgets
Fiscal Year Ending June 30, 2022

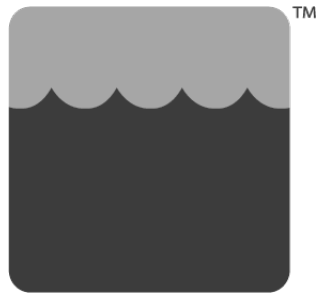
Department Budgets

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 2021-22 Budget Plan. The following table presents the 2019-20 actual, 2020-21 Adopted Budget and 2021-22 Budget Plan for each of the departments.

LVVWD
Summary of Department Expenditures

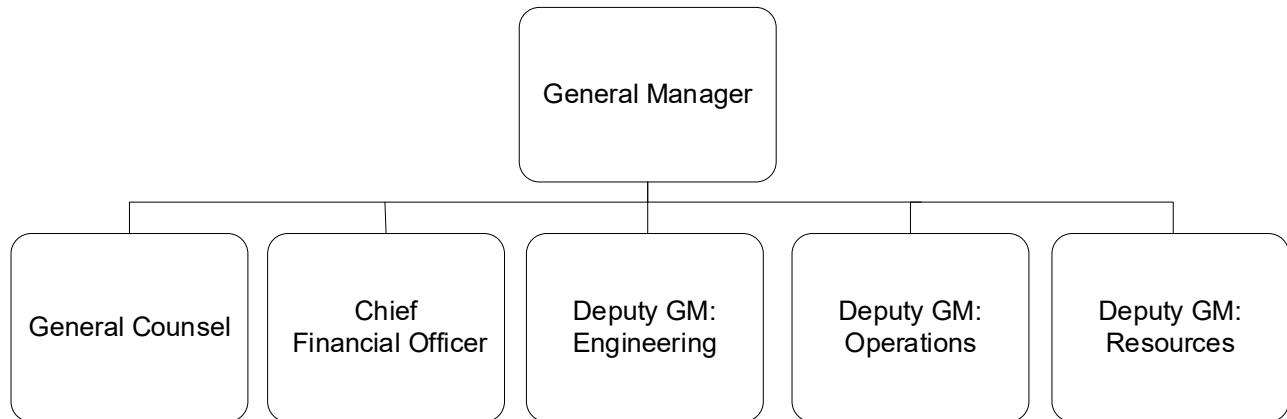
Departments	2019-20 Actual	2020-21 Budget	2021-22 Budget	Budget-to-Budget Variance
Executive Management	\$ 1,571,283	\$ 2,149,486	\$ 2,213,435	\$ 63,950
Legal Services	2,039,330	3,419,246	2,883,257	(535,990)
Finance	308,332,433	280,873,046	295,769,801	14,896,755
Energy Management	(39)	-	-	-
Risk Management	1,417,118	2,501,895	2,665,211	163,316
Customer Care & Field Services	31,123,953	41,516,953	56,346,665	14,829,712
Engineering	93,322,062	115,996,615	110,870,031	(5,126,584)
Infrastructure Management	32,083,574	45,071,603	56,212,060	11,140,457
Operations	49,252,274	56,414,666	54,506,914	(1,907,753)
Human Resources	5,347,528	6,634,247	6,057,920	(576,328)
Information Technology	35,979,689	52,925,313	42,200,642	(10,724,671)
Environmental Health Safety & Corporate Security	21,133,343	22,022,232	20,646,316	(1,375,917)
Water Quality & Treatment	265,209	225,004	181,588	(43,416)
Water Resources	2,934,765	9,058,432	3,793,724	(5,264,708)
Public Services	15,432,695	22,043,804	15,263,181	(6,780,624)
Total Department Expenditures	600,235,218	660,852,543	669,610,744	8,758,201
Debt Service	67,560,760	76,347,958	79,464,521	3,116,563
Total Uses of Funds	\$ 667,795,978	\$ 737,200,501	\$ 749,075,265	\$ 11,874,764

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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. Three 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 the 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 or 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.

Leadership Changes

The SNWA's Executive Team has been realigned over the past year following the Deputy General Manager of Administration's retirement in July 2020. The Executive Team was reorganized to better reflect the organization's long-term priorities, and now includes a Deputy General Manager of Engineering, Deputy General Manager of Resources and Deputy General Manager of Operations.

Las Vegas Valley Water District
Operating and Capital Budget
Department Budgets
Executive Management
Fiscal Year Ending June 30, 2022

Expenditures

LVVWD Uses	Actual 2019-20	Budget 2020-21	Budget 2021-22
Materials & Supplies	\$ 11,748	\$ 9,216	\$ 5,600
Maintenance & Repairs	-	-	-
Rental & Leases	-	-	-
Other Employee Expenses	54,051	102,336	79,180
Other Expenses	71,840	80,112	66,750
Total Operating Expenses	137,639	191,664	151,530
Capital Expenditures	-	-	-
Payroll & Related Costs	1,433,644	1,957,822	2,061,905
Total Department Expenditures	\$ 1,571,283	\$ 2,149,486	\$ 2,213,435
FTE Positions	5.8	7.4	7.9

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 support and completion of:

- The Integrated Resource Planning Advisory Committee 2020 (IRPAC 2020) process.
- Continued implementation of LVVWD's 10-year Capital Improvement Plan.
- Board approval and implementation of a major amendment to the SNWA's Major Construction and Capital Plan.
- Implementation of enhanced conservation efforts to maintain progress toward the regional conservation goal.
- Leadership and involvement in Colorado River issues and initiatives.
- 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.

Las Vegas Valley Water District
Operating and Capital Budget
Department Budgets
Executive Management
Fiscal Year Ending June 30, 2022

- Continued progress toward the Nevada Renewable Standard of 50 percent by 2030.
- Continued participation in the WaterStart partnership.
- Continued response to the Coronavirus Pandemic.

Integrated Resource Planning Advisory Committee

In October 2019, the SNWA Board of Directors appointed 11 community members to the Integrated Resource Planning Advisory Committee 2020 (IRPAC 2020) to examine Southern Nevada's long-term water planning efforts and develop recommendations to maintain reliability and meet long-term water resource needs. IRPAC 2020 members represented a spectrum of community interests including the business, resorts, residential, development and financial sectors.

The committee met nine times between October 2019 and August 2020. The ten month-long process consisted of education on critical transmission infrastructure, water resources, water conservation, out-of-valley water use and regional water rates; an evaluation of water rate adjustment scenarios and financial models; consideration of the COVID-19 pandemic and its impacts; and ultimately the formulation of a Recommendations Report, which was presented to and approved by the SNWA Board in September 2020.

The Recommendations Report included 22 recommendations pertaining to the construction of new infrastructure, the maximization of return-flow credits to Lake Mead, the increase of conservation efforts and a funding strategy to support these initiatives.

Conservation Initiatives

During the IRPAC 2020 process, the committee reviewed Southern Nevada's water conservation initiatives and progress towards the regional conservation goal. With climate change, a growing population, and system loss placing upward pressure on progress towards the goal, Southern Nevada is facing an uphill challenge in reducing water use consistently over the planning horizon. Meeting the goal will require new strategies, innovation, more stringent regulations, and community-wide participation.

In addition to including \$152 million in the MCCP amendment to continue funding the Water Smart Landscapes Program, the committee considered a wide range of conservation opportunities that, if implemented, would help meet the conservation goal.

These recommendations include:

- Target the reduction of non-functional turf and limit turf installation in new development.
- Limit cool-season turf installation in public spaces and expedite conversion in public facilities.
- Enhance landscape watering compliance through implementation of smart controller technology.
- Speed customer leak repairs through implementation of advanced metering infrastructure.

Las Vegas Valley Water District
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Executive Management
Fiscal Year Ending June 30, 2022

- Reduce consumptive water losses associated with evaporative cooling.
- Encourage efficient development and discourage consumptive water use for new large water users.
- Maintain and improve the existing water loss rate among wholesale and retail purveyors.

Interlocal Agreements

In November 2020, a number of interlocal agreements with the SNWA's member agencies were signed to help formalize IRPAC 2020's recommendations before funds were spent on larger construction projects within the MCCP. These agreements included:

- Adoption of SNWA's non-functional turf resolution into local codes and ordinances
- Limiting turf installation to only parks and schools in areas outside the Las Vegas Valley
- Out-of-valley water use policy directives requiring that any SNWA-delivered water be returned to Lake Mead via a wastewater system
- Implementation of water conservation and efficiency measures, such as customer compliance with watering schedules, data sharing and emending development agreements to include up-to-date efficiency measures

Water Smart Landscapes

In December 2020, the SNWA's Water Smart Landscapes Rebate Program reached a significant milestone. Program participants officially converted more than 197 million square feet of grass—enough to roll an 18-inch-wide strip of sod completely around the earth's circumference.

This milestone was reached as a result of nearly 67,700 residential and commercial turf-conversion projects that have been completed throughout the community since 1999. As a result of these conversions, customers have received more than \$247 million in rebates while collectively saving the community more than 140 billion gallons of water.

The Water Smart Landscapes Program continues to see progress, as evidenced by three recently announced landscape conversions that will replace nearly 400,000 square feet of turf at Aliante Golf Club in North Las Vegas, the Summerlin Parkway entryway monument and at for different parks in Henderson. Once complete, these projects will save more than 18 million gallons of water each year.

LVVWD Service Rules Update

In December, the LVVWD Board of Directors approved revisions to the LVVWD's Service Rules that will bolster water conservation efforts, curtail inefficient water use and restrict non-functional turf. These changes include:

Las Vegas Valley Water District
Operating and Capital Budget
Department Budgets
Executive Management
Fiscal Year Ending June 30, 2022

- Prohibiting turf installations that do not meet the SNWA's Non-Functional Turf Resolution guidelines. This action ensures that LVVWD water is used only for new turf installations that are functional for things such as parks and recreational use.
- Ceasing service to new manmade lakes and ornamental water features, except resort-hotel water features and manmade lakes that agree to participate in abatement efforts. New recreational water parks will also be required to offset their water use.
- Adjusting water rates, beginning January 1, 2022, for existing manmade lakes to match those rates paid by commercial and industrial businesses. Any new manmade lakes constructed will pay exclusively fourth tier water rates.

Advanced Metering Infrastructure (AMI) and Software

The LVVWD is in the process of implementing an AMI system. The AMI system will optimize customer and field services communication through timely meter reads and events, and support conservation by improving staff's ability to monitor and address water leaks in a more efficient manner.

To take full advantage of the new AMI capabilities, the LVVWD will be replacing its current Customer Care and Billing System with Oracle Utilities Customer to Meter System (C2M) software. The new software will provide enhanced customer management tools to manage customer accounts, rates and billing, payments, credit and collection and field activities. It will also provide advanced support for the new metering infrastructure, allowing staff to more efficiently monitor and manage device inventory and testing, usage data and smart meter commands. The C2M project implementation started November 2019 and is projected to be completed February 2022. Implementing AMI requires constructing a fixed network consisting of data repeaters and collectors that is compatible with the existing system's meter end-point communication module. The network is capable of two-way communication with all service points in the LVVWD service area. The AMI implementation started January 2021 and is expected to be completed January 2023.

With this technology, the LVVWD will be able to provide enhanced customer service and interaction, increased support for conservation initiatives, optimized service response and more efficient device management.

Drought and Water Resources

As drought conditions continue throughout the Colorado River Basin and the effects of climate change become increasingly prevalent, prudent management of water resources remains a critical priority.

A revised 50-year Water Resource Plan and various resources-related initiatives within the SNWA's amended MCCP will continue to guide and support the SNWA's efforts to protect Southern Nevada's water supply.

Las Vegas Valley Water District
Operating and Capital Budget
Department Budgets
Executive Management
Fiscal Year Ending June 30, 2022

SNWA Water Resource Plan

In November 2020, the SNWA Board adopted an updated Water Resource Plan reflecting various changes within the current resource planning environment, including:

- Extension of the planning horizon through 2071;
- Updated resource demand range based on new population forecasts;
- Incorporation of IRPAC 2020 recommendations related to resources and conservation; and
- Revision of the composition, priority, and timing of future resource options.

The Water Resource Plan provides a comprehensive overview of projected water demands in Southern Nevada over a 50-year planning horizon, as well as the resources available to meet those demands over time. The SNWA continues to use a scenario-based planning approach that represents Southern Nevada's future water resource needs under variable supply and demand conditions. It also includes expanded planning scenarios that reflect shortage impacts under variable hydrology (average, dry, extremely dry and climate change).

Future Resources

The SNWA continues to examine and consider additional opportunities to further diversify its water resource portfolio. To that end, the amended MCCP includes potential investment in water recycling and/or desalination projects developed by other Colorado River partners. By participating in these efforts, the SNWA would partially fund the construction of facilities, or lease/purchase water produced by the facilities, in exchange for a portion of the partnering state's Colorado River allocation. Potential projects include:

Metropolitan Water District of Southern California (MET) Recycling Project. MET is proposing an advanced water treatment project to treat wastewater and inject it into groundwater aquifers for future use. The project would create approximately 112,000 acre-feet of water per year. The SNWA could potentially partner with MET to help fund a portion of the project in exchange for MET using less of its Colorado River allocation, which the SNWA would then utilize and access via Lake Mead.

SNWA Major Construction & Capital Plan

The Major Construction and Capital Plan (MCCP) is the SNWA's vehicle for identifying and authorizing capital initiatives including water resource acquisition; system expansion; and construction, repair and replacement of water facilities. Projects outlined in the MCCP are funded by the SNWA bond proceeds and revenue generated by the SNWA's water bill charges, connection charges, sales tax proceeds and Southern Nevada Public Land Management Act funds. The Board of Directors approved the amended MCCP in November 2020.

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Major facility-related projects included within the amended MCCP include:

Horizon Lateral

An additional lateral is needed to support the regional water system, as the existing South Valley Lateral, which provides 40 percent of all existing in-valley deliveries, is projected to be nearly fully subscribed by 2034. The Horizon Lateral—the largest project in the MCCP— will offer redundancy for a large portion of SNWA customers and the capacity to meet new demands in the southern portion of the water system.

It is estimated that the Horizon Lateral will cost approximately \$1.6 billion to construct and be complete in 2032.

Garnet Valley Water System

The Apex Industrial Park is located in Garnet Valley in North Las Vegas and is one of Southern Nevada’s largest industrial parks. The 16-parcel area spans more than 11,000 acres and is attracting technology- and manufacturing-based businesses. Once complete, the Garnet Valley Water System will have the capacity to supply 20 million gallons of water per day to support the water needs of the Apex Industrial Park.

The Garnet Valley Water System is projected to cost approximately \$129.8 million and scheduled for completion in 2028.

Garnet Valley Wastewater System

Construction of the Garnet Valley Wastewater System will help ensure the sustainable development of resources and reduce water demand impacts to the Colorado River. The project will maximize the community’s water resources by developing the infrastructure required to capture indoor wastewater from the Garnet Valley area and return it to Lake Mead in accordance with the SNWA’s out-of-valley water use policy. This project is scheduled for completion in 2027 and estimated to cost \$120 million.

Large Scale Solar Photovoltaic (PV) Project

The SNWA will enter a 25-year, fixed-rate power Purchase Agreement (PPA) with ibV Energy Partners, which will build, operate and maintain the large-scale solar PV facility near Boulder City, NV. The PPA allows the SNWA to purchase power below current market cost, saving money when the facility opens in 2023 and throughout the span of the agreement. In addition to the PPA, the project consists of a 10-mile expansion to the SNWA’s existing power transmission system, a double-circuit 230 kV power line, 230 kV Switchyard and other infrastructure to support energy transmission.

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This project ensures a clean, cost-effective renewable energy source for the next 25 years and is essential for meeting the Nevada Renewable Portfolio Standard of 50 percent by 2030. The estimated cost of this project is \$20.8 million.

LVVWD Capital Improvements Plan

In 2017, the LVVWD Board of Directors approved a 10-year, \$616 million Capital Improvement Plan (CIP). A top priority, this document guides the operation, maintenance, and development of the LVVWD water distribution system, and supports the LVVWD's ongoing commitment to ensure the community water system remains stable and reliable into the future.

The following projects are currently either active or recently completed:

Centennial 2635 Zone Reservoir. This project involves the installation of the 2745 Zone Pumping Station and the Centennial 2635 Zone Reservoir. The reservoir, a 5-million gallon (MG) below grade reinforced concrete reservoir, will provide gravity storage for the pressure zone and will transfer storage to the west. The pumping station consists of a 38 MGD pumping station intended to transfer water from the pressure zone into the future Rome reservoir.

Centennial 3205 Zone North Pipeline, Phases I and II. This project consists of installing 8,250 feet and 4,850 feet, respectively, of 36-inch diameter pipe on the western edge of the valley and service both existing and future development. The pipeline will provide additional capacity at the existing 3205 Zone pumping station by eliminating current limitations and allowing all pumps to run simultaneously without over-pressurizing the system.

Rome 2745 Reservoir, 2975 Zone Pumping Station, and 2975-2860 Zone Pressure Reducing Valve (PRV). This project consists of installing the Rome 2975 Zone Pumping Station, Rome 2745 Zone Reservoir, and a PRV. The reservoir will provide gravity storage for the pressure zone. In addition, the reservoir will maintain adequate hydraulic grade lines in the northern portion and will eliminate reliance on the existing PRV. The pumping station will also improve the reliability of the northern portion of the District's system.

Skye Canyon 2860 Zone Pipeline. This project consists of installing 5,800 feet of 36-inch diameter pipe to supply the 2860 Pressure Zone on the north side of the Las Vegas valley and will serve current and future demand.

Egan Crest 3090 Zone North Pipeline Phase III. This project consists of installing 5,947 feet of 36-inch diameter pipeline and will initially serve a master planned community. The new pipeline will add capacity and reliability for current and future demand.

Shaumber 3205 Zone North Pipeline Phase II and Pressure Reducing Valve. This project consists of installing 4,200 feet of 36-inch diameter pipe within the northern portion of the 3205 Pressure Zone and will distribute water to that portion of the zone.

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Las Vegas Boulevard Improvements, Phase B. This project involves the installation of 9,000 feet of 36-inch pipeline between Russell Road and CC-215. This is the second phase of replacement of existing water transmission and distribution facilities along the Boulevard in cooperation with Clark County's improvements to the corridor. Phase B includes approx. \$12.3 million in improvements of a total estimate of \$68.2 million in infrastructure improvements along Las Vegas Boulevard, from Stewart Avenue to CC-215.

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.

2021-22 Performance Objectives

- Develop and maintain existing state, federal and international partnerships to advance and promote water-related technical development and innovative water-resource solutions.
- Conduct public outreach and Implement IRPAC 2020 recommendations.
- 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 the SNWA Capital Plans.

2020-21 Major Accomplishments

- The SNWA Board of Directors approved an updated Water Resource Plan in 2020. The plan provides a comprehensive overview of projected water demands in Southern Nevada over a 50-year planning horizon, as well as the resources available to meet those demands over time.
- Completion of the IRPAC 2020 public participation process and approval of the committee's Recommendation Report.
- Continued progress on asset management, necessary system expansion and water quality compliance projects provided within the LVVWD's 10-year Capital Improvement Plan.

Strategic Plan Goal - Deliver an outstanding customer service experience.

2021-22 Performance Objectives

- Identify and implement further operational and management practices to maintain service levels with greater efficiency.

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- Continue implementation and increase use of analytics software to detect potential leaks and notify customers.

2020-21 Major Accomplishments

- Suspended water shut-offs due to delinquent accounts for several months for customers experiencing financial difficulties due to the COVID-19 pandemic. Staff continues to work with individual customers facing financial hardships to establish payment arrangements.
- Continued construction schedule coordination with the City of Las Vegas and Clark County for all major projects occurring throughout the District's service area, resulting in lower costs and reduced traffic 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.
- Started the Water Smarts Podcast, which covers a broad range of Southern Nevada water issues and is available on all streaming platforms.

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

2021-22 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.

2020-21 Major Accomplishments

- In 2020, the Water Smart Landscapes rebate program hit a milestone, with participants converting more than 197 million square feet of grass—enough to roll an 18-inch-wide strip of sod completely around the Earth's circumference.
- Enhanced water waste enforcement efforts to stimulate sustained water conservation throughout the community.
- The SNWA member agencies signed various interlocal agreements to increase water efficiency and conservation throughout Southern Nevada, including adoption of the SNWA's non-functional turf resolution into local codes and ordinances, limiting turf installation to only parks and schools in areas outside the Las Vegas Valley, and implementing the SNWA's Out-of-valley water use policy requiring that any of the SNWA-delivered water be returned to Lake Mead via a wastewater system.

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- Implementation of water conservation and efficiency measures, such as customer compliance with watering schedules, data sharing and amending development agreements to include up-to-date efficiency measures.

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

2021-22 Performance Objectives

- 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.

2020-21 Major Accomplishments

- In 2020, the SNWA conducted groundbreaking research on genetic markers of COVID-19 in wastewater.
- 16 Water Efficient Technologies projects were completed in 2020, totaling approximately \$148,000 in rebates and 23.3 million gallons in water savings.
- Expedited implementation of Automated Metering Infrastructure to allow for increased efficiency in responding to potential compliance and leak issues.
- Continued management of the Warm Springs Natural Area, including aquatic fish habitat restoration, control and eradication of invasive species, fire prevention and general property maintenance. These efforts help to provide mitigation benefits for water development.

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

2021-22 Performance Objectives

- Continue to establish and maintain responsible reserve policies to ensure both the SNWA and the 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 the LVVWD and the SNWA investments in alternative and renewable energy supplies.

2020-21 Major Accomplishments

- The LVVWD ended fiscal year 2019-20 with \$422 million in reserves, exceeding its fund balance target by 25 percent.

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- The SNWA ended fiscal year 2019-20 with \$769 million in unrestricted reserves, exceeding its fund balance target by 15 percent.

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

2021-22 Performance Objectives

- Ensure continual security and safety of the LVVWD and the 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.

2020-21 Major Accomplishments

- In early 2020, the LVVWD was able to donate 50,000 N95 masks to COVID-19 first responders.
- Held a virtual Black History Month celebration in February 2021. While an in-person event was unable to be held due to the COVID-19 pandemic, spectacular music and dance performances, educational children's activities and informational speakers and presentations were held online for all to enjoy.
- In 2020, the LVVWD was named the top employer in Nevada by Forbes Magazine.
- During the COVID-19 pandemic, the Executive Team began a weekly video series to keep the organization informed of major developments, initiatives, and accomplishments. The video series won a Pinnacle Award in 2020 from the PRSA Las Vegas Chapter.

LEGAL SERVICES

Level: 1200



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 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 2021-22 budget contains continuing funding to support these efforts and for outside counsel who perform a variety of other legal services for the organization.

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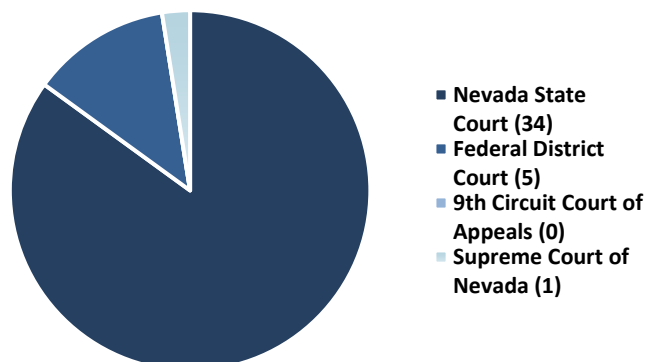
Expenditures

LVVWD Uses	Actual 2019-20	Budget 2020-21	Budget 2021-22
Materials & Supplies	\$ 5,152	\$ 58,032	\$ 10,046
Maintenance & Repairs	-	-	-
Rental & Leases	-	-	-
Other Employee Expenses	28,141	50,736	40,836
Other Expenses	479,564	1,871,616	1,389,416
Total Operating Expenses	512,858	1,980,384	1,440,298
Capital Expenditures	-	-	-
Payroll & Related Costs	1,526,472	1,438,862	1,442,959
Total Department Expenditures	\$ 2,039,330	\$ 3,419,246	\$ 2,883,257
FTE Positions	5.9	5.5	5.5

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



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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 has provided and will continue to provide training sessions to organization staff to develop internal capacity and strengthen the culture of excellence.

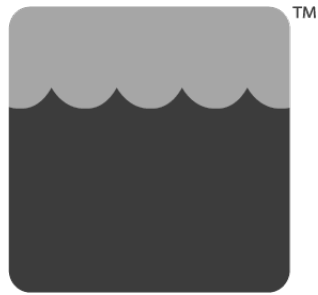
2021-2022 Performance Objectives

- 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.

2020-2021 Major Accomplishments

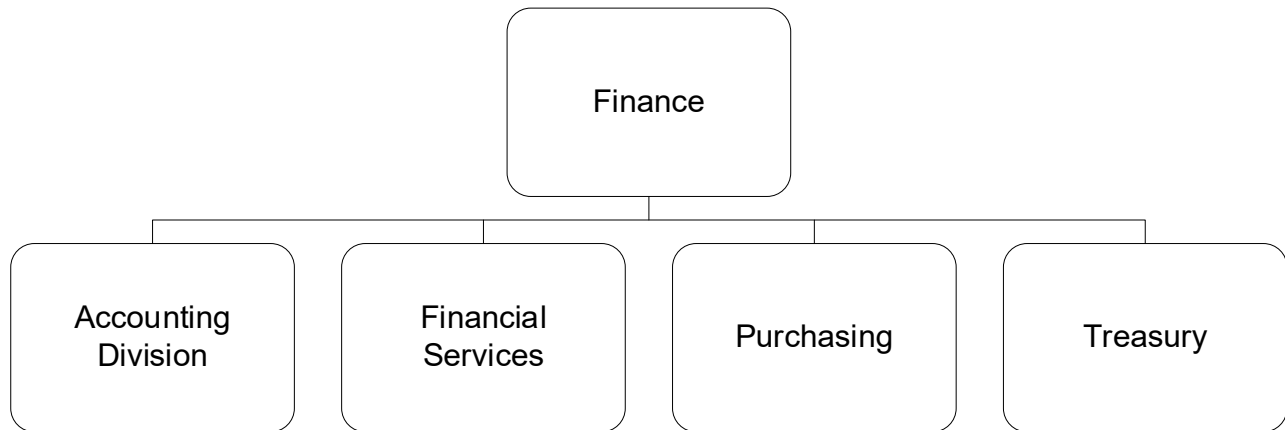
- Negotiated water and power resource positions and agreements, as well as renewable resource agreements.
- Kept construction on schedule without costly delays due to litigation and arbitration.
- Prevailed in adversarial proceedings.
- Minimized the need for any construction project condemnations.
-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

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FINANCE
Level: 2100



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, accounts payable, and purchasing procedures and processes.

Department Description

The Finance department is responsible for 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 Pension and Other Employee Benefits Trust Funds. In the Enterprise Funds, financial activities are recorded in a similar manner to that of a private business. The Pension and Other Employee Benefits Trust Funds are used to account for the investments, earnings, contributions, expenses, and projected pension and other employee benefits of the LVVWD Plans. The department also coordinates the LVVWD and the SNWA 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).

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Budget Objectives and Highlights

The 2021-22 Finance department budget contains funding to maintain the necessary functions that the LVVWD and the SNWA require to provide quality services to both internal and external customers.

Expenditures

LVVWD Uses	Actual 2019-20	Budget 2020-21	Budget 2021-22
Purchased Water	\$ 101,755,016	\$ 97,052,127	\$ 105,610,878
Materials & Supplies	1,089,473	705,792	2,311,080
Maintenance & Repairs	1,307,818	4,086,720	1,261,500
Rental & Leases	-	5,280	5,500
Other Employee Expenses	33,046	80,122	82,548
Other Expenses*	202,038,866	173,124,730	180,856,133
Total Operating Expenses	306,224,218	275,054,771	290,127,639
Capital Expenditures	-	-	-
Payroll & Related Costs	2,108,214	5,818,275	5,642,162
Total Department Expenditures	\$ 308,332,433	\$ 280,873,046	\$ 295,769,801
FTE Positions	43.4	34.3	32.8

*Includes SNWA Pass-Throughs and Allocations

Department Performance

Accounting. The Accounting division supports and provides accounting services for the following entities: Las Vegas Valley Water District (LVVWD), Southern Nevada Water Authority (SNWA), Big Bend Water District (BBWD), Kyle Canyon Water District (KCWD), Coyote Springs Water Resources District (CSWRD), three additional rural systems that are a part of the LVVWD, and the Springs Preserve. The financial reporting includes monthly and quarterly financial statements, as well as, both the LVVWD and the SNWA Comprehensive Annual Financial Reports with their corresponding audit reports. In addition, the division prepares and submits the financial reporting related to grant activities for both the SNWA and the LVVWD.

The Accounting division supports both senior management and other workgroups with financial analysis. Some areas include construction-related activities, groundwater management programs,

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conservation-related activities, Las Vegas Wash activities, energy management, and various activities related to water rights.

Accounting functions include: ensuring financial statements and reports are accurate, complete and consistent; various financial analyses, revenue billing, maintaining the general ledger, inventory, fixed asset and other system records; controls over revenues, expenditures, assets, and liabilities, cash management and the accounting and reporting of investments for both the LVVWD and the SNWA funds; reconciling bank statements; accounts receivable, and federal and state agency grant accounting that require preparing and submitting reports to obtain reimbursements.

While the company 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 270 satellite pay station locations throughout the Las Vegas valley.

This 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 CSWRD. This includes budget development, implementation, and monitoring. 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 forecasts, 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.

Purchasing. The Purchasing division is responsible for the centralized purchasing activities of the LVVWD and the SNWA. 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, 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

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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.

Treasury. The Treasury group is responsible for debt management, investments, and banking. Debt management includes supporting management with the issuance of debt, continuing disclosure requirements, and other analysis. Investments include the investment of operating monies and reserves as well as investments related to post-employment benefits. Treasury serves as a point of contact for banking issues.

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.

2021-22 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, 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.

2021-22 Performance Objectives

- Complete implementation of a new procure-to-pay system that streamlines the procurement process, and optimize the system 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.
- Pursue process and system improvement initiatives to shorten the financial month-end close and complete the process before the end of the following month.

2020-21 Major Accomplishments

- Achieved several months of completing the financial month-end close before the end of the following month.

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- Increased electronic payment to suppliers by 25 percent.
- Implemented Workday Expense module to help streamline and manage the review, approval, and payment of employee expense reports related to travel and training.
- Continued collaboration with all Departments, including conducting the annual budget kickoff and new Budget Dashboard training meetings on Microsoft Teams for the first time. Recordings of the meetings were made viewable by posting on our Hydroweb/SharePoint Budget Help page for those unable to attend.
- Implemented new procure-to-pay system and moved the Purchasing Card (P-Card) reconciliation into a new system.
- 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.
- Continued expansion of the Procurement Card program for small dollar purchases to further increase transparency, accountability and efficiency for small dollar purchases and decrease the transactional costs for such items.
- Updated the Purchasing Guidelines to reflect new processes and procedures due to the implementation of new procure-to-pay system.

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

2021-22 Performance Objectives

- Complete planning phase of a chart of accounts enhancement project to facilitate alignment of processes across entities and improve system reporting capabilities.
- Define new use cases to maximize benefits of existing Blackline modules.
- Expand use of Workiva financial reporting software to produce the BBWD annual report.
- Increase use and training 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 defining financial information requirements to new system implementations or enhancements, which include but are not limited to, the Apttus contract project, Customer Care & Billing (CC&B), and Workday software.

2020-21 Major Accomplishments

- Expanded use of the Workiva financial reporting software to produce the 2021-22 budget document.
- Implemented Sympro Debt Management software to improve debt management accounting, reporting, and analysis for the LVVWD and the SNWA.

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- Implemented a new technology tool named Lease Query. This tool and additional accounting procedures will ensure compliance with GASB 87 leases.
- Fully implemented an accounts payable automation system which helped automate manual processes.
- Upgraded the organization's budget dashboard application, which allows users without access to the Oracle Financial System to view their work area's financial data and expenditures.

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

2021-22 Performance Objectives

- Issue new money bonds for the SNWA and LVVWD to fund capital programs and refunding bonds for both the SNWA and LVVWD to generate savings.
- Implement GASB 87 related to new Lease Accounting Standard.
- Assess technological changes and new practices to ensure the processing of SNWA vendor payments directly from its own funds.
- Continue to enroll suppliers on electronic payments to further increase the overall efficiency of the procure-to-pay process.

2020-21 Major Accomplishments

- Issued the LVVWD General Obligation (Limited Tax) (Additionally Secured by Pledged Revenues) Series 2020C Water Bonds generating \$100 million of new monies to fund the next tranche of the District's capital improvements plan.
- Issued the LVVWD General Obligation Bonds (additionally secured by SNWA Revenues) Series 2021A Refunding Bonds generating net present value savings of \$50.2 million.
- Issued the LVVWD General Obligation Bonds (additionally secured by Pledged Revenues) Series 2021B Refunding Bonds generating net present value savings of \$6.6 million.
- Issued the LVVWD General Obligation Bonds (additionally secured by SNWA Revenues) Series 2021C Refunding Bonds converting the commercial paper program to fixed rate debt.
- 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 LVVWD's strong financial management practices and policies, maintenance of robust cash reserves, and continued economic growth in the Las Vegas area.
- Processed approximately 28,000 payments annually, earning more than \$265,000 in discounts on invoices processed in fiscal year 2019-20, and achieved a rebate of \$79,000 on annual credit card spend.
- Provided comprehensive financial planning and analytical support for the SNWA's Integrated Resource Planning Advisory Committee 2020.
- Completed implementation of a new procure-to-pay system.

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

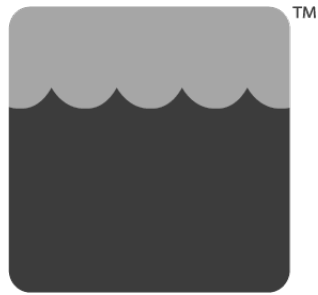
2021-22 Performance Objectives

- Submit the LVVWD and SNWA Comprehensive Annual Financial Report for the year ending June 30, 2021, 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 2021 audits.
- Receive the Distinguished Budget Presentation Award from the GFOA for the LVVWD and SNWA Operating and Capital Budgets for the year beginning July 1, 2021.

2020-21 Major Accomplishments

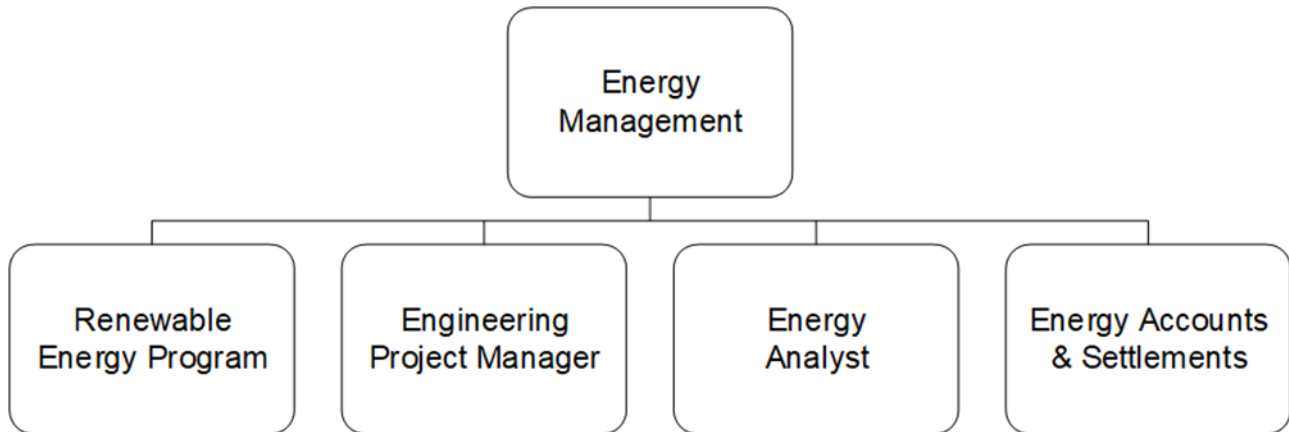
- Received the Certificate of Excellence in Financial Reporting from the GFOA of the United States and Canada for the forty-second (42nd) consecutive year for the LVVWD Comprehensive Annual Financial Report for the ended June 30, 2020.
- Received the Certificate of Excellence in Financial Reporting from the GFOA for the twenty-fifth (25th) consecutive year for the SNWA Comprehensive Annual Financial Report for the year ended June 30, 2020.
- Received an unmodified opinion from external auditors for the LVVWD, SNWA and BBWD fiscal year 2020 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, 2020.

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ENERGY MANAGEMENT

Level: 2200



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.

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

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on behalf of the SSEA, Energy Management personnel also support the renewable energy initiatives of the SNWA and the LVVWD.

Budget Objectives and Highlights

The fiscal year 2021-22 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 2019-20	Budget 2020-21	Budget 2021-22
Materials & Supplies	\$ -	\$ -	\$ -
Maintenance & Repairs	-	-	-
Rental & Leases	-	-	-
Other Employee Expenses	-	-	-
Other Expenses	(39)	-	-
Total Operating Expenses	(39)	-	-
Capital Expenditures	-	-	-
Payroll & Related Costs	-	-	-
Total Department Expenditures	\$ (39)	\$ -	\$ -
FTE Positions	-	-	-

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

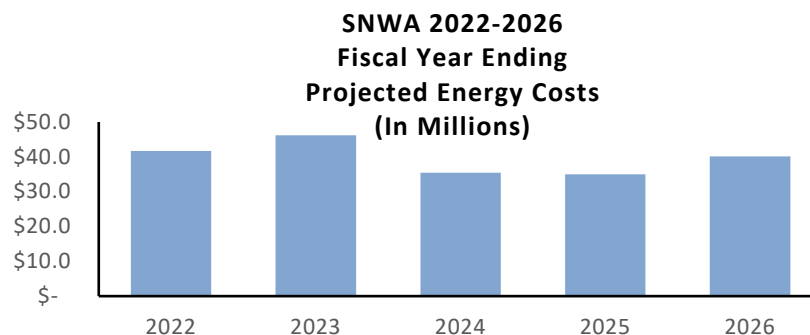
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Management department and the CRC Energy Services group have met this need for many years now.

Expanding the energy portfolio managed by this group to include the SNWA member 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 based on 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 2024. 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 natural 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 2024, 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 2026 as of the end of February 2021.



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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 \$42 million, excluding the estimated cost of capital associated with the SNWA's energy assets for the fiscal year 2021-22. This amount is recovered through the SNWA wholesale water delivery charge.

Boulder Flats Solar and 230 kV Transmission Project. The SNWA is working with ibV Energy Partners on a large 113-megawatt (MW) solar photovoltaic (PV) energy project located in the El Dorado Valley, including a 10-mile 230 kV transmission line extension to allow for interconnection with our existing transmission system. The SNWA is planning on purchasing most of the energy output, but all its member agencies that receive power from us are also planning to purchase some of the output. This strategic resource will be a critical renewable energy resource for meeting our renewable energy targets and will provide a low fixed price resource for many years.

SNWA and LVVWD Sustainability Initiatives. The Nevada legislature passed a new higher energy portfolio standard in 2019 that raises the requirement of 20 percent renewables in 2019 to 50 percent renewables by 2030. The SNWA and the LVVWD will just meet that target in 2020 and participation in the Boulder Flats Solar Project will enable the SNWA and the LVVWD to meet the increasing standard in the years to come.

Strategic Plan Objectives and Accomplishments

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

2021-22 Performance Objectives

- Coordinate all permitting, transmission studies and line crossings required to be able to take delivery of the Boulder Flats Solar energy.
- Work with CRC to develop a 10-mile transmission line extension to connect the Boulder Flats Solar project to the SNWA's existing system.
- Continue to work with SunPower and its maintenance contractor to replace solar panels under warranty on the LVVWD reservoirs to achieve expected performance levels.
- Evaluate various renewable energy options to satisfy the next increment of renewable generation with the goal of reaching net zero carbon emissions.
- Work with the Middle Office to finalize a morning report for renewable assets showing performance from the prior day. The report will be used as a flag for any potential performance problems.

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2020-21 Major Accomplishments

- Negotiated a 113 MW Power Purchase Agreement with Boulder Flats Solar in support of our renewable energy goals.
- Developed a rolling three-month resource and price projection to be sent to Western Area Power Administration (WAPA) monthly along with the SSEA month-ahead schedule. This improved WAPA's ability to forecast quarterly and improved cash flow projections and collections from the SSEA.
- Worked with WAPA in correcting monthly curtailment reporting and improving monthly collection efficiency through coordination with third-party vendors and fostering cooperation with WAPA staff.
- Demonstrated our best industry standard practices both through phone calls and Teams meetings, coaching new curtailment personnel to produce acceptable and timely results.
- Worked with WAPA to limit exposure to volatile imbalance prices by devising a correction factor to offset a consistently observed non-zero biasing in the hourly imbalance volumes. WAPA's installation of the correction factor, partnered with prudent scheduling practices, reduced volume and price at risk, and mitigated the observed bias.
- Completed the installation of communications and metering to the solar-covered carports at the LVVWD campus. Information is now being collected in the Energy Management database.
- Received a settlement from Sharp for the warrantied solar panels on the LVVWD reservoirs. The money will be utilized to purchase replacement panels.

Strategic Plan Goal – Deliver an outstanding customer service experience.

2021-22 Performance Objectives

- Work with the SNWA member agencies to develop and execute power purchase agreements for Boulder Flats solar power commitments.

2020-21 Major Accomplishments

- Performed load and cost analysis for the City of Henderson to exit 20 water-pumping and wastewater sites from NV Energy, at the request of the customer. Working with WAPA and the CRC, completed and prepared the exiting application and 10-year load forecast under the rules set forth in NRS 704.787.
- Coordinated with the SNWA member agencies to develop new methods to obtain and report renewable energy compliance obligations under new SB 358 legislation.
- Implemented productivity standards and protocols to meet the required remote work mandate. This included alternative methods of trade capture, entry, and approval, along with modified procedures for QB entry, review, and billing to name a few.

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

2021-22 Performance Objectives

- Complete a comprehensive review of the Risk Management Procedures, incorporating industry changes and lessons learned from the pandemic.
- Monitor, evaluate and capture new hydropower allocation opportunities or layoffs as they become available.
- Evaluate alternatives to obtain value for the Eastern Nevada Transmission Project right-of-way. Work with other providers to see if there are some ways of partnering to create value.

2020-21 Major Accomplishments

- Maintained a managed portfolio of energy resources for all SSEA requirements within all hedge guidelines and procedures.
- To reduce the exposure of the extreme summer energy price volatility, changed to a monthly average of the daily index when trading with SNWA customers for balancing energy.
- Secured a long-term layoff of Parker-Davis hydropower and smaller month-to-month layoffs of both Parker-Davis and Hoover hydropower. This improved the ability to meet the state-mandated Renewable Portfolio Standard.
- Reviewed, analyzed, and modified our long-term hedging strategy to address changing market conditions.
- Services for settling and agreeing with NV Energy Balancing Authority loads were automated and migrated to cloud-based services, eliminating the need for outside support.
- Developed a framework and methodology for our newly required renewable energy compliance reporting and successfully submitted our first report to the Office of Energy.
- Migrated some excel based reporting to MongoDB Atlas and implemented dynamic visualization reports. Several Front Office reports were automated and moved to this format, saving hours of labor every month and providing a rich and deeper analysis on demand.

RISK MANAGEMENT

Level: 2600



Mission

Provide best of class risk management solutions for the LVVWD and the SNWA to achieve the best balance between risk and opportunities.

Department Description

Oversees the LVVWD's and SNWA's risk management processes; coordinates insurance coverage and risk financing; manages claims; coordinates with legal counsel; compiles and analyzes risk management data; and conducts risk management educational programs.

Budget Objectives and Highlights

Risk Management reassessed the SWOT analysis to evaluate the strengths, weaknesses, opportunities, and threats to the department. The SWOT analysis is a useful technique to maximize opportunities and minimize threats of the department reaching its goals.

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Expenditures

LVVWD Uses	Actual 2019-20	Budget 2020-21	Budget 2021-22
Materials & Supplies	\$ 1,496	\$ 5,040	\$ 5,040
Maintenance & Repairs	-	-	-
Other Employee Expenses	11,130	33,408	28,100
Other Expenses	949,265	1,875,024	2,049,578
Total Operating Expenses	961,890	1,913,472	2,082,718
Capital Expenditures	-	-	-
Payroll & Related Costs	455,228	588,423	582,493
Total Department Expenditures	\$ 1,417,118	\$ 2,501,895	\$ 2,665,211
FTE Positions	2.4	3.0	3.0

Department Performance

Enterprise Risk Management. In support of the LVVWD's mission and goals, the visibility of the division was elevated by moving it into its own department reporting to the Chief Financial Officer. The value proposition of this program will connect strategy and performance, enhance decision making, improve cross-company communications, support asset management processes, including rate cases and business continuity; and finally, create good governance for the organization.

Origami Risk Management Information System. Each year brings a wider company footprint with the current departments having multiple workflow processes in Origami: Distribution, Security, EHS, Risk Management, Legal, Internal Auditors, and Info Sec and Compliance. There are 85 full users with an average of 80% logging in on a weekly basis.

Liability Claims. The Risk Management team saw an increase in efficiencies and decrease in claims costs due to a change in claims handling procedures for the department. Key practices are:

- Utilization of outside vendor to take recorded statements.
- Reduce cost of medical records review by utilizing a nurse case manager versus physician.
- Index all bodily injury claims.
- Creation of a Case Analysis report to evaluate exposure.
- Monthly meeting with Senior Attorney to strategize.
- Monthly meeting with Risk/Legal/EHS to review all open litigated claims.

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Renewal Comparison				
Line of Coverage	2017-2018	2018-2019	2019-2020	2020-2021
Operational Property & Builders Risk	\$ 430,701.00	\$ 422,327.00	\$ 417,212.00	\$ 620,000.00
Terrorism	N/A	N/A	N/A	\$ 46,755.00
Excess Liability	\$ 147,413.00	\$ 144,323.00	\$ 144,323.00	\$ 342,566.48
Excess Worker's Compensation	\$ 108,392.00	\$ 106,897.00	\$ 106,897.00	\$ 113,748.00
Employee Fidelity	\$ 19,363.00	\$ 19,366.00	\$ 19,137.00	\$ 19,604.00
Public Officials & Employees Liability	\$ 140,266.00	\$ 138,159.00	\$ 135,196.00	N/A
Employment Practices Liability	\$ 64,711.00	\$ 53,538.00	\$ 53,538.00	\$ 65,760.00
Digital Technology Liability	\$ 56,232.00	\$ 61,301.00	\$ 63,639.00	\$ 68,989.60
Ocean Marine	\$ 9,901.00	\$ 9,148.00	\$ 9,137.00	\$ 9,250.00
Non-owned Aviation	\$ 3,268.00	\$ 3,268.00	\$ 3,430.00	N/A
Pollution Liability*	N/A	N/A	N/A	\$ 158,838.00
Total	\$ 980,247.00	\$ 958,327.00	\$ 952,509.00	\$ 1,445,511.08
*3 year premium paid; 4/9 renewal date				

Insurance Program. Over the past several years, the LVVWD has been evaluating the feasibility of forming a captive and has considered how a captive would support the LVVWD's financial and strategic positions. After review, staff has determined that a captive would offer a multitude of benefits to the LVVWD, including cost savings, flexibility and risk management options.

By forming a captive insurance company, the LVVWD would create a separate, licensed and regulated entity to ensure its own risk. The captive could be used to provide necessary capacity, plug gaps in existing coverage policies, and create leverage in pricing negotiations with incumbent markets. Other benefits include broader coverage, pricing stability, improved cash flow and increased control over the program.

Strategic Plan Objectives and Accomplishments

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

2021-22 Performance Objectives

Enterprise Risk Management

- Identify KPIs, KRIs, and Mitigation Strategies for top Risk of the Organization.
- Update Origami ERM Module to support program.
- Development platform and procedure for Emerging Risk to be reported.

Origami

- Continue to work with IT to promote utilization of Origami.
- Create Total Cost of Risk reporting Matrix.
- Support other Department's utilization of the system.

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Captive Insurance Company

- Form LLC.
- Create insurance policies.
- Identify future lines of coverage for the captive.

Increase Industry Knowledge

- Provide opportunities for team to continue learning activities.

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

2020-21 Major Accomplishments

Enterprise Risk Management (ERM) Initiatives Completed:

- Top Fifteen Risks approved by SMT.
- Create controls and mitigations for top risks.
- Continue to develop resources, reports and tools that offer value for other departments.
- Develop quantitative risk management goals.
- Total Cost of Risk analysis.

Address the following additions to the Origami System in the following departments:

- Safety – complete OSHA reporting, add Safety Boot Program, Hot Work, Lockout/Tagout and Confined Space.
- Security – retire Security Blotter from Information Technology department.
- Risk Management – update certificate of insurance module, increase use of changing ERM module.
- Info Sec and Compliance – have the PCI DSS compliance requirement audits complete and automate workflow process.
- Internal Auditors – address automated workflow on findings and corrective actions.

Continue to increase visibility of Risk Management throughout the LVVWD:

- Attend design meetings and create risk registers for all construction projects.

Increase industry knowledge

- Risk Management Officer to work on Associate in Claims (AIC®) from Institutes.
- Risk Management Analyst to work on and complete Associate in Claims (AIC®) from Institutes.

Diversity and Inclusion

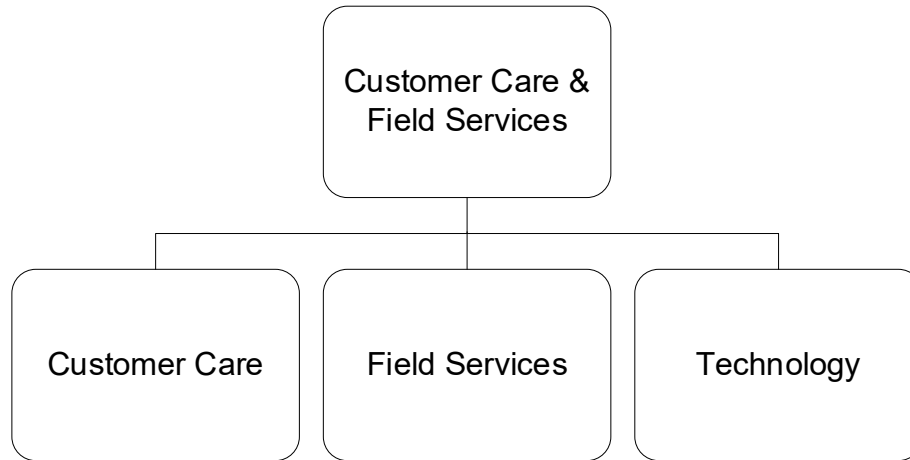
- Risk Manager participated in the National African American Insurance Association
www.naaia.org

Continue process to create Captive Insurance Company

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CUSTOMER CARE AND FIELD SERVICES

Level: 3100



Mission

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

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.

Budget Objectives and Highlights

The 2021-22 budget for the Customer Care and Field Services department is consistent 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.

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.

Field Services. The 2021-22 Budget Plan contains funding for meter maintenance, advanced metering infrastructure, and operational costs.

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Technology. Identify, explore, and implement new solutions supporting on-going efforts to reengineer business processes while being innovative in the approach, leveraging both existing and emerging technologies.

Expenditures

LVVWD Uses	Actual 2019-20	Budget 2020-21	Budget 2021-22
Materials & Supplies	\$ 1,073,481	\$ 4,982,448	\$ 4,969,760
Maintenance & Repairs	3,854,223	4,682,880	6,096,500
Rental & Leases	-	-	-
Other Employee Expenses	72,948	131,098	75,570
Other Expenses	3,772,520	5,331,360	2,445,400
Total Operating Expenses	8,773,172	15,127,786	13,587,230
Capital Expenditures	-	400,000	16,729,816
Payroll & Related Costs	22,350,782	25,989,167	26,029,619
Total Department Expenditures	\$ 31,123,953	\$ 41,516,953	\$ 56,346,665
FTE Positions	148.3	171.0	172.0

Department Performance

In 2020-21, 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; and Strengthen and Uphold a Culture of Service, Excellence, and Accountability.

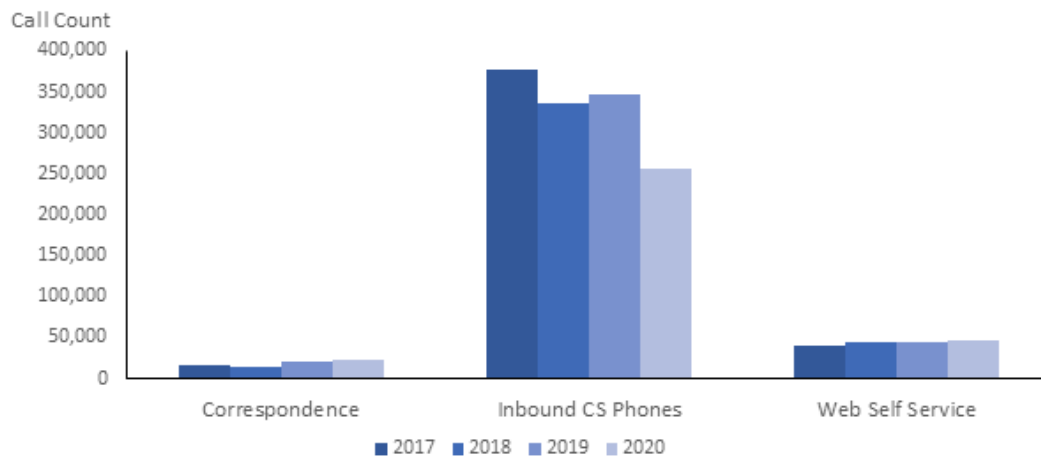
Customer Care. The Customer Care division serves as the primary point of contact for internal and external service inquiries—supporting approximately 409,000 active services. The division manages the customer care phones, web requests, correspondence, and walk-in requests. Customer Care handles payments, pay arrangements, courtesy collection 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.

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

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.

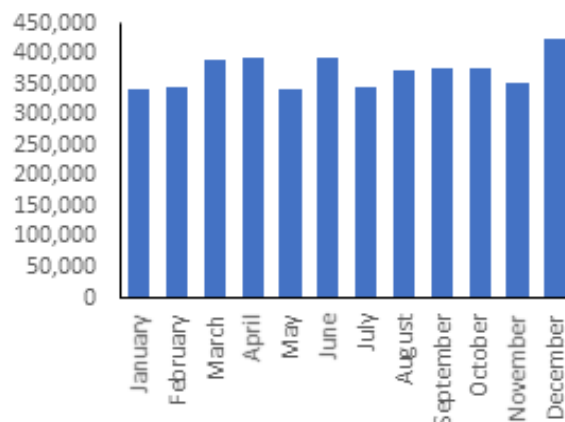
Customer Care Phone and Correspondence Volume



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.

The following chart depicts the total number of bills generated monthly in 2020.

Bills Generated 2020

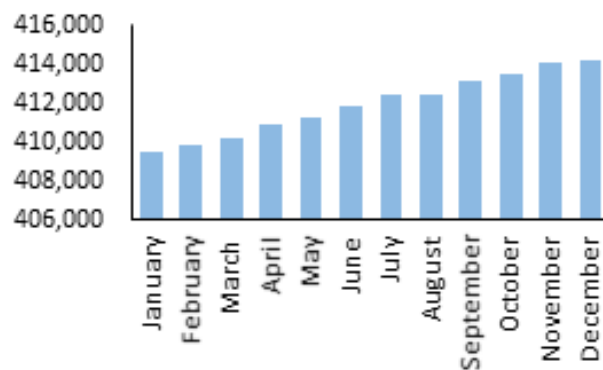


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Field Services: The Field Services division is responsible for reading and maintaining meters for approximately 409,000 services in Las Vegas, Searchlight, Blue Diamond, Kyle Canyon, Laughlin, and Jean. The division also responds to leak investigations, low pressure, high consumption, water waste inquiries, billing requests, and turn ons/shut offs.

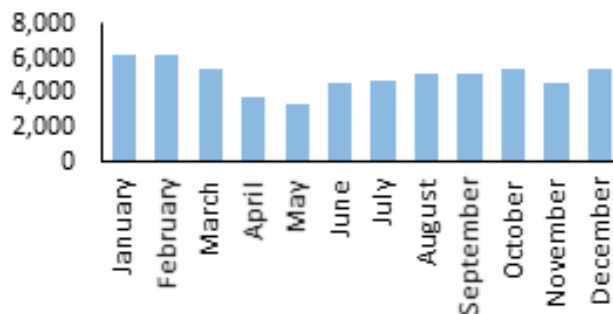
The 2020 Meter Reads chart illustrates the number of meter reads processed by Field Services in 2020 (Over 4.9 million total).

Meter Reads 2020



The following chart illustrates the number of work orders processed by Field Services in 2020 (Over 59,000 processed).

Field Activities Completed 2020



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Technology: The Technology division is responsible for implementing new technologies, software, and processes to modernize service offerings.

The five-year Technology Roadmap outlines Customer Care and Field Services' (CCFS) accomplishments in 2020 as well as current initiatives.

Current initiatives include implementation of Advanced Metering Infrastructure (AMI) valley-wide, upgrading the CCFS Customer Care & Billing System (CC&B) to the latest Oracle product, Customer-to-Meter (C2M), deploying a Genesys chat bot along with asynchronous chat, and installing walk-up and drive-up kiosks.

Accomplishments in 2020 include the implementation of callback, enhanced outbound dialing functionality, the LVVWD Mobile App, and upgraded Field Services' mobile application.

Strategic Plan Objectives and Accomplishments

Strategic Plan Goal – Deliver on Outstanding Customer Service Experience.

2021-22 Performance Objectives

- Establish a 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.
- 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.
- Convert drive by reading system to an Advanced Metering Infrastructure, bringing on-demand reads to our customer base.

2020-21 Major Accomplishments

- Created and implemented meter maintenance program focused on meter life per AWWA standards.
- Implemented a Callback Feature within our Interactive Voice Response (IVR system) creating an enhanced customer experience.
- Restructured literature left onsite to provide customers increased opportunities to provide feedback on field staff performance.
- Collected 3.4 billion hourly reads to help customers with their consumptive use.

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- Implemented a new LVVWD Mobile App to enhance the customer experience and improve on our technology efforts.

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

2021-22 Performance Objectives

- 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, as well as customer and interdepartmental communication.
- Educate customers on water usage and trends through all contact center activities.
- Adjust Meter Maintenance Program to highlight and prioritize meter removal based on accuracy rather than age in order to maximize life and reduce waste and non-revenue water.

2020-21 Major Accomplishments

- Mailed 8,124 Water Waste letters in 2020.
- Completed 10,031 Water Waste Investigations, resulting in \$180,720 in fees assessed.
- Completed over 52,579 field activities in 2020.
- Used data analytics to notify customers that they are watering on Sunday.
- Used data analytics to improve efficiencies around residential zero consumption on active accounts.

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

2021-22 Performance Objectives

- Continue 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.
- Improve technology solutions for revenue protection and greater collection gains.
- Continue to educate customers using advanced meter reading data.
- Continue to use data analytics to identify equipment nearing failure in order to provide proactive maintenance and replacement.

2020-21 Major Accomplishments

- Lobby payments and transactions continued to decline with successful expanded payment and self-service options, reducing lobby traffic and carbon footprint.

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- Leveraged existing meter read and interval data to significantly reduce field work.
- Identified leaks through the excessive leak program resulting in nearly 90% resolution rate within less than 100 days.
- Launched Sunday Watering Letter Program.

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

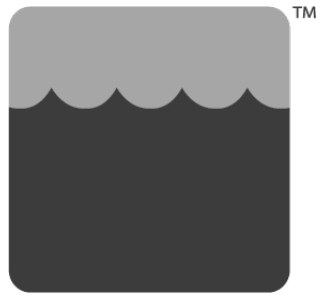
2021-22 Performance Objectives

- 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.
- Continuous communication forum between workgroups to address interdepartmental challenges and business impacts.
- Coordinate with outside departments for knowledge sharing and training.
- Leverage the existing resources for expert training classes to employee skill development.

2020-21 Major Accomplishments

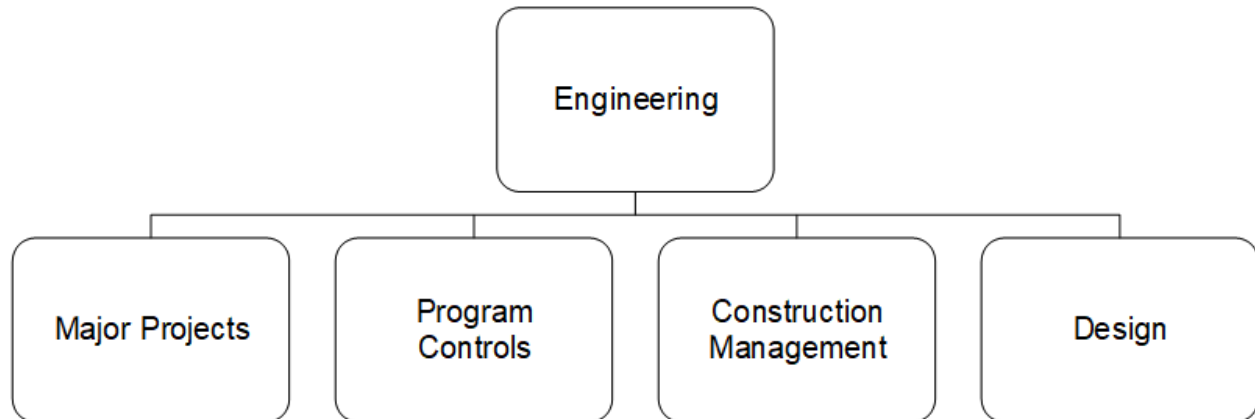
- Increased Quality Monitoring to enhance the functional capabilities of the individual, team and departmental performance.
- Utilized various subject matter experts throughout the department to support training initiatives.
- Restructured Credit & Collections processing to improve field operations and increase communications with past due customers.
- Adopted Agile methodologies in key areas to improve project management and collaboration.
- Successful transition of call center agents and support teams to at-home working environment.

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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). Presently, the functions under the Engineering department include: Major Projects, Program Controls, Construction Management, and Design.

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

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access to new water resources. In coordination with the Operations, Resources and Facilities, and Infrastructure Management departments, Engineering provides design and construction 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

LVVWD Uses	Actual 2019-20	Budget 2020-21	Budget 2021-22
Materials & Supplies	\$ 84,025	\$ 77,520	\$ 107,400
Maintenance & Repairs	1,282,494	1,320,000	1,000,000
Rental & Leases	-	-	-
Other Employee Expenses	62,902	117,432	99,892
Other Expenses	1,212,697	751,152	923,812
Total Operating Expenses	2,642,119	2,266,104	2,131,104
Capital Expenditures	75,627,526	96,010,400	91,108,025
Payroll & Related Costs	15,052,417	17,720,111	17,630,902
Total Department Expenditures	\$ 93,322,062	\$ 115,996,615	\$ 110,870,031
FTE Positions	80.5	94.0	95.8

Budget Objectives and Highlights

The 2021-22 Engineering department budget demonstrates significant ongoing commitment for LVVWD CIP, development needs, Lower Las Vegas Wash Restoration Plan, and the SNWA MCCC Amendment. 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.

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Work continues on the Alfred Merritt Smith Water Treatment Facility (AMSWTF) filter media replacement with 20 filters completed. Remaining ancillary contract work is scheduled for completion in Fall 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. Teams are organized to successfully manage completion of major capital projects of the LVVWD, SNWA, and Las Vegas Wash capital plans.

Major Projects. Currently, the active major projects are the Horizon Lateral and the Garnet Valley Water and Wastewater Systems. Staff is currently in the process of negotiating the professional services agreement for the preliminary design of the Horizon Lateral, and this agreement is scheduled to be approved prior to 2021-22. Staff will complete the selection process of consultants for the Garnet Valley Projects prior to 2021-22.

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, SNWA, and Las Vegas Wash capital programs through establishment of best practices for effective cost and schedule management and reporting. This team manages the Project Management Information System (e-Builder) and analyzes capital program project data from

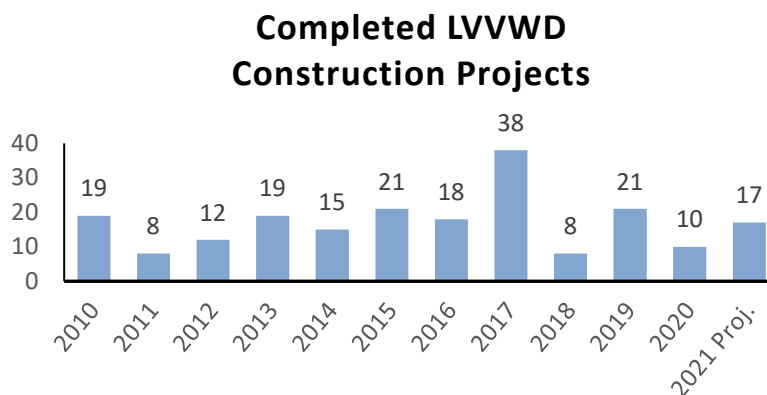
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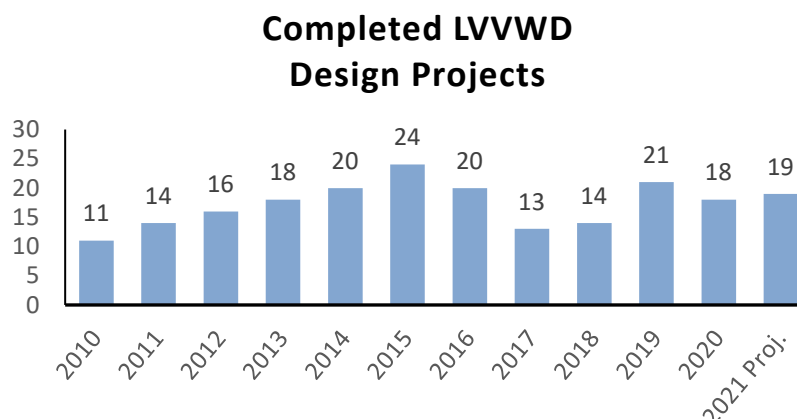
various departments to identify trends and evaluate project performance. This team also performs a vital function in quality control and reporting of projected capital expenditures as a tool for forecasting future funding requirements and coordinates closely with the Finance department.

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 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 2021.

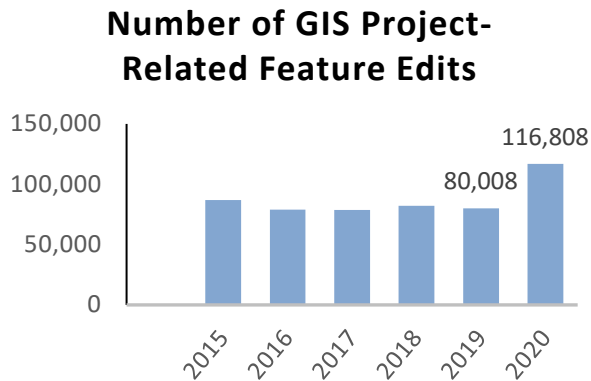


The following chart (Completed LVVWD Design Projects) illustrates the number of projects Engineering has designed since 2010 to support the infrastructure management requirements of the LVVWD.



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The chart below (Number of GIS Project-Related Feature Edits) 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 six years. The chart mirrors the increase in development activities experienced in the service area over this time.



Strategic Plan Objectives and Accomplishments

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

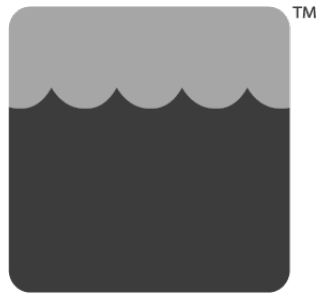
2021-22 Performance Objectives

- Complete design and construction of projects in accordance with forecasted capital budgets, the cost estimates and schedules identified in the capital plans.
- Provide the Infrastructure Management, Resources and Facilities, and Operations departments with a high level of technical services and capital project support.
- Continue to implement program management applications and processes to improve consistency, accountability and reporting.
- Continue design efforts to support projects in the SNWA 2020 MCCP Amendment.

2020-21 Major Accomplishments

- Completed the feasibility study for the Horizon Lateral.
- Completed, and placed into operation, the Low Lake Level Pumping Station.
- Completed construction of 20 LVVWD projects valued at \$38.1 million related to improvement of the LVVWD's facilities.
- Awarded 12 LVVWD construction contracts valued at \$17.8 million related to improvement of the LVVWD's facilities.
- Performed inspections on approximately 727 different developer related projects, involving over 32,000 individual inspection actions.

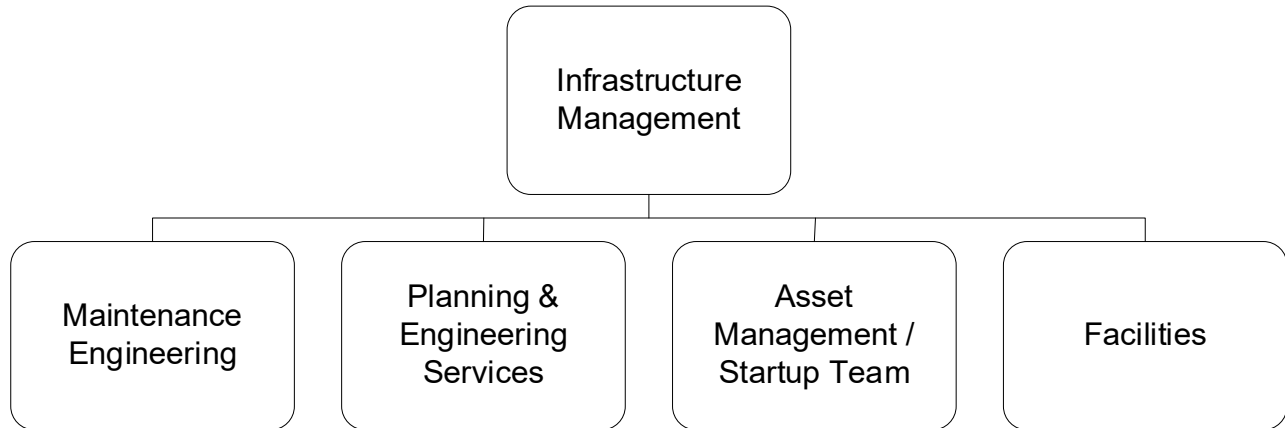
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INFRASTRUCTURE MANAGEMENT

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 Planning and Engineering Services division reviews water plan submittals for proposed development to ensure they meet the LVVWD's construction standards. They also ensure new developments have adequate water pressure and fire flow, evaluate future system requirements, and develop future capital cost projections. The Maintenance Engineering division provides technical support and develops capital projects for the Operations, Resources, 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 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. The Facilities division performs daily grounds keeping and janitorial tasks for all LVVWD and SNWA buildings and properties. Facilities also performs work improvements and preventive maintenance with respect to building support systems such as plumbing, heating, ventilating, and air conditioning (HVAC), structural, and safety.

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Budget Objectives and Highlights

The 2021-22 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.

Infrastructure Management's total operating expense budget between the LVVWD and the SNWA increased \$176,216 from budget year 2020-21 to 2021-22. Contributing factors to the operating expense budget include increased pandemic response measures that will now become permanent practice, increased budgeted rental/leases, and added fiber lease with price increase for the fiber lease agreements. The department will continue to focus efforts on infrastructure condition assessments, Supervisory Control and Data Acquisition (SCADA) programming, and the 4-1-1 developer review process.

Expenditures

LVVWD Uses	Actual 2019-20	Budget 2020-21	Budget 2021-22
Materials & Supplies	\$ 1,272,561	\$ 1,879,522	\$ 1,739,956
Maintenance & Repairs	2,970,089	4,806,720	4,021,500
Rental & Leases	51,443	48,000	1,648,000
Other Employee Expenses	97,443	183,576	140,358
Other Expenses	112,288	513,888	448,050
Total Operating Expenses	4,503,825	7,431,706	7,997,864
Capital Expenditures	9,753,069	18,202,500	30,577,704
Payroll & Related Costs	17,826,681	19,437,397	17,636,492
Total Department Expenditures	\$ 32,083,574	\$ 45,071,603	\$ 56,212,060
FTE Positions	106.9	107.9	101.0

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

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Engineering include Programmable Logic Controller/Human Machine Interface/SCADA (PLC/HMI/SCADA) programming and 24/7 support, SNWA communications network management and 24/7 support, engineering design, project management, construction management, and operations engineering support. Specific projects include trihalomethanes (THM) mitigation, motor control center (MCC) 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 form of electrical coordination studies, arc flash studies, load analyses, 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 the small systems.

The division is currently managing over 80 active projects between the LVVWD and the SNWA, with a capital budget of more than \$22 million. Major projects include the LVVWD SCADA upgrade; BBWD 1130 Zone Tank refurbishment; BBWD Raw Water Well installation; Jean J-8 Well installation; West Admin cooling tower replacement; Angel Park MCC upgrade; Blue Diamond pipeline replacement; and the build out of the fiber optic communications network.

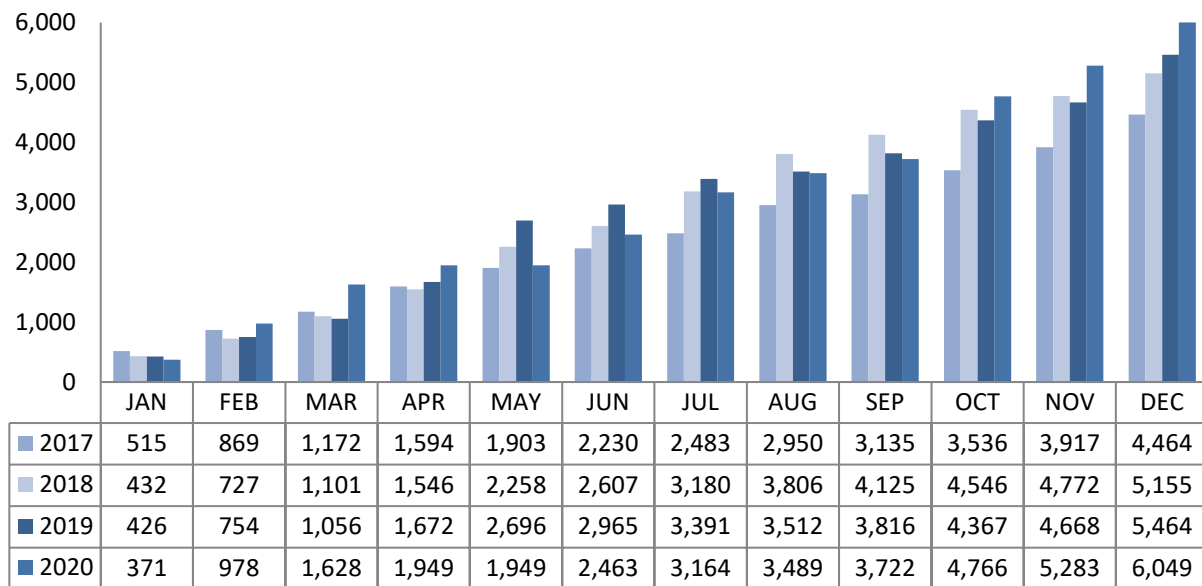
Planning and Engineering Services. The Planning and Engineering Services division provides research, analytics, modeling, and projections to support several activities at both the LVVWD and the SNWA. The division evaluates near-term and long-term demands and changing operating conditions for infrastructure planning, operations planning, and small system analyses. The division maintains an industry leading hydraulic model of the distribution system, with cutting edge modeling capabilities, which is utilized in conducting engineering analysis and decision support for system additions and modifications initiated by LVVWD, SNWA or developers, developing pumping plans, shutdown analysis, emergency response and water quality analysis. 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 and conducts hydraulic criticality assessment of the distribution system to ensure system reliability. The division reviews pressure 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 and SNWA systems, 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.

The division is also 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 or modifications and ensures they meet the

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LVVWD's and the SNWA's requirements for reliability and maintainability, calculates fees, processes agreements, commit water resources to new developments, and ensures water facility construction is per the LVVWD's or the SNWA's standards. The division coordinates with Asset Management to identify segments of existing water lines that are in poor condition that can be replaced within active public works projects within a betterment agreement to assist in cost saving measures related to permits, pavement, traffic control and other construction related items that would otherwise fall to the organization. The division assists developers, engineers, and contractors with the progression of their projects through meetings or onsite field visits. 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.

New Service Points
2017-2020 Cumulative New Service Points Received



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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 pipelines with the latest technology such as acoustic leak detection, pipe wall measurements, and closed-circuit television (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 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 3,900 CP test stations and 100 impressed current rectifiers. The division also maintains CP system components, installs new anodes and test stations, and performs corrosion assessments.

Startup Team. The Startup Team was formed to coordinate the safe integration of new equipment, components, and facilities into the LVVWD, SNWA, and BBWD operating systems. The team provides 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 team also established a contract 'Warranty Management' tracking process during startup, continuing through the contract warranty period, for each project. The team supports the LVVWD and SNWA new construction projects that require integration into the existing control systems (SCADA). The team will continue to support the increase in Maintenance Engineering projects and the Major Construction and Capitol Plan (MCCP) project expansion.

Facilities. The Facilities division consists of Facilities Maintenance, Facilities Services, and Building and Grounds. The division is responsible for ensuring the four major epicenters and the 224 offsite properties totaling 1,463 acres exceed the LVVWD standards for appearance, quality, and cost-effectiveness. Additionally, Facilities supports numerous rural system sites including the BBWD, Warm Springs, Mt. 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 retrofit support for existing structures. The average YTD performance for the division has been 891 work tasks per month, which is an increase of 21 work tasks per month over the prior year.

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Strategic Plan Objectives and Accomplishments

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

2021-22 Performance Objectives

- Develop a Conservation Strategic Plan to improve water system efficiency through Asset Management.
- Expand the leak detection program to leak test all pipelines 36-inches and greater every five years. The program will prioritize the 350 miles identified by a number of factors such as leak history, hydraulic criticality, and corrosion data.
- Continue to research and pilot innovative leak detection equipment to expand our current capabilities to meet our goals.
- Identify and develop repair plans to mitigate the Tropicana 60-inch leaks.
- Continue to work with Operations to reduce transient events utilizing the remote pressure monitoring equipment.
- Complete the equipping of Well J8 in Jean. The design is complete and will bid FY2020/21. This will replace failing Well J4 in support of the Jean community.
- Complete the equipping of the Big Bend raw water well. This project is shovel ready and waiting for the State Revolving Fund funding.
- Work with the Construction Management (CM) and Project team early in the course of a project to develop a workable startup plan to commission all facility/systems efficiently and with the final product having a minimum open punch list or any warranty issues at substantial completion.
- Plan capital improvement projects for the LVVWD, SNWA, and small systems to keep pace with increasing water demands and to enhance water system reliability.
- Review and approve development submittals in a timely manner, and to develop design standards for services with higher pressures.
- Continue evaluating water quality in the distribution system and collaborate with other departments for improvements in response to changing water quality and regulatory conditions.
- Hire a water loss professional to work with purveyor members to develop a uniform approach to defining and conducting a water loss audit for compliance.
- Work with purveyor members to define the MCCP scope of the upcoming regional facilities recommended through IRPAC.
- Continue to work with Operations to conduct pump station (PS) performance evaluations.

2020-21 Major Accomplishments

- Repaired the leak at the Campbell PS Pressure Reducing Valve (PRV) 2055/2168 connection using an internal seal without the need for a massive excavation.

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- Performed a wire break electro-magnetic inspection of the 96-inch A Lateral from PP1A to 2A. This proactive assessment identified four segments for rehabilitation and a number of cracked joints.
- Completed the integration and startup and performance testing of the new Bulk delivery system and Chlorine dilution system at the RMWTF. Worked with CM staff and the Control Systems Engineer to coordinate the integration of all the controls valves for Filters 11-15 at the AMSWTF. Integrated and completed startup and performance testing five new Sodium Hypochlorite rectifiers and generators at the RMWTF with minimum programming changes from the original vendor control system.
- Obtained Nevada Division of Environmental Protection's (NDEP's) approval and implemented 4-log inactivation of viruses for ground water production.
- Assisted the Laboratory in relocating 53 water quality monitoring stations and expanded water quality monitoring framework to cover the newly developed areas and pressure zones.
- Assisted the Laboratory in relocating water quality monitoring stations and completing the 2021 water quality monitoring plan maps for all SNWA member agencies.
- Assisted Water Quality and Treatment in groundwater trace modeling. Identified affected areas from two water quality sample stations.
- In collaboration with Maintenance Engineering, an emergency PRV was installed at the Bruce Woodbury PS to improve emergency storage availability in the Laughlin resort corridor and the 750 Pressure Zone.
- Achieved 99.9 percent system availability of the SONET carrier communications network. Only outage was on redundant fiber so no user lost communications.
- Installed utility power (NVEnergy) from the Elkhorn 3090 PS MCC to Cliffs Edge. This provides a more reliable power source and eliminates the cost of funning and maintaining the generator.
- Installed a discharge isolation valve at the Campbell 2168 Zone. The Existing valve failed and could not isolate the Zone.
- Worked with Asset Management to identify and start the retrofit of 29 cathodic protection test stations.
- Replaced electrical distribution equipment at El Capital PS. This equipment had reached the end of its useful life.
- Completed installation of a reverse osmosis system at the Sloan Army Reserve Center.
- Utilized the CCTV equipment to successfully locate a leak on a 20-inch pipeline. The pipeline was rehabilitated using an innovative lining technology Primus with in-house staff.
- Completed the integration and startup and performance testing of the new bulk delivery system and Chlorine dilution system at the RMWTF. Worked with CM staff and the Control Systems Engineer to coordinate the integration of all the controls valves for Filters 11-15 at the AMSWTF. Integrated and completed startup and performance testing five new Sodium Hypochlorite rectifiers and generators at the RMWTF with minimum programming changes from the original vendor control system.
- Completed the 4125 Zone North Reservoir and the 4125 Zone PS Construction Agreements.
- Planned the Blue Diamond Water System rehabilitation Project and obtained authorization from the US Army Corps of Engineers for funding in the amount of \$3,000,000.

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- Completed a study to identify facility requirements to serve future Bureau of Land Management disposal areas throughout the LVVWD's service area, including a proposed City of Las Vegas (CLV) development north of Moccasin Road, and south of Southern Highlands.
- Implemented the VODA artificial intelligence pipeline failure prediction tool to provide information on the likelihood of failure (LOF) for all pipelines within the LVVWD Distribution system.
- Completed the installation of a PRV in the BBWD 1000 Pressure Zone. The PRV will provide redundancy and address low fire flow issues in the zone.

Strategic Plan Goal – Deliver an outstanding customer service experience.

2021-22 Performance Objectives

- Work with Facilities to install a water saving air cooled chiller at the Valley View West Admin Building.
- Work with Treatment to install ultraviolet (UV) equipment at Well 101. This equipment is intended to prevent legionella formation.
- Continue to develop relationships with Maintenance Engineering, Operations, SCADA, and the various shops to coordinate support for commissioning and be a resource to them for warranty and operation information.
- 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.
- Continue to work with other agencies to include water facility upgrades and replacements in road improvement projects.
- Work with Information Governance (IG) to streamline the process of digitally accepting water plans in Bluebeam digitally signing plans to remove the extra steps of manually signing mylars and scanning plans.
- Refurbish BBWD 1130 Zone Tank. This will require preparatory work and planning to take this tank out of service for an extended time.
- Train dedicated staff to review and respond to Clark County and CLV building permit applications in a timely manner.
- Achieve an 80 percent or greater satisfaction rating for facilities related customer interactions.
- Minimize equipment down time through the use of technology, technician training, and availability of parts.
- Collaborate with Fleet Services to better assess vehicle/equipment needs and improve end products provided.

2020-21 Major Accomplishments

- Completed the startup of the El Capitan electrical upgrades.

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- Approved 6,049 new water service connections, 637 hydraulic grade line and fire flow information requests, 377 water network analyses, and 409 sets of development plan requests.
- Reviewed 6,641 sets of developer, utility, and public works plans for the LVVWD and the SNWA, including brand new submittals, re-submittals, and revisions.
- Eighty-three percent of first reviews were completed within the four-week goal (335 out of 399) for compliance with the 4-1-1 review process.
- Eighty-seven percent of secondary reviews were completed within the one-week goal (1,496 out of 1,720) for compliance within the 4-1-1 review process.
- Ninety-nine percent of mylar reviews were completed within the one-week goal (794 out of 801) for compliance within the 4-1-1 review process.
- Coordinated with Public Services in responding to questions and inquiries.
- Implemented the water moratorium in Blue Diamond, Nevada.
- Designed and installed a horizontal lifeline and ladder access to provide safe access to the two-tier planters on the north side of the West Admin Building.
- Repaired Pressure Station 34 located on the southwest corner of Eastern at Washington that was struck by a vehicle and damaged.
- Replaced the UPS System in the NaOCI Building with a standard DC battery backup system at the request of the Electrical Shop.
- Coordinated multiple system/ equipment integrations working with the contractors, consultants, and internal staff for the benefit of our system. Completed the integration of Stewart
- Migrated the development review process from Autodesk Design Review format (DWF) to Bluebeam, which allows plans to be digitally signed by engineers as required by the Nevada Board of engineers and Land Surveyors.
- Prepared amendments to the Egan Crest 3090 Zone North Pipeline Phase III and the Shaumber 3205 Zone North Pipeline Phase II and PRV agreements. The pipelines provide additional capacity in the northern portions of the 3090 and 3205 Pressure Zones.
- Facilities completed 10,696 work orders over the past 12 months.

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

2021-22 Performance Objectives

- Continue to utilize the latest condition assessment technologies to determine the true condition and expected remaining life of the infrastructure.
- Further develop the Sedaru application to increase efficiency collecting cathodic protection and infrastructure assessment data.
- Support the update of the master specifications to consolidate LVVWD and SNWA Specifications.
- Collect additional construction cost data and update the cost estimation tool.
- Prepare an earthquake resiliency study that estimates earthquake-induced pipe damage, repairs, and service restoration for SNWA pipe network.

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- Collaborate with Operations and Information technology to upgrade and enhance daily pumping plan and hydraulic modeling tools. The upgrades will result in improved system reliability, asset protection, emergency response, energy management and water quality.
- Complete generator installation at the Elkhorn 3205 Zone PS. This is a developer funded project to support development in the Northwest valley.
- Complete the Blue Diamond Water System pipeline replacement to resolve urgent leak and fire protection issues.

2020-21 Major Accomplishments

- Integrated the Sedaru collected cathodic protection (CP) data into the LVVWD's SIP System. All historical CP data collected by Avantis can be analyzed utilizing our in-house developed applications.
- Submitted revised startup specifications for contract startup section to support new MCCC requirements and consolidation of LVVWD and SNWA specifications to ensure accurate and thorough integration of new facilities and upgraded equipment and systems.
- Provided and collaborated testing of an operational strategy for SNWA to deliver 370 MGD for an extended period through the Raw Water Tunnel to the RMWTF.
- Repaired Jean 600K gallon potable water tank. The tank was leaking at the bottom joint. This repair will protect the tank structure and extend the life of the asset.
- Installed redundant chlorine monitors at the Rice PS. This allows wells to pump into the reservoir to achieve disinfection contact time as required per NDEP regulations.
- Completed a work plan including sizing and cost estimation for the Blue Diamond Water System to resolve urgent leak and fire protection issues and applied the federal funding through the Army Corps of Engineers.
- Completed an earthquake resiliency study that estimates earthquake-induced pipe damage, repairs, and service restoration for the LVVWD's pipe network.

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

2021-22 Performance Objectives

- Complete Angel Park MCC upgrade at the request of Operations. This equipment has reached its anticipated end of service life.
- Complete Well 124 installation at the request of Water Resources. This Well will replace Well W027 with a new well (Well 124) to be located at the Las Vegas Springs Preserve, east of Valley View Boulevard, south of the existing steel tanks and north of the NVEnergy Substation.
- Collaborate with Operations and Engineering on assessing and upgrading infrastructure.
- Provide Operations and Maintenance Engineering with updated O&M techniques through hands-on training and site-specific documents (Operating Manuals, Drawings and Warranty certificates) on the newly commissioned equipment and facilities.
- Aid the organization in utilizing economic research and analytics.

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- 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.
- Continue collaboration with the Cities of Henderson, North Las Vegas, and Boulder city to finalize the update of the Uniform Design and Construction Standards (UDACS).
- Maintain critical equipment and building systems to ensure a safe and comfortable work environment, and measure equipment uptime percentage.

2020-21 Major Accomplishments

- Provided inspections support for all cathodic protection installations.
- Provided updated O&M Manuals at two newly constructed sites and four updated facilities at the LVVWD and SNWA.
- New Construction Warranty program monitoring system is starting to accumulate the project/contract certificates for equipment and components. Facility and piping systems warranty are being coordinated with Asset Management.
- Used constant demand elasticity models to estimate the impact of consolidating all single-family customers on same tier sizes.
- Provided conservation data regarding local water use to assist in targeting outreach programs and to develop new targeted conservation programs.
- Assisted Resources to estimate the impact of climate change on water demands over the next 50 years.
- Worked with the City of Henderson to install four air vacuum air release valves (AVARs) on pipeline to R-8 Tank. This simplified pipeline configuration and will reduce pressure surges.
- Replaced BBWD filter controls. Treatment experienced several failures due to obsolete parts, decay of the panel due to outdoor location, and heat/water.
- Cleaned the Gowan Tank interior at the request of Operations. This will allow the LVVWD to utilize its allocated groundwater allocation.
- Completed migration of the state-of-the-art hydraulic model to a Geographic Information System (GIS) based InfoWater Pro (IWPro) software.
- Adjusted to a new environment during the pandemic, implementing new procedures and protocols that ensured the safety of the workforce and the public who may be present in our facilities.
- Purchased and trained on electrostatic misting systems and delivery of effective viricidal chemicals to prevent infection.
- Improvements to security structures and lighting at facility entrances and grounds.

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

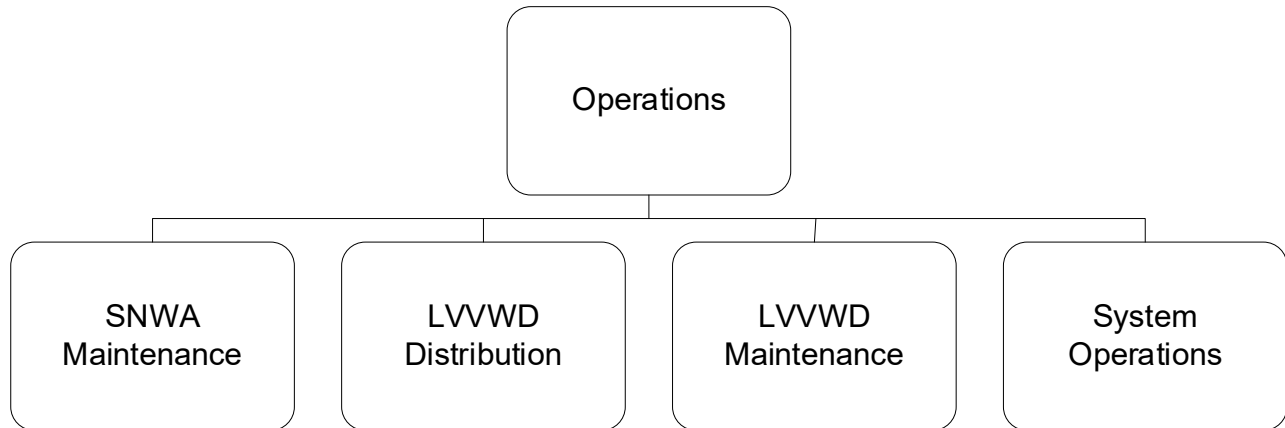
2020-21 Major Accomplishments

- Designed and installed a zero-water waste facility cooling system for the West Admin Building at the LVVWD. This chiller system will be a showcase for large-scale resort customers as an example of one option to cool large buildings without the evaporative loss that is customary in the area.

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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 includes various pumping stations ranging in size from 1,500 gallon per minute (GPM) to 108,500 GPM and various reservoirs ranging in size from 4.5 million gallon (MG) to 50 MG, for a total storage of just over 900 MG. The LVVWD has 62 potable wells capable of producing 178 MGD, 25 specially constructed wells dedicated to recharging the groundwater basin with treated Colorado River water during the winter months.

The SNWA system consists of 33 pumping plants, 36 rate-of-flow control stations (ROFCS) also referred to as metering sites, 163 miles of large diameter pipeline, and 32 regulating tanks, reservoirs, and forebays.

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.

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Budget Objectives and Highlights

The Operations department is 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 National 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 (SARC), and the Moapa Water Treatment Plant.

Equipment and Project Budget. The Operations department's 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 \$13,468,765 for the fiscal year 2021-22 Budget Plan between the LVVWD and the SNWA.

Operating Expense Budget. The department's Operating Expense 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 2021-22 Budget Plan are shown on the following table.

Operations' fiscal year 2021-22 overall budget totals \$77,644,521 between the LVVWD and the SNWA.

Expenditures			
LVVWD Uses	Actual 2019-20	Budget 2020-21	Budget 2021-22
Purchased Water	\$ 19,253	\$ 39,000	\$ 39,000
Energy	8,396,835	10,009,000	9,352,000
Materials & Supplies	5,614,599	4,345,250	5,270,110
Maintenance & Repairs	701,342	2,019,840	1,043,600
Rental & Leases	58,527	-	-
Other Employee Expenses	181,498	250,416	213,476
Other Expenses	(144,663)	381,216	430,376
Total Operating Expenses	14,827,391	17,044,722	16,348,562
Capital Expenditures	3,096,238	5,185,000	5,112,718
Payroll & Related Costs	31,328,645	34,184,944	33,045,634
Total Department Expenditures	\$ 49,252,274	\$ 56,414,666	\$ 54,506,914
FTE Positions	180.3	195.4	195.4

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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 33 pumping plants, 36 metering sites called rate-of-flow control stations (ROFCS), 163 miles of large diameter pipeline, and over 32 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).

The Mechanical section, consists of two teams of technicians 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- 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 6,928.6 miles of pipeline and laterals, 136,222 valves, 419,910 service laterals, 41,110 fire hydrants, and all related appurtenances comprising the LVVWD's distribution system. In fiscal year 2019-20, Distribution crews completed 7,644 work orders consisting of repairs to pipelines and the repair and replacement of valves and fire hydrants. Additionally, 1,797 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 66,912 of these services have been replaced. Distribution also assists other LVVWD workgroups, such as Asset Management and Inspections, with cathodic test station installations, valve corrections, and water quality testing. Distribution continues the preventive maintenance valve program which locates, operates, and maintains valves within the distribution system. Distribution located and exercised 11,637 valves in fiscal year 2019-20, 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.

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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 31,303 backflow prevention devices.

LVVWD Maintenance. The LVVWD Maintenance division is comprised of five sections:

Field Booster Pump/Valve Repair
Pump System Repair Shop
Electrical
Telemetry
Well Crew

The Field Booster Pump/Valve Repair section maintains, repairs, and installs mechanical equipment found at major pumping stations, select small system sites, and recycled water systems. The section also implements the predictive maintenance tool of vibration analysis on the LVVWD's motors.

The Pump System Repair Shop expedites repair of major pumps and motors. This is accomplished using machining, mechanical, and coating and painting skills of the section members. This section also maintains the natural gas industrial engines at the Campbell Pumping Station and field deployed emergency generators.

The Electrical section maintains, repairs, and installs electrical equipment for pump stations, well sites, and other LVVWD locations. This involves performing preventive maintenance as determined by the Reliability Centered Maintenance process, implementing infrared predictive maintenance technology, maintaining 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 and spread spectrum radios and repeater systems, 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,

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LVVWD Systems Operations, SNWS Systems Operations, the Disinfection Reservoir shop, and the 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 two senior operations analysts. The analysts are integral in compiling the monthly water usage for which the SNWA bills its customers, tracking energy and maintenance costs, monitoring non-revenue water trends, and liaising with other departments and divisions.

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 save 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 orders from the LVVWD and ordering power. 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 LVVWD. They manage and maintain 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 Safe Drinking Water standards. These networks are managed to achieve long-term sustainability of the LVVWD'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 AWWA and National Sanitation Foundation 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

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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.

2021-22 Performance Objectives

- Both SCADA groups will continue to 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 fine-tune the new Aveva SCADA system, which was deployed in March 2021. This system will be the model for the Laughlin and SNWA SCADA upgrades in future years.
- LVVWD SCADA Operations will begin to upgrade the current Ops Tool used to create the daily pumping plans. A new Intelligent Water (iWater) tool will provide additional features, making it easier to create pumping plans, and will incorporate iHydrant, PRV, and pressure station data for model calibration.
- SNWS SCADA operations will continue to run/exercise L3PS pumping equipment for use in extracting Lake Mead water to deliver to the treatment plants.
- SNWS SCADA operations will work with Xylem to implement a Real Time Decision Support System for Drinking Water Network Operations Management. The work will be done in three phases: developing a "Digital Twin" for the SNWS system; an individual pump facility operational optimization; and the entire network operational optimization. The success of this program will be measured in reduced energy costs and safeguarding against losing institutional knowledge with an aging workforce.
- The Disinfection Shop will finish the plan of standardizing the sodium rooms, which includes chemical storage tank and plumbing modifications, and bringing all sodium rooms up to a new standard.
- The Disinfection Shop has taken on the responsibility of on-site reservoir critical valve preventive maintenance that establishes readiness for unforeseen reservoir isolation needs.
- Small Systems will partner with Maintenance Engineering, Distribution, and the Army Corps of Engineers (ACE) to replace the steel and AC pipelines of Blue Diamond, with ACE funding covering 75 percent of the costs.
- Small Systems will add a fire hydrant preventive maintenance schedule to their daily work, checking for operation and leaks, and performing necessary maintenance for all hydrants in the small systems.
- Small Systems will partner with Water Resources, Maintenance Engineering, and the Well Crew to equip the new J8 Well for service in 2021.
- Distribution will continue with the predictive maintenance project of replacing poly service lines

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with an emphasis on Los Prados for completion.

- LVVWD Maintenance will continue a multi-year effort to install fiber optic and security camera upgrades at all primary LVVWD locations.
- LVVWD Maintenance will continue upgrading control valves and actuators that have reached the end of their useful lives. Pump stations to be considered for upgrades include: El Capitan, Spring Mountain/Durango, Carlton Square, and Rice.
- SNWA Maintenance will make motor control center upgrades at Decatur Pump Station; change the valves at Sloan ROFS to Rexa valves; change all pumps to Rotork at Bermuda Pump Station; replace inlets at Warm Springs with Rexa and Rotork control valves; and change ball valves at Horizon Ridge.
- SNWA Maintenance will perform the valve actuator replacement project.
- SNWA Maintenance will remove and reinstall the IPS2 Unit No. 6 pump.
- SNWA Maintenance will install new Venturis at Unit No. 6B; new isolation valves at Horizon Ridge ROFC; and an automatic transfer switch at Foothills Pumping Station to provide redundant power to critical items within the station.
- SNWA Maintenance will refurbish Motor No. 4 at Pumping Station No. 6.
- SNWA Maintenance will replace failing VFD No. 1 at BPS2 and failed VFD No. 8 at PS2C.

2020-21 Major Accomplishments

- LVVWD SCADA operations worked in close collaboration with Maintenance Engineering to upgrade to the new AVEVA System Platform for SCADA control, replacing the old, outdated Telvent system.
- LVVWD SCADA operations worked in tandem with SNWS SCADA operations to support several main lateral outages lasting more than seven days. Water orders were adjusted and internal pumping plans were altered to ensure no impact to customers. The three-day South Valley Lateral outage supported repair work involving the valve replacement and installation of an additional valve for a future PRV, and will facilitate longer duration shutdowns of this lateral in the future. It also supported the backup charger system upgrades at Parkway ROFC, PLC controller updates, IP changes at all the South Valley Lateral sites, and communication fiber repairs at all the Bermuda sites. The two, five-day AMS outages supported the replacement of the 54-inch influent valves on Filter Nos. 6-10, ozone inlet channel repairs, and UPS upgrades.
- SNWS SCADA operations oversaw the planning and execution of 66 individual site and equipment outages. These included repairs of Forebay 2; inspection of the “A” lateral from Forebay 2 to PS1A/B, which required an eight-day “A” and “B” lateral outage; replacement of Pump Nos. 8-12 at Pump Station 1A-BC; a three-week River Mountains Water Treatment Facility outage to repair the clearwell inlet piping; electrical system checks with CRC; and warranty repairs to Forebay No. 6 over the span of 30 days.
- Disinfection Shop staff completed six sodium room rehabilitations; planned and facilitated the cleaning and disinfection of the Gowan Tank and multiple surge tanks; and prepared sodium booster capabilities at the Airport Reservoir.
- Small Systems staff worked with Maintenance Engineering to install a reverse osmosis system at the Sloan Army Reserve Center (SARC), which brought TDS numbers into compliance for the first

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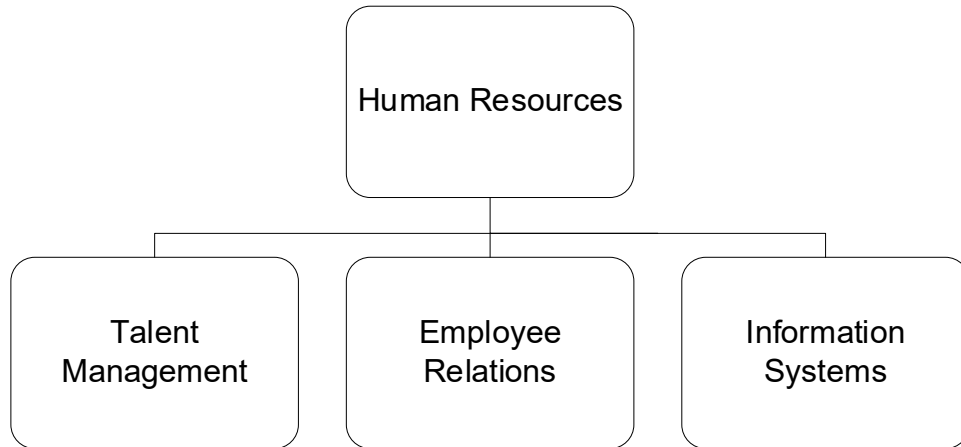
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time since the LVVWD took over the system four years ago. Also at SARC, the potable water tanker was used for the first time to deliver potable water to customers when the SARC well failed and was in need of total replacement.

- Small Systems worked with Maintenance Engineering to repair and coat tanks at both Jean and Blue Diamond.
- Distribution completed the Tropicana Inline Valve Replacement project to replace four 48-inch butterfly valves in existing valve vaults. The work included saw cutting and removal of asphalt, excavation and removal of existing deck segments, casting and installation of new deck segments, new concrete vault floor, recoating of facilities within the vault, backfill, dense grade pavement, and restoration. The project was completed prior to the repaving of Tropicana Avenue and will enable better isolation of the 60-inch line for future assessments and leak remediation.
- LVVWD Maintenance upgraded all the Fayle Pumping Station control valves, actuators, and flow spools that had reached the end of their useful lives.
- LVVWD Maintenance upgraded the Campbell Pumping Station engine controls to modern control capabilities.
- SNWA Maintenance established a temporary generator power emergency preparedness program for all in-valley ROFCS.
- SNWA Maintenance completed PP2A Unit No. 2 pump rebuilds.
- SNWA Maintenance performed BC Lateral motor refurbishments (PS 1-ABC, PS04, and PS05).
- SNWA Maintenance installed the final control valve and REXA operator at Flamingo ROFCS.
- SNWA Maintenance replaced failing VRD No. 10 at BPS2.

HUMAN RESOURCES

Level: 4200



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.

Department Description

The Human Resources department is responsible for payroll, recruitment and selection; engagement and 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: HRIS, Employee Relations, and Talent Management.

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, Talent Management program, diversity and inclusion, recruitment, engagement, employee development, and productive employee relations.

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Expenditures

LVVWD Uses	Actual 2019-20	Budget 2020-21	Budget 2021-22
Materials & Supplies	\$ 96,127	\$ 120,480	\$ 120,480
Maintenance & Repairs	-	480	25,480
Other Employee Expenses	392,981	507,840	503,280
Other Expenses	961,244	1,253,856	855,856
Total Operating Expenses	1,450,352	1,882,656	1,505,096
Capital Expenditures	-	-	-
Payroll & Related Costs	3,897,176	4,751,591	4,552,824
Total Department Expenditures	\$ 5,347,528	\$ 6,634,247	\$ 6,057,920
FTE Positions	21.7	26.4	25.5

Department Performance

Talent Management. Provides recruitment and selection services; strategies to increase employee retention, employee engagement and opportunities for professional and personal development. This group develops and administers recruitment and selection methods. 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. Provides support for HR management programs, activities, and processes.

HR Information Systems. Responsible for the administration of various employee benefit plans and all employee personal records and payment data. 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 and bi-annual updates.

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 engagement; and productive

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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.

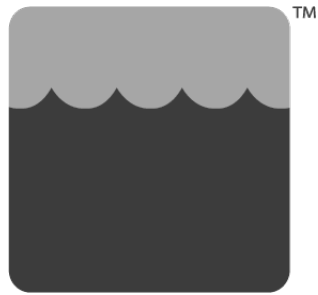
2021-22 Performance Objectives

- Continue implementation of Workday modules, including Performance and Talent.
- Implement Milliman MARC employee self-service for employee retirement planning and projections.
- Continue Talent Management strategy, focusing on employee development and succession planning.
- Develop opportunities that support the professional advancement and leadership skills of employees (TAP 2.0).
- Integrate recruitment, engagement and development into comprehensive talent management strategy.
- Develop/deploy internal mentor program.
- Complete digitization of personnel files to Workday.
- Launch initiative for centralized review of the LVVWD wide Standard Operating Procedures.

2020-21 Major Accomplishments

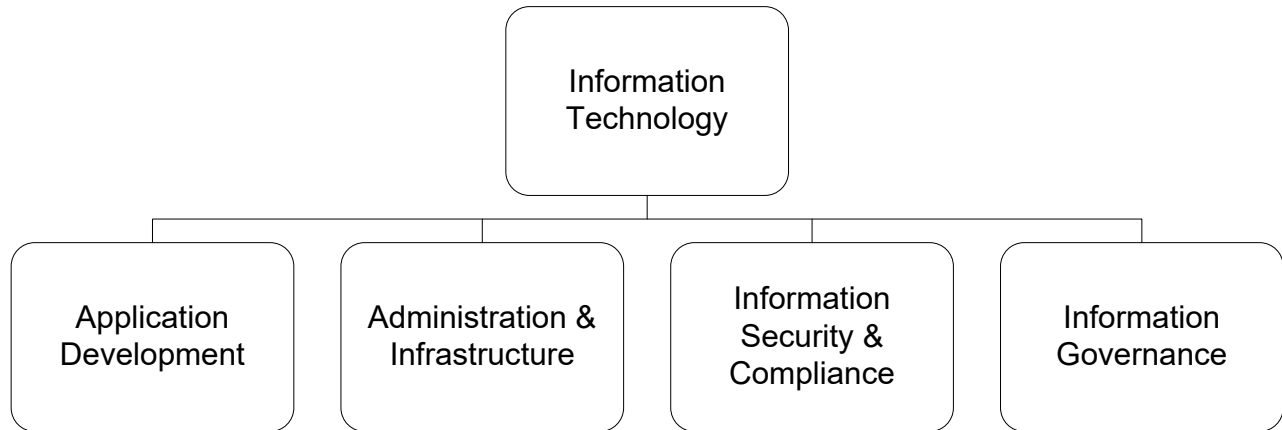
- Deployed and successfully implemented multiple Workday Modules, including Prism, Workday Expenses, People Analytics, Disciplinary Reviews, and Anytime Feedback.
- Implemented Workday Assistant artificial intelligence chatbot and Microsoft Teams Workday application.
- Successful completion of fully remote Open Enrollment.
- Coordinated the LVVWD wide guidance on COVID procedures and protocols, including employee testing.
- Relaunched Talent Management strategy focusing on employee development.
- Negotiated successor collective bargaining agreements with all bargaining units.
- Initiated digitization of personnel files to Workday.
- Launched new recognition and rewards program (Peer to Peer recognition and quarterly awards).
- Launched new Milestone recognition program.
- Launched Yammer, a social networking tool to connect and engage employees across the organization.
- Developed hiring guides for hiring managers based on organization's mission and values.

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INFORMATION TECHNOLOGY

Level: 4300



Mission

We create trusted systems and solutions through investments in people, processes, and technologies to serve our community, our partners, and each other.

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

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

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Budget Objectives and Highlights

The 2021-22 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.

Expenditures

LVVWD Uses	Actual 2019-20	Budget 2020-21	Budget 2021-22
Materials & Supplies	\$ 1,836,124	\$ 1,981,968	\$ 1,525,150
Maintenance & Repairs	7,836,937	9,062,056	9,939,931
Rental & Leases	548,547	708,960	720,500
Other Employee Expenses	106,193	373,636	267,904
Other Expenses	3,976,167	6,628,560	5,154,500
Total Operating Expenses	14,303,969	18,755,180	17,607,985
Capital Expenditures	2,881,504	14,496,007	5,257,200
Payroll & Related Costs	18,794,216	19,674,126	19,335,457
Total Department Expenditures	\$ 35,979,689	\$ 52,925,313	\$ 42,200,642
FTE Positions	91.8	95.4	95.4

Department Performance

Information Technology completed many projects to improve business processes, functionality, system operations, and security, while reducing expenses and risk to the organization. Major projects during the year included the completion of the Telecom project, providing infrastructure equipment and support for the telecommute workforce to support the 2020 Covid19 Pandemic, upgrading corporate Firewalls, implementation of a new modern procurement system, developing a native mobile application to further improve customer service and support conservation initiatives, initiating the Genesys Contact Center Messaging phase and new CityBase payment kiosk for LVVWD and BBWD, continuation of the endpoint equipment (PCs, monitors, iOS devices, and Laptop) refresh programs, deployment of a business intelligence system, completion of the 2020 Clark County Imagery Project, and completion of the Spatial Information Portal (SIP) GIS application.

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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, Engineering and Operations are targeted for upgrades and enhancements.

The implementation of a new customer care, billing and meter management system will be completed in fiscal year 2021-22. The new system combines utility customer management with support for Advanced Metering Infrastructure (AMI). The system will enhance customer service, better support conservation initiatives, further optimize service response and improve device management.

The Project Management Information System (PMIS) will be completed in fiscal year 2021-22. This multi-year effort consolidates the management of the organization's capital projects under one system and includes a project portal and data warehouse. PMIS refines processes, improves oversight, reporting and eliminates legacy applications.

The effort to implement a new enterprise asset management system will commence in fiscal year 2021-22. This multi-year effort will replace a legacy system with a modern full functioning asset and work management system. Key features include preventative and predictive maintenance, inventory and material management, work management, reporting and analytics.

The effort to re-engineer the organization's general ledger and chart of accounts will begin in fiscal year 2021-22. This project will optimize the structure of assets, liabilities, equity, income, and expense categories and convert systems into a new general ledger to improve financial reporting, analytics, time to finance close and compliance.

A new Native Mobile Application was deployed for IOS and Android phones aimed at improving customer service and supporting conservation initiatives. In fiscal year 2021-22 this application will add on-line chat support with customer service agents and customers' previous-day hourly water usage and alerts based on available metering information from the AMI system.

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, iOS devices, and all supporting iOS & desktop applications. This group provides remote and on-site support for over 5,200 computers, monitors, and printers, iOS devices as well as over 1,000 applications, on all company desktops, laptops, and mobile devices.

The Technical Services division is responsible for the application administration of business systems utilized throughout the organization. It is also responsible for the architecture and administrative

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support for the corporate infrastructure to include server, storage, and database administration, e-mail, web services, network infrastructure, and telecommunications. 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 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 telecommunications migration to Microsoft Teams, continued implementation of Genesys contact center features, including the introduction of chat and SMS communications, selection and beginning implementation of new LIMS, upgrade of the corporate wide area network backbone to support 100 GB between campuses, and upgrades to the enterprise backup and recovery infrastructure.

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

Ongoing initiatives include upgrades and additional functionality to the Spatial Information Portal (SIP) Application, remote sensing analyses for Conservation programs and regional climate studies, mapping and geospatial data support for the organization, and mobile GIS application and data collection efforts.

Information Security and 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 computing environment, developing strategies with Legal and Risk Management to reduce and manage emerging cyber risks, as well as educating employees on cybersecurity topics.

Ongoing initiatives include continued guidance to support off-site disaster recovery capability and business continuity of operations, 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), recommending best practices to ensure high availability of applications and databases, guidance on securing mobile devices, as well 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).

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This division works closely with Legal Services and Risk Management to ensure the organization is addressing supply-chain and contractual security risks. In addition, the division focuses on ensuring software technologies and business processes meet the continuously evolving PCI-DSS and other emerging regulatory requirements.

Information Governance. The distributed nature of data assets at the organization is becoming increasingly complex. In part, Information Governance strives to support the organization in optimizing the management and use of its data.

Additional projects include conducting an audit and outreach efforts, 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 2020-21, implementation of an Enterprise Content Management System (ECMS) will be one of the key deliverables for Information Governance. 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.

2021-22 Performance Objectives

- The Oracle Customer to Meter (C2M) will be completed in Fiscal Year 2021-22. The system will enhance customer service, better support conservation initiatives, further optimize service response and improve device management.
- Additional features will be added to the Native Mobile Application to include previous day hourly water usage and leak notifications from the AMI system and on-line chat with customer service agents.
- Installation of hardware to provide infrastructure needed to replace a legacy customer billing environment.
- Optimize our infrastructure to support a mobile and telecommute workforce.

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2020-21 Major Accomplishments

- The LVVWD released its first Native Mobile Application in October 2020, quickly followed by several feature releases. Users can manage their accounts, view, and pay their bills, manage services (start, stop, transfer), report water waste, find assigned water days and elect to receive alerts. The system has a robust alert management system that can target messaging to users.
- A new system on LVVWD.com will allow customers to interact with an artificial intelligence (AI) chat bot. The AI chat bot will allow customers to chat directly with Customer Care Agents and will reduce customer wait times by answering the most common questions such as understanding their bill, finding ways to pay their bill or to help report water waste.
- New kiosks were added for LVVWD and BBWD customers to provide enhanced self-service options for in-person payments.
- Completion of the first iOS refresh cycle and annual desktop and monitor refresh project, which has increased staff efficiency and reduced downtime and labor/maintenance cost.
- Upgraded corporate firewalls to support a larger mobile and telecommute workforce.

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

2021-22 Performance Objectives

- Finance and Information Technology will begin an update to the organization's chart of accounts to gain additional efficiency and clarity in financial tracking and reporting.
- The replacement of the enterprise asset management system will start in fiscal year 2021-22 and take approximately four years to complete. This effort will involve an update to the existing asset management system to ensure continued support.
- The development of enterprise data warehouses will empower staff to use information from many systems to run their own reports and discover trends and gain knowledge that was previously unobtainable. The warehouse will encapsulate data from financial, SCADA and capital project management systems.
- Continue enhancements of Genesys Contact Center infrastructure to provide next generation multi-media technology and improve the overall customer experience by providing additional automation and contact options.
- Continue adding new functionality and enhancements to the SIP GIS Application. Build more GIS data collection field applications for staff to perform real-time seamless updates for project support.
- Upgrade the current LIMS software to the latest release to support the Water Quality and Research Lab to allow better automation, data reporting, workflows, and instrument integration.

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2020-21 Major Accomplishments

- A new procurement system was implemented that replaced an 18-year-old legacy purchasing system that required many additional custom applications to function properly. The new system centralizes purchasing functions, is much easier to administer and maintain, provides a modern experience for requisitioners and approvers and offers Suppliers a portal to electronically view their purchasing activity, payments and invoices.
- The Program Management Information System (PMIS) has been substantially completed, replacing many independent legacy applications. PMIS centralizes capital project information for both active and completed projects and provides insight into project performance and capital budget execution.
- Flairdocs, a cloud-based right-of-way and land management application, was implemented, replacing four legacy applications.
- We have leveraged our Microsoft E5 licenses to maximize our ability to collaborate, support, and provide enhanced corporate security, while eliminating costly legacy systems.
- Completed the replacement of the corporate backup infrastructure to streamline backup policies, remove obsolete data stores, and provide enhanced disaster recovery options.

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

2021-22 Performance Objectives

- Make numerous enhancements to cybersecurity which include the implementation of a Department-wide change management program, additional threat monitoring tools, and further data separation to achieve PCI compliance 3.2.
- Begin implementation of a new LIMS application for the River Mountains Lab. The new application is scoped to have minimal customizations and provide high availability and compliance monitoring.
- Complete 2021 Clark County Imagery Project, including acquisition, performing quality assurance, and making imagery available to internal customers and to external partner agencies.

2020-21 Major Accomplishments

- The Aquarius application, used for management of groundwater levels and surface water flows, was upgraded and moved to a cloud-based system. This expanded availability and eliminated on-premises hardware, maintenance and operational support. The cloud-based system includes a web portal enabling business intelligence over water resource and water quality data.
- The Apttus Contract Management System was upgraded to the newest version. Enhancements were also made to include improved workflows and centralized templates.

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- The organization's decade-old Telecom system was updated with a new Microsoft Teams VoIP system to meet emerging technology needs. The new system lowers costs, while increasing accessibility and portability.
- Completed 2020 Clark County Imagery Project, delivering very-high resolution imagery for internal customers and external partner agencies.

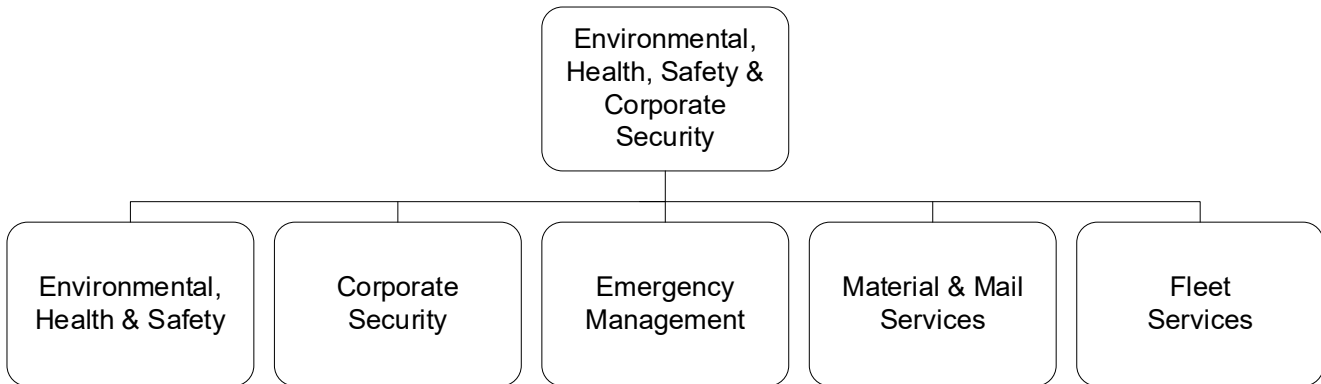
Strategic Plan Goal – Anticipate and adapt to changing climatic conditions while demonstrating stewardship of our environment.

2021-22 Performance Objectives

- Support will be provided to the Conservation Strategic Plan by creating business intelligence tools to support various water efficiency goals including water waste reduction, leak notification, and expansion of communications and services.
- Communication channels from the Native Mobile Application, LVVWD.com and other sources will be leveraged with data from the AMI system to provide customers with more timely notification of high-water usage, leaks and other events in support of conservation initiatives.
- Turf and Vegetation Analysis to support ongoing Water Smart Landscape Program efforts, and related local Urban Heat Island/Climate Studies efforts.

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**ENVIRONMENTAL, HEALTH, SAFETY &
CORPORATE SECURITY**
Level: 4400



Mission

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

Department Description

The Environmental, Health, Safety and Corporate Security (EHSCS) Department is comprised of the following four divisions plus emergency management: Environmental, Health and Safety; Corporate Security; Material and Mail Services; and Fleet Services. EHSCS' overarching responsibilities include organizational compliance and maintaining a safe and secure environment for employees and customers 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, and storage and retrieval services.

Fleet Services provides safe, reliable, and functional vehicles, equipment, tools, communications equipment, as well as fuel, to the LVVWD. 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.

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Budget Objectives and Highlights

The 2021-22 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 and reduce costs.

The 2021-22 Material and Mail Services budget contains funding necessary to support sustainability through inactive and obsolete inventory reduction activities and use of repurposed shipping materials, and administers, coordinates, and manages investment recovery efforts for various recyclable and repurposed materials and equipment through the auction program and bid sales.

Fleet Services. The 2021-22 Fleet Services budget contains funding necessary for new and replacement vehicles and related equipment having reached their end-of-life cycle, shop tools, and the replacement of obsolete radio equipment soon to be inoperable on the Southern Nevada Area Communications Council (SNACC) radio system.

Expenditures

LVVWD Uses	Actual 2019-20	Budget 2020-21	Budget 2021-22
Materials & Supplies	\$ 2,488,396	\$ 3,587,520	\$ 2,827,500
Maintenance & Repairs	294,305	352,320	406,000
Rental & Leases	303,658	192,000	213,000
Other Employee Expenses	351,105	505,440	505,000
Other Expenses	2,142,152	2,386,262	3,000,200
Total Operating Expenses	5,579,617	7,023,542	6,951,700
Capital Expenditures	3,735,705	4,745,194	3,356,500
Payroll & Related Costs	11,818,021	10,253,496	10,338,116
Total Department Expenditures	\$ 21,133,343	\$ 22,022,232	\$ 20,646,316
FTE Positions	78.0	67.6	68.5

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. The EHS division tracks leading and lagging indicators in the program, making necessary adjustments to ensure a positive safety culture is maintained, while providing ongoing environmental, health and safety training for employees. The division is responsible for permitting and compliance with federal, state and local agencies on

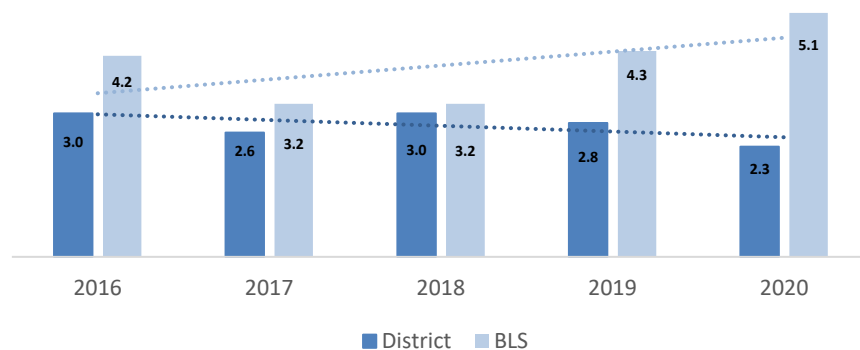
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environmental regulations regarding pollution control (including air pollution, water pollution, land disturbances, implementation of chemical control and waste management), and manages environmental permitting and compliance reporting for operations and maintenance. The EHS division maintains proper upkeep and care of the LVVWD's Process Safety Management program for highly hazardous chemical chlorine at Alfred Merritt Smith Water Treatment Facility. The division develops and publishes safety procedures ensuring compliance with Occupational Safety and Health Administration (OSHA) and state regulations. The EHS division 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 management representatives. The health discipline manages the Asbestos, Lead Awareness and Hearing Conservation programs for the LVVWD.

Recordable Injury Rates

The EHS division 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 decreased from 2.8 to 2.3 in 2020.

Recordable Injuries Rate Comparison

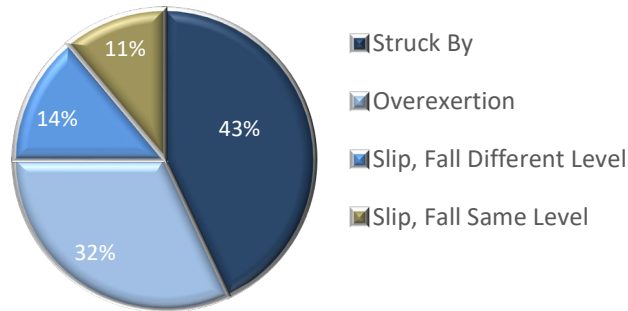


Recordable Injuries by Category

There were 13 *Struck By* recordable injuries that were a result of employees being hit by something at the work site. This category resulted in 43 percent of recordable injuries in 2020. As a result, the EHS division has made this a special interest item and will continue to conduct spot audits that focus on factors contributing to *Struck By* injuries.

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Recordable Injuries by Category

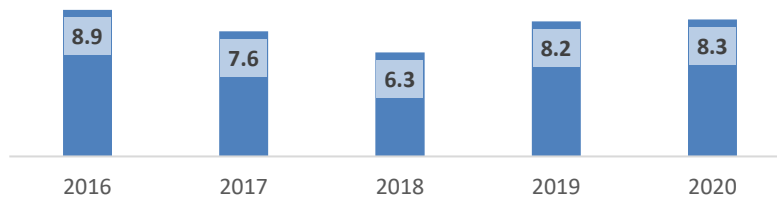


Vehicle Accidents & Rates

The LVVWD experienced a decrease in at-fault vehicle accidents: 38 in 2019 vs. 35 in 2020.

The LVVWD's vehicle accident frequency rate increased from 8.2 in 2019 to 8.3 in 2020. Rates are computed using the following formula: # vehicle accidents X 1,000,000 miles/actual miles driven.

Vehicle Accident Frequency Rate



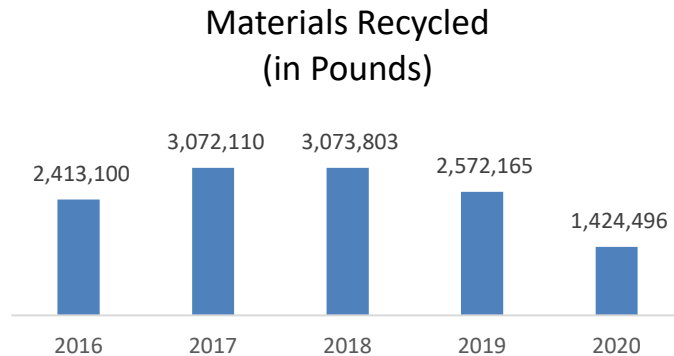
Health Assessments

The LVVWD achieved 100 percent audiometric testing compliance of its 185 hearing conservation participants and respirator fit tested another 221 employees during the reporting period.

Total Pounds Recycled

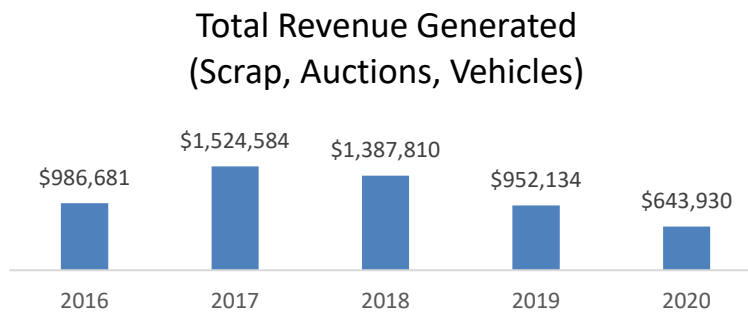
The LVVWD recycled a combined total of 1,424,496 pounds of materials in 2020; a 45 percent decrease from 2019.

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Total Revenue Generated

Total revenue for 2020 was \$643,931 (scrap = \$27,583, auctions = \$9,298, vehicles = \$607,050).



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

In so doing, officers respond to intrusion alarms and calls-for-service, both emergency and routine in nature; provide field crew escorts and standby support during water service shut-offs; patrol reservoirs and pumping station sites; investigate LVVWD-involved vehicle collisions; provide emergency first aid and escort police and fire units to LVVWD emergency sites; inspect fire protection equipment and alarm systems; assist with customer parking; escort customers, vendors, and visitors to areas where they can conduct their business; provide information assistance and access to facilities; conduct emergency evacuation and active shooter training; and monitor vendor access as well as access to restricted areas. Physical security networks and systems, including electronic access control, security cameras, alarms and locks are in place to assist officers in maintaining campus control in conjunction with a 24/7 centralized security call center. Additionally, Corporate Security has formed partnerships with federal, state, and local law enforcement authorities and other utilities in a collaborative effort to protect against malicious acts toward people, sites, and systems.

Emergency Management. Emergency Management works to assure a water system that adapts to or withstands the effects of a malevolent act or natural hazard without interruption to the asset or

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system's function, or, if interruption occurs, works to rapidly return the system to normal operating conditions.

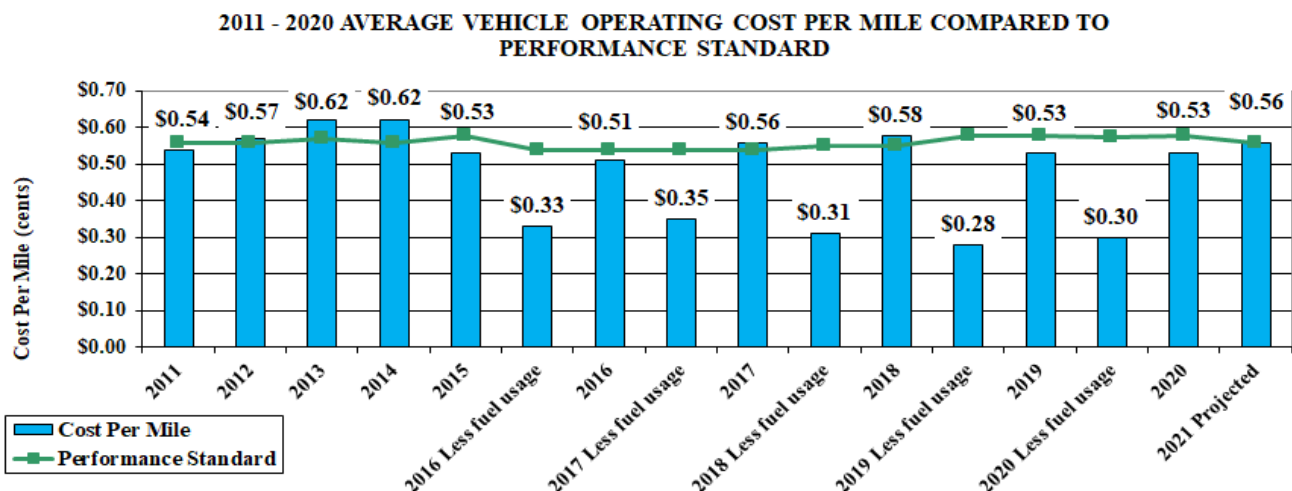
To meet or exceed federal guidelines for water sector preparedness and to increase organizational resiliency, emergency management staff conducts work in all five phases of emergency management: mitigation, planning, prevention, response, and recovery.

Material Services. The primary mission of Material Services is to deliver reliable customer service by providing quality operating and maintenance products, material requirements planning, and inventory management, storage, and retrieval services. Through January 2021, Material Services has managed nearly 14,000 inventory assets valued over \$15M. Material Services partners with internal customers to identify, forecast, and schedule capital and operations project material requirement/deliveries to all facilities across the LVVWD's service network.

Mail Services. Mail Services processes incoming and outgoing intercompany and United States Postal Service (USPS) mail, and office supply deliveries across the LVVWD's service network. Mail Services also delivers and posts public notices, administers LVVWD's postage budget and processes special communication campaign projects for Public Services.

Fleet Services. Fleet Services' mission is to provide safe, reliable, and functional vehicles, equipment, tools, fuel, and communications equipment to LVVWD, SNWA, LVSP and BBWD so they can be used to support water delivery. Currently, the division maintains more than 1,500 vehicles and support equipment pieces and 1,000 pieces of communications equipment for the LVVWD. Responsibilities of this division include repair service and maintenance, acquisition and disposition of all vehicles, communications and support 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.



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Strategic Plan Objectives and Accomplishments

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

2021-22 Performance Objectives

- Conduct weekend/after-hours spot audits of industrialized work activities supporting water treatment, water quality, water distribution or other activities.
- Complete two 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 BLS comparable industries.
- Obtain all required operational water pollution control permits and continually monitor water discharge parameters to reduce pollutants discharged.
- Review maintenance and professional services contracts to ensure EHS operational compliance.
- Participate in National Level Exercise 2020 Binary Blackout to address the impacts of an extended regional power outage.
- Finalize the comprehensive Corporate Security Manual for internal publication.
- Operate the Security Center 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.
- Purchase and install a gate trigger alarm to alert the Security Center when the main gate is opened at the Foothills complex.
- Expand the use of a security pipe-button system at Molasky Center to ensure regular checks of all floors.
- Expand the use of the Medeco electronic key system and finalize lock installation at the LVVWD/SNWA and off-site facilities.
- Expand the use of metal detectors at the Springs Preserve and major events.
- Increase the use of automated security camera analytics to distinguish between an actual incident and normal activity more accurately.
- Train key employees and conduct drills on the LVVWD's Emergency Response Plan (ERP).
- Explore new technologies and methods of utilizing the security surveillance system.
- Continue partnership with the Department of Homeland Security (DHS) and the Southern Nevada Counter-Terrorism Center (SNCTC) to prepare for potential threats to facilities or the water industry.
- Conduct a Risk and Resiliency Assessment for Big Bend Water District in accordance with the American Water Infrastructure Act.
- Work towards a document management system where all emergency response related documents and SOPs can be found and updated on a repeatable schedule.
- Emergency Management to maintain rigorous training and exercise programs.

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- Maintain cyclical plans review, revision and improvement based on training and exercise results.
- Continue development of an Incident Management Team (IMT).
- Establish a standalone Department Operations Center (DOC) to support emergency operations and Incident Management Team (IMT) staff training, and to support organizational exercises that increase preparedness and resilience.
- Grow the NVWARN network to support the improved resiliency of safe drinking water and wastewater facilities in Nevada.

2020-21 Major Accomplishments

- Conducted the first virtual Safety Stand Down Day.
- Completed over 120 documented audits (spot and comprehensive).
- Conducted over 80 investigations related to recordable injuries, preventable vehicle accidents, and preventable property damage incidents. Recommended corrective actions were included, as appropriate, to reduce the chance of recurrence.
- EHS achieved an incidence rate of 2.3, compared to the BLS rate of 5.1, extending the LVVWD's history of falling below BLS rates.
- Renewed 175 environmental permits.
- Received no OSHA or EPA citations.
- Completed installation of Medeco locks at both water treatment plants, Foothills complex and SNWA pump stations and reservoirs.
- Implemented SNWA Board meeting visitor and guest enhanced screening process utilizing walk-through metal detectors.
- Established a check-in system consisting of real-time location monitoring of LVVWD employees during periods of civil unrest and heightened security.
- Established daily safety and virtual rollcall briefings to increase officer safety and build situational awareness.
- Continued supporting and promoting the Department of Homeland Security's national "If You See Something, Say Something™" campaign.
- Installed access control card readers and security cameras at the new Summerlin pump station and reservoir.
- Installed new cameras at AMSWTF to monitor safety and security of chemical deliveries.
- Completed a Risk and Resiliency Assessment for the LVVWD/SNWA, in accordance with American Water Infrastructure Act.
- Certified updates of the Emergency Operations Plan to the Environmental Protection Agency in accordance with the American Water Infrastructure Act.
- Reviewed and updated the Continuity of Operation Plan (COOP).
- Supported the LVVWD's COVID-19 pandemic response while maintaining the Incident Support Plan (ISP) across the LVVWD's network.
- Mail Services participate in annual terrorism refresher training.

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Strategic Plan Goal – Deliver an outstanding customer service experience.

2021-22 Performance Objectives

- 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 (SMS) and adopt and implement proven work methods.
- Participate in internal and external committees or groups to improve communication and enhance customer service.
- Explore and test new security technology and systems.
- Enhance the use of virtual training platforms to deliver active shooter and building evacuation training.
- Identify additional opportunities for security services and collaboration with internal departments.
- Attend briefings, meetings and training, and support groups such as the Utility Pipeline and Coordinating Group, InfraGard, Southern Nevada Counter-Terrorism Center (SNCTC), Department of Homeland Security (DHS), Local Emergency Planning Committee, Southern Nevada Health Preparedness Coalition, American Water Works Association (AWWA), and Security Practices and Emergency Preparedness committees.
- Conduct monthly planning and review meetings with Field Services to monitor and ensure consistent materials management and stocking inventory for short and long-term projects.
- Continue to include customers in the specification process of new and replacement vehicles and equipment.
- Continue to partner with all departments to better assess vehicle/equipment needs and improve end products being provided.
- Continue to minimize equipment downtime using technology, technician training and good parts availability.
- 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/modify services to better support the mission.
- Utilize telematics system to assess vehicle conditions to reduce downtime to our customers.

2020-21 Major Accomplishments

- Conducted a survey of the first virtual Safety Stand Down Event to obtain feedback on the virtual platform and improve future training courses.
- Collected student evaluation forms after each EHS instructor-led course to improve future course curriculums.
- Represented EHS in department safety action teams, the EHS Steering Committee and several cross-department teams to include the Specifications Committee and the Sustainability Committee.
- Updated electronic materials on the Hydroweb to ensure that all employees have access to useful safety and health literature, information, and training videos.
- Participated in continuing education opportunities to ensure EHS staff maintained professional

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certifications and CEUs.

- Provided additional security presence for employees during heightened customer interactions on campus and at job sites.
- Increased onsite training and strengthened partnerships with other emergency responders by allowing use of LVVWD facilities for rescue and emergency response training.
- Conducted virtual customer threat training for Customer Care employees.
- Provided increased foot and vehicle patrols on all campuses.
- Increased security patrols at sites of vandalism and backflow device theft.
- Conducted active shooter preparedness training for 80 percent of LVVWD employees.
- Provided enhanced security screening and protection at LVVWD/SNWA public meetings and Springs Preserve events.
- Trained security supervisors on risk assessment, hazard identification and Department of Homeland Security (DHS) incident response to terrorist bombings.
- Coordinated and delivered Department of Homeland Security Bomb Awareness and Response training to all security officers.
- Educated workgroups on the constantly evolving COVID-19 protocols put in place to protect employees from illness while operating and maintaining critical water facilities.
- Worked closely with Distribution, Field Services, and Big Bend Water District staff to ensure sufficient supply of parts on hand and safe disposal of surplus materials.
- Enhanced customer service in outlying area through technology, improved parts availability, and scheduling of technicians on-site.
- Received 100 percent accuracy rating during fiscal year-end audit of the LVVWD's warehouses.
- Worked directly with Information Technology to safely distribute and retrieve over 370 LVVWD issued cell phones during the COVID-19 pandemic.
- Prepared and distributed roughly 2,000 flu kits LVVWD-wide to all essential employees working on-site.
- Assisted with the coordination and delivery of 50,000 donated N95 masks for frontline healthcare workers during the COVID-19 pandemic.
- Completed nearly 11,000 work orders and 15,000 repair tasks on vehicles and equipment.
- Involved customers in the vehicle/equipment specification process from start to finish to ensure the best possible product was provided.
- Maintained Automotive Service Excellence "Blue Seal of Service Award" and "World Class Technician Status".
- Maintained I-Car Platinum status for the fleet paint and body operation.
- Provided customers with complete 3D drawings of special build vehicles prior to order to ensure the best possible equipment fitment and usability of the final product being provided.
- Utilized telematics system to identify equipment failures, whereby greatly reducing operator downtime.

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

2021-22 Performance Objectives

- Prepare and submit environmental reports to regulatory agencies.
- Review current recycling and waste streams at manned facilities to identify new recycling opportunities.
- Continue to recondition and reuse service bodies and vehicle up-fit equipment for LVVWD vehicles and equipment, when feasible.
- Maintain the LVVWD's plug-in electric vehicles fleet.
- Continue to lead and develop the alternative fuel vehicle program in support of clean air in Clark County.
- Utilize environmentally friendly practices in automotive paint and body repair.
- Continue to recycle vehicle and equipment maintenance waste and expand these activities, when feasible.
- Reduce unnecessary vehicle fuel burn and improve vehicle utilization using vehicle telematics.

2020-21 Major Accomplishments

- Tracked and submitted environmental permits in a timely fashion resulting in zero negative impact to the LVVWD.
- Monitored the LVVWD's recycling program which yielded revenue totaling \$643,931 (scrap = \$27,583, auctions = \$9,298, vehicles = \$607,050).
- Generated 2,075 pounds of hazardous waste at a cost of \$15,653; a 45 percent reduction in waste due in large part to the LVVWD's COVID-19 pandemic operations status.
- Replaced older diesel and gasoline powered vehicles with alternative fuel vehicles, lowering capital cost and reducing the LVVWD's carbon footprint.
- Reduced Volatile Organic Compound (VOC) usage within our fleet paint and body operation by more than 50 percent over the past five years, and 18.5 percent in 2020.
- Reduced vehicle speeding events by more than 45 percent, reducing fuel usage and the LVVWD's liability.
- Selected as one of the 100 Best Fleets, earning recognition in the "Top 100 Fleets in North America" and "Top Green Fleets in North America".

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

2021-22 Performance Objectives

- Enhance security blotter system to accurately track theft, vandalism, and suspicious activity.
- Conduct monthly security meetings with Information Technology to monitor security risks and threats.

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- Continue converting mechanical locks to Medeco electronic locks for greater security and accountability.
- Track guest visitor management system to log and account for guest and vendor visits at all sites and chemical deliveries to AMSWTF and RMWTF.
- Evaluate mobile technologies to improve efficiency.
- Evaluate low-cost solar lighting to illuminate security checkpoints and back service roads at the Springs Preserve.
- Research and install a new automatic gate at the SNWA Foothills complex.
- Continue to equip fleet facilities with state-of-the-art testing and diagnostic equipment to properly diagnose and repair vehicle and equipment failures in a timely and cost-effective manner.
- Continue to provide online technical training and diagnostic training to technicians at all repair locations.
- Utilize advanced telematics and fleet management tools to lower liability, reduce costs, improve efficiency, and better manage the utilization of fleet assets.

2020-21 Major Accomplishments

- Completed the update of Origami Phase IV, which includes the development of the Hot Work permit, Safety Shoe program, and OSHA 300 reporting modules.
- Hosted the first virtual Safety Stand Down Day with 200 participants.
- Completed Medeco lock conversion project at Valley View and Molasky campuses and continue installing at off-site locations.
- Monitored over 700 cameras in the Security Center using video analytics.
- Created a new paperless process for organizational UPS and FedEx shipping to increase efficiency and provide customers with easy to use applications.
- Utilized the telematics system to identify equipment failures early, greatly reducing operator downtime.
- Utilized telematics system to improve safety and reduce fuel usage.
- Equipped all fleet repair facilities with state-of-the-art diagnostic equipment, reducing vehicle downtime and repair costs.
- Provided online technical training and diagnostic information to technicians at all repair locations.

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

2021-22 Performance Objectives

- Identify new Environmental, Health and Safety regulations and policy changes, and collaborate with other pertinent agencies.
- Continue partnership with Southern Nevada Counter Terrorism Center and Metropolitan Police Department Area Commands and attend classified briefings on threats to critical infrastructure.
- Continue partnership with FBI InfraGard and Utility Pipeline Coordination Group to stay informed about current water sector threats.

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- Increase the utilization of contract security officers at static posts to allow LVVWD security officers more time to conduct field patrols at critical sites.
- Continue to develop and implement best-practice inventory management and reporting to minimize duplications and realign materials management, as needed.
- Without compromising safety or the level of service provided, reduce fleet operating costs through standardization opportunities, inactive inventory reduction and continuous process improvement.
- Reduce the overall cost per mile/hour of operation for LVVWD vehicles and equipment.
- Life cycle vehicles and equipment to ensure fleet efficiency and best return on investment.

2020-21 Major Accomplishments

- Hosted local police and fire departments at AMSWTF and RMWTF to increase responder knowledge of water system criticality.
- Maintained security readiness and response efforts by reallocating contract security officers to meet the staffing needs and challenges caused by retirements and COVID-19 pandemic shortfalls.
- Material Services received and distributed over \$112M in materials.
- Replaced 47 vehicles and equipment pieces that were no longer cost effective to operate and maintain and added an additional 25 pieces to accommodate growth and improve organizational capabilities.
- Recovered over \$615,500 in vehicle and equipment resale at auction and \$47,304 in vehicle warranty repairs through in-house warranty programs.
- Developed a COVID-19 inventory item list to ensure the LVVWD has an uninterrupted supply of pandemic related resources to distribute to customers.

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

2021-22 Performance Objectives

- Conduct management, leadership team and divisional staff meetings to update employees on all major projects and communicate status changes and challenges.
- Provide diverse learning opportunities in all department disciplines.
- Recognize employees and teams for their unique talents and accomplishments.
- Utilize ePipeline, Hydroweb, Microsoft Teams and Yammer platforms to provide information and security updates to employees.
- Conducted instructor led EHS training for LVVWD employees.
- Provide EHS information updates through ePipeline and Hydroweb articles, and the use of electronic Management Advisory and Safety Alert messages.
- Provide security officers with belt-worn stop-the-bleed kits for emergency first aid response.
- Engage in future construction and maintenance contracts to ensure security issues and concerns are proactively addressed.
- Continue to partner with other departments to better assess needs and improve design and capability of specialty vehicles and equipment.

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- Provide comprehensive preventive and predictive maintenance on vehicles and equipment to insure optimum uptime of all fleet assets.
- Train and certify fleet maintenance and service personnel in new technology and repair techniques.
- Maintain Automotive Service Excellence (ASE) Blue Seal certification and “World Class Technician Status”.
- Maintain I-CAR Platinum Class Certification for paint and body operations.

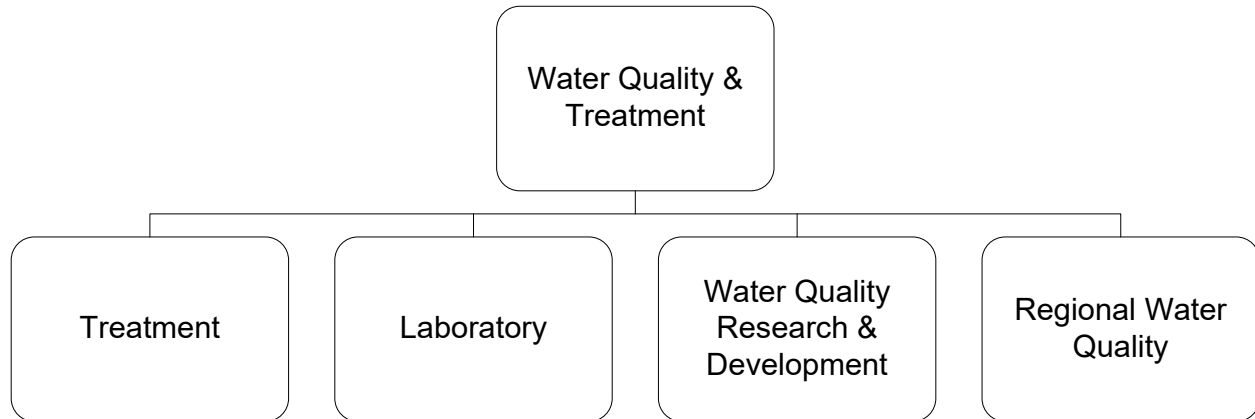
2020-21 Major Accomplishments

- Environmental, Health and Safety and Fleet Services maintained no-lost-time accidents. Material Services maintained no-lost-time accident history for 26 years for the LVVWD’s Material Services, 19 years for the SNWA’s Material Services and 8 years for Mail Services.
- Completed the EHS Annual Report highlighting major accomplishments in 2020.
- Received and monitored four Safety Action Requests 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 processes through the Security Center.
- Continued 100 percent ID badge checks at all facility entrance points and maintained tighter control of access points.
- Provided support for Clark County mutual assistance partners by providing water utility expertise at the Multi-Agency Coordination Center (MACC) for large-scale events with potential to impact to LVVWD’s customers (e.g., New Year’s Eve, NASCAR, Life is Beautiful).
- Completed the LVVWD/SNWA Risk and Resilience Assessment (RRA) to identify highest risk facilities and areas to best use resources to improve resilience.
- Represented the LVVWD on multiple regional and national committees and working groups for several major regional/comprehensive plans.
- Material Services partnered with key internal customers to better assess customer needs and improve end products provided.
- Maintained Automotive Service Excellence (ASE) “Blue Seal of Service Award” and “World Class Technician Status”.
- Maintained I-CAR Platinum Class Certification for paint and body operation.
- Completed nearly 11,000 work orders and 15,000 repair tasks on vehicles and equipment.

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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

The functions under the Water Quality and Treatment (WQ&T) department include: Treatment, Laboratory, Water Quality Research and Development, 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, each division of 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 (WQ) challenges. The Regional Water Quality division is responsible for monitoring and coordinating water quality in the SNWA source waters. All these efforts are in support of the primary responsibility for the department.

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Expenditures

LVVWD Uses	Actual 2019-20	Budget 2020-21	Budget 2021-22
Materials & Supplies	\$ 2,211	\$ -	\$ -
Maintenance & Repairs	-	-	-
Rental & Leases	-	-	-
Other Employee Expenses	58	-	-
Other Expenses	(1,322)	-	-
Total Operating Expenses	947	-	-
Capital Expenditures	-	-	-
Payroll & Related Costs	264,263	225,004	181,588
Total Department Expenditures	\$ 265,209	\$ 225,004	\$ 181,588
FTE Positions	0.6	0.5	0.5

Department Performance

Treatment. The Treatment division is responsible for the operation and maintenance of three treatment facilities: the Alfred Merritt Smith Water Treatment Facility (AMSWTF); the River Mountains Water Treatment Facility (RMWTF); and the Big Bend Water District (BBWD). The three facilities have the capacity to treat approximately one billion gallons of water per day.

Laboratory. The Laboratory division is responsible for routine WQ monitoring, testing, and reporting. The analytical capabilities of the Laboratory cover a broad spectrum including: trace organic, trace inorganic, macro constituent, physical, wet-chemical, bacteriological, virological, protozoan, amoebas, and limnological analyses. With 36 employees, approximately 54,465 samples were collected, and 307,655 analyses performed in 2020. The number of analyses can fluctuate year-to-year depending on the year's monitoring requirements.

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, Microbiological Research and Development, Analytical Research and Development, and Applied Water Quality Research sections.

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Regional Water Quality. The Regional Water Quality division is responsible for monitoring and coordination of regional WQ issues within the SNWA and other local, state, and federal agencies. To accomplish this, the division also collects data in the Muddy and Virgin Rivers and the Las Vegas Wash; compiles, validates, and analyzes 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 (snwawatershed.org/members)

Strategic Plan Objectives and Accomplishments

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

2021-22 Performance Objectives

- Complete refurbishment of AMSWTF Filters 1-20, including replacing all filter valves, underdrains, and deeper filtration media, and begin minor rehabilitation of Filters 21-26, including adding filter media and replacement of valve actuators.
- Complete the replacement and standardization of the AMSWTF and RMWTF filter gallery instrumentation and provide new installation boards for ease of maintenance and monitoring of equipment.
- Design, install, and verify upgrades to the chemical feed systems at BBWD.
- Plan, coordinate and participate in the testing all of the electrical distribution equipment at AMSWTF and RMWTF.
- Support compliance monitoring and analyses for *Escherichia coli* (*E. coli*), *Cryptosporidium*, algal toxins and *Legionella pneumophila*.
- Validate and become certified by State of Nevada on: haloacetic acid (HAA) analysis by EPA Method 557.0 and mercury analysis by EPA Method 245.1.
- Replace and validate instrumentation for bromide and sulfate analysis by EPA Method 300.0.
- Collaborate closely with Information Technology (IT) and Purchasing departments to procure a new Laboratory Information Management System (LIMS) software that will provide an intuitive and modern database software to meet the Laboratory's business practices and needs.
- Collaborate with member agencies to prepare and plan for the final Revised Lead and Copper Rule (RLCR) that all Public Water Systems (PWS) must be in compliance by January 16, 2024.

2020-21 Major Accomplishments

- Continued to analyze Lake Mead and Mohave WQ data and to advise WQ&T staff on possible environmental impacts to the treatment system. This included greater utilization of autonomous WQ monitoring platforms to supplement personnel.
- Completed assessments of online instrumentation used in the full-scale treatment plants (dissolved ozone, turbidity, particle count, free/total chlorine)
- Completed replacement and relocation of pilot plant facilities to AMSWTF ozone utilidor.

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- Maintained Phase IV of the American Water Works Association (AWWA) Partnership for Safe Drinking Water for both the AMSWTF and the RMWTF for the “Excellence in Water Treatment” award for the third year.
- Started an engineering evaluation of the AMSWTF and RMWTF Ozone Systems and plan for refurbishment and/or replacement of the major components.
- Completed the installation of new liner for the Zinc Orthophosphate and Ferric Chloride chemical storage tanks at AMSWTF.
- Participated with consultants in the electrical assessment of critical electrical distribution equipment at RMWTF.
- Laboratory staff responded and adapted to the rapidly changing environment during the COVID-19 Pandemic to ensure SDWA monitoring was completed. Additional efforts included developing and implementing analytical testing for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) to ensure the safety of the drinking water supplied to the community. All 2020 quality assurance/quality control (QA/QC) employee trainings were held in a virtual platform and recorded for future reference.
- Developed and implemented sampling plans for *Legionella pneumophila* from Las Vegas Valley Water District’s (LVVWD) groundwater sources, reservoirs, and distribution system to confirm SNWA and the LVVWD is providing safe and reliable water.
- Implemented, updated and improved deoxyribonucleic acid (DNA) / ribonucleic acid (RNA) extraction technologies for viruses, free living amoebas and pathogenic bacteria.
- Purchased and installed new instrumentation for HAA analysis by EPA Method 557.0 and mercury analysis by EPA Method 245.1.
- Completed two monitoring periods of lead and copper sampling in Kyle Canyon Water District.
- Laboratory staff participated in various interagency committees, such as a groundwater working group committee for LVVWD and drinking water working group for Nellis Air Force Base (NAFB).
- Hosted a workshop for the Revised Lead and Copper Rule (RLCR) for member agencies to introduce and begin discussions about the upcoming changes to the existing rule.
- Complete follow-up of The NELAC Institute (TNI) gap audit by incorporating practices that are beneficial to the Laboratory’s quality program.
- Met or surpassed SDWA monitoring requirements for Southern Nevada Water System (SNWS), LVVWD, North Las Vegas, Henderson, Boulder City, NAFB, BBWD, Blue Diamond, Kyle Canyon, Jean, Sloan Army Reserve Center, and Kapex.

Strategic Plan Goal – Deliver an outstanding customer service experience

2021-22 Performance Objectives

- Continue serving Water Research Foundation (WRF) on various Project Advisory Committees (5070, 5080) and Technical Advisory Committees.
- Continue serving the International Ozone Association – Pan American Group (IOA-PAG) on several committees.
- Implement advanced WQ monitoring technology and real-time data transfer capabilities for

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Lake Mead to support the activities of the Las Vegas Valley Watershed Advisory Committee (LVVWAC) and partner agencies.

- Provide laboratory support in sample collection and analyses of various new and ongoing research projects and provide quality data in a timely manner.
- Fulfill all emergency lab supply requests within one business day.
- 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 WQ monitoring requests.

2020-21 Major Accomplishments

- Supported the LVVWD Operations and Rainbow Canyon residents with quick-turn analysis for various analytical parameters related to corrosion control and lead and copper issues. In addition, Laboratory staff contacted and successfully obtained enough volunteers to complete the Kyle Canyon Water District lead and copper sampling program.
- Operators and maintenance staffs' schedules were adjusted to continue safe operations of all three treatment facilities in a socially distanced manner with essential staff throughout the pandemic.
- Laboratory staff supported new and ongoing R&D projects, such as WRF 17-05/4833, WRF 4711, WRF 5035, Bromide Removal strategies, Ketos-Searchlight on-line arsenic analyzer comparison, and California SWB DPR-4 Phase 3, by providing quality and timely data to R&D staff.
- Laboratory staff fulfilled all emergency lab supply requests within one business day.
- Water Quality Monitoring Plans (WQMPs) submitted and tracked for all member agencies.
- Unregulated Contaminant Monitoring Rule 4 (UCMR4) monitoring completed for North Las Vegas, Boulder City, and NAFB.

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

2021-22 Performance Objectives

- Continue to use the Aquatic Ecosystem Model 3D (AEM3D) Lake Mead WQ model to evaluate changes in the quality of water leaving Lake Mead and entering Lake Mohave at various lake surface elevations. The AEM3D will specifically predict the impact of currently forecast warm waters entering Lake Mead in mid-2021.
- Operate, maintain, and perform challenge testing for water quality instrumentation at the AMSWTF Star Lab.
- Investigate ways for more efficient water treatment of the Laboratory's main reagent grade water system that supplies type-1 ultrapure reagent-grade water, which is used to prepare standards, blanks, reagent chemicals, and microbiology media.
- Complete a reference document for the Laboratory's Continuation of Operations Plan (COOP).

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2020-21 Major Accomplishments

- Regional Water Quality developed scenarios for WQ at the drinking water intakes for a range of lake surface elevations down to dead pool. This information was provided to guide the Enterprise Risk Management work.
- Operated and maintained five remote, autonomous sampling platforms, each containing a suite of on-line WQ monitoring sensors in Lake Mead.
- Developed standard operation procedures (SOPs) for the online WQ instrumentation located at the AMSWTF Star Lab. Supplied data and attended the project meeting to discuss the final report for 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.”
- Completed training on the new SNWA sampling vessel and placed it into service in support of Lake Mead monitoring. The new sampling vessel has better workspace ergonomics, fuel efficiency, and allows staff to complete sampling of the upper portion of Lake Mead in a more efficient timeframe.

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

2021-22 Performance Objectives

- Investigate the application of conventional and innovative technologies (UV-MP, UV-LED, ozone nanobubbles) to inactivate Legionella in LVVWD groundwater supplies.
- Complete development of a linked model to describe WQ in Lake Mead and the treatment of this water through the drinking water treatment process. Once completed, the impact of various WQ changes in inflowing Colorado River water can be assessed through the lake and treatment process.
- Continue work on externally funded projects by WRF (Projects 4960, 4833, 4912, 4913, 4914, 4958, 5035, 5031, 5048, 5053, 5082, 5104), NSF International, Department of Defense (DOD) Strategic Environmental Research and Development Program (SERDP) and US Department of Agriculture (USDA).
- Implement the use of Next Generation Sequencing to identify organism that impact the SNWA’s source waters, raw water, treatment plant effectiveness and finished water.
- Optimize the rapid detection methods, Polymerase Chain Reaction (PCR), and Flow Cytometry for *Legionella pneumophila*.
- Continue to develop the wastewater epidemiology capabilities for COVID-19 as well as other constituents of interest to public health.

2020-21 Major Accomplishments

- R&D was awarded new externally funded projects: WRF 5048, 5082, 5104, and Bureau of

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Reclamation projects.

- Developed and implemented analytical testing for SARS-CoV-2 in finish and source waters to ensure the safety of the drinking water supplied to the community.
- Purchased the Flow Cytometer and Cell Stream instruments, for rapid *Legionella pneumophila* detection.

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

2021-22 Performance Objectives

- Enhance pandemic response with efforts to explore and accommodate remote operation capabilities of the three water facilities.

2020-21 Major Accomplishments

- R&D Division received over \$200,000 from external grants.
- Laboratory staff worked with Purchasing staff to streamline procuring of materials and service contracts that include improved discounts and tracking of services.

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

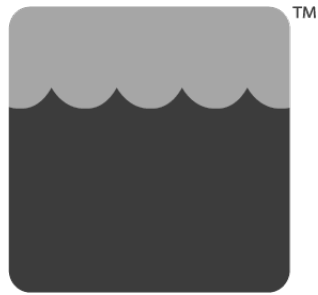
2021-22 Performance Objectives

- Continue to work with diverse federal, state, local, and utility partners to share Lake Mead WQ conditions and potential changes.
- Continue to be a world-class leader in WQ and treatment research as demonstrated by scientific journal and report publications, industry presentations and service on advisory committees.
- Support and complete all Water Quality Monitoring Requests (WQMR) from internal and external customers and report data to customers in timely manner.
- Assessment of laboratory's quality program by an independent party against TNI ISO/IEC 17025 standard every two years for continuous quality improvement.
- Ensure a safe workplace and encourage a safety culture by promoting and supporting suggestions that help maintain an incident and accident-free work environment.

2020-21 Major Accomplishments

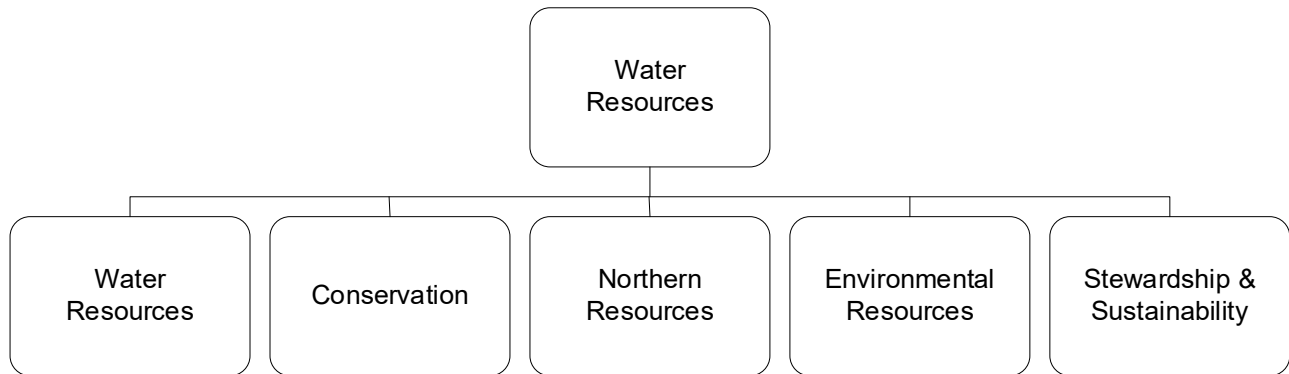
- R&D published 11 articles in scientific journals, three Journal Editorials, and five WRF final reports.
- R&D conducted/participated in 15 virtual webcasts and gave 19 presentations at 13 virtual conferences.
- Assisted and completed the rehabilitation of infrastructure at RMWTF, which included the backwash structure and clearwell inlet channel.
- The WQ Monitoring team drove 88,505 miles in 2020 with no incidents and/or accidents recorded.

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WATER RESOURCES

Level: 7100



Mission

Manage the Southern Nevada Water Authority's (SNWA) water, land and natural resources through sound policy, applied science and advanced technology, ensuring a reliable water supply for our community.

Department Description

The Water Resources department manages SNWA's water resource portfolio to ensure a reliable water supply for the community. Primary responsibilities include long-range planning for sustainable use of current and future water resources; development and administration of regional water conservation programs; stewardship of land and environmental resources managed by the SNWA; and climate change planning. The department also supports policy initiatives on the Colorado River and other natural resource areas. Work efforts include monitoring regional hydrologic and water quality conditions and providing environmental and hydrologic support for Las Vegas Valley Water District (LVVWD) and SNWA operations at the Las Vegas Wash, Warm Springs Natural Area, Great Basin Ranch and LVVWD small systems. The department includes five divisions, including Water Resources, Conservation, Stewardship and Sustainability, Northern Resources and Environmental Resources.

Budget Objectives and Highlights

The 2021-22 Water Resources department budget of \$87,824,275 contains funding to maintain and enhance the necessary functions required by SNWA to provide quality services to both internal and external customers. Funding will support water and environmental resource management efforts,

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as well as conservation initiatives designed to help the community meet its conservation goal. Planned expenditures reflect SNWA's long-term commitment to increased water conservation.

Expenditures

LVVWD Uses	Actual 2019-20	Budget 2020-21	Budget 2021-22
Materials & Supplies	\$ 889	\$ 135,600	\$ 129,250
Maintenance & Repairs	325	169,920	52,000
Rental & Leases	1,564,869	1,502,400	-
Other Employee Expenses	4,091	46,666	37,000
Other Expenses	4,252	147,504	45,150
Total Operating Expenses	1,574,425	2,002,090	263,400
Capital Expenditures	271,885	4,125,000	300,000
Payroll & Related Costs	1,088,455	2,931,342	3,230,324
Total Department Expenditures	\$ 2,934,765	\$ 9,058,432	\$ 3,793,724
FTE Positions	4.8	14.9	16.5

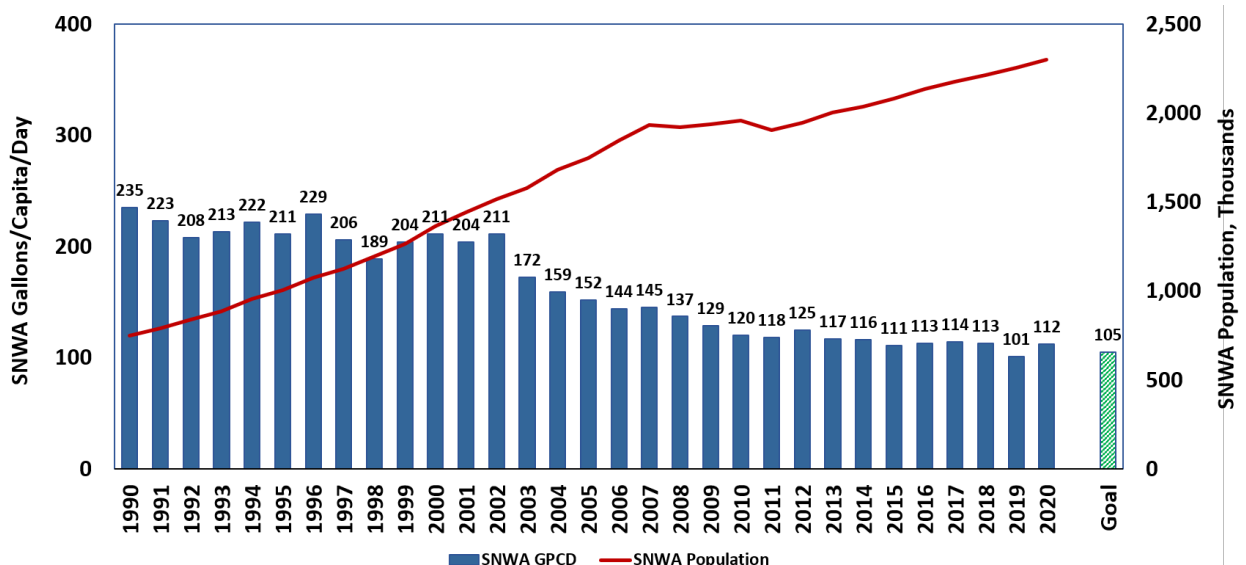
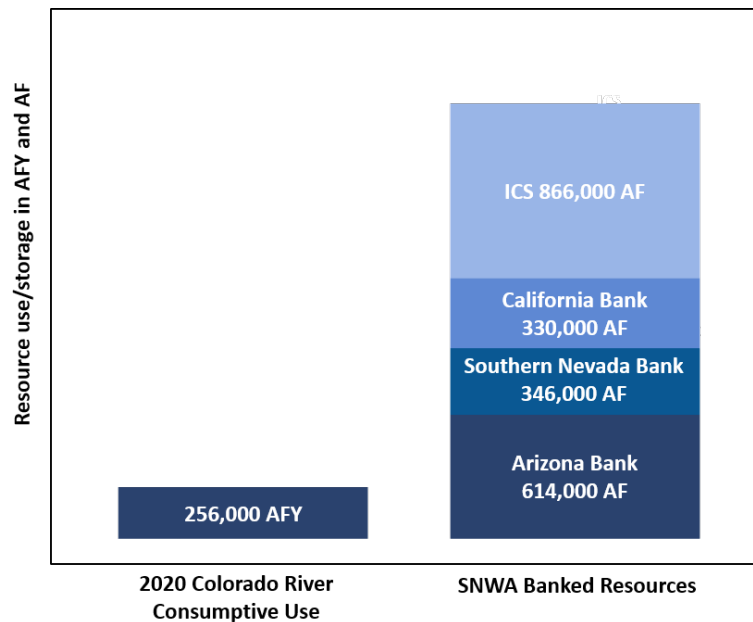
Department Performance

Water Resources. The Water Resources division is responsible for securing and managing regional and local groundwater, surface water and banked resources to ensure a reliable water supply for Southern Nevada. This work involves managing existing Colorado River allocations and agreements, including those for river-related environmental compliance; conducting 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.

The Division continued to monitor local and regional drought conditions in 2020-21 and worked with Colorado River Basin states to implement the Drought Contingency Plan. Through local and collaborative efforts, the SNWA banked approximately 80,000 acre-feet of water in calendar year

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2020, expanding the storage of temporary resources that can be used flexibly to meet the community's water resource needs. The SNWA has stored 2.1 million acre-feet of water in total. This is more than eight times Nevada's 2020 consumptive Colorado River water use. The 2020 chart compares current water demands and banked supplies.



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Conservation. The Conservation division develops and implements demand management programs and strategies with an emphasis on reducing consumptive water uses. The SNWA monitors regional water demand trends in terms of gallons per capita per day (GPCD). The SNWA calculates GPCD by dividing annual SNWA Colorado River water diverted (excluding off-stream storage) and member well production, less corresponding Colorado River return-flow credits by the total SNWA resident population served per day.

The SNWA's GPCD was 112 in 2020, on par with 2015-2018 GPCD trends. 2019 GPCD was lower, primarily due to abnormally cool and wet weather.

The Conservation division served more than 4,400 program applicants in 2020 and issued \$12.1 million in rebates. The largest program, Water Smart Landscapes, rebated 2,842 customers for removal and replacement of more than 4.5 million square feet of turf. These conversions will perpetually produce consumptive water savings of more than 252 million gallons annually. Cumulatively, landscape conversions completed since 2000 have reduced consumptive water use by more than 11 billion gallons annually.

The Conservation division employs three water-efficiency strategies: education, incentives and regulation, and further relies upon water purveyor members to establish appropriate pricing signals. 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. These incentives account 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.

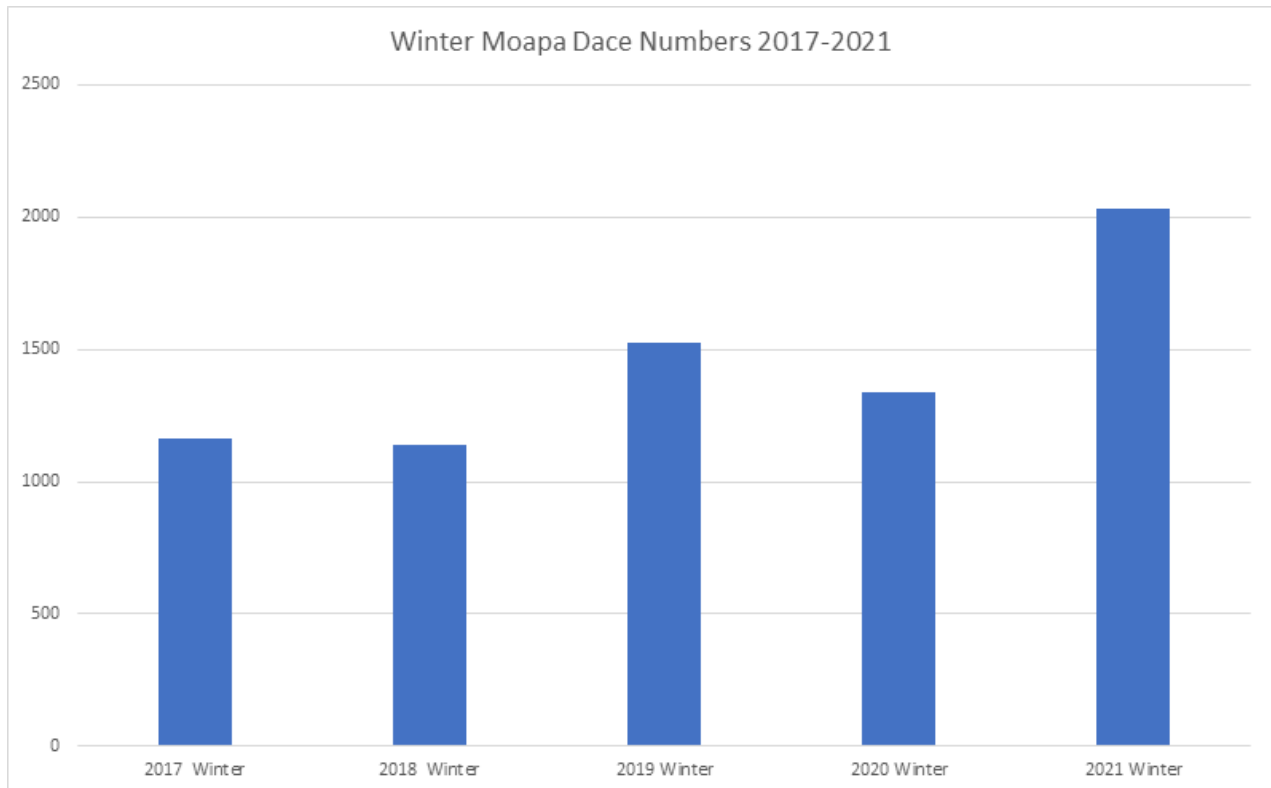
Northern Resources. The Northern Resources division maintains the physical and natural resource assets of the 950,000-acre Great Basin Ranch. The ranch produces agricultural products, including beef calves, lambs, wool and alfalfa. These commodities represent approximately \$3.2 million in projected ranch revenue for fiscal year 2021-22. Improvements in agricultural practices, livestock genetics and husbandry have increased efficiency and effectiveness in utilizing federal rangeland and private forage. The ranch continues to produce and deliver quality products and services, exhibit scientific-based stewardship, and demonstrate financial and organizational efficiency.

Environmental Resources. The Environmental Resources division conducts environmental planning, compliance, and natural resource management for SNWA, LVVWD, and small systems. The division supports policy initiatives on the Colorado River and other resource areas, coordinates with federal and state agencies on environmental and regulatory issues, prepares environmental compliance documents, conducts biological and environmental monitoring, restoration, and reporting for existing facilities and new capital construction, and coordinates climate change adaptation initiatives.

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Stewardship and Sustainability. The Stewardship and Sustainability division is responsible for management, restoration, monitoring, compliance and outreach for the Las Vegas Wash (Wash) and the Warm Springs Natural Area (WSNA), and the organization’s sustainability initiatives. The division has two teams. The Las Vegas Wash Team is responsible for the Las Vegas Wash Coordination Committee and the implementation of the 44 recommendations outlined in the Las Vegas Wash Comprehensive Adaptive Management Plan. The Warm Springs Natural Area Team is responsible for the WSNA Stewardship Plan and conducts management activities for the benefit of the Moapa dace and the other 27 sensitive species. The division also coordinates the Sustainability Cross Departmental Team to implement the organization's Sustainability in Action Plan.

The division’s restoration efforts at the WSNA have bolstered Moapa dace populations. The small endangered fish is endemic to the Muddy River. After a period of steady decline, fish populations are on the rise. The population increased from a low of 459 individuals in 2008 to more than 2,340 in 2020.



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Strategic Plan Objectives and Accomplishments

Strategic Plan Goal 1 – Assure quality water through reliable and highly efficient system.

2021-2022 Performance Objectives

- Implement the Colorado River Drought Contingency plans to help protect critical elevations in Lake Powell and Lake Mead and reduce the magnitude of potential supply reductions.
- Complete actions as required under the SNWA/Department of Interior Stipulated Agreements.
- Provide technical support for negotiations with the seven Colorado River Basin states and the U.S. Bureau of Reclamation for post-2026 river operations and management
- Advance SNWA and LVVWD interests regarding the acquisition, development, and management of water rights.
- Ensure reliability of Colorado River supplies through active participation in environmental compliance and management programs.
- Inspect SNWA and LVVWD wells annually to ensure appropriate operational capacity for each service area; manage, develop and certificate water rights, as appropriate.
- Continue to conduct long-term water quality sampling and monitoring programs in the Wash and its tributaries.
- Prepare water resource assessments for each small system; document current and historical hydrologic conditions and evaluate system vulnerability to persistent drought conditions.
- Update small system wellhead protection plans.
- Provide technical support for the development and implementation of a septic system conversion program.
- Monitor groundwater quality trends in Las Vegas Valley through the existing monitor and production wells networks and tracking NDEP contamination site database reporting.
- Comply with environmental permit requirements for operation of erosion control facilities in the Wash.
- Conduct research and public outreach for the Wash in accordance with agreements and the Las Vegas Wash Comprehensive Adaptive Management Plan.
- Prepare for implementation of the long-term operating plan for the Wash.
- Provide environmental compliance and monitoring in accordance with permit requirements to operate existing SNWA, LVVWD and small systems facilities.
- Prepare and manage environmental compliance processes for new SNWA major capital projects, including Metropolitan Regional Recycled Water Program, Lower Las Vegas Wash weirs, Horizon Lateral, Boulder Flats Solar, and Garnet Valley water system.
- Prepare environmental compliance documents and provide environmental support for new LVVWD, small systems, and Springs Preserve infrastructure projects.

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2020-2021 Major Accomplishments

- Worked with stakeholders to implement the 2019 Lower Basin Drought Contingency Plan Agreement (DCP) to help preserve Colorado River operations for Lower Basin water users and increase the flexible use of Colorado River resources.
- Reviewed and commented on the draft Lake Powell Pipeline EIS.
- Met commitments under the Colorado River Pilot System Conservation Program.
- Collaborated with international partners to implement water and environmental management programs in the Colorado River Delta.
- Led stakeholder programs to improve prediction and understand uncertainty of future water supply and demand resulting from climate and hydrologic change.
- Continued implementation of the Lower Colorado River Multi-Species Conservation Program and the Glen Canyon Dam Adaptive Management Program.
- 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 optimize operational flexibility.
- Completed construction of production well W126 at the future Rome reservoir site.
- Acquired land resources for a future high-capacity production well.
- Collaborated with the City of Las Vegas to modify the current interlocal agreement to accommodate construction of a future production well and pipeline at Children's Memorial Park.
- Evaluated the former West Central Wellfield in Las Vegas Valley to assess the viability of rehabilitating existing wells or constructing new wells.
- Filed protests of water-right applications to protect SNWA's senior decreed Muddy River rights and to protect endangered species in the Lower White River Flow System.
- Maintained and perfected SNWA groundwater and surface water rights.
- Managed an ongoing maintenance and repair program to optimize efficiencies of irrigation wells and water rights development at the Great Basin Ranch.
- Rehabilitated Northern Resources Phillips 1 irrigation well
- Implemented a groundwater quality monitoring program to evaluate current conditions and long-term trends in the Las Vegas Valley.
- Provided technical support for the development of a proposed Septic System Conversion Program.
- Completed all scheduled sampling and monitoring tasks in the Wash with minor disruption due to the pandemic.
- Represented Nevada as a member of the Colorado River Basin Salinity Control Forum; collaborated with other stakeholders to protect Nevada Colorado River return flows by ensuring continued compliance with U.S. EPA salinity standards for the Colorado River.

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- Finalized Cooperative Management Agreement with the National Park Service for the Lower Las Vegas Wash Stabilization Plan; conducted coordination meetings and started project environmental compliance.
- Conducted surveys for threatened and endangered birds, cataloged new invertebrates and initiated surveys for snakes and amphibians along the Wash.
- Conducted compliance monitoring and restoration work to support stabilization of the Wash; re-vegetated approximately 25 acres and conducted vegetation monitoring on more than 500 acres.
- Weeded within revegetation sites at the Wash and removed flood debris from the Pabco Weir area.
- Created five videos related to the Wash and educated more than 750 students.
- Initiated a major redesign of the Wash website (lvwash.org) and increased Facebook followers by more than 25 percent.
- Gave the desert tortoise environmental education program to 170 contractors and staff.
- Monitored tortoise exclusion fencing at all existing facility sites on federal lands and coordinated needed fence repairs.
- Completed annual reports for environmental compliance for operations of SNWA existing facilities; completed final report for the Third Intake/L3PS project.
- Conducted annual weed monitoring, reporting, and control measures at 25 SNWA groundwater monitoring sites.
- Conducted agency coordination and monitoring of the Pahrump poolfish and relict leopard frog populations at the Springs Preserve refugia.
- Held a pre-application meeting with the Bureau of Land Management, developed environmental commitments, purpose and need, agency communications, briefing papers and right-of-way application for the Horizon Lateral project.
- Provided environmental evaluations to support grant applications for six LVVWD projects covering 50 sites.
- Reviewed and provided input on design specifications for 31 LVVWD and small systems projects; provided construction environmental compliance for five LVVWD/developer projects.

Strategic Plan Goal 2 – Deliver an Outstanding Customer Service Experience.

2021-22-Performance Objectives

- Maintain a 90 percent or greater client satisfaction rating for delivery of the Water Smart Landscapes program.
- Resume expansion of single-family Site Evaluation Pilot Program to assist high water users in reducing demands.
- Maintain participation in Water Efficient Technologies by engaging facility managers and industry professionals and increasing awareness of water-efficiency incentive opportunities.

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- Increase participation in Water Smart Landscapes among Homeowner Associations, multi-family residential developments and other commercial and industrial properties.
- Increase compliance with mandatory watering restrictions among non-SFR sectors; engage commercial landscapers, property managers and community association managers.
- Leverage new and emerging technology to refine understanding of consumptive water use and improve customer service within non-single-family sectors.

2020-21 Major Accomplishments

- Achieved a 94 percent customer satisfaction rating, with 72 percent of respondents awarding the highest satisfaction rating.
- Developed contact-free program delivery methods and work-from-home procedures to provide continuity of customer contact and program delivery.
- Erased a backlog of more than 1,000 program applicants due to an 83-day interruption in operations due to pandemic response.
- Participated in 55 HOA meetings, made 770 new community association contacts and conducted 37 HOA desktop audits.
- Conducted more than 7,700 customer property visits and provided remote services to 826 customers.
- Rebated 140 smart leak detection units.
- Conducted four state-certified Community Manager trainings in partnership with the Nevada Division of Real Estate. The training included 50 attendees, representing 371 Homeowner Associations.
- Developed comprehensive databases of community association managers and commercial property managers and developed text/video communication tools.
- Contacted 80 HOAs to discuss program awareness and barriers to participation levels.
- Taught landscaping and irrigation classes at City of Henderson; transitioned to an online webinar format and reached 100 attendees.
- Worked with golf industry professionals to deploy specialized mapping technology to assess turf play areas and identify turf conversion opportunities.

Strategic Plan Goal 3 – Anticipate and Adapt to Changing Climatic Conditions while Demonstrating Stewardship of our Environment.

2021-22 Performance Objectives

- Administer Colorado River water delivery and interstate banking agreements.
- Provide technical support for in- and out-valley water recycling through return-flow credits and direct reuse.
- Implement the Colorado River Drought Contingency plans to protect critical elevations in Lake Powell and Lake Mead and reduce the magnitude of potential supply reductions.

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- Reduce water demands and maximize the use of available resources through aggressive water conservation.
- Bank conserved water and increase temporary resources that can be used flexibly to meet demands and/or offset potential supply reductions.
- Assess climate change impacts in long-term planning and publish annual updates to SNWA's Water Resource Plan and Water Budget.
- Communicate water conservation and sustainability goals and progress to the organization.
- Support conservation plans that benefit endangered and threatened species to ensure access to current and future water supplies.
- Monitor external activities that might interfere with SNWA's access to permanent, temporary and future water resources.
- Advance climate science information sharing and pursue research aimed at informing or enhancing predictive modeling tools.
- Work with SNWA member agencies to meet established conservation benchmarks for non-functional turf removal, cool-season turf conversions, Water Efficient Technologies program enrollment, smart irrigation controller deployments and water waste enforcement.
- Complete and implement work plans to accomplish the goals of the Conservation Strategic Plan.
- Ensure reliability of Colorado River supplies through active participation in environmental compliance and management programs.
- Begin preliminary planning initiatives to support the development of guidelines for shortages and coordinated operations of lakes Powell and Mead beyond 2026.
- Lead and participate in multi-stakeholder processes and coordinate with stakeholders to achieve Colorado River policy initiatives.
- Collaborate on local and regional climate change initiatives relevant to SNWA and assess climate change impacts in long-term planning efforts.
- Work across the organization to mitigate water supply and demand risks due to climate and hydrologic change.
- Conduct environmental regulatory, project, and policy reviews relevant to the organization.
- Conduct research, planning and environmental compliance to support strategic decisions and management of SNWA water resources and assets.
- 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.
- Make progress towards achieving the goals of the Recovery Plan for rare aquatic species on the Muddy River.
- Provide public access and outreach at the WSNA.

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- Reduce fire fuels and maintain fire breaks annually at the WSNA in accordance with the property Fire Management Plan.

2020-21 Major Accomplishments

- Developed a new Conservation Strategic Plan to reinvigorate conservation progress and counter headwinds of climate change.
- Presented research on heat resiliency of the most common landscape plants, highlighting those most vulnerable to climate change.
- Published the 2020 Water Resource Plan and 2020 Water Budget; updated resource planning scenarios to reflect the latest UNLV-CBER population forecast, DCP provisions and water supply impacts under variable Colorado River inflows.
- Reviewed and commented on the City of Las Vegas Master Plan in support of regional water planning and conservation.
- Provided demand and supply analyses to evaluate additional permanent resources and for use in the Integrated Resource Planning Advisory Committee (IRPAC) process.
- Conducted water demand and related analysis to assess the impact of the pandemic on water use.
- Monitored Colorado River consumptive use for 2020 water resource management and enhanced monthly water use report.
- Prepared a five-year SNWS sales forecast for SNWA financial budget and energy planning, and adjustments for the influence of the pandemic on the FY2021 budget.
- Worked with stakeholders to implement the 2019 Drought Contingency Plan (DCP) to increase flexible use of Colorado River resources.
- Administered Colorado River water delivery and interstate banking agreements.
- Provided technical support for regional water recycling through return-flow credits and direct reuse and participated in WaterReuse Nevada.
- Expanded SNWA water banking opportunities with municipal conservation and an off-stream storage Intentionally Created Surplus (ICS) project; 44,000 acre-feet of water was stored in Lake Mead under this project in 2020.
- Conducted Colorado River modeling in support of ongoing negotiations and resource planning and management activities.
- Partnered with Colorado River stakeholders to identify, prioritize and fund select research initiatives to improve hydrological forecasts, enhance the performance of predictive and decision support tools, and to reduce uncertainty related to future supply and demand conditions in the Colorado River Basin.
- Maintained regional monitoring networks to collect long-term hydrologic and climatological data.
- Implemented a uniform conservation policy for water features among all municipalities.
- Created 34,772 acre-feet of Tributary Conservation ICS water from the Muddy and Virgin rivers for storage in Lake Mead.

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- Completed a water-supply assessment of the Blue Diamond and Kyle Canyon water systems to evaluate the potential impact of below-normal precipitation on system operations.
- Issued more than 4,400 conservation rebates saving more than 290 million gallons of water per year.
- Conducted more than 11,000 water waste investigations within the LVVWD service area, assessing more than \$180,000 in fees.
- Assisted the City of Henderson in creating a Water Smart Landscape (WSL) incentive enhancement program aimed at commercial and multifamily non-function turf.
- Completed seven interlocal agreements with member agencies (North Las Vegas, Henderson, City of Las Vegas) to convert 830,902 square feet of non-functional turf, saving more than 7.2 million gallons of water annually; Henderson converted ten parks from cool season grass to warm season under these agreements, saving more than 22 million gallons of water annually.
- Supported legal appeal of Bureau of Land Management (BLM) grazing use decisions on the Wilson Creek allotment.
- Prepared two Environmental Assessments and continued working with BLM on nine pending land authorizations to improve sustainable operations of the ranch.
- Collaborated with state, local, and international partners to implement water and environmental management programs on the Colorado River from Lake Powell to the Colorado River Delta.
- Led stakeholder programs and developed information resources to improve prediction and understand uncertainty of future water supply and demand resulting from climate and hydrologic change.
- Worked with water utility and other partners to better understand the potential impacts of a changing climate and tracked the organization's footprint of carbon emissions.
- Developed and began tracking key indicators to provide an early warning of climate change risks to SNWA and developed actions to mitigate those risks.
- Conducted in-depth review of more than 1,000 external projects, legislative and regulatory proposals, and submitted nine formal comment letters.
- Collaborated with BLM and Nevada Division of Wildlife (NDOW) to rescue a population of the endangered Pahrump poolfish.
- Completed irrigation and water system improvements at the Great Basin Ranch in response to severe drought conditions and to support ranching operations. Improvements include pipeline installations and replacements, well rehabilitation, intake and diversion facility repairs, electrical repairs and upgrades, repair and replacements of pivot systems, and pond repair and reconstruction.
- Established a new housing facility at Bastain Creek.
- Completed various improvements at the Great Basin Ranch, including construction of two new hay barns and construction of one new home.

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- Constructed an oil storage facility for Fleet Services; expanded livestock corrals; made improvements on the Wahoo house; reconstructed cattle handling facilities at the Huntsman feedlot; and made corral post improvements to prevent bird entrapment.
- Initiated the Stone House stabilization project.
- Repaired and replaced range improvements in South Spring Valley, Scotty Meadows and Tippet Glencoe.
- Added 1,452 ewe lambs and 253 bred heifers to the ranch livestock population.
- Met or exceeded the projected Ranch revenue budget and operated within the operations budget.
- Conducted bi-annual Moapa dace counts on the upper Muddy River and documented increased dace numbers, reproduction, and successful translocation of dace into restored habitat.
- Conducted threatened and endangered bird surveys at WSNA and monitored bird population recovery from the 2010 wildfire and habitat restoration; documented the highest number of confirmed southwestern willow flycatcher fledglings and first Yuma Ridgway's rail in 2020.
- Grew and maintained more than 5,000 native plants for restoration areas at WSNA.
- Trimmed palm trees and mowed and maintained 11,000 feet of fire breaks to protect infrastructure, Moapa dace habitat, and nesting sites for threatened and endangered birds at WSNA.
- Monitored 21 ecological restoration sites (50 acres) at WSNA for restoration success.
- Received volunteer support to plant 750 yerba mansa and saltgrass plants in a WSNA restoration site at the North Fork of the Muddy River.
- Organized and hosted the Colorado River Climate and Hydrology Work Group Virtual Symposium, including three 2-hr webinars with 157 attendees.

Strategic Plan Goal 4 – Develop innovative and sustainable solutions through research and technology.

2021-22 Performance Objectives

- Initiate a research project to evaluate the potential for smart irrigation controls to facilitate compliance with watering restrictions and produce consumptive water savings.
- Develop new programs and processes to improve the resolution time of customer leaks.
- Utilize existing mapping technology to improve water waste enforcement efforts in targeted areas.
- Utilize data from smart water metering (AMR/AMI) technology to notify customers of potential violations of watering restrictions.
- Host an international spring webinar and the Annual 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.

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- Conduct a study of non-SFR smart irrigation controller performance in field conditions to quantify associated water savings.
- Explore best practices for quantifying agricultural water conservation with Colorado River Basin partners.

2020-21 Major Accomplishments

- The smart leak detection incentive program rebated a record 140 units.
- Implemented a program to provide additional support to member agencies to enforce watering restrictions.
- Collaborated with the State of Nevada's WaterStart program and ImagineH2O to review water efficiency technology and select award recipients.
- Provided supplemental funding for a partnership with the Alliance for Water Efficiency and major utilities to model municipal level water volumes used for cooling towers and research water conserving approaches to traditional cooling technologies.
- Participated in developing a scope of work to explore water desalinization opportunities along the Sonoran coast of the Sea of Cortez; partnered with Lower Basin water users to fund a study.
- Initiated a project to compile and integrate existing well-systems and groundwater data into a Common Data Repository to enhance cross-departmental collaboration.
- Implemented Business Intelligence software solutions to enhance organizational communication and collaboration related to well systems and water-usage information.
- Conducted a pilot study using customer meter data to identify Sunday watering offenders; implemented direct outreach and observed a 47 percent change in customer behavior.
- Supported development of pilot studies to assess in-situ water-quality treatment technologies at production wellheads.
- Hosted an online webinar in lieu of the Water Smart Innovations Conference; attracted more than 800 registrants and provided more than 3,000 hours of professional engagement.
- Developed a cost/benefit analysis describing the potential resource gains and operational/revenue implications of significant gains in single-family residential compliance.
- Produced sector-level analyses comparing 2020 water usage to historical averages for both the LVVWD and SNWA member purveyors.

Strategic Plan Goal 5 – Ensure Organizational Efficiency and Manage Financial Resources to Provide Maximum Customer Value.

2021-22 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.

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- Develop a Conservation Strategic Plan to guide agency and interagency work efforts.
- Develop a process to gather and share conservation-related data with internal and external stakeholders and track Conservation Strategic Plan performance.
- Coordinate with SNWA member agencies to consistently implement principles of SNWA's Non-Functional Turf Resolution and Out-of-Valley Water Use Policy in municipal code and/or agency service rules.
- Partner with Colorado River Basin stakeholders to jointly fund water and environmental management investigations and programs.
- Provide demand analysis and forecasts to reduce uncertainty in system operations, infrastructure planning and financial planning.
- Ensure annual department expenditures remain within budget.
- Leverage volunteer and docent support when practical to support staff-guided restoration projects and other outreach activities.
- Pursue and secure grants and other funding sources to support department initiatives.
- Execute remaining \$393,000 in awarded grant funding from the U.S. Bureau of Reclamation for Water Smart Landscapes rebates.
- Pilot the use of mobile devices in field operations to streamline data collection, increase productivity and reduce use of paper-based information management.

2020-21 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.
- Generated investments in climate change and hydrologic forecasting investigations of more than \$1 million from Colorado River Basin partners.
- Developed a weekly demand model to evaluate the system-wide impacts of the pandemic on water demands at a scale finer than existing models.
- Utilized meter and production data to analyze the distributional impacts of the pandemic spatially and across customer classes.
- Provided technical support to Finance in the development of materials supporting refunding of SNWA and LVVWD debt.
- Collaborated with IT to develop new versions of program management software to utilize mobile devices.
- Identified methods and processes to meet customer program demands remotely; implement an electronic program application process.
- Produced videos to promote conservation program remotely for Commercial and Multifamily groups.
- Produced 8,600 tons alfalfa and 1,869 beef calves and sold more than 1.3 million pounds of beef.
- Produced and sold 3,503 lambs and 43,598 pounds of wool.

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- Obtained more than \$624,000 in federal and state grant funding support conservation and Wash initiatives.

Strategic Plan Goal 6 – Strengthen and uphold a culture of service, excellence and accountability

2021-22 Performance Objectives

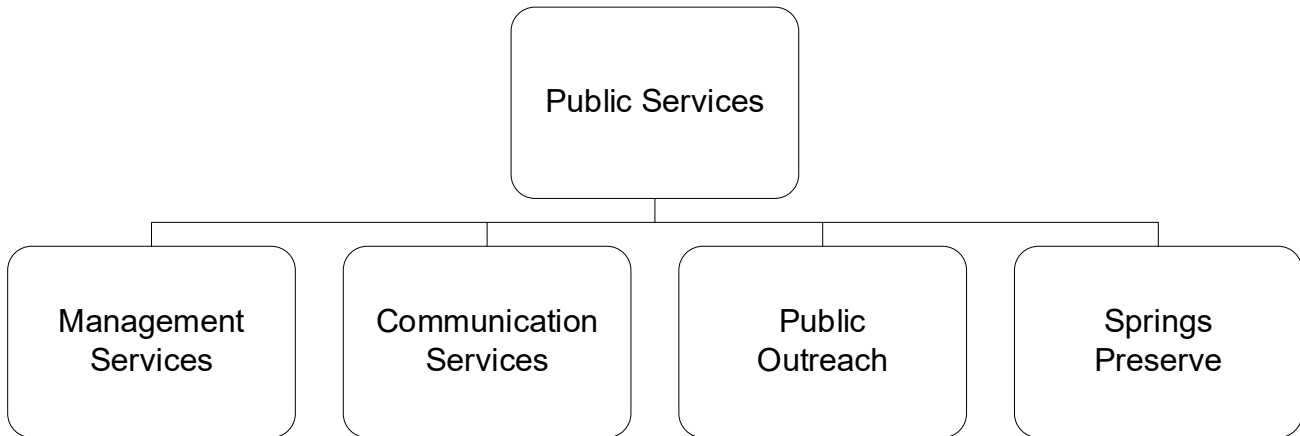
- Lead an interdepartmental team in development of a comprehensive annual groundwater management and well operations plan.
- Expand LVVWD water waste enforcement efforts to reduce water waste and improve compliance with mandatory watering restrictions.
- Meet or exceed annual benchmarks for SNWA conservation programs.

2020-21 Major Accomplishments

- Provided analytical and administrative support to the Integrated Resource Planning Advisory Committee process (IRPAC).
- Led an organization-wide planning initiative to develop a Conservation Strategic Plan that facilitates implementation of IRPAC conservation recommendations; began implementation of the Strategic Plan.
- Worked collaboratively with an interdepartmental team to update a comprehensive annual groundwater management and well maintenance and operations plan.
- Established performance benchmarks for conservation programs and reported progress to internal and external stakeholders.
- Completed a multi-agency, national research initiative on cooling technology and water demand.
- Collaborated with the State of Nevada’s WaterStart program and ImagineH2O to review water efficiency technology and select award recipients.
- Developed a cost/benefit analysis describing the potential resource gains and operational/revenue implications of significant gains in single-family residential compliance levels.
- Produced sector-level analyses comparing 2020 water usage to historical averages for both the LVVWD and SNWA member purveyors.

PUBLIC SERVICES

Level: 7200



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; Public Outreach; and the Springs Preserve.

Together, these divisions work 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 committees, grant writing, conference coordination and support, 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 various 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 Water Smart Innovations conference.

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The Springs Preserve's mission is to build culture and community, inspire environmental stewardship, and celebrate the vibrant history of the Las Vegas Valley.

Expenditures

LVVWD Uses	Actual 2019-20	Budget 2020-21	Budget 2021-22
Materials & Supplies	\$ 545,150	\$ 974,042	\$ 790,188
Maintenance & Repairs	371,341	826,205	645,930
Rental & Leases	9,603	28,800	19,000
Other Employee Expenses	123,151	285,986	185,778
Other Expenses	3,302,100	4,656,722	1,880,844
Total Operating Expenses	4,351,345	6,771,755	3,521,740
Capital Expenditures	2,181,480	4,465,000	1,488,898
Payroll & Related Costs	8,899,871	10,807,049	10,252,543
Total Department Expenditures	\$ 15,432,695	\$ 22,043,804	\$ 15,263,181
FTE Positions	65.4	77.0	75.5

Budget Objectives and Highlights

The 2021-22 budget remains consistent with the organization's efforts to enhance efficiency and service to internal and external customers.

Department Performance

In fiscal year 2020-21, with most department staff working remotely, the Public Services department continued to provide uninterrupted service and support to the organization, its initiatives and priorities:

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

This fiscal year, and after a pause due to the declared pandemic, the division successfully spearheaded the completion of the IRPAC 2020 process for the SNWA, which resulted in its Board of Directors

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supporting all the committee's recommendations, which include amending the SNWA's Major Construction and Capital Plan (MCCP) to add infrastructure to ensure reliable water service, expanding the state's Colorado River resource through partnerships, and focusing on conservation initiatives that reduce consumptive water use and help our community meet its conservation goals. To fund these initiatives, the committee recommended a modest increase to SNWA water rates beginning in 2022.

In the last fiscal year, water conservation remained a priority and Management Services supported several efforts on behalf of both organizations. The division coordinated an update to the LVVWD Service Rules with conservation-related initiatives that addressed development outside the hydrographic boundary, limits on properties with septic systems, and non-functional turf guidelines. Staff also supported an effort among SNWA member agencies to develop a Large Water Users Policy. The division also helped develop and launch a septic conversion program to improve water quality and water resources for individuals on septic systems.

Following a comprehensive resource and water system analysis, staff worked with the Blue Diamond community to implement a new development moratorium in the town of Blue Diamond to stabilize water demands and protect the water resources for future users.

Because of safety considerations, the Colorado River Water Users Association's (CRWUA) 75th anniversary conference was cancelled in 2020. The conference is set to return in-person in December 2021.

Management Services also supported the organization's fund development activities through grant development and fundraising activities to offset programming, capital and operational expenses. Staff applied for and LVVWD was awarded \$1.5 million in funding from Nevada's Drinking Water State Revolving Loan Fund to improve Big Bend Water District's system. These funds will be used to address issues of system reliability, operational efficiency, conservation and water quality for that system. Additionally, staff applied for and was awarded \$848,000 in grant funding from the Bureau of Reclamation's Drought Resiliency Projects for treatment of LVVWD's groundwater production wells. The same funding program also awarded the Warm Springs Natural Area \$189,000 for habitat restoration projects.

Lastly, in the past year, the division secured \$78,520 in grant dollars for the Springs Preserve and was still able to secure fundraising dollars amidst a pandemic.

Communication Services. Communication Services is responsible for developing materials that reach customers through the website, social media, television, email and print. Over the past year, the division distributed more than 3.1 million compliance postcards to single-family residences throughout the valley, communicating seasonal mandatory watering restrictions. The division also implemented a compliance marketing campaign, resulting in 651,000 seasonal watering reminder emails to subscribers, and also launched a direct-mail campaign to 15,000 remaining grass landscaped properties.

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Communication Services also launched a social media campaign highlighting SNWA's research on genetic markers of COVID-19 in wastewater. These messages reached more than 395,000 residents.

To make employees feel connected and continuously up to date on the organization's work and status during the COVID-19 pandemic, the division launched a weekly video series featuring the general manager, executive team and special guests. The initiative won a Pinnacle Award in 2020 from the PRSA Las Vegas Chapter.

Communication Services also implemented a redesigned employee intranet website that allowed easy mobile access to employee news and tools. Monthly website visits increased by 32 percent, and the intranet's excellence was recognized as Best in Show at the 2020 PRSA Las Vegas Chapter Pinnacle Awards.

Staff also produced and installed more than 1,000 signs for LVVWD, Springs Preserve and SNWA facilities in support of COVID-19 guidelines.

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

Over the past year, there have been numerous advertising efforts including the development of a new, homeowner-targeted WSL campaign which launched in March 2021, the development of new social media ads with Vegas Golden Knights enforcer, Ryan Reaves, the production and launch of the Abuela Conservation Campaign, which targeted Spanish speaking audiences, and the revision of the compliance reality check and business testimonial campaigns.

As community partner relationships remain vital, staff continued active participation with the Latin Chamber of Commerce, the Henderson Chamber of Commerce, and the Community Association Institute to expand outreach efforts to the non-residential sector.

The division also continued inter-agency coordination with member agencies, amplifying the SNWA's conservation message and reaching more than 6.5 million social media and web impressions. The division continued its educational outreach to the community, by teaching more than 1,000 local landscapers about watering restrictions, reaching out to HOAs and the business community about water conservation and the WSL Rebate Program.

To further promote conservation, staff established relationships with local businesses, including Star Nursery, Home Depot, Starbucks, and supermarkets to include SNWA conservation collateral inside their stores. Staff also executed a partnership with the UNLV athletic program to help promote water conservation and seasonal watering restrictions.

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Due to safety considerations, the Water Smart Innovations conference could not be held in person and was moved to a virtual format, with outreach staff promoting and supporting the implementation of the webinar series.

This year, the Outreach Programs division managed more than 100 interactions with local, national and international news organizations. Staff also managed outreach efforts to help coordinate the final activities related to the Low Lake Level Pumping Station, initiated community outreach activities related to the construction of the LVVWD's Rome Reservoir, Cougar Reservoir and Centennial Reservoir, and developed a comprehensive communications plan for the SNWA's Horizon Lateral and water conservation programs and initiatives.

Springs Preserve outreach included the Dia De Muertos altar dedicated to the lives lost from COVID-19. Additionally, staff developed and implemented the Springs Preserve's first virtual community event with the 2021 Black History Month Festival in February. Social media activity for the event reached more than 446,000 cumulative impressions across all platforms and the event's Youtube livestream had more than 2,800 impressions.

Springs Preserve. Springs Preserve staff is responsible for overall facility operations and programs and events that enhance the visitor experience. Due to the COVID-19 pandemic and state directives, the Springs Preserve was closed for much of the fiscal year and subsequently operated in a limited capacity when open. The Springs Preserve opened its outside trails and gardens in the summer of 2020 and welcomed approximately 10,000 guests before closing again in the fall. During this time, staff retooled operations, moved to cashless payments, initiated timed reservations to increase social distancing, and increased cleaning and sanitizing. Temporary staff were removed from the schedule, reducing the overall labor budget for the remainder of the fiscal year by more than \$300,000. Booked traveling exhibits and art installations were either cancelled or deferred during closure, saving more than \$200,000 over the 2020-21 fiscal year.

While the natural areas and trails were open, staff created pop-up education activities in the main amphitheater, expert staff-guided tours were provided to guests and small retail stations were set up outside to provide water and snacks to visitors. Additionally, Springs Preserve's Group Sales facilitated small venue rentals, keeping with safety guidelines.

The Springs Preserve's botanical garden electrical expansion was completed early due to the facility's closure. This project provided proper electrical outlets throughout the gardens and inground conduit for eventual low voltage lighting/speaker installation. Staff worked to replace plants and make improvements following construction.

The Sustainability Gallery remodel project, funded through a state grant of \$1 million, with an additional \$250,000 from the Springs Preserve Foundation aims to be completed in the first quarter of fiscal year 2021-22. The annual Scholastic Art and Writing competition went virtual in 2020 with 680 art submissions and 724 writing submissions. The art submissions were displayed on the Springs Preserve's website from January through March 2021.

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Springs Preserve staff worked with stakeholders from the Nevada Division of Wildlife and U.S. Fish and Wildlife Service (USFWS) to introduce the endangered Pahrump poolfish and imperiled Relict Leopard frogs into the ponds at the Springs Preserve's Cottonwood Grove. Research conducted earlier this year discovered that the ponds provide a high-quality breeding and recruitment habitat and the Springs Preserve was awarded a \$56,000 grant by the U.S. Fish and Wildlife Service to improve conditions in two additional on-site ponds.

Strategic Plan Objectives and Accomplishments

The Public Services department is committed to help accomplish the goals and objectives outlined in the organization's Strategic Plan. The department works to support these goals through the coordination and administration of support functions.

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

2021-22 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.
- 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.

2020-21 Major Accomplishments

- Assisted in updating the LVVWD Service Rules with conservation initiatives related to development planning and non-functional turf guidelines
- Launched an outreach effort to implement a Large Water Users Policy to include local government planning and development community.
- Launched septic conversion program to improve water quality and resources for individuals on septic systems.
- Worked with the Blue Diamond community to implement a new development moratorium in the town to protect water resources for future users.

Strategic Plan Goal – Deliver an outstanding customer service experience.

2021-22 Performance Objectives

- Assess customer satisfaction, establish benchmarks and determine where improvements are required

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- 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 and industries to identify innovations, best practices and ways to improve the customer experience.

2020-21 Major Accomplishments

- Distributed more than 3.1 million compliance postcards to single-family residences in the Las Vegas Valley.
- Implemented a compliance marketing campaign, resulting in 651,000 seasonal watering reminder emails to subscribers.
- Successfully adapted to state directives related to the COVID-19 pandemic in operating the Springs Preserve safely while in a limited capacity. During its closure and limited openings, Springs Preserve staff retooled operations, moved to cashless payments, initiated timed reservations to increase social distancing, and increased cleaning and sanitizing.
- Supported the execution of virtual special events hosted by the Springs Preserve.

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

2021-22 Performance Objectives

- 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 organizational initiatives and inspire positive change.

2020-21 Major Accomplishments

- Spearheaded the completion of the IRPAC 2020 process, in which the committee examined Southern Nevada's long-term water planning efforts. All committee recommendations were approved by the SNWA Board of Directors.
- Launched the Septic Conversion Program to offer financial assistance to septic system users to abandon their septic tanks and connect to municipal sewer systems.

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- Coordinated the member agency review and development of the Large Water Users Policy.
- Developed and launched a social media campaign highlighting SNWA's research on genetic markers of COVID-19 in wastewater, promoting the organization's major contribution to an international effort to explore these markers as an "early warning" system for the virus' presence in communities.
- Continued support of the Sustainability Cross-Departmental Team to examine internal processes and develop sustainable practices within the organization.
- Introduced the endangered Pahrump poolfish and imperiled Relict Leopard frogs into the ponds at the Springs Preserve, providing a breeding and recruitment habitat, and was awarded a \$56,000 grant by the USFWS to improve additional on-site ponds.

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

2021-22 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.
- 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.

2020-21 Major Accomplishments

- Supported development of an amended SNWA Major Construction and Capital Plan.
- Secured more than \$2 million in federal grant funding and private sponsorships across the organizations to support water systems, cultural events and habitat restoration.

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

2021-22 Performance Objectives

- Identify, prioritize and implement sustainable and cost-effective solutions to organizational challenges.
- Promote a culture that is innovative, 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.

2020-21 Major Accomplishments

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- Launched a redesigned employee intranet that allowed easy mobile access to vital news and employee tools. The new site's streamlined organization improved employee productivity during the COVID-19 pandemic as monthly website visits increased by 32 percent. This website redesign was recognized as Best in Show at the 2020 PRSA Las Vegas Chapter Pinnacle Awards.
- Established relationships with local businesses to help educate and promote water conservation and seasonal watering restrictions.
- Continued participation with community organizations to expand conservation outreach efforts to the non-residential sector; continued coordination with member agencies to amplify the conservation message and reach more than 6.5 million social media and web impressions.

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

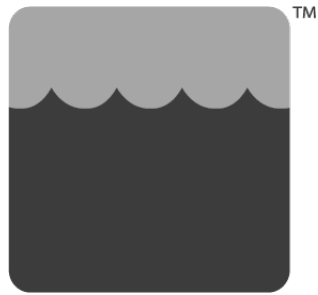
2021-22 Performance Objectives

- 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.

2020-21 Major Accomplishments

- Implemented a weekly video series featuring the general manager, executive team and special guests, designed to help employees feel connected and up to date on the organization's work and status during the COVID-19 pandemic. This initiative won a Pinnacle Award in 2020 from the PRSA Las Vegas Chapter.

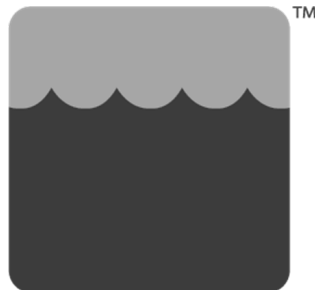
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SECTION 6

CAPITAL PLANS

Capital Budget.....	6-1
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LAS VEGAS VALLEY WATER DISTRICT
FISCAL YEAR 2021-22
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 \$4.0 million in capital equipment during the next fiscal year. Some of the capital projects will become operational by the end of fiscal year 2021-22, 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.

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

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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 debt proceeds 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 \$150 million.

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.

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LVVWD: CAPITAL BUDGET 2021-22

CAPITAL EQUIPMENT

3100 - Customer Care & Field Services

Mars Test Bench	\$ 250,000
Subtotal	\$ 250,000

4300 - Information Technology

Unmanned Aerial Vehicle (UAV) System	\$ 45,000
SAN Fabric Switches	144,000
General Infrastructure Support	156,000
Subtotal	\$ 345,000

4400 - EHS & CS

Slabach Model SLABACH-I-85 Fiberoptic Reel Trailer	\$ 10,000
Snap-On Scan Tool and Adaptors	13,000
Fleet Service Worker Tool Set and Box	17,000
Trailer Mounted Spoil Vac.	30,000
EcoQuip 2 Vapor Abrasive Blast System	35,000
33,000 lb. Extended Cab Utility with Crane and Welder	244,000
1 Lot of 8 Replacement Equipment Pieces	504,500
1 Lot of 24 Replacement Vehicles	2,503,000
Subtotal	\$ 3,356,500

TOTAL CAPITAL EQUIPMENT	\$ 3,951,500
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CAPITAL PROJECTS

3100 - Customer Care & Field Services

Advanced Metering Systems (AMI)	\$ 16,479,816
Subtotal	\$ 16,479,816

3400 - Engineering

Skye Canyon 2860 Zone Pipeline	\$ 693
Francisco Park Pipeline Replacement	1,716
4125 Zone Pumping Station Discharge Pipeline, Phase I	25,000
Pipeline Install in Tropicana Ave between Mojave Rd/Sandhill Rd	34,973
Springs Preserve Gardens Electrical Service Expansion, Phase II	43,730
3665 Zone North Pipeline, Phase III	48,155
4125 Zone Pumping Station Discharge Pipeline, Phase II	63,303
4125 Zone North Reservoir Inlet/Outlet Pipeline	89,128
4125 Zone North Reservoir	100,000
Springs Preserve Origen Loading Dock Safety Upgrades	103,925
Las Vegas Boulevard Improvements Phase I	131,068
Rome Facilities Pipelines	150,000
ROME 2745 Reservoir, 2975 Zone Pumping Station and 2975-2860 Zone PRV	200,000
Living Machine Decommissioning	300,000
4125 Zone Pumping Station	321,482
Miscellaneous Pipeline Replacements, Phase I	338,333
Blue Diamond 3630 Zone Pumping Station	459,250
Egan Crest 3090 Zone North Pipeline Phase III	544,674
Miscellaneous Vaults, Reconstruction and Repair, Phase XXIII	779,934
Valley View Central Campus Chiller Plant	900,000
Shaumber 3205 North Pipeline Phase II and PRV	1,319,977
LVVWD - Miscellaneous Small Backflow Installations, Phase XVI	1,972,287
Pipeline Replacement in Paradise Road Between Twain Avenue and Karen Avenue	3,635,405
Backflow Retrofit Program	4,000,000
Backflow Retrofit Survey and ROW Support	4,960,771
Centennial 3205 Zone North Pipeline, Phase I	4,997,662

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Cougar 3090 Zone Inlet/Outlet Pipeline	7,801,954
Paving Work Order Project	8,400,000
Cougar 3090 Zone Reservoir	9,623,785
Las Vegas Boulevard Improvements, Phase III	18,242,701
Centennial 2635 Zone Reservoir and 2745 Zone Pumping Station	21,518,119
Subtotal	\$ 91,108,025

3700 - Infrastructure Management

Pipeline Participation Projects (Orig Funded Bucket)	10,836
Anasazi Site - Replace Actuators at Anasazi Pumping Station 3090 Zone	80,000
Springs Preserve - Renovation of Three Sets of Restrooms on the Springs Preserve Campus	85,000
LVVWD Miscellaneous Projects	88,946
LVVWD VV Campus Asphalt Repair	100,000
Multi-Site Vault Pipe Coating	100,000
Annual Transformer Replacements	100,000
Main Administration Campus - Design and Install HVAC Unit in Pump Repair Shop	100,000
Multi-Site Large Backflow Installations	100,000
District Service Area - Misc. Vault Repair	100,000
Multi-site - Install Redundant Chlorine Monitors	100,000
District Service Area - Miscellaneous Concrete and Restoration	100,000
Multi-Site Fence Installations	100,000
LVVWD - SCADA - PC/Server Hardware Upgrades	100,000
LVVWD - Network Switch Upgrades	100,000
Valley View Main Warehouse Bathroom	100,000
District Service Area - Cathodic Protection Test Station Installation/Repair	120,000
Broadbent Site - Broadbent Pump Station Crane Upgrade	120,000
Fleet Services Paint Booth Replacement	130,000
Angel Park Site - MCC Replacement	150,000
LVVWD - Gowan Site - MCC Upgrades	150,000
LVVWD Campus Site - LVVWD Coating and Blast Booth Installation	175,000
Carlton Square Site - Carlton Square MOV to Pneumatic Actuator Conversion	180,000
LVVWD Campus Site - NaOCL Main Storage Building Shade Structures	200,000
LVVWD ControlLogix Hardware Upgrades	200,000

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Developer Assisted Service Upgrades	206,636
UV LED Test Installation	225,000
District Service Area - Install 2035 to 1985 Zone PRVs	250,000
Fiber Optic Cable Installation	250,000
LVVWD - Replace PLC Five Remote Racks from Sites	300,000
Cliff Shadows and Hickam 3090 Zone Pipeline	346,286
Rainbow Well Discharge Line Relocation	400,000
Main Administration Campus - Fleet Shade Structure	400,000
Warm Springs Site - Electrical Distribution Equipment Upgrades	400,000
Elkhorn 3205 Zone Pumping Station Generator	500,000
District Service Area - Replace Wells at End of Service Life	800,000
UV Installation at Five Wells	850,000
Valley View Warehouse Fire Suppression System	1,035,000
Blue Diamond Pipeline Replacements	2,225,000
Pipeline Participation Projects (City/County)	6,000,000
Oversizing Project	13,500,000

Subtotal	\$ 30,577,704
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4100 - Operations

Repair or Replace System Valves	\$ 50,000
Motor Control Center, Starters, Transformers, and Other Repairs	50,000
Replace Large Magnetic Flow Meters	50,000
Electric Motors Repair or Replace	60,000
Annual Pump Repair	78,000
Replace Aging/Failed Surveillance and Networking Equipment	500,000
LVVWD Distribution Division Pipeline Rehabilitation, Replacement, and Installation	524,718
Well and Pump Rehabilitation	1,000,000
Service Line Replacement	2,800,000

Subtotal	\$ 5,112,718
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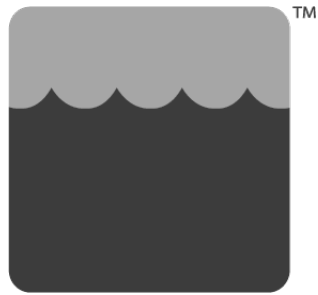
4300 - Information Technology

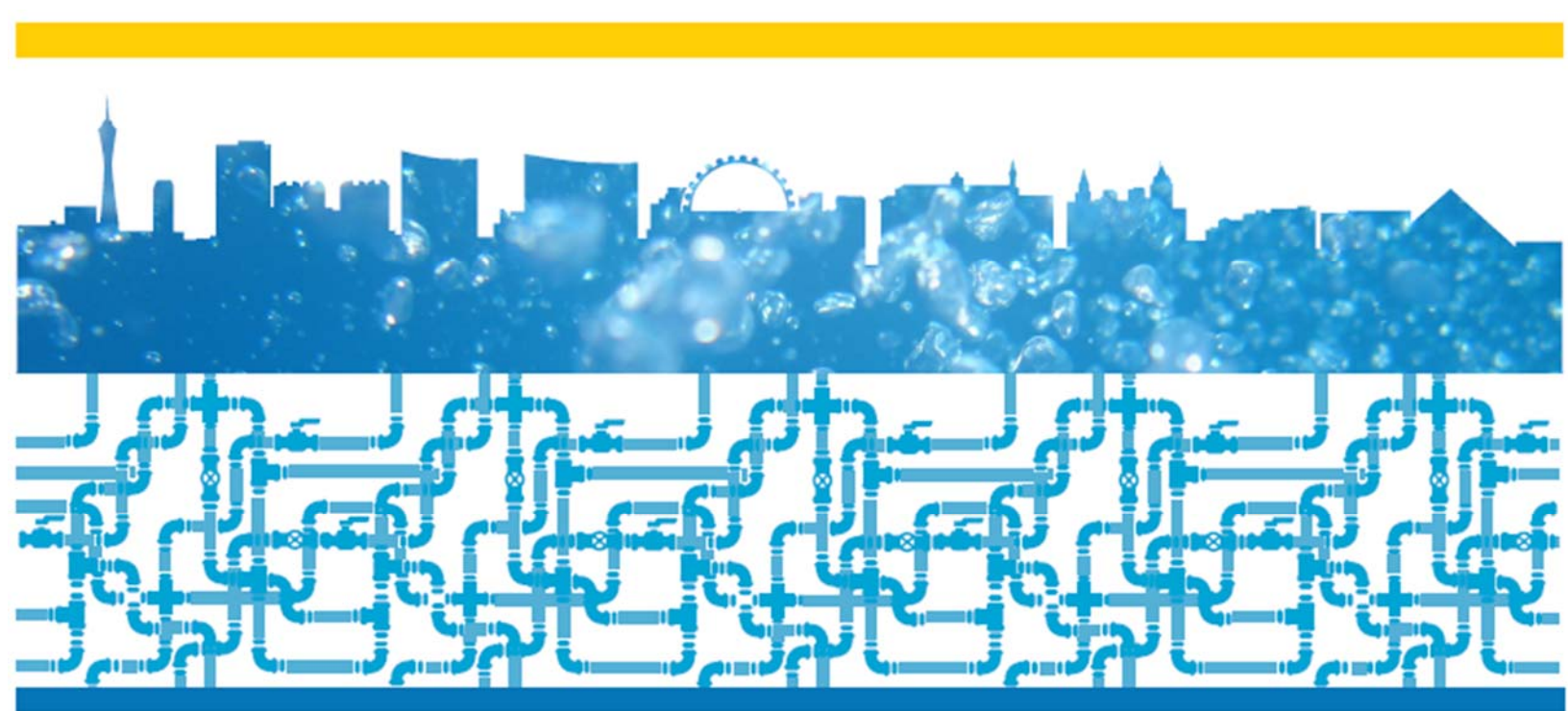
Big Springs Theater Audio/Video Upgrade	\$ 312,000
Oracle Financials + Chart of Accounts	584,796
Advanced Metering Systems (C2M)	840,404
Enterprise Asset Management Software Replacement	3,175,000

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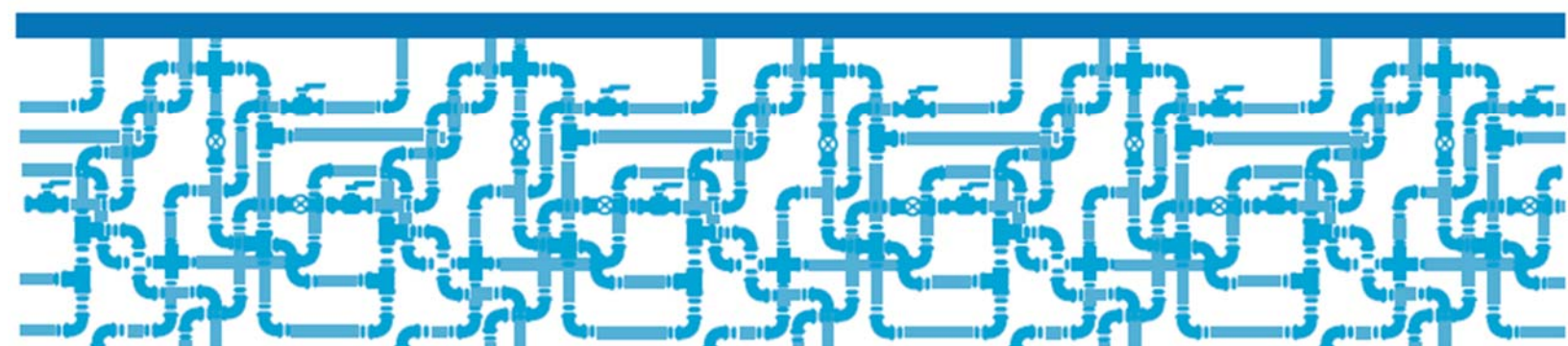
Subtotal	\$ 4,912,200
 <u>7100 - Water Resources</u>	
Land Acquisition for New LVVWD Production Well Sites	\$ 300,000
Subtotal	\$ 300,000
 <u>7200 - Public Services</u>	
Springs Preserve Water Fountain Replacement	\$ 18,503
Guest Services Office and Ticket Window Remodel	50,000
Springs Preserve Door Replacement	55,509
Springs Preserve Gardens Speakers and Low Voltage Wiring Installation	150,000
Springs Preserve Misc. Capital	184,896
Springs Preserve Garden Pathway Paving	229,900
Sustainability Gallery Exhibit Acquisition	800,090
Subtotal	\$ 1,488,898
TOTAL CAPITAL PROJECTS	\$ 149,979,361
TOTAL CAPITAL BUDGET	\$ 153,930,861

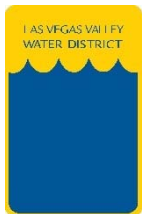
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LAS VEGAS VALLEY WATER DISTRICT
CAPITAL IMPROVEMENTS PLAN
2017





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.

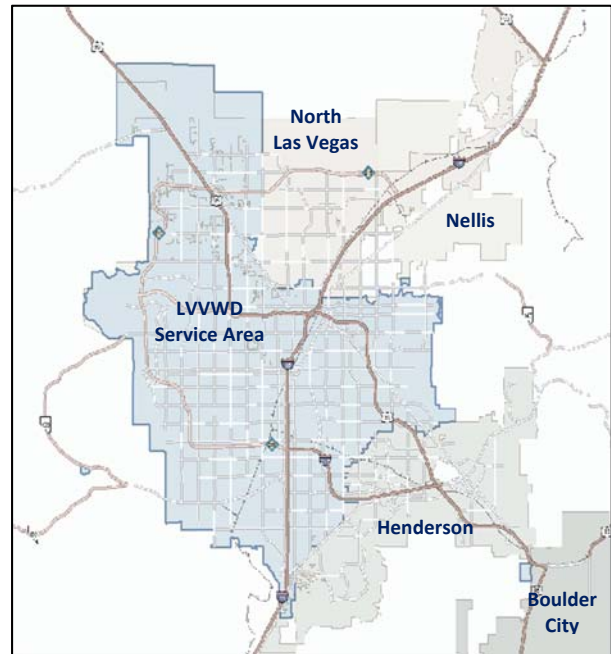


Image: LVVWD Service Area

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.

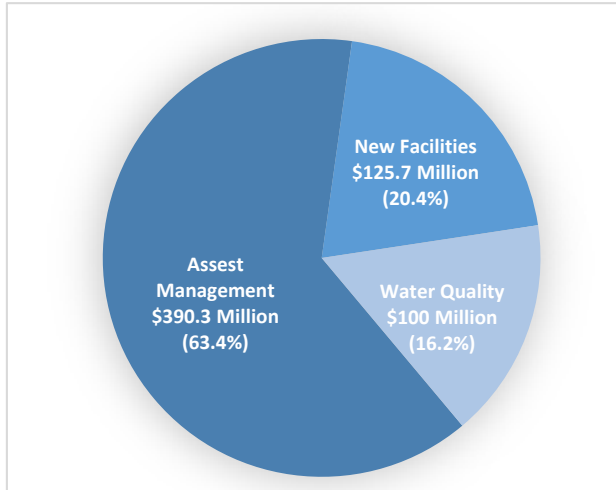


Figure 1.2: Cost Distribution by Improvement Type

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.

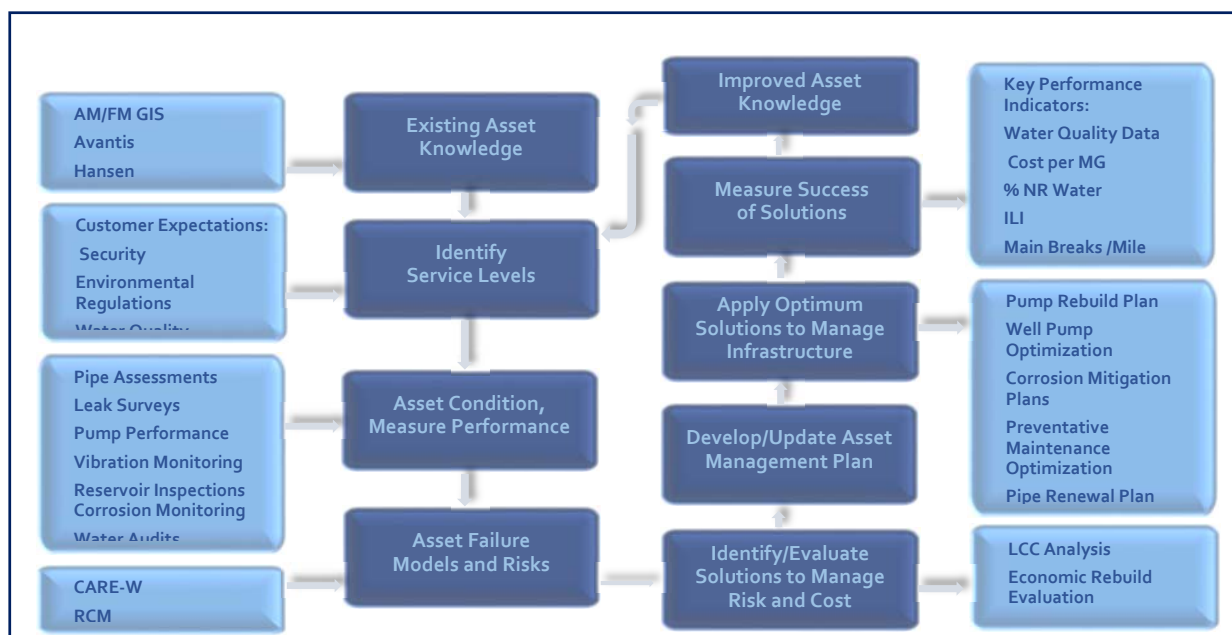


Figure 1.3: LVVWD Asset Management Life Cycle

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:

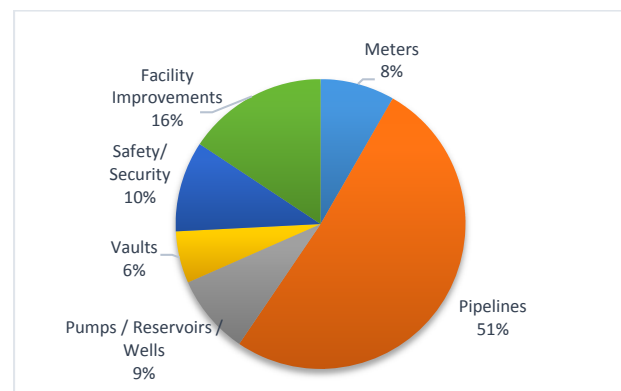
- Extend infrastructure life and prevent failures through timely maintenance and repairs
- Protect system assets through continual condition assessments
- Assess and prioritize projects to ensure critical system operations remain functional
- Minimize financial impacts through orderly, phased implementation
- 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.

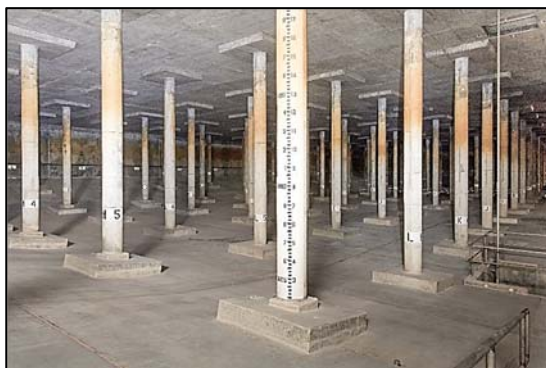


Image: Alta Reservoir

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. 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



Image: Valve/Vault Repair

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

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 window.

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%
TOTAL	\$390.3 million	

CAPITAL IMPROVEMENT PLAN

WATER QUALITY

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.

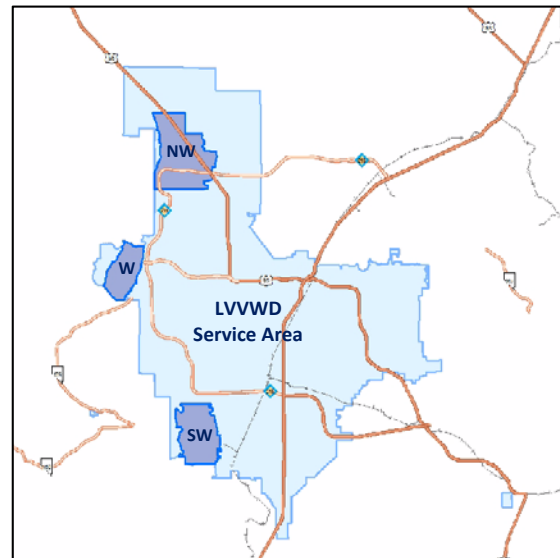


Figure 1.7: Customers to be served by new facilities

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

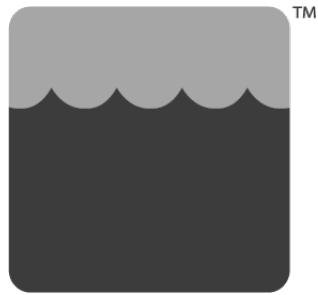
their furthestmost service connection. In the event of a service interruption, current reservoir storage is inadequate to support customers for extended periods of time. New facilities are needed to address the strain on existing infrastructure and reduce residents' vulnerability to service interruptions 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
Northwest Facilities	
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>
Summerlin Facilities	
10 MG Reservoir & Inlet/Outlet Pipeline	\$22.5 million
Pumping Station	7.6 million
<i>Subtotal</i>	<i>\$30.1 million</i>
Southwest Facilities	
10 MG Reservoir	\$20.8 million
Pumping Station	12.3 million
Pressure Reducing Valves	700,000
<i>Subtotal</i>	<i>\$33.8 million</i>
TOTAL	\$125.7 million

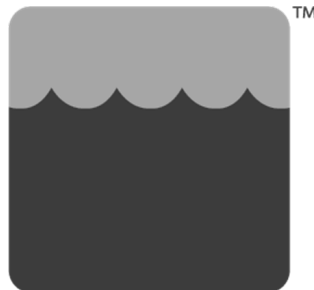
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SECTION 7

DEBT MANAGEMENT POLICY

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LAS VEGAS VALLEY WATER DISTRICT
FISCAL YEAR 2021-22
OPERATING AND CAPITAL BUDGET

Debt Management Policy

In Accordance With
NRS 350.013



**LAS VEGAS VALLEY
WATER DISTRICT™**

June 30, 2021

Las Vegas Valley Water District
Operating and Capital Budget
Debt Management Policy
Fiscal Year Ending June 30, 2022

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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/62-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 "Aa1".

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 (CIP) 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.

Las Vegas Valley Water District
Operating and Capital Budget
Debt Management Policy
Fiscal Year Ending June 30, 2022

This document is not intended to review the LVVWD's total financial position. In addition to being required by state law, this analysis 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:

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(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.

(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

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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.

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

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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. The LVVWD plans to issue \$75.7 million of new money debt in fiscal year 2021-22. This debt issuance is intended to primarily fund the LVVWD's CIP. In addition, the bond market is constantly monitored for savings opportunities via refunding or restructuring existing debt issues.

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, 2021.

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

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EXISTING GENERAL OBLIGATION INDEBTEDNESS
SUPPORTED BY WATER SYSTEM PLEDGED REVENUES
Las Vegas Valley Water District, Nevada
As of June 30, 2021

Description	Issued	Original Amount	Outstanding
LVVWD 2008 Clean Energy	Jul-08	\$ 2,520,000	\$ 336,000
LVVWD 2010A BABS	Jun-10	75,995,000	75,995,000
LVVWD 2012A	Sep-12	39,310,000	39,310,000
LVVWD 2014 SRF Loan #1	Dec-14	19,929,329	16,496,531
LVVWD 2015A	Jun-15	172,430,000	94,835,000
LVVWD 2016B	Apr-16	108,220,000	90,280,000
LVVWD 2016 SRF Loan #2	Sep-16	15,000,000	13,830,034
LVVWD 2017 SRF Loan #3	May-17	15,000,000	13,919,301
LVVWD 2017A	Mar-17	130,105,000	117,040,000
LVVWD 2018A	Jun-18	100,000,000	94,695,000
LVVWD 2020B	Mar-20	22,240,000	21,425,000
LVVWD 2020D	Mar-20	98,080,000	94,415,000
LVVWD 2020C	Jul-20	100,000,000	98,395,000
LVVWD 2021B	Mar-21	32,795,000	32,795,000
			<u>\$ 803,766,867</u>

SOURCE: Las Vegas Valley Water District

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.

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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 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, 2021.

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EXISTING GENERAL OBLIGATION INDEBTEDNESS
SUPPORTED BY SNWA PLEDGED REVENUES
Las Vegas Valley Water District, Nevada
As of June 30, 2021

Description	Issued	Original Amount	Outstanding
SNWA 2012B	Jul-12	360,000,000	308,025,000
SNWA 2015 Refunding Bonds	Jan-15	332,405,000	332,405,000
SNWA 2015B	Jun-15	177,635,000	119,060,000
SNWA 2015C	Jun-15	42,125,000	27,855,000
SNWA 2016A	Apr-16	497,785,000	441,675,000
SNWA 2017B Refunding Bonds	Mar-17	22,115,000	18,815,000
SNWA 2018B Refunding Bonds	Mar-18	79,085,000	53,065,000
SNWA 2019A Refunding Bonds	Mar-19	107,975,000	103,025,000
SNWA 2019B Refunding Bonds	Oct-19	90,280,000	90,280,000
SNWA 2020A Refunding Bonds	Mar-20	123,860,000	117,505,000
SNWA 2021A Refunding Bonds	Mar-21	144,685,000	144,685,000
SNWA 2021C Refunding Bonds	Mar-21	208,145,000	208,145,000
			\$ 1,964,540,000

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):

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(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:

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- 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.
- 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 the LVVWD's objectives, qualifications of the banking and underwriting team to be assigned to the 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 the LVVWD. Such a selection can be for a single transaction or multiple transactions, but

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the syndicate will be reviewed, and a new RFP will be issued at intervals not greater than every five years.

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 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

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conditions exist:

- 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).

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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).

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.

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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

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Appendix

Debt Service and Pledged Revenue Tables

1. Five Year Schedule of Existing and Proposed Debt Service Requirements
2. Combined Schedules of Existing Debt Service Requirements
3. Net Pledged Revenues
4. Existing and Proposed Debt Service
5. Existing Debt Service by Company

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Five Year Schedule of Existing and Proposed Debt Service Requirements
As of June 30, 2021

Type of Debt	Fiscal Year				
	2022	2023	2024	2025	2026
G/O Revenue/LVVWD ¹	\$ 79,453,301	\$ 79,487,257	\$ 79,357,415	\$ 79,389,665	\$ 79,426,415
G/O Revenue/SNWA ²	195,695,600	195,969,975	195,974,400	186,472,775	186,380,150
Total	<u>\$ 275,148,901</u>	<u>\$ 275,457,232</u>	<u>\$ 275,331,815</u>	<u>\$ 265,862,440</u>	<u>\$ 265,806,565</u>

¹ This is debt service on \$879,514,019 existing and proposed outstanding principal balance of LVVWD debt secured by LVVWD water system revenues.

² This is debt service on \$1,964,540,000 outstanding principal balance of LVVWD debt secured by SNWA pledged revenues in accordance with interlocal agreements.

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Combined Schedule of Existing Debt Service Requirements
As of June 30, 2021

Fiscal Year	Principal	Interest	Total
2022	\$ 142,189,402	\$ 128,790,822	\$ 270,980,224
2023	149,427,606	121,860,948	271,288,555
2024	156,579,288	114,583,849	271,163,138
2025	154,890,371	106,803,391	261,693,763
2026	162,672,889	98,964,999	261,637,888
2027	152,166,875	90,902,088	243,068,963
2028	116,067,365	83,787,723	199,855,088
2029	108,479,394	78,399,313	186,878,708
2030	112,803,001	73,120,529	185,923,530
2031	107,628,222	67,618,411	175,246,633
2032	129,175,096	62,544,641	191,719,738
2033	138,043,663	56,930,754	194,974,418
2034	143,893,964	51,077,151	194,971,115
2035	116,049,072	45,404,208	161,453,280
2036	120,397,852	40,322,960	160,720,812
2037	108,407,806	35,009,172	143,416,978
2038	136,250,000	30,082,806	166,332,806
2039	166,520,000	23,724,168	190,244,168
2040	67,285,000	15,545,638	82,830,638
2041	52,240,000	12,273,863	64,513,863
2042	54,635,000	9,882,213	64,517,213
2043	33,535,000	7,372,863	40,907,863
2044	35,045,000	5,857,213	40,902,213
2045	36,645,000	4,265,100	40,910,100
2046	38,310,000	2,597,500	40,907,500
2047	9,665,000	851,213	10,516,213
2048	9,975,000	541,788	10,516,788
2049	4,615,000	221,713	4,836,713
2050	4,715,000	117,875	4,832,875
Totals	<u>\$ 2,768,306,867</u>	<u>\$ 1,369,454,910</u>	<u>\$ 4,137,761,776</u>

Secured by:

LVVWD Water

Revenues	\$ 803,766,867	\$ 340,188,197	\$ 1,143,955,064
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SNWA Pledged

Revenues	\$ 1,964,540,000	\$ 1,029,266,713	\$ 2,993,806,713
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Las Vegas Valley Water District
Operating and Capital Budget
Debt Management Policy
Fiscal Year Ending June 30, 2022

Net Pledged Revenues
For the Fiscal Years Ended June 30

	2018 Actual	2019 Actual	2020 Actual	2021 Budget	2022 Budget
Revenues					
Total Operating Revenues	\$ 372,308,125	\$ 374,645,905	\$ 373,666,584	\$ 386,215,344	\$ 430,887,140
Facilities Connection Charges	16,171,119	18,185,794	17,628,602	4,293,310	8,273,458
Investment Earnings	2,256,083	17,227,950	20,110,119	6,034,677	5,407,983
Total Revenues	390,735,327	410,059,649	411,405,305	396,543,331	444,568,581
Operating Expenses	255,815,010	240,742,943	277,418,386	330,154,360	318,247,669
Net Revenues	134,920,317	169,316,706	133,986,919	66,388,971	126,320,913
Parity Lien Obligations and Subordinate Lien Obligations Debt Service ¹	\$ 61,471,883	\$ 68,315,975	\$ 67,560,760	\$ 76,347,958	\$ 79,453,301
Parity Lien Obligations and Subordinate Lien Obligations Debt Service Coverage	2.19	2.48	1.98	0.87	1.59
Net Revenues	\$ 134,920,317	\$ 169,316,706	\$ 133,986,919	\$ 66,388,971	\$ 126,320,913
Add Beginning Unrestricted Fund Balances	276,864,411	350,525,644	422,188,172	421,634,825	443,302,786
Amounts Available for Debt Service	411,784,728	519,842,350	556,175,091	488,023,796	569,623,699
Parity Lien Obligations and Subordinate Lien Obligations Debt Service ¹	\$ 61,471,883	\$ 68,315,975	\$ 67,560,760	\$ 76,347,958	\$ 79,453,301
Parity Lien Obligations and Subordinate Lien Obligations Debt Service Coverage	6.70	7.61	8.23	6.39	7.17

¹ 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, 2022**

Existing and Proposed Debt Service

As of June 30, 2021

Existing Debt ¹				Proposed Debt \$75.7 Million New Money Debt ²			
Fiscal Year	Principal	Interest	Total	Fiscal Year	Principal	Interest	Total
2022	\$ 40,784,402	\$ 34,500,222	\$ 75,284,624	2022	\$ 1,444,052	\$ 2,724,625	\$ 4,168,677
2023	42,782,606	32,535,973	75,318,580	2023	1,495,995	2,672,683	4,168,677
2024	44,714,288	30,474,449	75,188,738	2024	1,549,806	2,618,872	4,168,677
2025	46,910,371	28,310,616	75,220,988	2025	1,605,552	2,563,125	4,168,677
2026	49,147,889	26,109,849	75,257,738	2026	1,663,304	2,505,373	4,168,677
2027	42,441,875	23,727,613	66,169,488	2027	1,723,133	2,445,544	4,168,677
2028	37,017,365	21,682,373	58,699,738	2028	1,785,114	2,383,563	4,168,677
2029	38,789,394	19,919,463	58,708,858	2029	1,849,325	2,319,353	4,168,677
2030	40,628,001	18,069,817	58,697,818	2030	1,915,845	2,252,832	4,168,677
2031	42,578,222	16,130,186	58,708,408	2031	1,984,758	2,183,920	4,168,677
2032	44,505,096	14,194,541	58,699,638	2032	2,056,150	2,112,528	4,168,677
2033	37,358,663	12,269,704	49,628,368	2033	2,130,109	2,038,568	4,168,677
2034	38,753,964	10,877,701	49,631,665	2034	2,206,729	1,961,948	4,168,677
2035	39,394,072	9,512,308	48,906,380	2035	2,286,105	1,882,572	4,168,677
2036	40,062,852	8,110,210	48,173,062	2036	2,368,337	1,800,341	4,168,677
2037	24,217,806	6,654,172	30,871,978	2037	2,453,526	1,715,152	4,168,677
2038	23,530,000	5,772,556	29,302,556	2038	2,541,779	1,626,898	4,168,677
2039	23,960,000	4,871,718	28,831,718	2039	2,633,207	1,535,471	4,168,677
2040	25,125,000	3,709,288	28,834,288	2040	2,727,923	1,440,754	4,168,677
2041	8,035,000	2,485,863	10,520,863	2041	2,826,047	1,342,631	4,168,677
2042	8,280,000	2,242,063	10,522,063	2042	2,927,699	1,240,978	4,168,677
2043	8,535,000	1,985,113	10,520,113	2043	3,033,009	1,135,669	4,168,677
2044	8,795,000	1,719,463	10,514,463	2044	3,142,106	1,026,571	4,168,677
2045	9,080,000	1,439,850	10,519,850	2045	3,255,128	913,550	4,168,677
2046	9,370,000	1,150,500	10,520,500	2046	3,372,215	796,463	4,168,677
2047	9,665,000	851,213	10,516,213	2047	3,493,513	675,164	4,168,677
2048	9,975,000	541,788	10,516,788	2048	3,619,175	549,502	4,168,677
2049	4,615,000	221,713	4,836,713	2049	3,749,357	419,321	4,168,677
2050	4,715,000	117,875	4,832,875	2050	3,884,221	284,456	4,168,677
2051	-	-	-	2051	4,023,936	144,741	4,168,677
Totals	\$ 803,766,867	\$ 340,188,197	\$ 1,143,955,064	Totals	\$ 75,747,152	\$ 49,313,167	\$ 125,060,319

Existing & Proposed Combined			
Fiscal Year	Principal	Interest	Total
2022	\$ 42,228,454	\$ 37,224,847	\$ 79,453,301
2023	44,278,601	35,208,656	79,487,257
2024	46,264,094	33,093,321	79,357,415
2025	48,515,923	30,873,741	79,389,665
2026	50,811,192	28,615,222	79,426,415
2027	44,165,008	26,173,157	70,338,165
2028	38,802,479	24,065,936	62,868,415
2029	40,638,719	22,238,816	62,877,535
2030	42,543,846	20,322,649	62,866,495
2031	44,562,980	18,314,105	62,877,085
2032	46,561,246	16,307,069	62,868,315
2033	39,488,773	14,308,272	53,797,045
2034	40,960,693	12,839,649	53,800,342
2035	41,680,177	11,394,880	53,075,057
2036	42,431,189	9,910,550	52,341,739
2037	26,671,332	8,369,324	35,040,656
2038	26,071,779	7,399,455	33,471,234
2039	26,593,207	6,407,188	33,000,395
2040	27,852,923	5,150,042	33,002,965
2041	10,861,047	3,828,493	14,689,540
2042	11,207,699	3,483,040	14,690,740
2043	11,568,009	3,120,781	14,688,790
2044	11,937,106	2,746,034	14,683,140
2045	12,335,128	2,353,400	14,688,527
2046	12,742,215	1,946,963	14,689,177
2047	13,158,513	1,526,377	14,684,890
2048	13,594,175	1,091,290	14,685,465
2049	8,364,357	641,033	9,005,390
2050	8,599,221	402,331	9,001,552
2051	4,023,936	144,741	4,168,677
Totals	\$ 879,514,019	\$ 389,501,364	\$ 1,269,015,383

¹ Excludes debt issued on behalf of SNWA

² Planned \$75.7 million debt issuance in fiscal year 2021-22

**Las Vegas Valley Water District
Operating and Capital Budget
Debt Management Policy
Fiscal Year Ending June 30, 2022**

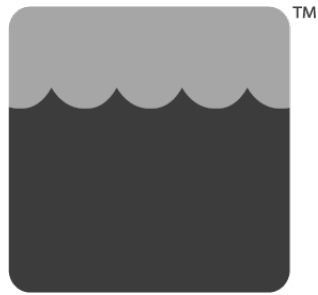
Existing Debt Service by Company

As of June 30, 2021

Supported by LVVWD Pledged Revenues				Supported by SNWA Pledged Revenues			
Fiscal Year	Principal	Interest	Total	Fiscal Year	Principal	Interest	Total
2022	\$ 40,784,402	\$ 34,500,222	\$ 75,284,624	2022	\$ 101,405,000	\$ 94,290,600	\$ 195,695,600
2023	42,782,606	32,535,973	75,318,580	2023	106,645,000	89,324,975	195,969,975
2024	44,714,288	30,474,449	75,188,738	2024	111,865,000	84,109,400	195,974,400
2025	46,910,371	28,310,616	75,220,988	2025	107,980,000	78,492,775	186,472,775
2026	49,147,889	26,109,849	75,257,738	2026	113,525,000	72,855,150	186,380,150
2027	42,441,875	23,727,613	66,169,488	2027	109,725,000	67,174,475	176,899,475
2028	37,017,365	21,682,373	58,699,738	2028	79,050,000	62,105,350	141,155,350
2029	38,789,394	19,919,463	58,708,858	2029	69,690,000	58,479,850	128,169,850
2030	40,628,001	18,069,817	58,697,818	2030	72,175,000	55,050,713	127,225,713
2031	42,578,222	16,130,186	58,708,408	2031	65,050,000	51,488,225	116,538,225
2032	44,505,096	14,194,541	58,699,638	2032	84,670,000	48,350,100	133,020,100
2033	37,358,663	12,269,704	49,628,368	2033	100,685,000	44,661,050	145,346,050
2034	38,753,964	10,877,701	49,631,665	2034	105,140,000	40,199,450	145,339,450
2035	39,394,072	9,512,308	48,906,380	2035	76,655,000	35,891,900	112,546,900
2036	40,062,852	8,110,210	48,173,062	2036	80,335,000	32,212,750	112,547,750
2037	24,217,806	6,654,172	30,871,978	2037	84,190,000	28,355,000	112,545,000
2038	23,530,000	5,772,556	29,302,556	2038	112,720,000	24,310,250	137,030,250
2039	23,960,000	4,871,718	28,831,718	2039	142,560,000	18,852,450	161,412,450
2040	25,125,000	3,709,288	28,834,288	2040	42,160,000	11,836,350	53,996,350
2041	8,035,000	2,485,863	10,520,863	2041	44,205,000	9,788,000	53,993,000
2042	8,280,000	2,242,063	10,522,063	2042	46,355,000	7,640,150	53,995,150
2043	8,535,000	1,985,113	10,520,113	2043	25,000,000	5,387,750	30,387,750
2044	8,795,000	1,719,463	10,514,463	2044	26,250,000	4,137,750	30,387,750
2045	9,080,000	1,439,850	10,519,850	2045	27,565,000	2,825,250	30,390,250
2046	9,370,000	1,150,500	10,520,500	2046	28,940,000	1,447,000	30,387,000
2047	9,665,000	851,213	10,516,213	2047	-	-	-
2048	9,975,000	541,788	10,516,788	2048	-	-	-
2049	4,615,000	221,713	4,836,713	2049	-	-	-
2050	4,715,000	117,875	4,832,875	2050	-	-	-
Totals	\$ 803,766,867	\$ 340,188,197	\$ 1,143,955,064	Totals	\$ 1,964,540,000	\$ 1,029,266,713	\$ 2,993,806,713

LVVWD & SNWA Combined Debt Service			
Fiscal Year	Principal	Interest	Total
2022	\$ 142,189,402	\$ 128,790,822	\$ 270,980,224
2023	149,427,606	121,860,948	271,288,555
2024	156,579,288	114,583,849	271,163,138
2025	154,890,371	106,803,391	261,693,763
2026	162,672,889	98,964,999	261,637,888
2027	152,166,875	90,902,088	243,068,963
2028	116,067,365	83,787,723	199,855,088
2029	108,479,394	78,399,313	186,878,708
2030	112,803,001	73,120,529	185,923,530
2031	107,628,222	67,618,411	175,246,633
2032	129,175,096	62,544,641	191,719,738
2033	138,043,663	56,930,754	194,974,418
2034	143,893,964	51,077,151	194,971,115
2035	116,049,072	45,404,208	161,453,280
2036	120,397,852	40,322,960	160,720,812
2037	108,407,806	35,009,172	143,416,978
2038	136,250,000	30,082,806	166,332,806
2039	166,520,000	23,724,168	190,244,168
2040	67,285,000	15,545,638	82,830,638
2041	52,240,000	12,273,863	64,513,863
2042	54,635,000	9,882,213	64,517,213
2043	33,535,000	7,372,863	40,907,863
2044	35,045,000	5,857,213	40,902,213
2045	36,645,000	4,265,100	40,910,100
2046	38,310,000	2,597,500	40,907,500
2047	9,665,000	851,213	10,516,213
2048	9,975,000	541,788	10,516,788
2049	4,615,000	221,713	4,836,713
2050	4,715,000	117,875	4,832,875
Totals	\$ 2,768,306,867	\$ 1,369,454,910	\$ 4,137,761,776

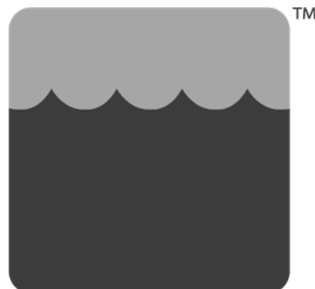
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SECTION 8

STATISTICAL INFORMATION

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LAS VEGAS VALLEY WATER DISTRICT
FISCAL YEAR 2021-22
OPERATING AND CAPITAL BUDGET

Las Vegas Valley Water District
Operating and Capital Budget
Statistical Information
Fiscal Year Ending June 30, 2022

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Las Vegas Valley Water District
Operating and Capital Budget
Statistical Information
Fiscal Year Ending June 30, 2022

Demographic Statistics
Clark County, Nevada
Five Calendar Years

Calendar Year	Clark County Population ⁽¹⁾	Per Capita Income ⁽²⁾	Clark County Personal Income (In Million \$) ⁽²⁾	Median Household Income ⁽³⁾
2020	2,376,683	N/A	N/A	N/A
2019	2,325,798	48,806	110,628	62,107
2018	2,284,616	47,759	106,317	57,076
2017	2,248,390	45,798	99,915	57,189
2016	2,205,210	43,950	94,001	54,384

Calendar Year	LVVWD Service Area Population	School Enrollment ⁽⁴⁾	Total Labor Force ⁽⁵⁾	Unemployment Rate ⁽⁶⁾
2020	1,583,746	318,226	N/A	N/A
2019	1,551,304	320,703	1,131,551	4.0%
2018	1,527,068	322,436	1,101,978	4.7%
2017	1,502,604	322,122	1,072,743	5.2%
2016	1,475,458	320,339	1,048,544	5.8%

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, Count Day Enrollment History.

(5) Bureau of Labor Statistics (Local Area Unemployment Statistics).

(6) Bureau of Labor Statistics (annual averages).

Las Vegas Valley Water District
Operating and Capital Budget
Statistical Information
Fiscal Year Ending June 30, 2022

Top Ten Employers⁽¹⁾
Clark County, Nevada
Calendar Year 2020

Employer Trade name	Employees ⁽²⁾	Ranking
US Air Force Base	10,000 or More	1
Las Vegas Metropolitan Police	5,000 to 9,999	2
Flamingo Las Vegas Hotel-Casino	5,000 to 9,999	3
MGM Grand	5,000 to 9,999	4
Orleans Hotel & Casino	5,000 to 9,999	5
Las Vegas Sands Corp	5,000 to 9,999	6
Mandalay Bay	5,000 to 9,999	7
Caesars Palace Las Vegas Hotel	5,000 to 9,999	8
Aquarius Casino Resort	5,000 to 9,999	9
Planet Hollywood	5,000 to 9,999	10

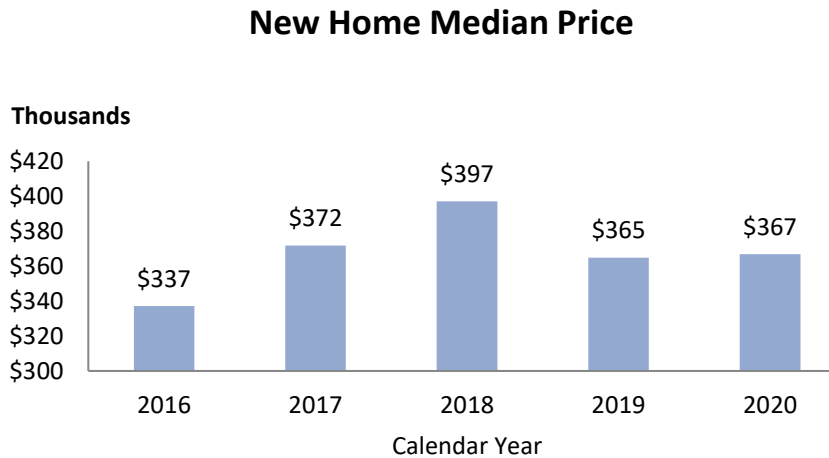
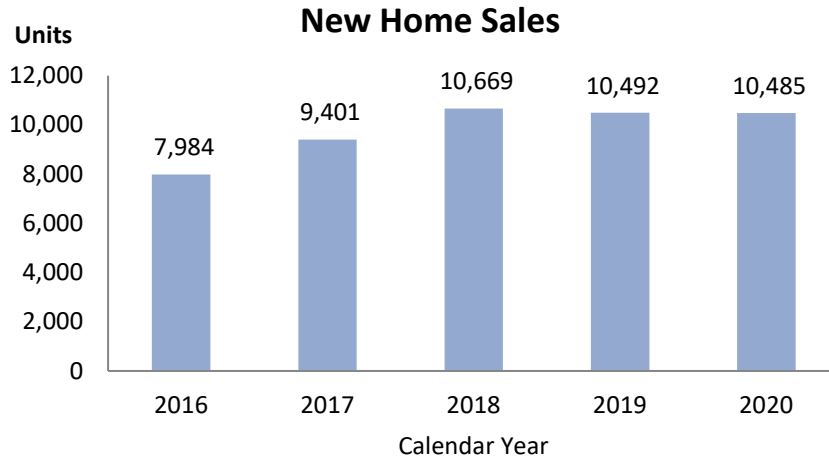
Total Labor Force	1,131,551
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Sources:

(1) Nevada Department of Employment, Training & Rehabilitation (DETR). The data is as of 1st release of 2021 (as of March 15, 2021). 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, 2022

Secured Tax Roll
Clark County, Nevada
2020 - 21

<u>Taxpayer</u>	<u>Taxable Assessed</u>	<u>Taxable Appraised</u>
1. MGM Resorts International	\$ 3,341,076,734	\$ 9,545,933,525
2. Caesar's Entertainment Corp.	1,871,780,926	5,347,945,504
3. NV Energy	1,797,492,697	5,135,693,420
4. Las Vegas Sands Corporation	1,122,130,007	3,206,085,734
5. Wynn Resorts Limited	894,979,174	2,557,083,353
6. The Blackstone Group	886,545,352	2,532,986,719
7. Station Casinos LLC	868,278,915	2,480,796,901
8. Howard Hughes Corporation	519,706,857	1,484,876,733
9. Ruffin Companies	461,330,605	1,318,087,444
10. Boyd Gaming Corporation	456,065,295	1,303,043,699
	<u>\$ 12,219,386,562</u>	<u>\$ 34,912,533,032</u>

Source: Clark County Assessor's Report Dated October 31, 2020

Las Vegas Valley Water District
Operating and Capital Budget
Statistical Information
Fiscal Year Ending June 30, 2022

Temperature and Rainfall

Average Maximum and Minimum Daily Temperature
in Degrees Fahrenheit and Monthly Rainfall in Inches

Month	2015			2016			2017		
	Temperature			Temperature			Temperature		
	Max.	Min.	Rainfall	Max.	Min.	Rainfall	Max.	Min.	Rainfall
January	62	44	0.9	57	40	0.5	57	42	0.9
February	71	49	0.5	70	46	0.1	65	49	0.6
March	78	56	0.3	75	53	0.0	77	54	0.0
April	80	58	0.3	79	58	2.3	81	59	0.0
May	85	64	0.2	86	65	0.0	89	66	0.1
June	104	80	0.0	105	81	0.5	105	79	0.0
July	101	80	0.2	107	84	0.2	107	85	0.1
August	104	82	0.7	102	80	0.2	103	81	0.2
September	98	76	0.0	93	71	0.0	92	72	0.5
October	84	65	1.2	84	64	0.2	84	60	0.0
November	64	45	0.2	71	51	0.0	73	53	0.0
December	56	38	0.0	57	40	0.8	63	42	0.0
Average Annual Temperature/ Total Rainfall	82.2	61.3	4.5	82.1	61.0	4.8	82.9	61.7	2.4

Month	2018			2019			2020		
	Temperature			Temperature			Temperature		
	Max.	Min.	Rainfall	Max.	Min.	Rainfall	Max.	Min.	Rainfall
January	64	44	1.5	59	42	1.0	60	41	0.0
February	64	44	0.0	56	39	2.1	64	44	0.3
March	70	50	0.3	70	51	0.4	67	50	1.6
April	84	61	0.0	82	60	0.4	80	59	0.4
May	90	68	0.2	82	61	0.8	92	69	0.0
June	103	79	0.0	99	77	0.0	99	75	0.0
July	107	85	0.8	105	83	0.0	107	83	0.0
August	105	84	0.1	107	82	0.0	107	84	0.0
September	100	77	0.0	95	73	0.2	99	74	0.0
October	79	61	0.1	78	55	0.0	88	62	0.0
November	68	48	0.2	69	48	1.1	69	48	0.0
December	59	42	0.2	57	42	0.9	59	38	0.0
Average Annual Temperature/ Total Rainfall	82.6	61.7	3.4	79.7	59.3	6.9	82.5	60.5	2.4

Las Vegas Valley Water District
Operating and Capital Budget
Statistical Information
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**Average Monthly Consumption Per Active Service
Thousands of Gallons**

Month	2016	2017	2018	2019	2020	Average
January	14.8	13.6	15.1	14.1	12.8	14.1
February	13.5	12.3	13.3	13.2	14.8	13.4
March	19.3	17.1	17.6	14.6	16.3	17.0
April	22.2	22.7	20.3	20.2	15.9	20.3
May	21.7	25.6	26.0	24.0	21.8	23.8
June	30.7	33.0	31.0	26.6	31.0	30.5
July	33.6	34.0	32.7	31.5	30.6	32.5
August	33.1	34.7	32.3	32.9	32.8	33.1
September	29.7	29.6	30.2	29.4	30.0	29.8
October	25.5	24.1	25.9	23.1	23.5	24.4
November	17.3	19.5	18.4	18.5	18.3	18.4
December	14.5	15.3	15.3	12.6	13.2	14.2
Total for Year	275.9	281.5	278.1	260.7	261.0	271.4
Average Month	23.0	23.5	23.2	21.7	21.8	22.6
Maximum Month	33.6	34.7	32.7	32.9	32.8	33.1
Minimum Month	13.5	12.3	13.3	12.6	12.8	13.4

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Average Annual Water Billed Per Active Service By Class of Service
Thousands of Gallons

Class of Service	2016	2017	2018	2019	2020
Residential - single service	131	133	133	126	124
Residential - duplex/tri&fourplex	240	248	242	233	234
Apts. Condos, & townhomes	3,587	3,747	3,837	3,819	3,773
Residential, other	3,990	5,144	5,184	5,292	5,382
Hotels	40,893	40,962	40,558	37,998	30,860
Motels	4,797	4,780	4,781	4,680	4,261
Community facilities	1,922	2,144	2,105	1,988	1,964
Schools	2,510	2,627	2,532	2,442	2,235
Fireline	119	97	100	100	109
Irrigation	2,117	2,245	2,133	1,995	2,061
Commercial/business	1,021	1,048	1,056	1,059	980
Recreational	2,983	3,190	3,187	3,059	2,922
Industrial	1,033	1,077	1,114	1,106	1,011
Construction water	310	294	395	414	350
Other	1,723	1,900	1,368	2,012	3,418
TOTAL ALL CLASSES	67,375	69,636	68,725	66,321	59,685

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Percent of Total Water Billed by Class of Service

Class of Service	2015	2016	2017	2018	2019	2020
Residential - Single Service	44.1%	43.5%	43.3%	43.6%	43.1%	43.7%
Residential - Duplex/Triplex/Fourp	0.7%	0.7%	0.6%	0.6%	0.6%	0.6%
Apts. Condos, & Townhomes	14.8%	15.0%	15.1%	15.4%	15.9%	16.0%
Residential, Other	1.7%	1.0%	1.0%	1.0%	1.0%	1.1%
Subtotal (Residential)	61.3%	60.2%	60.0%	60.7%	60.6%	61.4%
Hotels	9.1%	9.4%	9.0%	9.0%	9.0%	7.6%
Motels	1.2%	1.2%	1.1%	1.1%	1.1%	1.0%
Community Facilities	1.9%	1.9%	2.1%	2.0%	2.0%	2.0%
Schools	1.6%	1.6%	1.7%	1.6%	1.6%	1.6%
Fireline	0.5%	0.6%	0.5%	0.5%	0.5%	0.6%
Irrigation	13.3%	13.4%	14.0%	13.4%	13.2%	14.1%
Commercial/Business	8.1%	8.3%	8.2%	8.3%	8.6%	8.2%
Recreational	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Industrial	1.2%	1.3%	1.3%	1.3%	1.3%	1.2%
Construction Water	1.0%	1.4%	1.5%	1.4%	1.3%	1.3%
Other	0.5%	0.6%	0.6%	0.6%	0.5%	0.8%
Subtotal (Non-Residential)	38.7%	39.8%	40.0%	39.3%	39.4%	38.6%
TOTAL	100%	100%	100%	100%	100%	100%

Las Vegas Valley Water District
Operating and Capital Budget
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Average Consumption and Monthly Revenue from Water Sales
Per Active Account (kgal)

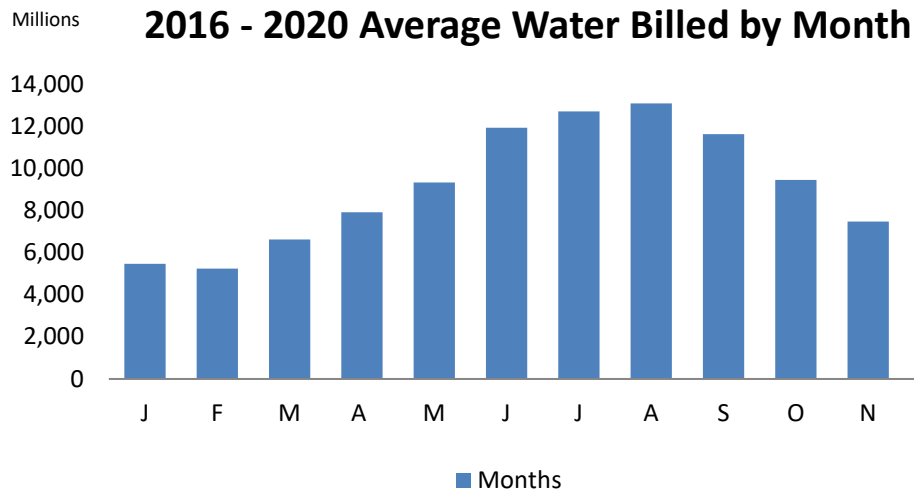
Month	2015		2016		2017	
	<u>Avg. Use</u>	<u>Avg. Revenue</u>	<u>Avg. Use</u>	<u>Avg. Revenue</u>	<u>Avg. Use</u>	<u>Avg. Revenue</u>
January	13.3	\$65.0	14.8	\$72.3	13.5	\$73.1
February	14.2	64.6	13.5	72.4	12.3	71.0
March	17.6	79.4	19.3	89.7	17.1	88.7
April	22.8	95.6	22.2	98.4	22.7	105.6
May	25.8	106.7	21.7	97.7	25.6	118.8
June	29.5	131.7	30.7	140.8	33.0	150.8
July	33.6	127.3	34.0	135.4	33.2	145.3
August	33.1	137.1	34.7	149.4	34.0	154.5
September	29.7	123.8	29.6	128.3	28.5	133.3
October	25.5	105.5	24.1	105.8	23.4	110.8
November	17.3	77.4	19.5	89.7	20.2	97.3
December	14.5	68.0	15.3	75.7	16.5	85.0
Monthly Average	23.1	\$98.5	23.3	\$104.6	23.3	\$111.2

Month	2018		2019		2020	
	<u>Avg. Use</u>	<u>Avg. Revenue</u>	<u>Avg. Use</u>	<u>Avg. Revenue</u>	<u>Avg. Use</u>	<u>Avg. Revenue</u>
January	15.1	\$83.8	14.1	\$83.5	12.8	\$80.7
February	13.3	78.4	13.2	79.3	14.8	86.3
March	17.6	93.9	14.6	86.5	16.3	92.8
April	20.3	102.8	20.2	104.7	15.9	87.7
May	26.0	124.0	24.0	119.7	21.8	111.6
June	31.0	151.6	26.6	140.9	31.0	155.8
July	32.7	147.1	31.5	141.5	30.6	143.5
August	32.3	153.1	32.9	157.7	32.8	159.1
September	30.2	142.8	29.4	143.2	30.0	149.1
October	25.9	124.7	23.1	114.8	23.5	120.3
November	18.4	95.4	18.5	98.2	18.3	99.2
December	15.3	85.7	12.6	78.6	13.2	81.6
Monthly Average	23.2	\$115.3	21.7	\$112.4	21.8	\$114.0

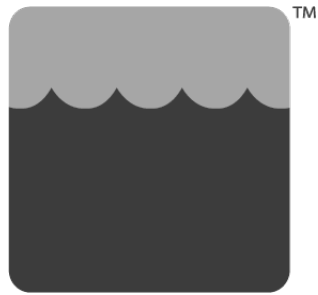
Las Vegas Valley Water District
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Water Billed by Month
Millions of Gallons

Month	2016	2017	2018	2019	2020
January	5,577	5,205	5,880	5,577	5,139
February	5,107	4,749	5,217	5,234	5,950
March	7,302	6,602	6,900	5,803	6,570
April	8,448	8,786	7,961	8,013	6,387
May	8,231	9,927	10,207	9,539	8,778
June	11,681	12,783	12,169	10,559	12,490
July	12,956	12,873	12,856	12,535	12,359
August	13,272	13,214	12,699	13,082	13,246
September	11,319	11,079	11,918	11,708	12,134
October	9,242	9,105	10,196	9,226	9,533
November	7,486	7,880	7,249	7,404	7,407
December	5,881	6,425	6,031	5,034	5,355
Total	106,502	108,628	109,283	103,713	105,345



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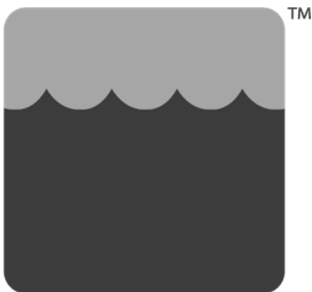


SECTION 9
FINANCIAL POLICIES

Financial Policy..... 9-2

Reserve Policy 9-5

Capitalization Policy 9-7



LAS VEGAS VALLEY WATER DISTRICT
FISCAL YEAR 2021-22
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.

LAS VEGAS VALLEY WATER DISTRICT DEPARTMENT POLICY	SUBJECT: FINANCIAL POLICY	NUMBER: 1
	APPROVED BY: <i>Lina Neilson</i>	ISSUE: 1
ISSUING DEPARTMENT: FINANCE	DIRECTOR OF FINANCE June 1, 2015	PAGE: 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.

LAS VEGAS VALLEY WATER DISTRICT BOARD POLICY	SUBJECT: LAS VEGAS VALLEY WATER DISTRICT RESERVE POLICY	NUMBER: 11
	APPROVED BY: BOARD OF DIRECTORS	ISSUE: 1
ISSUING DEPARTMENT: FINANCE	January 5, 2016	PAGE: 1 OF 2

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.

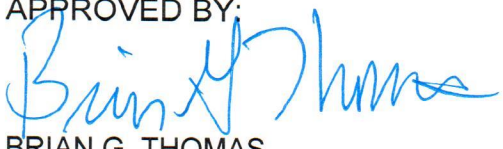
Reserve Components

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 WATER DISTRICT DEPARTMENT POLICY	SUBJECT: CAPITALIZATION POLICY	NUMBER: 1
	APPROVED BY:  BRIAN G. THOMAS CHIEF FINANCIAL OFFICER Effective Date: July 1, 2018	ISSUE: 2018
ISSUING DEPARTMENT: FINANCE		PAGE: 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

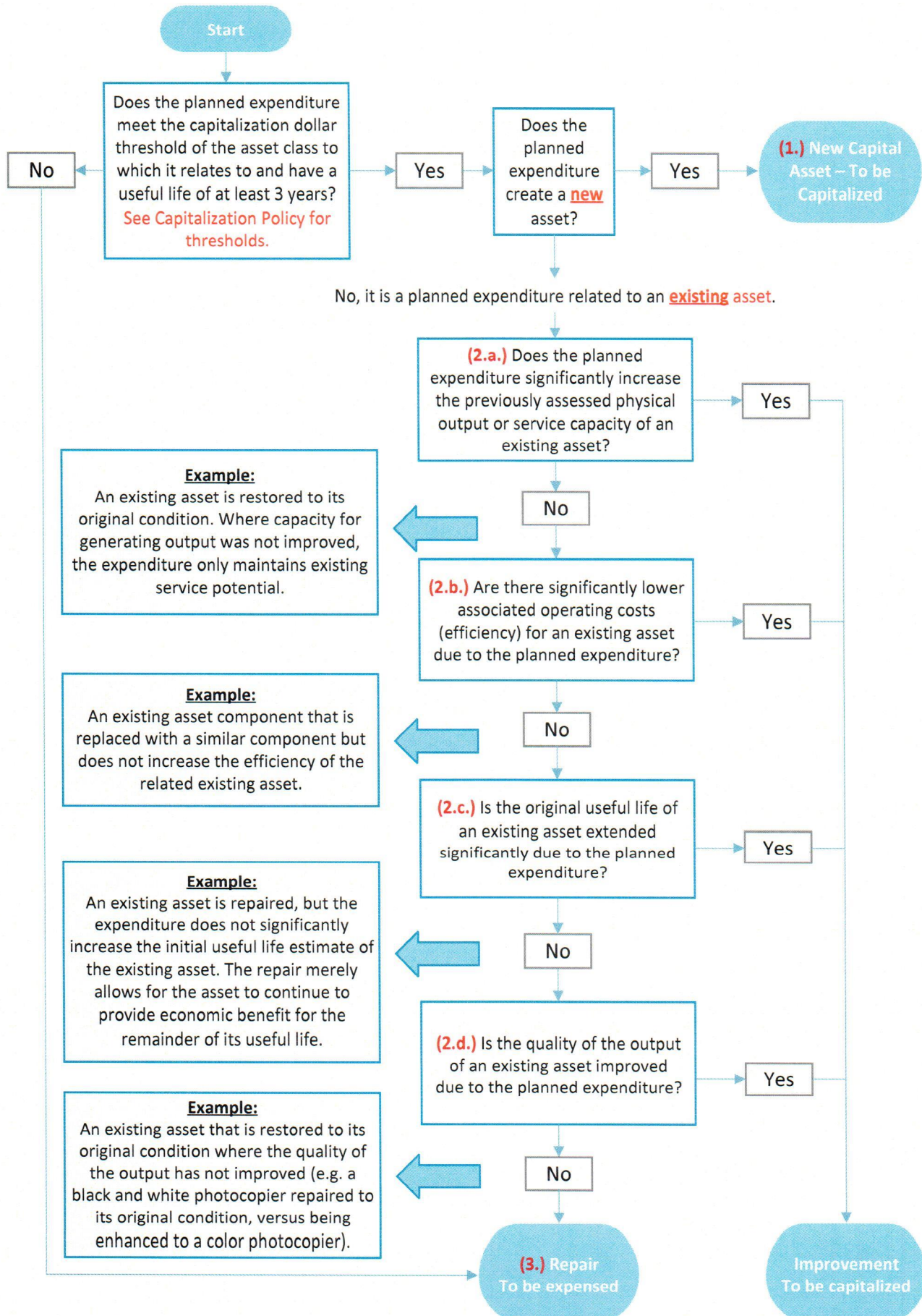
Major on-premises computer systems software and software modifications, whether purchased or internally developed, are capitalized if the total cost exceeds \$100,000 and the useful life is at least three years. Cost includes direct and indirect expenditures within the application development stage of 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.

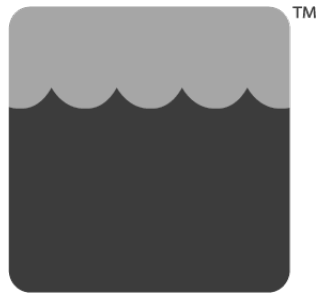
V. DONATED FACILITIES

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



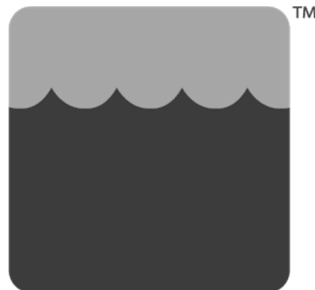
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SECTION 10

GLOSSARY

Glossary.....	10-1
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LAS VEGAS VALLEY WATER DISTRICT
FISCAL YEAR 2021-22
OPERATING AND CAPITAL BUDGET

Las Vegas Valley Water District
Operating and Capital Budget
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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.

Advanced Metering Infrastructure. (AMI)

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.

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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.

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.

Las Vegas Valley Water District
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Citizens Advisory Committee (CAC). A group of citizens convened to seek recommendations and help guide decision-making of the organization.

Captive Insurance. An alternative to self-insurance in which a parent group or groups create a licensed insurance company to provide coverage for itself.

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.

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.

Comprehensive Annual Financial Report. A set of U.S. government financial statements comprising the financial report of a state, municipal or other governmental 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)

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.

Consumer Price Index. (CPI)

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)

Customer to Meter System. (C2M)

Las Vegas Valley Water District
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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 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.

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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 2021-22 ends on June 30, 2022.

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.

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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.

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

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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 km²) 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-drafting and potential sources of contamination.

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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.

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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.

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.

Other Post Employment Benefits. (OPEB)

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.

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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.

Power Purchase Agreement. (PPA)

Proprietary Funds. Enterprise Funds and Pension Funds.

Rate-of-Flow Control Systems (ROFCS). Flow control in a hydraulic system is to regulate speed. The device controls 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.

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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.

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.

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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.

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.