



Las Vegas Valley Water District  
Operating and Capital  
**Budget 2024**

Fiscal year ending June 30, 2024



## **NEW WATER RATES AND CHARGES ARE ABOUT CONSERVATION**

Water rates for the Las Vegas Valley Water District changed in January 2023 to encourage water conservation, which are projected to save billions of gallons of water per year. As part of these rates and charges, an Excessive Use Charge will be assessed when water use exceeds an established monthly water-use threshold that varies by season. Learn more at [lvwd.com](https://www.lvwd.com).

# Las Vegas Valley Water District

Operating & Capital Budget  
Fiscal Year Ending June 30, 2024



# LAS VEGAS VALLEY WATER DISTRICT™

## Board of Directors

Marilyn K. Kirkpatrick, President

James B. Gibson, Vice President

Justin Jones

William McCurdy II

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Michael Naft

Tick Segerblom

John J. Entsminger

General Manager

E. Kevin Bethel

Chief Financial Officer

Mariliese S. Horsewood

Director of Finance/Controller

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**Note of Appreciation**

**We would like to express our appreciation for the Finance department staff, and staff members of other departments for their special work in the preparation of the 2023-24 budget document.**

The **VISION** of the Las Vegas Valley Water District  
**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, 2022.**

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 01, 2022**

*Christopher P. Morill*

Executive Director

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# SECTION 1

## GENERAL MANAGER'S INFORMATION REPORT

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**LAS VEGAS VALLEY  
WATER DISTRICT™**



# LAS VEGAS VALLEY WATER DISTRICT GENERAL MANAGER'S INFORMATION REPORT

DATE: April 17, 2023

No. 178

SUBJECT: LAS VEGAS VALLEY WATER DISTRICT  
PROPOSED OPERATING AND CAPITAL BUDGET FOR FISCAL YEAR 2023-24

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The Tentative Operating and Capital Budget of the Las Vegas Valley Water District (LVVWD) for fiscal year 2023-24 was submitted by April 15, 2023, to the State of Nevada Department of Taxation in accordance with NRS 354.596.

## **Executive Summary**

Year after year, the LVVWD continues to provide world class water service to more than 1.5 million Southern Nevada residents, and over 40,000,000 visitors, while increasing system reliability and cost efficiency. This same effort and service is 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).

As drought conditions persist, impacting flows throughout the Colorado River Basin for more than two decades, the Southern Nevada Water Authority (SNWA) has taken significant measures to increase conservation specifically related to consumptive use through policy, code, and ordinance changes. The LVVWD, as a member agency, has continued to adapt its business, operations, communications practices, and Service Rules to align with the SNWA's initiatives.

## **LVVWD Board of Directors**

The LVVWD Board of Directors re-appointed Marilyn Kirkpatrick as President and James Gibson as Vice President for calendar year 2023. There were no changes among the members of the board.

## **Nevada Water Working Committee**

The LVVWD General Manager, John Entsminger, was selected by Governor Joe Lombardo to lead Nevada's Working Committee on Water. Mr. Entsminger, along with other water experts across the state, are developing recommendations and priorities to help guide the Governor and his staff on water-related issues.

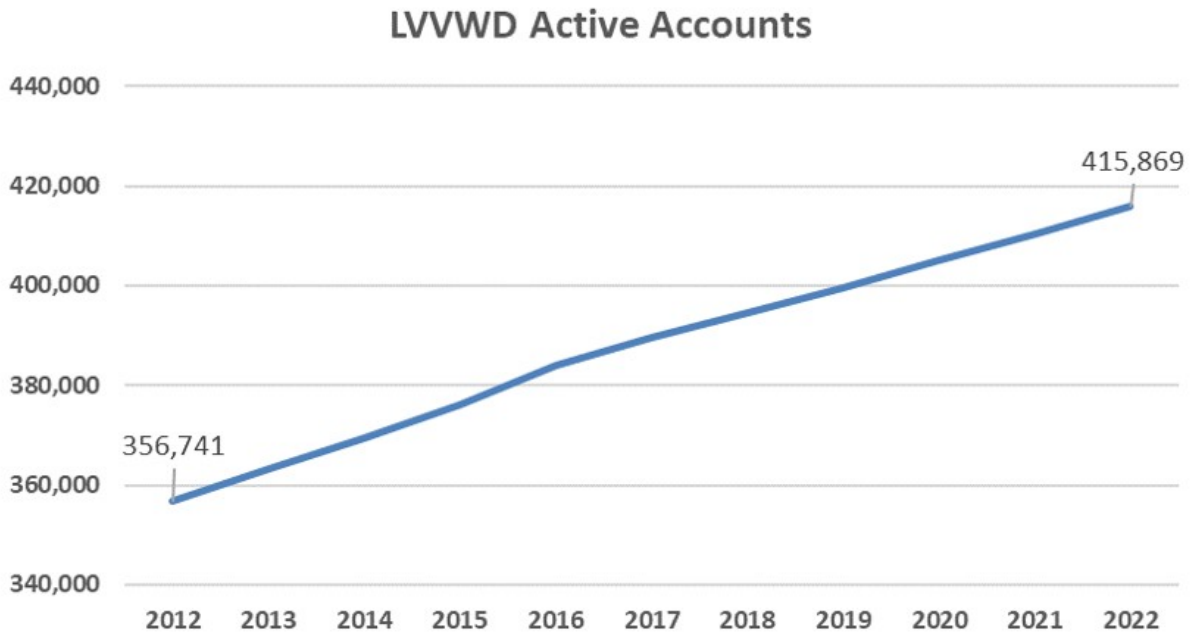
## **Update to Organizational COVID-19 Protocols**

In October, the LVVWD discontinued its COVID-19 protocols established during the pandemic. As a result, employees were no longer required to complete a wellness survey before reporting to work onsite. Other health actions and precautions remain in place to protect the health and safety of our employees.

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**Finance**

The LVVWD continues its efforts and initiatives to maintain reliable water supplies for homes and businesses for years to come and 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 2012, indicating steady economic growth for the past decade. In 2022, the LVVWD had more than 415,800 active accounts, an increase of nearly 60,000 accounts since 2012.



**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.

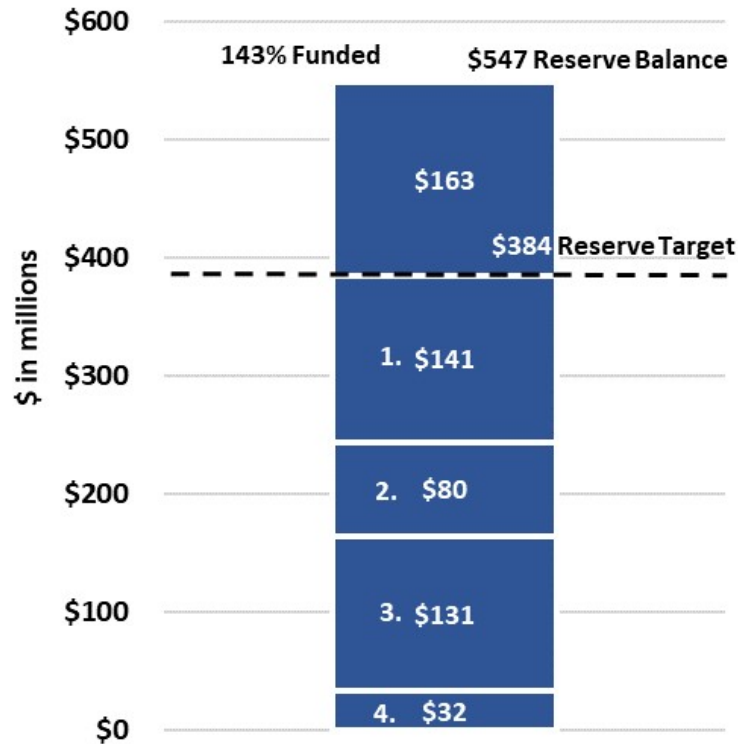
The LVVWD's reserve policy includes the following components (corresponding to the numbered dollar amounts in the chart below):

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.

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### 2021-22 Unrestricted Reserves



#### **Project Funding**

**Water Rates.** In October 2022, the LVVWD Board approved changes to its Service Rules to further encourage water conservation for single-family residential properties throughout the LVVWD service area. The changes, which went into effect on January 1, 2023, included an excessive use charge for customers whose water usage exceeds an established monthly water use threshold that varies by season, as well as a tier equalization change that uses the same tier thresholds for all residential meter sizes. These adjustments are designed to reduce consumptive water use for single-family residential customers.

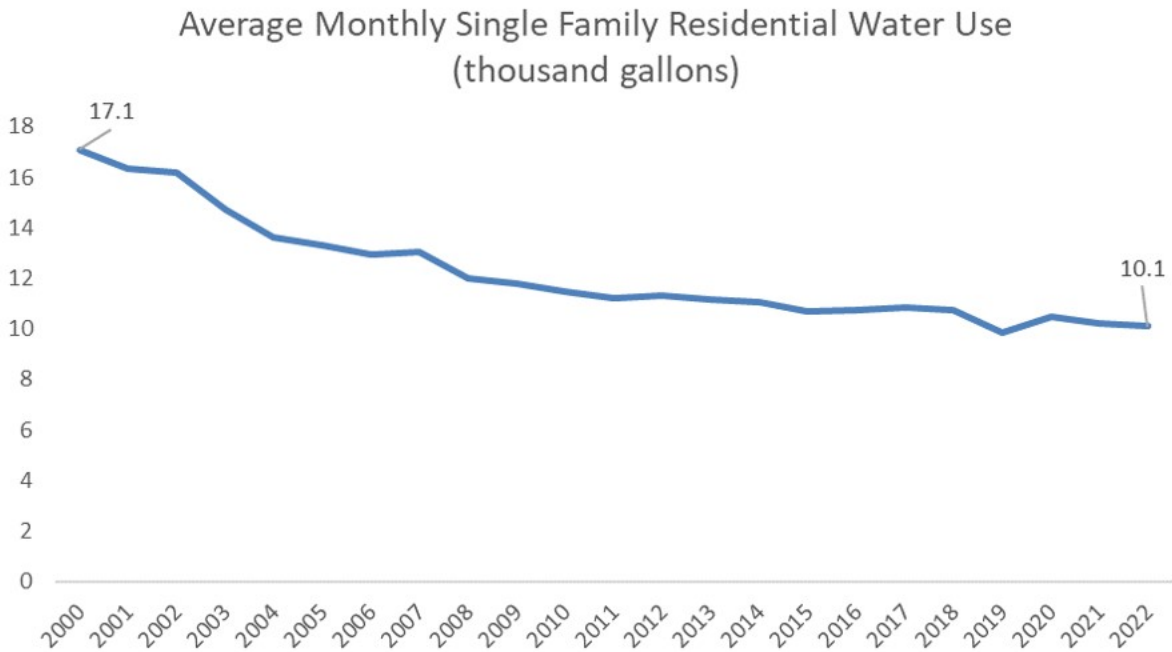
**Debt Reduction.** The LVVWD did not have any refunding for the fiscal year 2022-23. Also, the LVVWD made its final payments on their 2008 Clean Renewable Energy Bonds.

#### **Water Resources and Conservation**

Southern Nevada’s primary water resource comes from Nevada’s Colorado River allotment, as it is drawn on to meet 90 percent of the community’s water demands. All remaining demands are met with groundwater rights. The LVVWD purchases Colorado River water from the SNWA, which is diverted from Lake Mead and treated to high standards for municipal use.

The LVVWD’s average monthly water use for residential single services, as shown in the following chart, was approximately 10,100 gallons in 2022, representing a 40 percent decrease from fiscal year 2000 consumption.

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

**Drought**

Continued drought conditions and climate change impacts have reduced flows throughout the Colorado River Basin for the past two decades. In August 2022, the federal government announced a second tier of water cuts, limiting the amount of water Southern Nevada will be allowed to withdraw from Lake Mead. These cuts began in January 2023 and reduce Southern Nevada's annual Colorado River allocation of 300,000 acre-feet of water by 25,000 acre-feet, or about 8.1 billion gallons. Although the reductions are considerable, Southern Nevada remains in a position to absorb them as the community's water conservation measures over the last two decades have reduced water consumption well below its 300,000-acre-foot annual allocation. Nevada's consumptive Colorado River water use for 2022 was 224,000 acre-feet.

Lake Mead has plummeted more than 170 feet since 2000 and is projected to continue to decline, and now, more than ever, the commitment to water conservation remains steadfast. The LVVWD continues to promote and educate its customers on the importance of using water efficiently.

Since the drought began in the early 2000s, Colorado River water use has decreased by 26 percent, despite a 49 percent population increase during that same period. Ongoing community conservation efforts are aimed to further reduce community water use moving forward.

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## **Conservation**

As it has for 20 years, 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, and as additional federally declared shortages took effect in January 2023, efforts to reduce consumptive water use while seeking additional water resources are imperative.

**Service Rules Update.** The LVVWD continues to update its Service Rules to limit consumptive water uses and require more efficient uses of its water resources. In the past fiscal year, the LVVWD Board of Directors approved revisions to the LVVWD's Service Rules that will bolster water conservation efforts by targeting non-essential water use. These measures are a key component to meeting the SNWA's conservation goal of 86 gallons per capita per day by 2035. These changes include:

- Limiting new residential pools to no more than 600 square surface feet. The rule applies to permits issued after September 1, 2022, and does not affect existing residential pools. Limiting pool sizes to 600 square feet will affect the top 25 percent of pool sizes built in the valley and will save an estimated 40 million gallons of water annually over the next decade.
- Reducing golf course water budgets from 6.3 acre-feet of water per irrigated acre to 4 acre-feet per irrigated acre annually. This change was adopted by the LVVWD board in January 2023, will be implemented in 2024 and is estimated to save billions of gallons of water per year.
- Prohibiting water service to new development using evaporative cooling systems. This rule applies to new development that applies for building permits after September 1, 2023, to avoid disruptions to projects that are nearing shovel-ready construction stages.
- Revising the incentive to replace industrial cooling towers or swamp coolers with a dry-cooled system or improve the water efficiency of existing evaporative cooling systems. This revision now pays up to 50 percent of the total conversion cost per project to encourage businesses to convert wet cooling systems to dry-cooled systems.

In an effort to maintain consistency, the other Southern Nevada municipalities have implemented the same changes as well as including Nevada Assembly Bill 356 (AB 356) language and non-functional turf definitions in their rules, policies and codes.

## **Water Use Compliance**

The LVVWD continues to increase its public outreach efforts, educate customers on sustainable practices, and help customers self-impose additional standards to conserve water. This includes more aggressive water waste enforcement and boosted efforts for residents to report water waste. The Water Use Compliance team has also implemented the enforcement of water theft rules, including daily patrol and investigation of theft reports.

**Reporting Water Waste.** Between the LVVWD's water waste reporting form on its website and the LVVWD's mobile app, almost 18,000 water waste reports were submitted in 2022, immediately notifying the LVVWD staff of the date, time, location, and type of water waste occurring so that proper investigation and citation procedures can take place.

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**Investigations.** The LVVWD continues to bolster water waste enforcement efforts. Currently, there are 14 full-time water waste investigation field staff. Below is a table highlighting staff's investigation efforts, with increases in 2022 compared to previous years. Starting in 2021, investigations were also conducted by using customer analytical meter data to identify continuous flow on properties, and are included in the following table:

<b>Water Waste Investigation Efforts</b>				
	<b>2019</b>	<b>2020*</b>	<b>2021</b>	<b>2022</b>
Water Waste Investigations	15,041	10,713	23,980	<b>27,976</b>
Courtesy Notices	4,729	3,194	5,397	<b>5,728</b>
Formal Notices	6,230	4,982	6,719	<b>6,124</b>
Assessed Fees	1,563	811	1,931	<b>1,966</b>
Assessed Fees \$	\$260,640	\$180,720	\$560,320	<b>\$664,800</b>

*\*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.*

<b>Water Theft Investigation Efforts</b>				
	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Water Theft Assessed Fees				<b>43</b>
Assessed Fees \$		NA		<b>\$304,631</b>

*\*Water theft investigations began in 2022.*

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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 water infrastructure. The LVVWD operates the public water systems in Blue Diamond, Jean, Kyle Canyon, Laughlin, Searchlight, Sloan Army Reserve Center. In 2022, the LVVWD delivered approximately 109 billion gallons of water to customers throughout its service area.

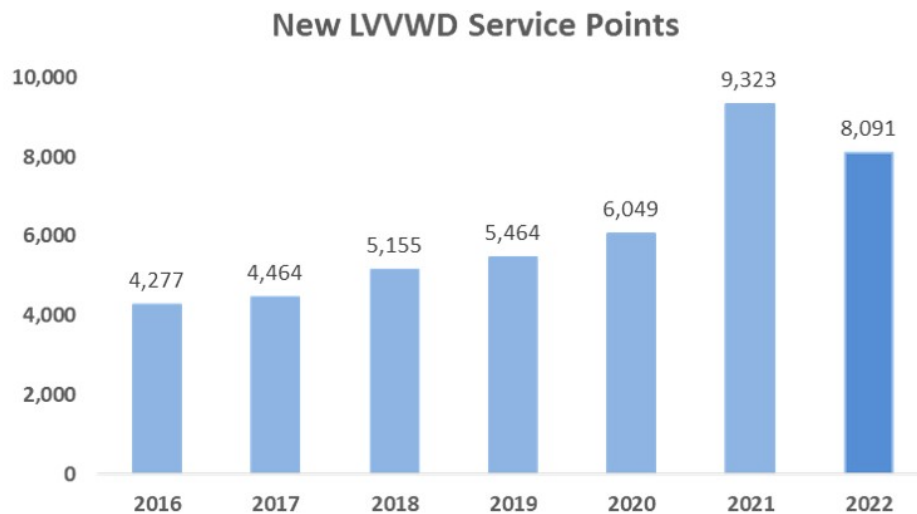
### **System Profile**

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

- 7,110 miles of transmission, distribution and service lines
- 80 reservoir basins that collectively hold nearly one billion gallons of water
- 54 pump stations with the capacity to move more than 1.25 million gallons of water per minute
- 64 production wells

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

**New Service Points.** With continued growth and construction development in the valley, the LVVWD added 8,091 new service points to its customer base in 2022, a figure that is below 2021 levels but still presents higher annual growth compared to 2016-2020.



### **Capital Improvements and Asset Management**

In 2017, the LVVWD Board of Directors approved a 10-year, \$616 million (in 2016 dollars) Capital Improvements Plan (CIP). This document guides and directs the operation, maintenance and development of the LVVWD water distribution system, and supports the LVVWD's ongoing

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commitment to ensure the community water system remains stable and reliable into the future. The following projects have either been completed, are active, or will begin within the next fiscal year:

- Rome 2745 Reservoir, 2975 Zone Pumping Station, and 2975-2860 Zone Pressure Reducing Valve
- Rome Facilities Pipelines
- Las Vegas Boulevard Improvements
- 4125 Zone South Reservoir
- Alpine Ridge 3090 Zone North Pipeline Phase I and II
- Cougar 3090 Zone Reservoir
- Cougar Facilities Pipeline
- Equipping W124
- Drill and Develop Well W125
- Westlund Drive Pipeline Replacement
- Rehab SCCP in Sahara Avenue
- Replace SCCP & ACP on Flamingo Road
- Blue Diamond 3630 Zone Pumping Station
- Blue Diamond 3630 Zone Discharge Pipeline and PRV

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

In addition, at its Valley View campus, the LVVWD converted a 266-ton, water-cooled chiller system to an air-cooled chiller system with thermal storage. This renovation will increase energy efficiency, reduce consumptive water use and further align with the new community conservation goal. This project demonstrates that, while the organization is asking a lot of the community in terms of reducing consumptive water uses, it is committed to leading by example.

### **Water Quality Report**

The 2022 Water Quality Report was sent to all the LVVWD customers and outlines the organization's efforts to ensure the community's water quality meets, or surpasses, the standards set by the Safe Water Drinking Act. In 2021, staff conducted more than 318,000 analyses on nearly 55,360 water samples at 367 sampling stations throughout the valley and tested for 91 regulated contaminants and 75 unregulated contaminants. Staff monitor the community's water in real time 24 hours a day, 365 days a year as it travels through nearly 7,000 miles of pipeline. In total, the current LVVWD CIP invests more than \$600 million to maintain, expand and upgrade its system to ensure safe and reliable drinking water.

### **Customer Care Projects**

Because customer service remains a top priority for the LVVWD, Customer Care staff are continually pursuing opportunities to ensure customers consistently receive world-class service.

**Online Chat Enhancements.** Customer Care continues to enhance its Chat Bot & Live Agent Chat functionality, allowing customers to conduct business without engaging in a phone conversation with an associate, an increasingly popular communication channel.

**SMS Messaging.** SMS messaging allows the LVVWD to customize messages to customers on specific issues, such as water outages and leaks, delivering timely and relevant information to customers'

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fingertips. Customer Care continues to increase the percentage of customers for which it has current cellular numbers, expanding the reach of this communication tool.

**Advanced Metering Infrastructure (AMI) and Software.** The LVVWD completed phase one of the AMI implementation project in the first quarter of 2023. The remainder of 2023 will focus on phase two, which is to identify and reduce system gaps, and install devices in new developments that were not included in the original framework. By January 2024, the system will have hourly usage reads for 98 percent of the LVVWD's customers. Along with the new customer information system, C2M, AMI will optimize customer and field services communication through timely meter reads and events, while supporting conservation by improving the ability to monitor and quickly address water consumption issues. Eventually, this data will be available to customers through the LVVWD's mobile app, SMS messaging, and web portal. These technologies will allow the LVVWD to provide enhanced customer service and interaction, increased support for conservation initiatives, optimized service response, and more efficient account management.

**Weekly Irrigation Compliance Detection.** With the completion of the AMI and C2M projects, staff will implement a full-scale data-driven single family residential (SFR) enforcement compliance program using a validated irrigation compliance detection system. This functionality is expected to be available by the end of 2023 and will provide automated review of all available SFR meter data to identify violations of the watering day assignments. This process will trigger activities through C2M (sending letters/messages, assessing fees). Expected results are a five percent annualized increase in compliance, estimated to save approximately 6,500 acre-feet of consumptive water use per year.

**Ernst & Young (E&Y) Conservation Initiative Implementation.** This initiative involves subject matter experts from E&Y working with internal staff to implement projects that support water conservation initiatives. These include efficiency improvements to the C2M system intended to support future rate changes, notification processes, and additional automation to mitigate the expected increase in call center volume related to rate changes and compliance efforts.

### **Field Services & Large Meter Operations**

Field staff will transition from reading meters to maintaining the infrastructure to ensure its connectivity with the AMI system. Staff continues to work with internal I.T. to identify the ideal target meter population to maximize the effectiveness of the Meter Change-out Program.

**Large Meter Operations.** The division has installed a new bench for testing smaller domestic meters and continues to test large commercial meter population at industry standards based on size and criticality. Staff is developing a Preventative Maintenance Program for the AMI system to ensure its reliability, minimize service disruptions, and avoid costly emergency repairs. Staff continues to update inventory of fire hydrant turbine meters with those able to be read through the AMI system.

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## **Awards and Recognitions**

From acknowledgement for water management to fulfillment in organizational culture, the LVVWD was the recipient of several recognitions this past year.

The Wall Street Journal published an in-depth feature recognizing the community's conservation efforts, calling Southern Nevada "one of the most water-minded places on Earth," amid the worst drought in 1,200 years.

Forbes Magazine recognized the LVVWD as one of America's best mid-size employers in 2022.

## **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.

This past year, the Springs Preserve focused on mission-driven projects and programming, and directed much of its efforts to the development and expansion of educational outreach. During fiscal year 2022-23, the Springs Preserve hosted more than 200,000 visitors and the new Springs Café opened its doors in October 2022.

Several improvement projects within Springs Preserve's natural area and botanical gardens enhanced the site. Staff renovated the quarter-acre Teaching Garden to accommodate larger groups and boost educational offerings. Additional interpretive panels were installed within the trail system of the Preserve's natural area and the Botanical Garden interpretation and wayfinding system underwent a complete overhaul with new content and designs. In spring, construction started on the new, grant-funded Ethnobotanical Garden that showcases traditional ecological knowledge and the cultural and sustainable living practices of Southern Nevada's Native American communities.

Annual community outreach events, designed to increase the Preserve's visibility and celebrate the region's cultural history, continued to draw large crowds and corporate sponsorships. Both the four-day Haunted Harvest and three-day Día de Muertos events sold out in advance. Combined, these events drew approximately 19,000 visitors to the campus. February's Black History Month Festival saw record attendance and sponsorships, doubling sponsorship goals, in 2023. Earth Day at Springs Preserve, in its second year, included on-site programming, focused on water conservation and sustainable living throughout the month of April.

The Springs Preserve continues its community partnerships and this year worked closely with Desert Research Institute, Get Outdoors Nevada, Clark County Library District, and the Native American community, to name a few. The Springs Preserve also enhanced its teaching training program and saw increased participation in its Youth Conservation Council, a 16-week program providing high school students an opportunity to earn community service hours and gain valuable experience while learning about our region's unique water resource issues.

The Springs Preserve was awarded \$11,991 from the Clark County Outside Agency Grant program for the Ponds Wildlife Exhibit. This funding is being used to curate four new informative exhibit panels along the trails. This same organization also awarded the Preserve \$25,000 for the Butterfly

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Habitat. Additionally, staff applied for and received \$205,000 from the U.S. Fish and Wildlife Service Recovery Challenge grant for work with the Pahrump poolfish at the Preserve.

## Financial Summary

The following tables and descriptions contain a summary of operating and capital sources and uses of funds for the LVVWD's fiscal years 2021-22, 2022-23 and 2023-24.

<b>Operating Budget Summary</b>						
	<b>Actual</b>		<b>Budget</b>		<b>Budget</b>	<b>Budget-to-Budget Variance</b>
	<b>2021-22</b>		<b>2022-23</b>		<b>2023-24</b>	<b>\$            %</b>
<b>SOURCES</b>						
Tiered consumption	\$ 293,005,490	\$ 304,278,181	\$ 303,718,508	\$ (559,673)		— %
Excessive use charge (EUC)	—	—	25,543,404	25,543,404		
Service charge	79,933,307	80,802,711	88,785,176	7,982,464		10 %
Backflow charge	12,709,899	12,643,151	13,058,126	414,975		3 %
Reclaimed water	7,245,697	6,889,401	6,651,778	(237,622)		(3)%
Other water bill charges	7,313,093	9,970,026	8,100,409	(1,869,617)		(19)%
Connection charge	23,578,591	10,600,923	18,595,178	7,994,255		75 %
Application and inspection fees	3,825,425	1,859,555	3,462,341	1,602,785		86 %
Investment income	(23,535,170)	6,382,701	5,673,811	(708,891)		(11)%
Springs preserve	1,699,745	1,593,302	1,864,495	271,193		17 %
Other sources	2,684,272	1,943,309	2,234,482	291,173		15 %
<b>LVVWD Sources</b>	<b>408,460,349</b>	<b>436,963,261</b>	<b>477,687,707</b>	<b>40,724,446</b>		<b>9 %</b>
<b>USES</b>						
Purchased water	100,294,880	110,607,387	113,217,367	2,609,980		2 %
Energy	10,001,647	10,284,000	14,312,392	4,028,392		39 %
Salaries and benefits	125,154,506	150,779,078	159,551,206	8,772,128		6 %
Operating expenses	39,364,406	58,436,787	71,282,006	12,845,219		22 %
Debt service	73,769,702	84,623,533	86,553,586	1,930,052		2 %
EUC deployment and other uses	1,046,866	838,477	21,554,664	20,716,186		
Transfers to reserves	58,828,342	21,393,998	11,216,487	(10,177,512)		(48)%
<b>LVVWD Uses</b>	<b>408,460,349</b>	<b>436,963,261</b>	<b>477,687,707</b>	<b>40,724,446</b>		<b>9 %</b>
<b>SNWA CHARGES</b>						
Infrastructure charge	127,007,226	137,026,339	146,015,019	8,988,680		7 %
Commodity charge	51,682,437	55,731,130	60,500,646	4,769,516		9 %
Connection charge	54,939,284	23,565,008	31,911,723	8,346,715		35 %
Reliability surcharge	4,404,014	4,428,884	4,695,220	266,336		6 %
<b>SNWA Charges</b>	<b>238,032,961</b>	<b>220,751,361</b>	<b>243,122,608</b>	<b>22,371,246</b>		<b>10 %</b>
<b>TOTAL SOURCES</b>	<b>646,493,310</b>	<b>657,714,622</b>	<b>720,810,315</b>	<b>63,095,693</b>		<b>10 %</b>
<b>TOTAL USES</b>	<b>\$ 646,493,310</b>	<b>\$ 657,714,622</b>	<b>\$ 720,810,315</b>	<b>\$ 63,095,693</b>		<b>10 %</b>

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**Operating Sources**

The fiscal year 2023-24 tentative budget's operating sources of funds are projected to be \$720.8 million, or a 10 percent increase as compared to the 2022-23 Adopted Budget Plan. This is largely due to the addition of the excessive use charges effective January 2023 and increases in pass-through charges from the SNWA.

Tiered consumption charges are projected to remain largely flat with a slight decrease of \$0.6 million and the service charge is anticipated to increase \$8.0 million, or 10 percent. Tiered 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. Other water bill charges are expected to increase by \$1.9 million, or 19 percent, largely due to an increase in water waste fees. Connection charge revenue is expected to increase by \$8.0 million, or 75 percent, as compared to the 2022-23 Adopted Budget Plan which reflected a more conservative outlook on economic growth conditions.

**Operating Uses**

The fiscal year 2023-24 tentative budget's operating uses of funds are projected to be \$720.8 million, or a 10 percent increase compared to the 2022-23 Adopted Budget Plan, mostly from increases in operating expenses, other uses, and the pass-through charges from the SNWA.

Purchased water costs are projected to increase by \$2.6 million, or two percent, largely due to a rate increase in the SNWA's wholesale delivery charge. Energy costs are projected to increase by \$4.0 million or 39 percent, largely due to an updated outlook on market pricing. Salaries and benefits are anticipated to increase by \$8.8 million, or six percent. The full-time equivalent employee count across the entire organization is expected to remain steady compared to the 2022-23 Adopted Budget Plan.

Non-payroll operating expenses are projected to increase by \$12.8 million or 22 percent, as the LVVWD continues to face cost pressures due to inflation and supply chain issues. Debt service is anticipated to increase, compared to 2022-23, largely due to the planned \$230.0 million debt issuance. Other uses are projected to increase by \$20.7 million largely due to the commitment of funds collected through excessive use charge revenues to fund conservation-related initiatives. Transfers to reserves are expected to total \$11.2 million.

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**Capital Budget Summary**

	Actual	Budget	Budget	Budget-to-Budget Variance	
	2021-22	2022-23	2023-24	\$	%
<b>SOURCES</b>					
Developer/grant funds	\$ 16,630,773	\$ 39,725,405	\$ 83,024,635	\$ 43,299,230	109 %
Debt issuance proceeds	75,551,566	80,000,000	230,000,000	150,000,000	188 %
Other sources	—	—	8,764,231	8,764,231	— %
Transfers from reserves	18,956,268	119,929,960	—	(119,929,960)	(100)%
<b>LVVWD Sources</b>	<b>111,138,607</b>	<b>239,655,365</b>	<b>321,788,866</b>	<b>82,133,501</b>	<b>34 %</b>
<b>USES</b>					
Capital expenditures	111,138,607	239,655,365	243,236,115	3,580,750	1 %
Transfers to reserves	—	—	78,552,751	78,552,751	— %
<b>LVVWD Uses</b>	<b>\$ 111,138,607</b>	<b>\$ 239,655,365</b>	<b>\$ 321,788,866</b>	<b>\$ 82,133,501</b>	<b>34 %</b>

**Capital Sources**

The fiscal year 2023-24 tentative budget's capital sources of funds are projected to be \$321.8 million or a 34 percent increase, as compared to the 2022-23 Adopted Budget Plan. The growth is largely due to updated projections for debt issuances and the increases in developer/grant funds.

**Capital Uses**

The fiscal year 2023-24 tentative budget's capital uses of funds are projected to be \$321.8 million, or a 34 percent increase, compared to the 2022-23 Adopted Budget Plan. This is due to capital expenditures projected to increase by \$3.6 million in continuation of the CIP.

**Summary**

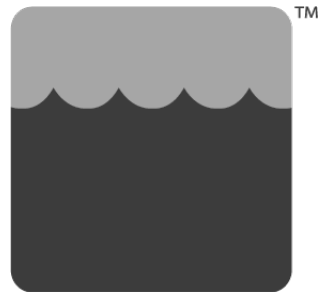
Overall, the LVVWD's fiscal year 2023-24 Operating and Capital Budget Plan presents a stable outlook as the LVVWD navigates through the ongoing drought, with operating revenues matching operating expenses and an assortment of revenues, reserves, and debt proceeds funding capital expenditures.

**Approval**

The public hearing on the LVVWD's 2023-24 Tentative Budget, and adoption of the Final Budget, is scheduled for 9:45 a.m., Monday, May 15, 2023, at 9:45a.m.

  
John J. Entsminger, General Manager

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# SECTION 2

## INTRODUCTION AND STRATEGIC PLAN

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**LAS VEGAS VALLEY  
WATER DISTRICT™**



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## **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**

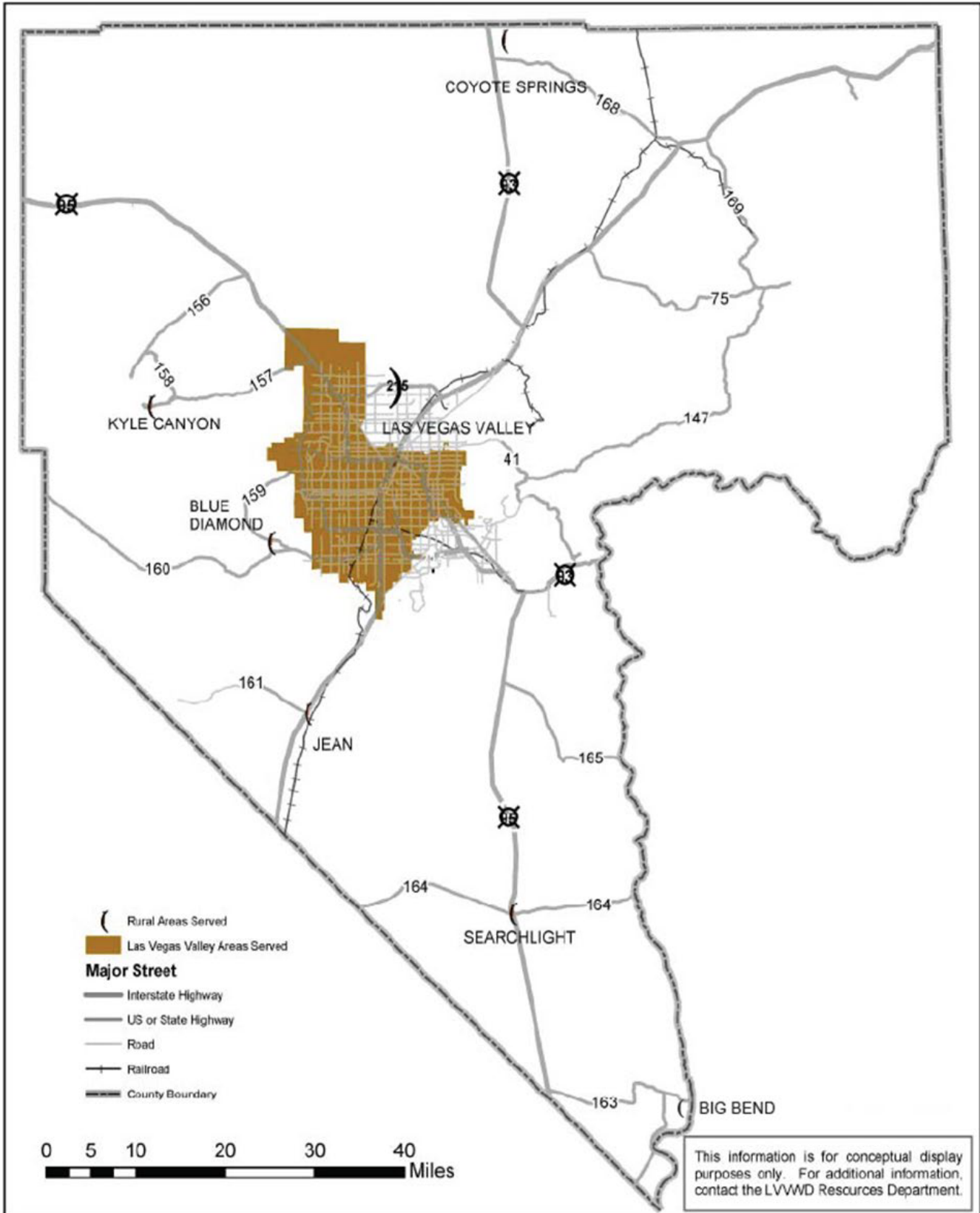
The LVVWD plays a vital role in the management of water resources in Southern Nevada. To fulfill this role, the LVVWD must work effectively and cooperate with state and federal governments, numerous local jurisdictions and other local water purveyors. These relationships play a vital role in shaping not only the demands on the LVVWD, but also the fiscal year 2023-24 Budget Plan. The following describes these intergovernmental relationships.

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

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

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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 (CRC) 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, 2022 are as follows: Boulder City (2.2 percent), Henderson (17.0 percent), North Las Vegas (13.8 percent), the LVVWD (66.8 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.

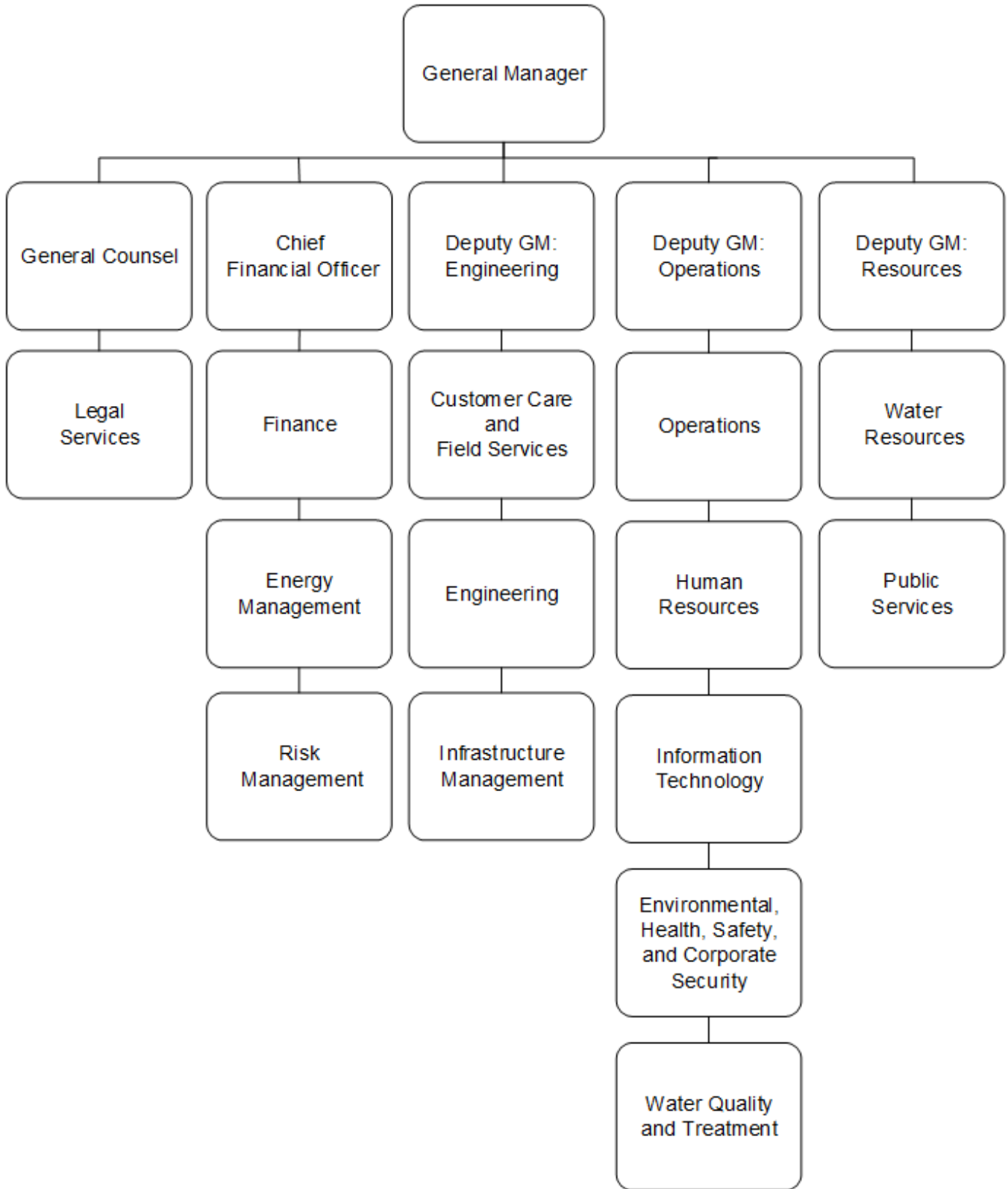
**Colorado River Commission.** The CRC is a Nevada State agency created in the mid-1930's to acquire and protect Nevada's right to water and power resources from the Colorado River. Colorado River water is apportioned among the seven Colorado River basin states and Mexico. The seven-member CRC consists 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 like 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 proceed balances 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.

**Long-Range Operating Financial Plan.** The LVVWD recognizes long-range financial planning is critical to accomplish its mission. In order to anticipate potential future financial challenges so corrective action can be taken to maintain financial stability, the LVVWD develops short-term and long-term financial forecasts to assess its overall fiscal health. These important components provide insight into future financial capacity which enable the formulation of strategies to achieve long-term sustainability in light of service objectives and financial challenges in these uncertain times.

Projecting long-term financing and operations is often tenuous despite its importance in setting the course of the overall direction of financial, operational, and capital resource allocation priorities of the organization. Major strategic policy guidelines emphasized are long-term water supply needs and infrastructure replacement goals, as well as improved resilience during unforeseen events. Careful consideration is taken to formulate long-range financial plans with increased focus on the economic environment, capital projects, and asset management. However, the LVVWD believes it is best to emphasize the short-term forecast information in the annual budget document. Prudent management of sources and uses of funds, coupled with consistent long-term financial planning, results in financial stability for the organization.

**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

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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. It is projected that as of July 1, 2023, the LVVWD will have \$782 million in outstanding general debt. All applicable bond covenants, such as ratios of net income to 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 a variety of securities determined according to the LVVWD Investment Policy. For further information refer to Section 09 Financial Policy - Investment Policy.

**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 (including industrial equipment) is \$500 million with a deductible of \$1 million for all locations except earthquake and flood insurance, which has limits of \$100 million and \$50 million respectively, and deductibles of \$1 million and \$100,000, respectively. This program also provides terrorism insurance for all locations with a blanket limit of \$250 million for all terrorist acts with a deductible of \$10,000. The LVVWD self-insures the first \$1 million for automobile and general liability exposure and purchases excess liability insurance in the amount of \$30 million over the \$1 million self-insured retention.

The LVVWD maintains cyber insurance coverage of \$10 million with a \$100,000 retention. The cyber insurance policy provides liability coverage for damages the LVVWD is legally obligated to pay resulting from incidents covered under the policy. In addition, the cyber insurance policy provides business income and extra expense insurance for covered cyber incidents. See the caption "CERTAIN RISK FACTORS—Cybersecurity Risks."

In addition, the LVVWD purchases employee fidelity insurance in the amount of \$3 million and other miscellaneous coverage. It also self-insures its workers' compensation exposure for \$750,000 per claim and purchases excess workers' compensation insurance with statutory limits.

In contracts, the LVVWD obtains indemnification and hold-harmless agreements. These agreements usually require that contractors name the LVVWD as an additional insured under the indemnitor's insurance coverage.

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In 2021, the Las Vegas Valley Water District formed the LVVWD CI (the “Captive”), a wholly owned subsidiary of the LVVWD, domiciled in the state of Nevada. The LVVWD is the sole member of this captive insurance company. The Captive is a registered limited liability company formed to advance long-term risk management program strategies through the use of a formalized self-insurance program that can access the reinsurance markets. The Captive provides retention for worker's compensation, general/auto liability, public officials liability, cyber liability, employment practices, and property.

### **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 nonoperating expenses. A utility or other enterprise is a self-supporting operation of a commercial nature, and the demand for service largely determines the appropriate level of revenues and expenditures. Depending upon the timing and level of the demand for services, revenues and expenditures will vary.

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

**Budget Process.** The LVVWD’s budget process starts in December of each year, and proceeds with a series of meetings involving department directors and/or managers. Financial analysis is done to project the revenues under the projected water rate structure. The revenue projections are based on the estimated water the LVVWD is planning to deliver in the coming year. The budget reflects the strategies and goals adopted by the LVVWD.

The LVVWD’s budget staff distributes current and historical information to managers to assist in the preparation of budgets within the budgeting guidelines. The budget process consists of three major phases. The first phase includes preparing new requests for capital equipment, construction projects and staff positions for the new fiscal year. The second phase consists of preparing department-operating budgets, including salaries and benefits expenditures. Estimating salaries and benefits 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.

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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 Revised Statute (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.


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**FISCAL YEAR 2023-24 BUDGET CALENDAR**

	All Departments	Financial Planning, Analysis & Reporting	Executive Management	Human Resources
<b>Dec</b>	<b>Tue Dec 6</b> Budget instructions and calendar received	<b>Tue Dec 6</b> Budget instructions and calendar sent to departments		<b>Dec</b> Organization charts available for review in Workday. Adjustments to organization charts due to Human Resources Information Systems, (HRIS) ( <a href="mailto:HRIS@lvvwd.com">HRIS@lvvwd.com</a> ) by Thursday, January 12, 2023
	<b>Mon Dec 12</b> Budget Kick-off Meeting (Teams)	<b>Mon Dec 12</b> Budget Kick-off Meeting (Teams)		
	<b>Mon Dec 12 – Thu Dec 15</b> Operating expense files received	<b>Mon Dec 12 – Thu Dec 15</b> Operating expense files sent. Coordination of budget process, schedule, and assigned department Analyst assistance begins		
	<b>Mon Dec 12 – Thu Jan 12</b> Personnel related requests will be coordinated through each department's Director and Deputy General Manager		<b>Mon Dec 12 – Thu Jan 12</b> Personnel related requests will be coordinated through each department's Director and Deputy General Manager	
<b>Jan</b>	<b>Thu Jan 12</b> Adjustments to organization charts submitted to Human Resources Information Systems, (HRIS) ( <a href="mailto:HRIS@lvvwd.com">HRIS@lvvwd.com</a> )	<b>Thu Jan 12</b> Major data processing and equipment requests submitted to Information Technology and Fleet Services for review and coordination		<b>Thu Dec 15</b> List of existing interns and summer hire positions distributed to departments. Updates, corrections and new requests due to HRIS ( <a href="mailto:HRIS@lvvwd.com">HRIS@lvvwd.com</a> ) by Thursday, January 12, 2023
	<b>Thu Jan 12</b> Final requests for interns and summer hire positions submitted to HRIS ( <a href="mailto:HRIS@lvvwd.com">HRIS@lvvwd.com</a> )	<b>Mon Jan 23</b> Begin coordination with departments incurring intercompany and overtime payroll costs		<b>Thu Jan 12</b> List of existing interns and summer hire position renewals sent to Financial Services

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**FISCAL YEAR 2023-24 BUDGET CALENDAR**

	All Departments	Financial Planning, Analysis & Reporting	Executive Management	Human Resources
<b>Feb</b>	<b>Wed Feb 1</b> Budget narrative instructions received	<b>Wed Feb 1</b> Budget narrative instructions sent to departments		
	<b>Thu Feb 2</b> Final 2023-24 operating expense budgets submitted to Financial Services			
	<b>Thu Feb 2</b> Final 2023-24 capital budget equipment and project requests submitted	<b>Tue Feb 21</b> Summaries and detail of operating expense & capital expenditure budgets sent to departments		
	<b>Tue Feb 21</b> Summaries and detail of operating expense & capital expenditure budgets received	<b>Tue Feb 21</b> Assisting departments in preparation for the Senior Management Team (SMT) budget meeting presentations begins		
<b>Mar</b>		<b>Thu Mar 2</b> Budget overview briefing with Executive Management (E-Team)	<b>Thu Mar 2</b> Budget overview briefing	
	<b>Thu Mar 9</b> Department budget meetings with SMT and overview briefing	<b>Thu Mar 9</b> Department budget meetings with SMT and overview briefing	<b>Thu Mar 9</b> Department budget meetings with SMT and overview briefing	
	<b>Thu Mar 16</b> Budget narratives submitted to Financial Services		<b>Thu Mar 16 – Mon Mar 20</b> Final budget decisions made by Executive Management (E-Team)	
<b>Apr</b>		<b>Mon Apr 3</b> Proposed draft budgets completed for Budget Workshops with Boards of Directors	<b>Thu Apr 20</b> Board of Directors Budget Workshop for SNWA	
		<b>Thu Apr 13</b> Preliminary Budgets filed with the Nevada State Department of Taxation	<b>Mon Apr 24</b> Board of Directors Budget Workshop for LVVWD (including BBWD & Coyote Springs)	

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**FISCAL YEAR 2023-24 BUDGET CALENDAR**

	All Departments	Financial Planning, Analysis & Reporting	Executive Management	Human Resources
<b>May</b>		<p style="text-align: center;"><b>Tue May 2</b> LVVWD, BBWD, and Coyote Springs Public hearing notice published in LVRJ</p>		
		<p style="text-align: center;"><b>Fri May 5</b> SNWA Public hearing notice published in LVRJ</p>		
			<p style="text-align: center;"><b>Mon May 15</b> LVVWD Board of Directors public hearings conducted on proposed budgets of LVVWD, Big Bend, and Coyote Springs for possible adoption</p>	
			<p style="text-align: center;"><b>Thu May 18</b> SNWA Board of Directors public hearing conducted on the proposed budget for possible adoption</p>	<p style="text-align: center;"><b>Thu May 18</b> Organization charts updated after Boards adopt budgets</p>
		<p style="text-align: center;"><b>Thu May 25</b> Adopted budgets sent to the Nevada Department of Taxation</p>		
<b>Jun</b>		<p style="text-align: center;"><b>Mon Jun 19</b> LVVWD, SNWA, BBWD &amp; Coyote Springs annual summary fiscal reports published in LVRJ</p>		
<b>Jul</b>		<p style="text-align: center;"><b>Thu Jul 20</b> Proof of publication of fiscal reports submitted to the Nevada State Department of Taxation</p>		
<b>Aug</b>		<p style="text-align: center;"><b>Thu Aug 3</b> Budget Award Application submitted to the GFOA</p>		

## **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 2023-24 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 2023-24 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 decrease in water sales, and a decrease in connection charges. Some of those same impacts have been seen from the 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

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realigns the organization’s focus on enhancing service levels, improving asset management, providing rate stability and streamlining the organization to meet current and future community needs.

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

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

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

**VISION**

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

**MISSION**

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

**GOALS**

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

**Strategic Plan Strategies**

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

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

- Provide a high quality drinking water 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.

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- Continually improve operating efficiencies by benchmarking to leading industry standards.
- Ensure a high quality of local and regional water resources through comprehensive water quality and watershed management.

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

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

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

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

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

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

***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.

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***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.

**Performance Measures Matrix**

The following performance measurements are based on the Strategic Plan goals that tie to the overall organization's mission. These performance measurements were developed to assist in evaluating the achievement of the organization's objectives. The measurements presented include data that is both internally and externally produced. Historical data is analyzed and is used as a basis for establishing targets for the current and budget fiscal years. On an annual basis, management will review the performance measurements listed to monitor results, evaluate targets, and add or remove items as needed to reflect organizational priorities.

Strategic Plan goals and metrics, along with the actual levels achieved during fiscal year 2021-22 as well as the targets for fiscal years 2022-23 and 2023-24 are reported in the following table.

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Strategic Goal	Department	Metrics	Definition / Calculation	Fiscal Year 2021-22 Actual	Fiscal Year 2022-23 Target	Fiscal Year 2023-24 Target
Assure quality water through reliable and highly efficient systems	Water Quality & Treatment	Water quality	Meet or surpass all State of Nevada and Federal Safe Drinking Water Act standards for prior calendar year	100%	100%	100%
	Infrastructure Management	Infrastructure leak index	Ratio of actual to unavoidable real losses.	1.9	3.0	3.0
Deliver an outstanding customer service experience	Customer Care	Customer service satisfaction rating	Customer satisfaction rating average for 4 quarters in calendar year	8.01	8.01	>7.58
Anticipate and adapt to changing climatic conditions while demonstrating stewardship of our environment	Water Resources	Water resource availability	Sufficient permanent, temporary and future water resources available to meet projected calendar year demands	100%	100%	100%
	Water Resources	Average water usage / consumption	Gallons per capita per day (GPCD) assumes straight-line approach to goal of 86 GPCD by 2035	110	104	102.5
Develop innovative and sustainable solutions through research and technology	Environmental, Health, Safety and Security	Maintain alternative fuel fleet vehicle standings	Percentage of fleet operating on alternative fuel	90%	90%	91%
	Water Quality & Treatment	Number of innovative solutions deployed	Quantity of innovative solutions working within the system for the fiscal year	3	3	3
Ensure organizational efficiency and manage financial resources to provide maximum customer value	Finance	Reserve target compliance	Amount of unrestricted reserves (unrestricted cash & unrestricted investments) as compared to the unrestricted reserves target	143%	124%	142%
	Finance	Credit ratings	Credit ratings assigned by the credit rating agencies to identify the credit worthiness of an issuer relative to their peers	AA/Aa1	AA/Aa1	AA/Aa1
Strengthen and uphold a culture of service, excellence and accountability	Environmental, Health, Safety and Security	OSHA reportable rates	Incidence rate below the reportable injury and illness rate posted by the Bureau of Labor Statistics (BLS) annually for comparable industries	2.1	2.0	1.9
	Environmental, Health, Safety and Security	EPA reportable notifications	Number of reportable occurrences	0	0	0

# **SECTION 3**

## **OPERATING AND CAPITAL BUDGET PLAN**

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The fiscal year 2023-24 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 2023-24 Operating Budget total sources of funds are projected to be \$720.8 million, or a 10 percent increase compared to the fiscal year 2022-23 Adopted Budget Plan. The fiscal year 2023-24 Budget Plan's total uses of funds are projected to be \$720.8 million, or a 10 percent increase compared to the fiscal year 2022-23 Adopted Budget Plan. The table below shows the Operating Sources and Uses of Funds Summary for the 2021-22, 2022-23, and 2023-24 fiscal years.

**Operating Budget Summary**

	Actual	Budget	Budget	Budget-to-Budget Variance	
	2021-22	2022-23	2023-24	\$	%
<b>SOURCES</b>					
Tiered consumption	\$ 293,005,490	\$ 304,278,181	\$ 303,718,508	\$ (559,673)	— %
Excessive use charge (EUC)	—	—	25,543,404	25,543,404	
Service charge	79,933,307	80,802,711	88,785,176	7,982,464	10 %
Backflow charge	12,709,899	12,643,151	13,058,126	414,975	3 %
Reclaimed water	7,245,697	6,889,401	6,651,778	(237,622)	(3)%
Other water bill charges	7,313,093	9,970,026	8,100,409	(1,869,617)	(19)%
Connection charge	23,578,591	10,600,923	18,595,178	7,994,255	75 %
Application and inspection fees	3,825,425	1,859,555	3,462,341	1,602,785	86 %
Investment income	(23,535,170)	6,382,701	5,673,811	(708,891)	(11)%
Springs preserve	1,699,745	1,593,302	1,864,495	271,193	17 %
Other sources	2,684,272	1,943,309	2,234,482	291,173	15 %
<b>LVVWD Sources</b>	<b>408,460,349</b>	<b>436,963,261</b>	<b>477,687,707</b>	<b>40,724,446</b>	<b>9 %</b>
<b>USES</b>					
Purchased water	100,294,880	110,607,387	113,217,367	2,609,980	2 %
Energy	10,001,647	10,284,000	14,312,392	4,028,392	39 %
Salaries and benefits	125,154,506	150,779,078	159,551,206	8,772,128	6 %
Operating expenses	39,364,406	58,436,787	71,282,006	12,845,219	22 %
Debt service	73,769,702	84,623,533	86,553,586	1,930,052	2 %
EUC deployment and other uses	1,046,866	838,477	21,554,664	20,716,186	
Transfers to reserves	58,828,342	21,393,998	11,216,487	(10,177,512)	(48)%
<b>LVVWD Uses</b>	<b>408,460,349</b>	<b>436,963,261</b>	<b>477,687,707</b>	<b>40,724,446</b>	<b>9 %</b>
<b>SNWA CHARGES</b>					
Infrastructure charge	127,007,226	137,026,339	146,015,019	8,988,680	7 %
Commodity charge	51,682,437	55,731,130	60,500,646	4,769,516	9 %
Connection charge	54,939,284	23,565,008	31,911,723	8,346,715	35 %
Reliability surcharge	4,404,014	4,428,884	4,695,220	266,336	6 %
<b>SNWA Charges</b>	<b>238,032,961</b>	<b>220,751,361</b>	<b>243,122,608</b>	<b>22,371,246</b>	<b>10 %</b>
<b>TOTAL SOURCES</b>	<b>646,493,310</b>	<b>657,714,622</b>	<b>720,810,315</b>	<b>63,095,693</b>	<b>10 %</b>
<b>TOTAL USES</b>	<b>\$ 646,493,310</b>	<b>\$ 657,714,622</b>	<b>\$ 720,810,315</b>	<b>\$ 63,095,693</b>	<b>10 %</b>

## Operating Sources

The fiscal year 2023-24 Operating Budget total sources of funds are projected to be \$720.8 million, which is a 10 percent increase compared to the 2022-23 Adopted Budget Plan.

The LVVWD revenue-based operating sources of funds are projected to rise by \$40.7 million, or nine percent. This increase is largely due to projected increases in excessive use charge, service charge and connection charge.

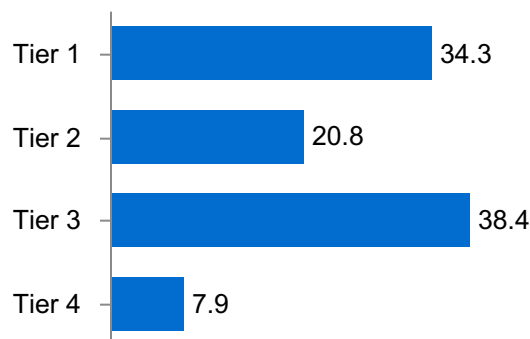
The LVVWD revenue-based operating sources of funds are impacted by the implementation of water rate adjustments. These water rate adjustments, as adopted by the LVVWD Board in January 2017, are inflation-indexed annually.

### 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 – 30%
- Tier 2 – 18%
- Tier 3 – 42%
- Tier 4 – 10%

**2023-24 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 \$1.46 per 1,000 gallons.

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

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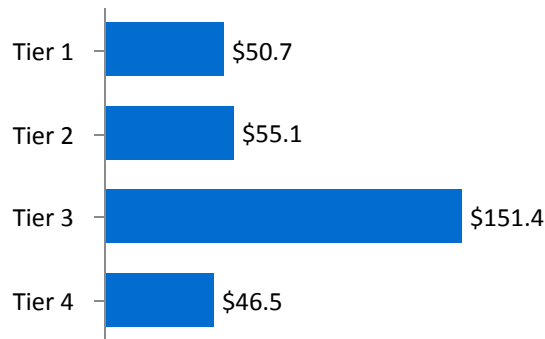
or above in order to encourage conservation. The tier 2 consumption rate is currently set at \$2.61 per 1,000 gallons.

**Tier 3.** Tier 3 typically delivers 40 – 45 percent of the water sold. The tier 3 consumption rate is currently set at \$3.88 per 1,000 gallons.

**Tier 4.** Tier 4 rates are designed to encourage conservation. The tier 4 consumption rate is currently set at \$5.76 per 1,000 gallons.

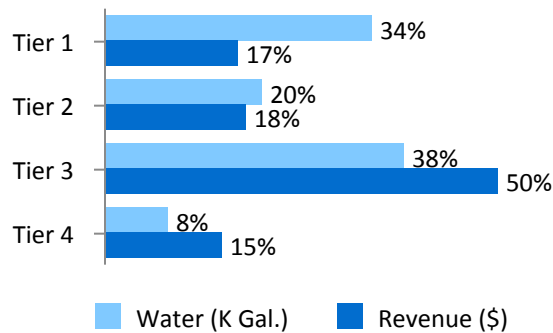
**Construction Water.** Construction water is sold at a uniform rate equal to the tier 3 rate. This water is typically delivered through a fire hydrant and is often used for dust suppression at construction sites.

**2023-24 Budgeted Revenue by Tier**  
 (\$ in millions)



The following chart shows the percent of budgeted water deliveries and revenue by tier for the fiscal year 2023-24. 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**



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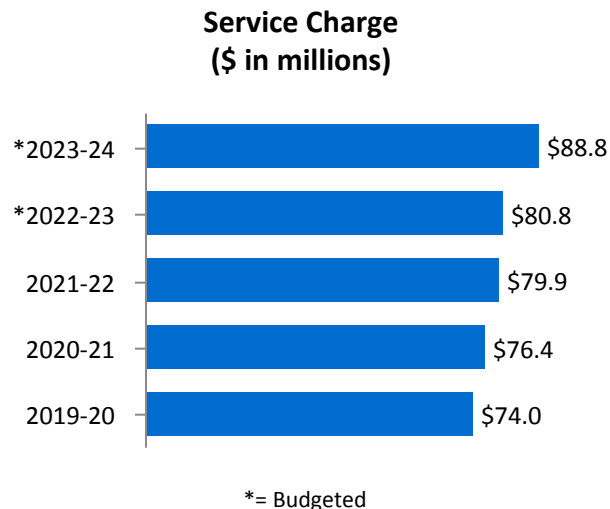
**Excessive Use Charge**

The excessive use charge is a volumetric charge applicable to single-family residential water users effective January 2023. In addition to standard tiered water rates, the excessive use charge is intended to help reduce water use among the highest single-family residential water users. The charge and thresholds were developed by analyzing and evaluating seasonal water use patterns of the top 10 percent of single-family residential customers. If a customer exceeds the applicable threshold in a given month (see following table), they will be assessed a surcharge of \$9.00 per thousand gallons in excess of that threshold.

	Winter	Spring	Summer	Fall
	Nov. 1–Feb. 28/29	Mar. 1–Apr. 30	May 1–Aug. 31	Sep. 1–Oct. 31
Monthly Threshold	14,000 gal	16,000 gal	28,000 gal	26,000 gal
Daily Threshold Equivalent	467 gal	533 gal	933 gal	867 gal

**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.

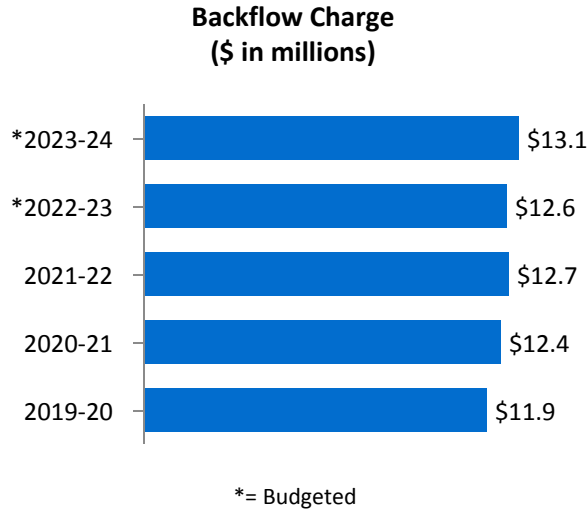


**Backflow Charge**

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

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on the customer’s premises back into the potable water system and thereby potentially contaminating the potable water system. The backflow charge is designed to cover the cost of maintaining those devices.



**Reclaimed Water**

Reclaimed water is treated effluent from water reclamation centers, typically blended with potable water, and delivered to golf courses. The flat rate for reclaimed, or non-potable, water is \$2.33 per 1,000 gallons. Reclaimed water services are not subject to the daily service charge, the SNWA Commodity Charge or the SNWA Reliability Surcharge, but they are subject to the SNWA Infrastructure Charge. For the fiscal year 2023-24 Budget Plan, reclaimed water revenues are estimated to be \$6.7 million.

**Other Water Bill Charges**

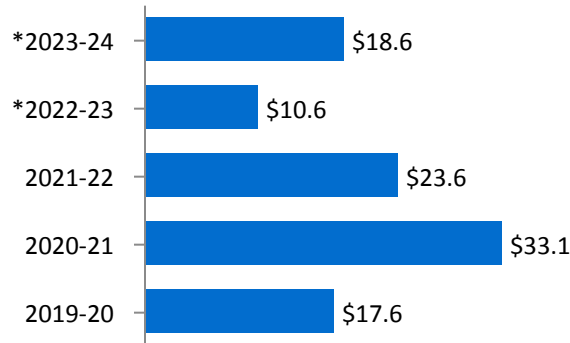
The water bill may contain various other charges which appear on customers’ water bills, such as turn on charges, late fees, delinquent processing charges, lockout fees, returned check charges, etc. Also, the allowance for doubtful accounts is included in other water bill charges. For the fiscal year 2023-24 Budget Plan, other water bill charges are anticipated to total \$8.1 million.

**Connection Charge**

The 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 2023-24 Budget Plan, connection charges are anticipated to be \$18.6 million, which represents a \$8.0 million increase compared to the fiscal year 2022-23 Adopted Budget Plan. The facilities connection charge will be increased annually 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.

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



\* = Budgeted

**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 2023-24 Budget Plan, application and inspection fees total \$3.5 million, an increase of \$1.6 million compared to the fiscal year 2022-23 Adopted Budget Plan. This increase reflects anticipated growth and development in the LVVWD’s service area.

**Investment Income**

Investment income represents earnings on accumulated reserve balances. For the fiscal year 2023-24, interest earnings are anticipated to be \$5.7 million, a \$1 million decrease compared to the fiscal year 2022-23 Adopted Budget Plan estimate. The decrease is mostly the result of fluctuations in the projected 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.

For the fiscal year 2023-24 Budget Plan, revenues for the Springs Preserve are anticipated to total \$1.9 million, a 17 percent increase compared to the fiscal year 2022-23 Adopted Budget Plan.

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**Other Sources**

The 2023-24 Operating Budget Plan includes other sources of \$2.2 million. This amount reflects nonoperating revenues for amounts charged to SNWA for its portion of certain costs as required by the Governmental Accounting Standards Board (GASB) Statements No. 87, *Leases*, and No. 96, *Subscription-Based Information Technology Arrangements*.

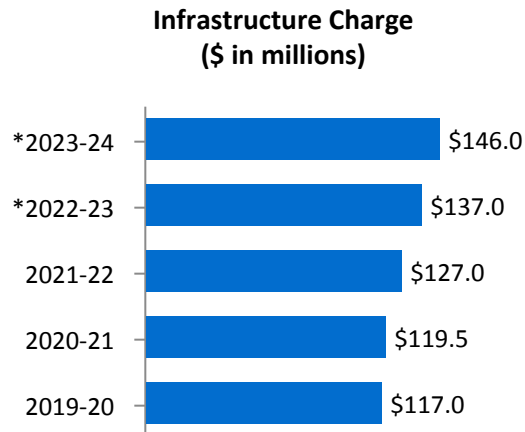
**SNWA Infrastructure Charge**

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 Integrated Resource Planning Advisory Committee (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 SNWA Board in September 2020, and the rate adjustments themselves were adopted by the SNWA Board in November 2020 after a public hearing. These rates were fixed increases of 1.6 percent annually for six years to catch up the rate to current day dollars, as well as three percent to account for current year inflation. Due to unexpected inflation, IRPAC 2020 reconvened in December 2021 to ensure that fees charged maintained pace with current and future inflation. Subsequently, IRPAC 2020 recommended to the SNWA Board to amend the previously approved current year fixed rate increases to variable rates. The variable rates would be the actual Engineering News Record Construction Cost Index, which will allow the cost of services to keep pace with the associated fee structure. The recommendation was approved by the SNWA Board in February 2022. In addition to the new rates, the SNWA Board also approved limiting future increases to a floor of 1.5 percent and a ceiling of seven percent, excluding catch-up increases in years 2023 through 2027.

This source of revenue for the SNWA is projected to generate \$146 million from the LVVWD customers. This represents an increase of \$9.0 million, or seven percent, in the fiscal year 2023-24 Operating Budget Plan when compared to the fiscal year 2022-23 Adopted Operating Budget Plan. This charge is on the LVVWD customers' water bills and the funds pass directly to the SNWA. The infrastructure charge receipts have no impact on the LVVWD's net surplus or deficit.

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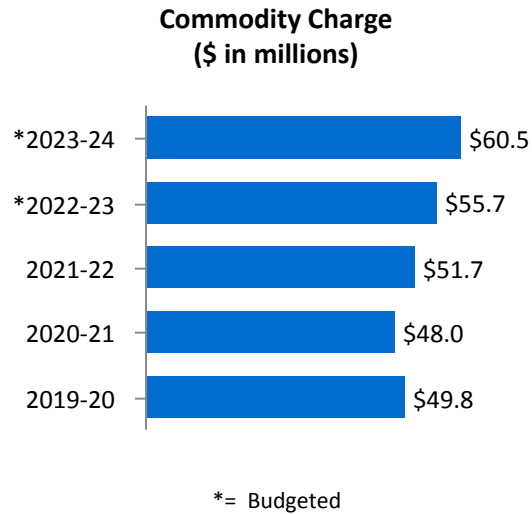


\*= Budgeted

**SNWA Commodity Charge**

The commodity charge was approved by the SNWA Board and the LVVWD Board in December 1995 and went into effect on purveyor water bills beginning in November 1996. This charge consists of a usage cost per 1,000 gallons sold by each of the SNWA’s participating purveyor members to their customers. The 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) starting in 2028, with a six-year set rate schedule for current year inflation as well as catch-up inflation which accounts for inflation since the last increase in January 2017. Catch-up inflation was set at 2.3 percent for six years starting in January 2022. Due to unexpected inflation, IRPAC 2020 reconvened in December 2021 to ensure that fees charged maintained pace with current and future inflation. Subsequently, IRPAC 2020 recommended to the SNWA Board to amend the previously approved current year fixed rate increases to variable rates. The variable rates would be the actual Consumer Price Index (CPI), which will allow the cost of services to keep pace with the associated fee structure. The recommendation was approved by the SNWA Board in February 2022. In addition to the new rates, the SNWA Board also approved limiting future increases to a floor of 1.5 percent and a ceiling of seven percent, excluding catch-up increases in years 2023 through 2027. 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 2023-24, commodity charge revenues are anticipated to be around \$60.5 million, an increase of \$4.8 million, or nine percent, compared to the fiscal year 2022-23 Adopted Operating Budget Plan. The commodity charge receipts have no impact on the LVVWD’s net surplus or deficit.

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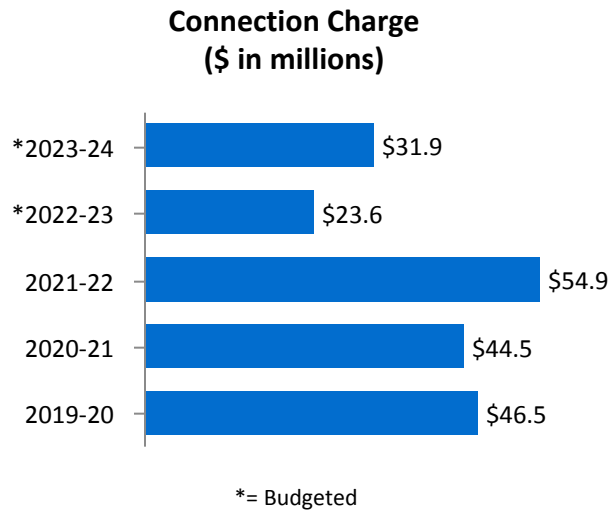


**SNWA Connection Charge**

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.

The fiscal year 2023-24 Budget Plan anticipates the SNWA connection charge collections of \$31.9 million, an increase of \$8.3 million compared to the fiscal year 2022-23 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. The connection charge receipts have no impact on the LVVWD’s net surplus or deficit.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget**  
 Fiscal Year Ending June 30, 2024



**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 2023-24 Budget Plan, it is estimated this charge will total \$4.7 million, an increase of \$0.3 million compared to the fiscal year 2022-23 Adopted Budget Plan. The reliability charge receipts have no impact on the LVVWD’s net surplus or deficit.

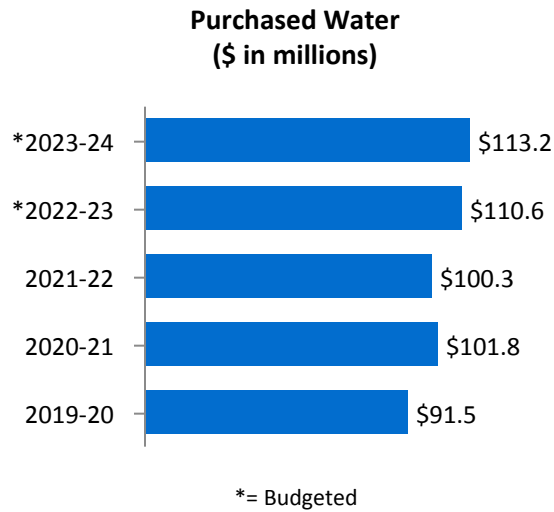
**Operating Uses**

The fiscal year 2023-24 Budget Plan’s total uses of funds are projected to be \$720.8 million, which is a ten percent increase compared to the 2022-23 budget.

**Purchased Water**

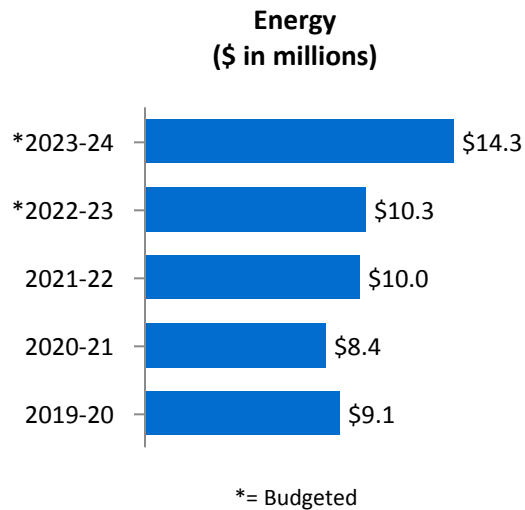
The LVVWD purchases approximately 90 percent of its water from the SNWA. For the fiscal year 2023-24 Budget Plan, water costs are projected to be \$113.2 million, which is a two percent increase compared to the fiscal year 2022-23 Adopted Budget Plan. The increase is predominantly a result of increases in the volume of purchased water. A portion of the increase can be attributed to increases in the wholesale water rate on water purchased from the SNWA.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget**  
Fiscal Year Ending June 30, 2024



**Energy**

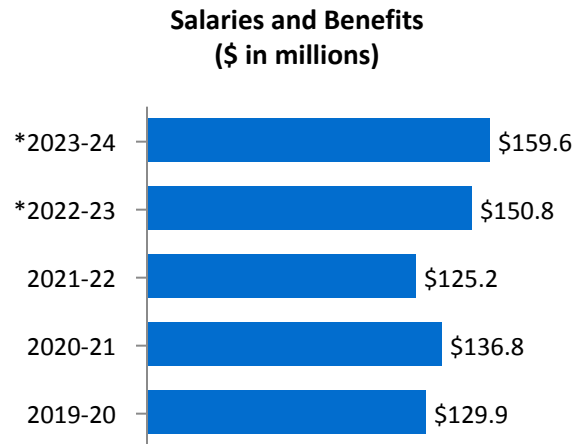
The cost of energy for fiscal year 2023-24 is projected to be \$14.3 million. This is an increase of \$4.0 million over the prior fiscal year 2022-23.



**Salaries and Benefits**

Salaries and benefits costs include wages, salaries and benefits paid to employees. For the fiscal year 2023-24 Budget Plan, salaries and benefits expenses are anticipated to be \$159.6 million. This represents a increase of \$8.8 million, or six percent, compared to the fiscal year 2022-23 Adopted Budget Plan.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget**  
Fiscal Year Ending June 30, 2024



\*= Budgeted

Full-time equivalent (FTE) is a unit of measurement which represents the workload of one full-time employed person. The LVVWD's FTE count is expected to increase by nine employees over the fiscal year 2022-23 Adopted Budget Plan.

**FTE Summary**

<b>DEPARTMENT</b>	<b>Actual 2021-22</b>	<b>Budget 2022-23</b>	<b>Budget 2023-24</b>
Executive Management	5.5	6.9	5.0
Legal Services	5.2	5.5	14.1
Finance	30.7	29.2	31.1
Energy Management	0.0	0.0	0.0
Risk Management	2.7	2.5	2.5
Customer Care & Field Services	151.1	159.7	158.9
Engineering	77.3	93.5	93.6
Infrastructure Management	91.9	101.7	101.0
Operations	180.6	198.6	200.6
Human Resources	19.5	56.2	63.7
Information Technology	78.7	90.6	71.4
Environmental Health Safety & Corporate Security	53.2	61.8	60.1
Water Quality & Treatment	1.2	0.7	0.7
Water Resources	19.5	24.2	25.3
Public Services	49.8	56.0	68.0
<b>Total</b>	<b>767.1</b>	<b>886.9</b>	<b>895.9</b>

\*Totals may vary slightly due to rounding

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget**  
Fiscal Year Ending June 30, 2024

**Operating Expenses**

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

**Operating Expense Detail**

CATEGORY	Actual 2021-22	Budget 2022-23	Budget 2023-24
Materials and supplies	\$ 16.4	\$ 14.8	\$ 17.5
Maintenance and repairs	20.6	26.3	23.4
Rental and leases	0.9	1.0	0.8
Other employee expenses	1.2	2.4	2.5
Other operating expenses	0.2	13.9	27.0
Total	<u>\$ 39.4</u>	<u>\$ 58.4</u>	<u>\$ 71.3</u>

**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 2023-24 Budget Plan anticipates total expenditures of \$17.5 million for this expense category. This represents a increase of \$2.7 million, or 18 percent, compared to the fiscal year 2022-23 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 2023-24 Budget Plan anticipates this expense will total \$23.4 million, an decrease of \$2.9 million, or 11 percent, compared to the fiscal year 2022-23 Adopted Budget Plan.

**Rental and Leases.** The fiscal year 2023-24 Budget Plan anticipates expenses of \$1 million, which includes rent/lease office space, communication equipment and outside storage facilities. This expense decreased by \$0.2 million when compared to the fiscal year 2022-23 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 \$2.5 million spent within this category. This amount represents an increase of \$0.1 million when compared to the fiscal year 2022-23 Adopted Budget Plan.

**Other Operating Expense.** This classification includes, but is not limited to postage, legal fees and professional services. For the fiscal year 2023-24 Budget Plan, other operating expenses are anticipated to total \$27.0 million, an increase of \$13.1 million compared to the fiscal year 2022-23 Adopted Budget Plan.

**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 2023-24

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
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Budget Plan, total debt service payments are expected to total \$86.6 million. The increase of \$1.9 million, compared to the fiscal year 2022-23 Adopted Budget Plan, is largely due to the planned \$80 million debt issuance in 2023-24.

**EUC Deployment and Other Uses**

This classification typically includes nonoperating revenues and expenses. For the fiscal year 2023-24 Budget Plan, total other uses are expected to total \$21.6 million. The increase of \$20.7 million is primarily due to the commitment to use funds received from EUC revenues to fund conservation-related activities.

**Transfers To Reserves**

The fiscal year 2023-24 Operating Budget Plan’s transfers to reserves are projected to be \$11.2 million, a decrease of \$10.2 million compared to the 2022-23 Adopted Budget Plan. The projected transfers are a result of higher sources of revenue and lower uses (expenditures).

**SNWA Charges**

As described in the Sources section previously, the overall SNWA Charges for the fiscal year 2023-24 Budget Plan are expected to be \$243.1 million. This amount represents an increase of \$22.4 million, or 10.1 percent, when compared to the fiscal year 2022-23 Adopted Budget Plan.

The fiscal year 2023-24 Capital Budget total sources of funds are projected to be \$321.8 million, or a 34.3 percent increase compared to the fiscal year 2022-23 Adopted Capital Budget Plan. The fiscal year 2023-24 Budget Plan’s total uses of funds are projected to be \$321.8 million, or a 34.3 percent increase compared to the fiscal year 2022-23 Adopted Budget Plan. The table below shows the Capital Sources and Uses of Funds Summary for the 2021-22, 2022-23, and 2023-24 fiscal years.

**Capital Budget Summary**

	Actual	Budget	Budget	Budget-to-Budget Variance	
	2021-22	2022-23	2023-24	\$	%
<b>SOURCES</b>					
Developer/grant funds	\$ 16,630,773	\$ 39,725,405	\$ 83,024,635	\$ 43,299,230	109 %
Debt issuance proceeds	75,551,566	80,000,000	230,000,000	150,000,000	188 %
Other sources	—	—	8,764,231	8,764,231	— %
Transfers from reserves	18,956,268	119,929,960	—	(119,929,960)	(100)%
<b>LVVWD Sources</b>	<b>111,138,607</b>	<b>239,655,365</b>	<b>321,788,866</b>	<b>82,133,501</b>	<b>34 %</b>
<b>USES</b>					
Capital expenditures	111,138,607	239,655,365	243,236,115	3,580,750	1 %
Transfers to reserves	—	—	78,552,751	78,552,751	— %
<b>LVVWD Uses</b>	<b>\$ 111,138,607</b>	<b>\$ 239,655,365</b>	<b>\$ 321,788,866</b>	<b>\$ 82,133,501</b>	<b>34 %</b>

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget**  
Fiscal Year Ending June 30, 2024

## **Capital Sources**

The fiscal year 2023-24 Capital Budget total sources of funds are projected to be \$321.8 million, which is a 34.3 percent increase compared to the 2022-23 Adopted Budget Plan. This increase is due to updated projections for debt issuances and the increases in developer/grant funds.

### **Developer/Grant Funds**

The 2023-24 Capital Budget includes developer/grant funds of \$83.0 million. This amount is comprised of \$39.7 million of sources from the oversizing fund. The oversizing fund in other sources matches the amounts in their corresponding uses of funds within capital expenditures.

### **Debt Issuance Proceeds**

**Municipal Bond Proceeds.** The LVVWD plans to issue \$230 million in bonds during 2023-24. The bond proceeds are to fund capital expenditures, which is discussed in further detail later in this section.

### **Other Sources**

The 2023-24 Capital Budget includes other sources of \$8.8 million. This grouping of revenue reflects other capital sources such as contributed capital.

### **Transfers From Reserves**

The 2023-24 Capital Budget does not include any transfers from reserves.

## **Capital Uses**

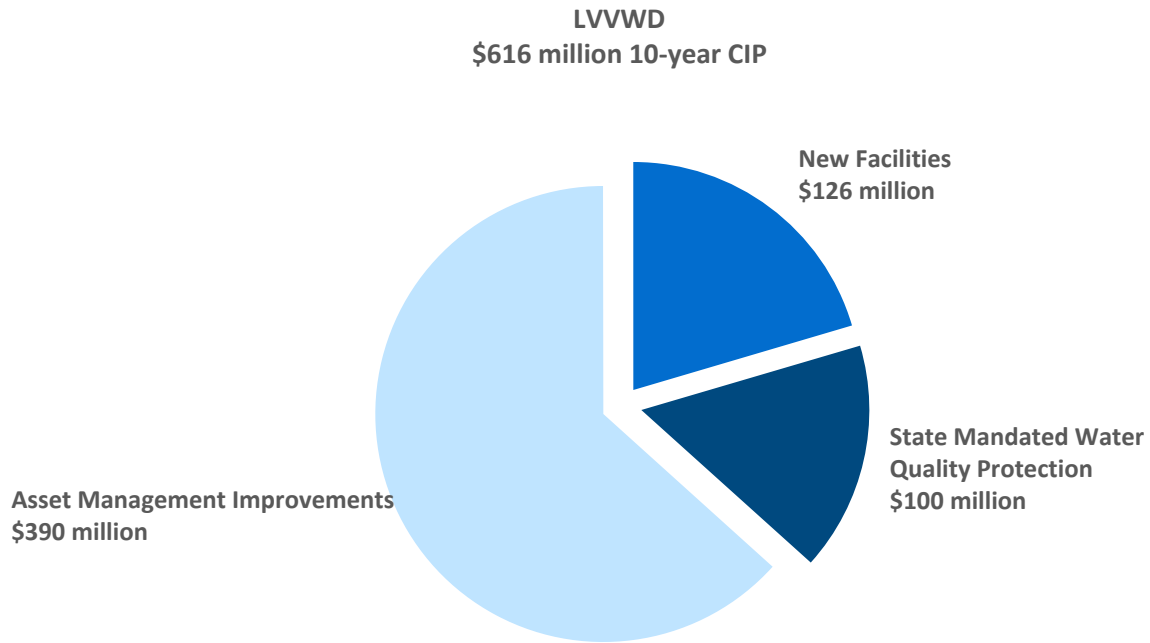
The fiscal year 2023-24 Capital Budget's total uses of funds are projected to be \$321.8 million, which is a 34.3 percent increase compared to the 2022-23 budget.

### **Capital Expenditures**

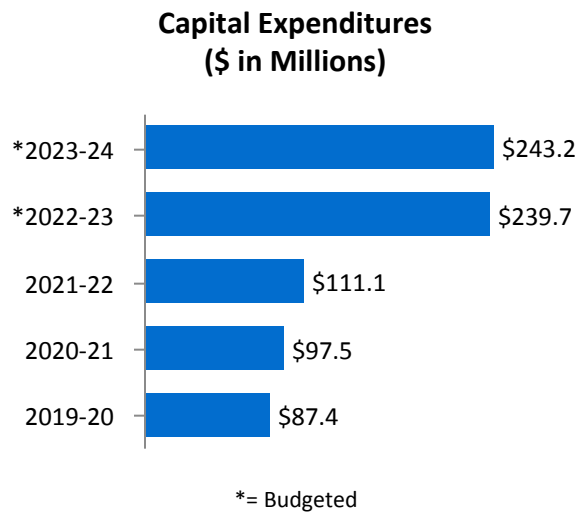
Capital expenditures are primarily driven by the need to expand and maintain the LVVWD's water storage, pumping, distribution system, facilities and equipment.

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.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget**  
 Fiscal Year Ending June 30, 2024



For the fiscal year 2023-24 Capital Budget, 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 2023-24 Budget Plan, total construction expenditures and equipment are budgeted at \$243.2 million, or an increase of 1 percent, compared to the fiscal year 2022-23 Adopted Budget Plan.



**Capital Equipment and Vehicles.** For the fiscal year 2023-24 Capital Budget, equipment purchases are anticipated to total \$15.7 million, an increase of \$3.8 million, or 31 percent, compared to the fiscal year 2022-23 Adopted Budget Plan.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget**  
Fiscal Year Ending June 30, 2024

**Capital Projects.** For the fiscal year 2023-24 Capital Budget, 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 2023-24 budget, the LVVWD anticipates spending \$227.5 million on capital projects, which is largely consistent with the amounts funded in the fiscal year 2022-23 Adopted Budget Plan. 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.

**Transfers To Reserves**

This classification includes transfers of capital funds in excess of the capital budget. For the fiscal year 2023-24 Budget Plan, LVVWD plans to have transfers to reserves of \$78.6 million.

**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 No. 33, *Exchange or Non-exchange Transaction*. The following table summarizes the estimated sources and uses of funds and changes in net assets for the fiscal year 2023-24 Budget Plan.

**Estimated Net Assets Detail**  
**Fiscal Year 2023-24 Budget**

	Invested in Capital Assets Net of Related Debt	Restricted for Debt Service	Restricted for Capital Projects	Restricted for Captive	Unrestricted Net Assets	Total Proprietary Fund Net Position	Pension Trust Fund	OPEB Trust Fund	Total Net Assets
<b>Estimated equity</b>									
<b>6/30/2023</b>	\$ 901,329,165	\$ 33,501,700	\$ 208,138	\$ 525,000	\$ 443,969,302	\$ 1,379,533,305	\$ 645,580,864	\$ 24,007,373	\$ 2,049,121,542
<b>Capital acquisitions</b>	243,236,115	—	—	—	—	243,236,115	—	—	243,236,115
<b>Bond payments</b>									
Principal	45,878,570	(45,878,570)	—	—	—	—	—	—	—
Interest	—	(40,675,016)	—	—	—	(40,675,016)	—	—	(40,675,016)
<b>Transfer for debt service</b>	—	86,553,586	—	—	(86,553,586)	—	—	—	—
<b>Operating revenues</b>									
		—	—	—	451,184,236	451,184,236	57,173,150	2,500,004	510,857,390
<b>Operating expenses</b>	(110,117,190)	—	—	—	(401,472,298)	(511,589,488)	(30,400,000)	(2,200,004)	(544,189,492)
<b>Nonoperating revenues (net)</b>	—	—	—	—	48,058,134	48,058,134	—	—	48,058,134
<b>Estimated equity</b>									
<b>6/30/2024</b>	\$ 1,080,326,660	\$ 33,501,700	\$ 208,138	\$ 525,000	\$ 455,185,788	\$ 1,569,747,286	\$ 672,354,014	\$ 24,307,373	\$ 2,266,408,673

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Operating and Capital Budget**  
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**Invested in Capital Assets, Net of Related Debt.** Capital expenditures are offset by cash received from the facilities connection charge and funding from developers for capital projects. 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 Net Assets to the Debt Service classification on a monthly basis. Total transfers of \$86.6 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 2023-24, these revenues are anticipated to total approximately \$451.2 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 2023-24, these expenses are anticipated to total approximately \$511.6 million.
- **Pension Expense** - For the fiscal year 2023-24, this expense has been separated from the payroll expense listed in the Uses of Funds, and is shown as a separate operating expense in the preceding table in order to clarify and better track the transfer of this expense from the LVVWD's Proprietary Fund to the Pension Trust Fund.
- **Other Post Employment Benefits (OPEB) Expense** – For the fiscal year 2023-24, 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.
- **Nonoperating Revenues (net)** - Nonoperating 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 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

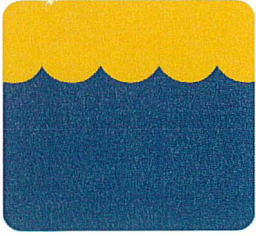
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**LAS VEGAS VALLEY  
WATER DISTRICT™**





# 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 final budget for the  
fiscal year ending June 30, 2024

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 \$ 765,860,929

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: E.K. Bethel

Dated: 5/15/23

Phone: (702) 822-8809

### APPROVED BY THE GOVERNING BOARD

Only necessary for **FINAL** Budget  
(Signature by DocuSign is acceptable)

Marilyn Kirkpatrick, President

James Gibson, Vice President

Justin Jones

William McCurdy II

Ross Miller

Michael Naft

Tick Segerblom

### SCHEDULED PUBLIC HEARING:

(Must be held from May 15, 2023 to May 31, 2023)

Date and Time: Monday, May 15, 2023 at 9:45 AM

Publication Date: May 2, 2023

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

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

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FULL TIME EQUIVALENT EMPLOYEES BY FUNCTION

	ACTUAL PRIOR YEAR YEAR 06/30/22	ESTIMATED CURRENT YEAR YEAR 06/30/23	BUDGET YEAR YEAR 06/30/24
General Government			
Judicial			
Public Safety			
Public Works			
Sanitation			
Health			
Welfare			
Culture and Recreation			
Community Support			
TOTAL GENERAL GOVERNMENT			
Utilities	767.1	886.9	895.9
Hospitals			
Transit Systems			
Airports			
Other			
TOTAL	767.1	886.9	895.9

POPULATION (AS OF JULY 1)	1,627,904	1,649,067	1,670,505
SOURCE OF POPULATION ESTIMATE*	NV Dept. of Taxation ( <a href="https://tax.nv.gov/">https://tax.nv.gov/</a> ) 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



PROPRIETARY FUND	(1)	(2)	(3) (4) BUDGET YEAR ENDING 06/30/24	
	ACTUAL PRIOR YEAR ENDING 6/30/2022	ESTIMATED CURRENT YEAR ENDING 6/30/2023	TENTATIVE APPROVED	FINAL APPROVED
OPERATING REVENUE				
Water Sales	\$ 400,207,486	\$ 413,665,515	\$ 445,857,401	\$ 445,857,401
Application & Inspection Fees	3,825,425	3,411,173	3,462,341	3,462,341
Springs Preserve	1,699,745	1,813,711	1,864,495	1,864,495
Other Operating Revenue	753,804	-	-	-
SNWA Infrastructure Charge	127,007,226	138,226,744	146,015,019	146,015,019
SNWA Commodity Charge	51,682,437	55,893,843	60,500,646	60,500,646
SNWA Connection Charge	54,939,284	48,226,874	31,911,723	31,911,723
SNWA Reliability Charge	4,404,014	4,514,634	4,695,220	4,695,220
Total Operating Revenue	644,519,420	665,752,495	694,306,844	694,306,844
OPERATING EXPENSE				
Purchased Water	100,294,880	104,038,203	113,217,367	113,217,367
Energy	10,001,647	11,415,240	14,312,392	14,312,392
Payroll & Related	125,154,506	147,763,497	159,551,206	159,551,206
Operations & Maintenance	39,913,116	42,513,559	63,310,487	63,310,487
SNWA Infrastructure Charge	127,007,226	138,226,744	146,015,019	146,015,019
SNWA Commodity Charge	51,682,437	55,893,843	60,500,646	60,500,646
SNWA Connection Charge	54,939,284	48,226,874	31,911,723	31,911,723
SNWA Reliability Charge	4,404,014	4,514,634	4,695,220	4,695,220
Depreciation/Amortization	89,618,432	101,527,230	110,117,190	110,117,190
Total Operating Expense	603,015,541	654,119,824	703,631,249	703,631,249
Operating Income or (Loss)	41,503,879	11,632,671	(9,324,405)	(9,324,405)
NONOPERATING REVENUES				
Capital Contributions	54,272,548	52,367,762	101,619,813	101,619,813
Investment Income - Unrestricted Funds	(24,210,612)	1,920,726	3,744,715	3,744,715
Investment Income - Restricted Funds	675,442	989,465	1,929,096	1,929,096
Other Nonoperating Revenue	2,570,400	1,943,309	2,234,482	2,234,482
Total Nonoperating Revenues	33,307,778	57,221,262	109,528,106	109,528,106
NONOPERATING EXPENSES				
Interest Expense	23,801,967	39,435,398	40,912,097	40,912,097
Other Nonoperating Expenses	-	838,477	21,317,583	21,317,583
Total Nonoperating Expenses	23,801,967	40,273,875	62,229,680	62,229,680
Net Income before Operating Transfers	51,009,690	28,580,058	37,974,021	37,974,021
Transfers (Schedule T)				
In				
Out				
Net Operating Transfers				
CHANGE IN NET POSITION	\$ 51,009,690	\$ 28,580,058	\$ 37,974,021	\$ 37,974,021

Las Vegas Valley Water District  
(Local Government)

SCHEDULE F-1 REVENUES, EXPENSES AND NET POSITION

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

<b>PROPRIETARY FUND</b>	(1)	(2)	(3) (4) BUDGET YEAR ENDING 06/30/24	
	ACTUAL PRIOR YEAR ENDING 6/30/2022	ESTIMATED CURRENT YEAR ENDING 6/30/2023	TENTATIVE APPROVED	FINAL APPROVED
<b>ADDITIONS</b>				
Contributions - Employer	\$ 45,000,000	\$ 45,000,000	\$ 48,000,000	\$ 48,000,000
Contributions - Employee	1,109,815	600,000	1,000,000	1,000,000
Net Investment Earnings	-	-	8,173,150	8,173,150
<b>Total Additions</b>	<b>46,109,815</b>	<b>45,600,000</b>	<b>57,173,150</b>	<b>57,173,150</b>
<b>DEDUCTIONS</b>				
Administrative & General Expenses	401,950	400,000	400,000	400,000
Benefits Paid	32,261,310	28,000,000	30,000,000	30,000,000
Net Investment Losses	99,398,311	48,544,090	-	-
<b>Total Deductions</b>	<b>132,061,571</b>	<b>76,944,090</b>	<b>30,400,000</b>	<b>30,400,000</b>
<b>Net Increase / (Decrease) in Net Position before Operating Transfers</b>	<b>(85,951,756)</b>	<b>(31,344,090)</b>	<b>26,773,150</b>	<b>26,773,150</b>
<b>Transfers (Schedule T)</b>				
In				
Out				
<b>Net Operating Transfers</b>				
<b>CHANGE IN NET POSITION</b>	<b>\$ (85,951,756)</b>	<b>\$ (31,344,090)</b>	<b>\$ 26,773,150</b>	<b>\$ 26,773,150</b>

Las Vegas Valley Water District  
(Local Government)

SCHEDULE F-1 REVENUES, EXPENSES AND NET POSITION

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

<b>PROPRIETARY FUND</b>	(1)	(2)	(3) (4) BUDGET YEAR ENDING 06/30/24	
	ACTUAL PRIOR YEAR ENDING 6/30/2022	ESTIMATED CURRENT YEAR ENDING 6/30/2023	TENTATIVE APPROVED	FINAL APPROVED
<b>ADDITIONS</b>				
Contributions - Employer	\$ 2,340,641	\$ 2,000,004	\$ 2,000,004	\$ 2,000,004
Contributions - Employee	-	-	-	-
Net Investment Earnings	-	-	500,000	500,000
<b>Total Additions</b>	<b>2,340,641</b>	<b>2,000,004</b>	<b>2,500,004</b>	<b>2,500,004</b>
<b>DEDUCTIONS</b>				
Administrative & General Expenses	1,000	200,000	200,000	200,000
Benefits Paid	2,340,641	2,000,004	2,000,004	2,000,004
Net Investment Losses	2,177,874	-	-	-
<b>Total Deductions</b>	<b>4,519,515</b>	<b>2,200,004</b>	<b>2,200,004</b>	<b>2,200,004</b>
<b>Net Increase in Net Position before Operating Transfers</b>	<b>(2,178,874)</b>	<b>(200,000)</b>	<b>300,000</b>	<b>300,000</b>
Transfers (Schedule T)				
In				
Out				
Net Operating Transfers				
<b>CHANGE IN NET POSITION</b>	<b>\$ (2,178,874)</b>	<b>\$ (200,000)</b>	<b>\$ 300,000</b>	<b>\$ 300,000</b>

Las Vegas Valley Water District  
(Local Government)

SCHEDULE F-1 REVENUES, EXPENSES AND NET POSITION

FUND OTHER POST EMPLOYMENT BENEFITS (OPEB) TRUST

<b>PROPRIETARY FUND</b>	(1)	(2)	(3) BUDGET YEAR ENDING 06/30/24	
	ACTUAL PRIOR YEAR ENDING 6/30/2022	ESTIMATED CURRENT YEAR ENDING 6/30/2023	TENTATIVE APPROVED	FINAL APPROVED
<b>A. CASH FLOWS FROM OPERATING ACTIVITIES:</b>				
Cash Received from Customers	\$ 404,079,034	\$ 418,890,399	\$ 451,184,236	\$ 451,184,236
Cash Payments to Suppliers for Goods and Services	(142,113,904)	(157,967,002)	(211,383,650)	(211,383,650)
Cash Payments to Employees for services	(126,423,445)	(147,763,497)	(159,551,206)	(159,551,206)
Other Cash Receipts	1,822,241	1,943,309	2,234,482	2,234,482
Other Cash Payments	(1,424)	(10,000,000)	(10,000,000)	(10,000,000)
a. Net cash provided by (or used for) operating activities	137,362,502	105,103,210	72,483,863	72,483,863
<b>B. CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:</b>				
b. Net cash provided by (or used for) noncapital financing activities	-	-	-	-
<b>C. CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:</b>				
Acquisition and Construction of Capital Assets	(79,446,412)	(167,758,755)	(243,236,115)	(243,236,115)
Capital Contributed for Construction	42,797,592	52,367,762	101,619,813	101,619,813
Proceeds from Sale of Property and Equipment	305,845	-	-	-
Proceeds from Sale of Bonds	75,096,863	-	230,000,000	230,000,000
Bond Issue Costs	-	-	(765,900)	(765,900)
Principal Paid on Bonds	(40,786,439)	(44,121,813)	(45,878,570)	(45,878,570)
Interest Paid	(33,045,220)	(34,992,502)	(40,675,016)	(40,675,016)
Construction Deposits	14,974,309	-	-	-
Right-of-use Leases	(1,994,023)	(1,921,319)	(1,945,100)	(1,945,100)
Subscription asset	-	(6,760,916)	(6,263,500)	(6,263,500)
c. Net cash provided by (or used for) capital and related financing activities	(22,097,485)	(203,187,542)	(7,144,388)	(7,144,388)
<b>D. CASH FLOWS FROM INVESTING ACTIVITIES:</b>				
Purchase of Investment Securities	(428,553,893)	(605,000,000)	(632,371,361)	(632,371,361)
Proceeds from Maturities of Investment Securities	439,669,202	586,680,000	561,162,500	561,162,500
Investment Income	7,374,058	2,910,191	5,673,811	5,673,811
d. Net cash provided by (or used in) investing activities	18,489,367	(15,409,809)	(65,535,050)	(65,535,050)
NET INCREASE (DECREASE) in cash and cash equivalents (a+b+c+d)	133,754,384	(113,494,141)	(195,575)	(195,575)
CASH AND CASH EQUIVALENTS AT JULY 1, 20xx	543,645	134,298,029	20,803,888	20,803,888
CASH AND CASH EQUIVALENTS AT JUNE 30, 20xx	\$ 134,298,029	\$ 20,803,888	\$ 20,608,313	\$ 20,608,313

Las Vegas Valley Water District  
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SCHEDULE F-2 STATEMENT OF CASH FLOWS

FUND ENTERPRISE

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

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

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) REQUIREMENTS FOR FISCAL YEAR ENDING 06/30/24		(10)	(11)
NAME OF BOND OR LOAN List and Subtotal By Fund	TYPE *	TERM	ORIGINAL AMOUNT OF ISSUE	ISSUE DATE	FINAL PAYMENT DATE	INTEREST RATE	BEGINNING OUTSTANDING BALANCE 7/1/2023	INTEREST PAYABLE	PRINCIPAL PAYABLE	(9)+(10)	TOTAL
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	
2014 SRF	10	20 Years	19,929,329	12/01/14	07/01/34	3%	14,396,535	363,027	1,090,909	1,453,936	
2015A	2	12 Years	172,430,000	06/01/15	06/01/27	2.0% - 5.0%	63,635,000	3,181,750	16,825,000	20,006,750	
2016B	2	20 Years	108,220,000	04/06/16	06/01/36	2.5% - 5.0%	81,610,000	4,009,250	4,665,000	8,674,250	
2016 SRF	10	20 Years	15,000,000	09/15/16	01/01/37	2%	12,316,216	215,619	814,728	1,030,347	
2017A	2	21 Years	130,105,000	03/14/17	02/01/38	4.0% - 5.0%	107,650,000	4,862,900	5,050,000	9,912,900	
2017 SRF	10	20 Years	15,000,000	05/03/17	01/01/37	2.4%	12,456,834	295,671	757,933	1,053,604	
2018A	2	30 Years	100,000,000	06/26/18	06/01/48	30% - 5.0%	90,615,000	3,491,913	2,195,000	5,686,913	
2020B	2	18 Years	22,240,000	03/03/20	03/01/38	2.0% - 5.0%	19,685,000	739,125	940,000	1,679,125	
2020D	2	16 Years	98,080,000	04/01/20	06/01/36	2.0% - 5.0%	85,220,000	3,172,519	4,945,000	8,117,519	
2020C	2	30 Years	100,000,000	07/16/20	06/01/50	2.0% - 5.0%	94,465,000	2,721,413	2,115,000	4,836,413	
2021B	2	6 Years	32,795,000	03/03/21	06/01/27	0.05	22,910,000	1,145,500	5,320,000	6,465,500	
2022B	2	10 Years	31,495,000	03/03/22	06/01/32	0.05	31,495,000	1,574,750	-	1,574,750	
2022D	2	30 Years	70,555,000	06/29/22	06/01/52	4.0% - 5.0%	69,220,000	3,019,350	1,160,000	4,179,350	
2023-24 Proposed Bonds	11	30 Years	230,000,000	2023-24	2053-54	0.05	230,000,000	7,570,833	-	7,570,833	
<b>TOTAL ALL DEBT SERVICE</b>							<b>\$ 1,011,669,584</b>	<b>\$ 40,675,016</b>	<b>\$ 45,878,570</b>	<b>\$ 86,553,586</b>	

SCHEDULE C-1 - INDEBTEDNESS  
 Las Vegas Valley Water District Budget Fiscal Year 24  
 (Local Government)

**SCHEDULE OF EXISTING CONTRACTS**

**Budget Year 2023-2024**

**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: \_\_\_\_109\_\_\_\_

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2023-24	Proposed Expenditure FY 2024-25	Reason or need for contract:
1	AJNC Industries LLC dba Clark Welding & Fabricating	01/21/20	01/20/25	100,000	100,000	As-Needed Welding and Fabricating Services for Distribution
2	Alarmco	10/01/18	09/30/26	40,000	40,000	Fire Alarm Monitoring
3	Alarmco	10/01/18	09/30/25	42,000	42,000	Alarm Monitoring Services - Springs Preserve, LVVWD and offsite locations
4	Altour	07/01/20	06/30/27	22,000	22,000	Travel Services
5	Annadatha V.M. Rao	3/21/2019	03/20/26	25,000	25,000	Water Distribution Plan Software Development Services
6	Arizona Pneumatic dba Nevada Pneumatic Systems, Inc.	04/11/19	04/10/24	25,000	18,750	Maintenance/Repairs of Air Compressors at River Mountains Water Treatment Facility
7	Atkins North America	12/15/18	12/15/23	61,600	-	Engineering Design Services
8	Automatic Door & Glass LLC	08/12/21	08/01/26	25,000	25,000	Springs Preserve On-call Door Repair Services
8b	Baker Tilly US, LLP	03/10/22	12/31/27	100,000	100,000	Professional Auditing Services LVVWD
9	Banctec Inc	01/29/20	05/04/24	180,000	-	Remittance Processing Services
10	Black & Veatch	02/03/19	02/02/24	34,000		Professional Design/Engineering Services
11	Blue Locker Commercial Diving	10/01/19	09/30/25	100,000	100,000	Diver Inspection And Cleaning Services For Tanks And Reservoirs
12	BrightView Landscape Services Inc	01/01/22	06/30/25	499,050	499,050	Landscape & Grounds Maintenance Services
13	Cardino Inc	01/10/19	01/09/26	14,000	14,000	Horizontal & Vertical Utility Location Services
14	Carollo Engineers Inc	07/15/19	07/14/26	15,000	15,000	Professional Design/Engineering Services
15	Carpenter Sellers Del Gatto Architects	05/20/20	05/04/27	62,208	62,208	Design Services For L0088
16	Cloud Carpet One	02/03/20	02/02/25	25,000	25,000	On-Call Carpet And Vinyl Flooring Installaton Services
17	Consili Inc.	04/11/21	04/10/25	65,000	65,000	Legislative and Regulatory Advisory Services
18	Construction Product Marketing	11/01/17	10/31/23	26,200	-	CCTV Inspections and Other Pipeline Assessment Services
19	Corporate Air Mechanical Services Inc	10/07/19	02/06/24	50,090	50,090	HVAC Services
20	Cosco Fire Protection Inc	12/01/20	08/13/25	16,000	16,000	Fire System Repairs
21	Crawford & Company	01/23/19	01/22/24	25,000	25,000	Claims Adjusting Services
22	Custard Insurance Adjusters, Inc.	04/09/18	04/08/25	25,000	25,000	Claims Adjusting Services
23	Darrel W. Cook & Associates	10/30/19	10/29/26	30,000	30,000	Representation On Datamatic Lawsuit
24	DC Plumbing & Heating LLC Db Purified Plumbing	11/08/20	11/06/26	20,000	20,000	Plumbing On-Call Services for Field Services
25	Desert Research Institute (Board Of Regents, Unr)	11/18/21	11/17/26	50,000	50,000	Spring Mountains Cloud Seeding Agreement
26	Design Vision, Inc. dba Southwick Landscape Architects	03/06/18	03/05/25	50,000	50,000	Professional Architectural/Design Services
27	DJA Inspection Services	09/06/18	09/05/24	50,000	50,000	Storage Tank Inspection Services For Condition Assessment For Asset Management
28	DR Backflow Services LLC	05/06/20	08/08/27	50,000	50,000	Testing Of Below Ground And Rural Area Backflow Assemblies
29	Echologics LLC	07/01/20	06/30/25	100,000	100,000	Large pipeline leak detection and assessment services for Asset Management
30	Epiq Ediscovery Solutions, Inc.	11/2/2021	6/30/2028	200,000	200,000	Development, Validation, and Execution of Technical Upgrades, Extensions, and Data Migrations
31	Fleet Management Solutions Inc	07/01/19	06/30/24	28,000	-	District's Vehicle Tracking System Services
32	Fracta	03/14/19	Perpetual	24,999	24,999	Pipeline Breakage Risk Assessment Services
33	G&G Systems	06/30/20	06/29/25	100,000	100,000	RMWTF, Clean Agent Suppression and Fire Alarm System; Testing, Preventative Maintenance, and Repair Services
34	General Networks Corporation	06/02/20	06/01/26	50,000	50,000	Information Governance Services -Open Text

35	Guardian Elite Medical Services, LLC	11/1/2021	10/31/28	15,000	15,000	LVSP Event EMT Services
36	HCI Advertising (Prodajsa Usa Inc)	07/01/21	06/30/25	450,000	450,000	Spanish-Language Conservation and Water Quality Advertising & Marketing Services
37	HDR Engineering Inc	01/22/20	01/21/27	45,000	45,000	Professional Design/Engineering Services
38	HDR Engineering, Inc	01/22/20	01/21/27	52,705	52,705	Design Services For C1517 Operations Building Power Improvements
39	Henderson Engineers	04/11/20	04/10/26	90,000	90,000	Engineering Services
40	Holland And Hart	09/23/08	upon notice	100,000	100,000	Environmental Legal Services
41	Horrocks Engineers	02/20/20	02/20/27	4,750	4,750	Design Services For C1518
42	Hunton Andrew Kurth	01/15/20	01/14/27	30,000	30,000	Cybersecurity And Data Privacy Legal Advice
43	Hydromax USA LLC	10/01/21	09/30/27	100,000	100,000	Pipeline Inspection Services for Asset Management
44	Isle Inc.	6/16/2021	6/15/2028	24,500	24,500	Asset Management Program Consultation
45	IZ design studio	3/4/2021	3/4/2028	1,369	1,369	Springs Preserve, Origen Museum, Restroom Remodel Project
46	Joshua Tree Productions	7/1/2018	06/30/24	72,000	-	Springs Elemental Professional Video Services
47	Knight & Leavitt Associates Inc	07/05/17	07/04/24	50,000	50,000	Desert Tortoise Services
48	Kone Inc	03/06/19	03/05/24	112,000	-	Elevator Maintenance Services
49	Las Vegas Plumbing Inc	03/01/21	02/28/26	20,000	20,000	Miscellaneous On-Call Plumbing Services For Distribution
50	Las Vegas Plumbing Inc	03/01/21	02/28/26	25,000	25,000	Miscellaneous On-Call Plumbing Services For Field Services
51	Mainspring Consulting Group	06/30/20	06/29/27	54,906	54,906	CIm Project Assesment (Apttus)
52	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.
53	Market Decisions Corporation	12/14/2021	12/13/28	283,720	300,000	Data Collection Services
54	Marsh USA	11/24/20	01/23/27	65,000	65,000	Captive Management Services
55	McDermott, Will & Emery, LLP	04/02/20	04/01/27	25,000	25,000	Legal Consulting Services
56	Moapa Valley Telephone Company	03/15/19	03/14/26	14,500	14,500	T1 Communication Lines
57	Mobile Mini Inc	10/01/18	09/30/25	15,000	15,000	Communication
58	Mr Camera Inc	04/24/18	04/30/25	60,000	60,000	Video Services
59	NDL Group Inc	04/01/18	03/31/24	24,500	-	General Contracting Services At The Springs Preserve
60	Nevada Pneumatic	04/11/19	04/10/26	20,000	20,000	Maintenance/Repairs
61	Nevada Tap Master	12/31/19	01/01/24	33,626	33,626	Large Diameter Pipeline Hot Tap Services For Asset Management
62	Nevada Tap Master Inc CCR	03/16/20	03/15/25	50,000	50,000	Pipeline Hot Tapping and Valve Installation service for Distribution
63	Oasis Pool Maintenance, LLC	10/14/2021	10/13/26	25,000	25,000	Springs Preserve On-Call Rockwork
64	Ogletree Deakins	07/20/16	Upon notice	100,000	100,000	Counsel on ADA Issues
65	Ontario Refrigeration	08/13/19	08/12/24	100,000	100,000	SNWA Chiller Preventative Maintenance & Repair Services
66	Pacific Surveys	09/11/17	09/10/27	50,000	50,000	Geophysical Inspection And Well Profiling Services
67	Par 3 Landscape & Maintenance Inc	02/20/20	02/19/25	25,000	25,000	Landscaping Services
68	Parson Water & Infrastructure	07/08/21	07/07/27	98,000	98,000	Consulting Services Related To Prevailing Wage For Various Construction Projects
69	Parson Water & Infrastructure	06/23/20	06/22/27	98,000	98,000	Construction Inspections Support Services
70	Precision Electric	06/17/21	06/16/26	25,000	25,000	Springs Preserve On-call Electrical Services
71	Precision Electric Inc	07/24/18	07/23/24	25,000	25,000	On-Call Electrical Services
72	Precision Plumbing Inc (AAA Precision Plumbing)	10/28/20	10/27/26	23,017	23,017	Miscellaneous Plumbing Services for Field Services
73	Precision Plumbing Inc (AAA Precision Plumbing)	10/29/20	10/28/26	20,000	20,000	Miscellaneous Plumbing Services for Distribution
74	Pyro Combustion And Controls, Inc.	11/14/19	11/13/25	25,000	25,000	Preventative Maintenance
75	Rebel Party Rentals	09/27/18	09/26/25	10,000	10,000	Event Set-Up And Fixture Rental Services
76	Red Rock Window Cleaning Inc	10/20/21	10/19/27	25,000	25,000	Window Cleaning Services
77	River Valley Air Conditioning Inc	01/01/18	12/31/23	25,000	-	HVAC Maintenance, Filter Changes And Related Non-Construction Services
78	Roadsafe Traffic Systems	08/05/19	08/04/25	690,969	-	Traffic Control And Barricade Services For Distribution, Asset Management, And Field Services
79	S&S Concrete And Materials	08/03/16	08/02/26	25,000	-	Type II Material And Waste Disposal Services
80	Simplifile LLC	01/01/18	12/31/25	39,457	39,457	Lien Filing Service For Customer Care
81	Simpson Gumpertz & Heger Inc	01/01/20	12/31/25	80,000	80,000	Pipeline Leak Analysis For Asset Management
82	Slater Hanifan	09/25/17	09/24/24	-	-	Engineering Services For Spring Preserve Cinenega Improvements Project
83	Stantec Consulting	06/10/19	06/10/26	57,000	57,000	Professional Design Services For Bid C1513 Pipe Replacement
84	Statewide Fire Protection Inc	04/02/20	04/01/24	25,000	-	Fire Suppression Inspections, Testing, and Repairs

85	Statewide Fire Protection, Inc.	04/18/19	04/17/25	21,000	21,000	Annual Fire Hydrant Testing and Repair Services
86	Sunflower Construction	03/28/18	03/27/25	25,000	25,000	Painting Services At The Springs Preserve
87	Sunstone Building Specialties	03/05/21	03/04/25	25,000	25,000	Operable Partitions Preventative Maintenance and Repair Services
88	TRC Solutions	08/23/18	08/22/24	20,000	20,000	Annual Compliance Testing For Campbell Station Natural Gas Engines
89	Unifirst Corp	03/21/19	03/13/25	11,500	11,500	Cleaning Of Towels And Dust Mops
90	United Site Services	10/02/18	09/30/26	25,000	25,000	Sewage Waste Removal
91	University Of Utah	01/02/19	01/01/24	25,000	-	Research/Testing Services
92	Veterinarian Aquarium Group	3/2/2021	03/01/26	85,000	85,000	Springs Preserve Veterinarian Services
93	VTN Nevada	08/12/19	08/09/26	11,000	11,000	Professional Design/Engineering Services
94	West Charleston Upholstery	05/01/20	04/30/27	30,000	30,000	Vehicle Upholstery Services
95	Wex Bank	12/29/20	03/31/25	125,000	125,000	Automated Retail Fuel Dispensing
96	Wilson Elser Moskowitz Edleman & Dicker	10/06/15	10/05/23	100,000	-	Legal Services Case No. A-15-714878
97	Envision Legal Solutions LLC	01/01/22	12/31/22	15,659	-	Legal Deposition Services
98	Ernst & Young U.S. LLP	10/04/22	01/31/25	2,000,000	2,000,000	009913- IT Consulting for Oracle Integration
99	Filta Environmental Kitchen Solutions dba Kismet Enterprise LLC	12/01/22	11/30/28	50,000	50,000	Fleet On Site Vehicle Washing
100	Glide Installations LLC	09/07/22	09/06/27	150,000	150,000	Installation and Maintenance of System Furniture
101	Henriksen Butler Nevada	01/20/22	01/05/27	200,000	200,000	Furniture, Installation, and Related Products and Services
102	J & J Enterprises	09/07/22	09/06/27	25,000	25,000	010358 On-Call Parking Lot Stripping & Curb Painting Services
103	Mutual of Omaha	01/01/22	12/31/22	122,141	-	Insurance Services
104	My Nest Career Path Staffing	04/01/22	03/31/27	500,000	500,000	Temproray Employment Services
105	ProServ (country Wide ProServ Inc)	01/27/22	01/26/25	90,000	90,000	On Call Plumbing Repair Services for Operations and Customer Care & Field Serv. Depts
106	Pyro Combustion & Controls	08/29/22	12/31/22	22,125	-	Springs Preserve Origen Museum Boiler & 2 Heat Exchange Replacement
107	R&R Partners	04/01/22	03/31/27	1,000,000	1,000,000	Integrating Advertising/Marketing Services
108	RCI Engineering	06/08/22	06/08/24	57,024	16,574	009774 Design Services for 3306L Septic Sewer Conversion Tioga and La Madre
	Total Proposed Expenditures			10,585,614	8,966,000	

Additional Explanations (Reference Line Number and Vendor):

**SCHEDULE OF PRIVATIZATION CONTRACTS**

**Budget Year 2023-2024**

**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 2023-24	Proposed Expenditure FY 2024-25	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										
2										
3										
4										
5										
6										
7										
8	Total									

Attach additional sheets if necessary.

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 0001232500

Leslie McCormick, 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 05/02/2023 to 05/02/2023, on the following days:

05 / 02 / 23

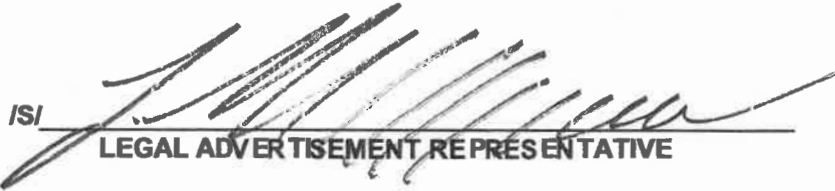
**NOTICE IS HEREBY GIVEN**

NOTICE IS HEREBY GIVEN that the Board of Directors of the Las Vegas Valley Water District will hold a Public Hearing on Monday, May 15, 2023, at 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 2023-24.

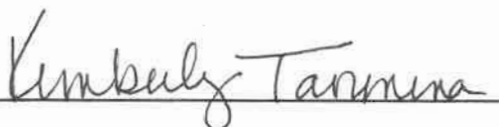
Copies of the Budget, which have been prepared on forms and in such detail as is prescribed by the Nevada Department of Taxation, are on file for public inspection at the District Offices, 1001 South Valley View Boulevard, Las Vegas, Nevada 89153.

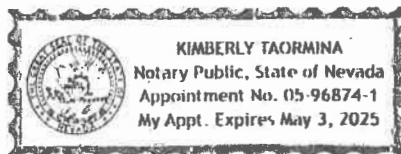
Las Vegas Valley  
Water District

PUB: May 2, 2023  
LV Review-Journal

ISI   
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 2nd day of May, 2023

Notary 





STATE OF NEVADA  
DEPARTMENT OF TAXATION

Web Site: <https://tax.nv.gov>  
Call Center: (866) 962-3707

LAS VEGAS OFFICE  
700 E. Warm Springs Rd, Suite 200  
Las Vegas, Nevada 89119  
Phone (702) 486-2300  
Fax (702) 486-2373

JOE LOMBARDO  
*Governor*  
TONY WREN  
*Chair, Nevada Tax Commission*  
SHELLIE HUGHES  
*Executive Director*

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

RENO OFFICE  
4600 Kietzke Lane, Suite L235  
Reno, NV 89502  
Phone: (775) 687-9999  
Fax: (775) 688-1303

June 10, 2023

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 2023-2024  
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 26, 2023 for certification:

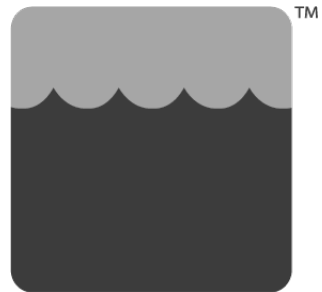
Operating tax rate	\$ 0.0000
Voter approved rate	0.0000
Legislative override rate	0.0000
Debt service rate	<u>0.0000</u>
	\$ 0.0000

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](mailto:klangley@tax.state.nv.us).

Sincerely,

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

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# SECTION 5

## DEPARTMENT BUDGETS

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**LAS VEGAS VALLEY  
WATER DISTRICT™**



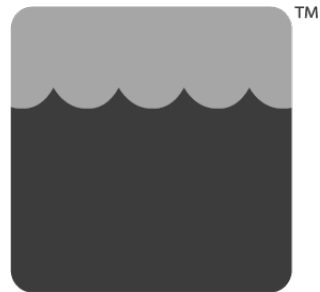
**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Department Budgets**  
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This section contains summaries of budgets for each of the Las Vegas Valley Water District’s (LVVWD) departments. Each department’s budget narrative contains detailed budget information and other highlights of the 2023-24 Budget Plan. The following table presents the 2021-22 Actual, 2022-23 Adopted Budget and 2023-24 Budget Plan for each of the departments.

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

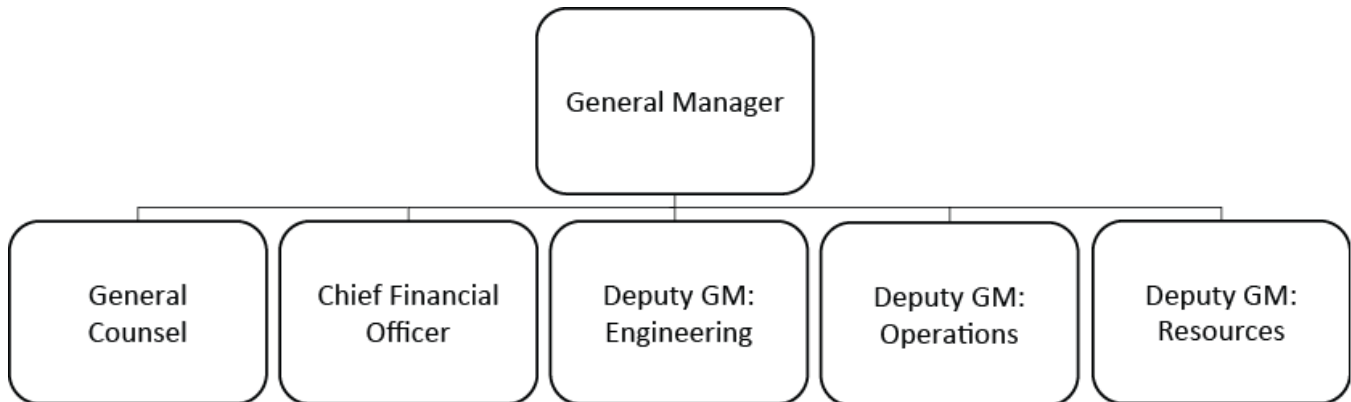
<b>DEPARTMENTS</b>	<b>Actual 2021-22</b>	<b>Budget 2022-23</b>	<b>Budget 2023-24</b>	<b>Budget-to-Budget Variance</b>
Executive Management	\$ 1,995,820	\$ 2,106,460	\$ 1,850,528	\$ (255,932)
Legal Services	3,641,300	5,011,251	8,648,034	3,636,783
Finance	334,873,078	333,146,226	379,854,811	46,708,585
Energy Management	—	—	—	—
Risk Management	2,493,049	3,351,518	8,045,483	4,693,965
Customer Care & Field Services	45,963,538	45,145,773	44,877,586	(268,187)
Engineering	82,024,604	178,842,841	160,816,289	(18,026,552)
Infrastructure Management	25,053,435	63,553,273	72,360,136	8,806,863
Operations	66,754,368	56,023,378	64,751,586	8,728,208
Human Resources	4,839,299	9,843,198	11,934,135	2,090,937
Information Technology	30,538,341	44,961,170	54,356,493	9,395,323
Environmental Health Safety & Corporate Security	18,342,461	22,927,822	25,120,119	2,192,297
Water Quality & Treatment	512,716	320,756	388,672	67,916
Water Resources	4,965,284	7,637,065	11,236,964	3,599,899
Public Services	11,532,960	18,481,725	22,035,522	3,553,797
<b>Total Department Expenditures</b>	<b>\$ 633,530,254</b>	<b>\$ 791,352,456</b>	<b>\$ 866,276,357</b>	<b>\$ 74,923,902</b>
Debt Service	73,769,702	84,623,533	86,553,586	1,930,053
<b>TOTAL USES OF FUNDS</b>	<b>\$ 707,299,956</b>	<b>\$ 875,975,989</b>	<b>\$ 952,829,943</b>	<b>\$ 76,853,955</b>

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## EXECUTIVE MANAGEMENT Level: 1000

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### 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.

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**Expenditures**

<b>LVVWD USES</b>	<b>Actual 2021-22</b>	<b>Budget 2022-23</b>	<b>Budget 2023-24</b>
Materials and supplies	\$ 7,543	\$ 5,600	\$ 750
Maintenance and repairs	100	—	—
Rental and leases	—	—	—
Other employee expenses	85,064	83,450	90,660
Other operating expenses	73,130	67,400	61,200
<b>Total Operating Expenses</b>	<b>165,837</b>	<b>156,450</b>	<b>152,610</b>
Capital expenditures	—	—	—
Salaries and benefits	1,829,983	1,950,010	1,697,918
<b>TOTAL DEPARTMENT EXPENDITURES</b>	<b>\$ 1,995,820</b>	<b>\$ 2,106,460</b>	<b>\$ 1,850,528</b>
<b>FTE POSITIONS</b>	5.5	6.9	5.0

## 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 ongoing impacts of drought and climate change, continuing to work with Colorado River partners to protect Lake Mead water levels, bolstering 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:

- Development and implementation of new conservation programs and initiatives to meet the community conservation goal of 86 GPCD by 2035.
- Continued implementation of SNWA’s Major Construction and Capital Plan (MCCP).
- Continued implementation of LVVWD’s 10-year Capital Improvement Plan.
- Ongoing implementation of Integrated Resource Planning Advisory Committee (IRPAC) 2020 recommendations.
- Leadership and involvement in Colorado River issues and initiatives.
- Continued collaboration with Colorado River partners to develop a basin-wide plan to help protect Lake Mead water elevations.
- Continued progress towards Nevada’s Renewable Portfolio Standard of 50 percent by 2030.
- Continued participation in the WaterStart partnership.

## Capital Planning

### SNWA Major Construction and 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’s 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 when available. Significant inflationary increases in materials and equipment delivery since the MCCP was amended in 2020 have caused projected capital project costs to increase from the original estimates. Major facility-related projects currently in progress are described in the table below:

Project	Status	Estimated Cost	Estimated Completion
<b>Large Scale Solar PV Project</b>	Construction slated for late 2023	\$20 M	2024
<b>Garnet Valley Wastewater System</b>	Design	\$294 M	2027
<b>Garnet Valley Water System</b>	Design	\$340 M	2028
<b>Horizon Lateral</b>	Design/Permitting	\$2.4 B	2030

### LVVWD Capital Improvement Plan

In 2017, the LVVWD Board of Directors approved a 10-year, \$616 million (in 2016 dollars) Capital Improvement Plan. This document guides and directs the operation, maintenance and development of the LVVWD water distribution system, and supports the LVVWD’s ongoing commitment to ensure the community’s water system remains stable and reliable into the future. The following projects have either been recently completed, are active, or will begin within the next fiscal cycle:

- Rome 2745 Reservoir, 2975 Zone Pumping Station, and 2975-2860 Zone Pressure Reducing Valve
- Rome Facilities Pipelines
- Las Vegas Boulevard Improvements
- 4125 Zone South Reservoir
- Alpine Ridge 3090 Zone North Pipeline Phase I and II
- Cougar 3090 Zone Reservoir
- Cougar Facilities Pipeline
- Equipping W124
- Drill and Develop Well W125
- Westlund Drive Pipeline Replacement
- Rehab SCCP in Sahara Avenue
- Replace SCCP & ACP on Flamingo Road
- Blue Diamond 3630 Zone Pumping Station
- Blue Diamond 3630 Zone Discharge Pipeline and PRV

Additionally, the LVVWD converted a 266-ton, water-cooled chiller system to an air-cooled chiller system with thermal storage. This renovation increases energy efficiency, reduces consumptive water use and aligns with the new community conservation measures.

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

## **Drought and Water Resources**

The most recent and reliable scientific projections suggest that the Colorado River Basin is experiencing permanent aridification, meaning that the region is making a permanent shift to a drier future because of gradual warming. With such uncertainty moving forward, swift and significant efforts at the local, regional and federal levels will be critical to reducing basin-wide Colorado River water consumption and protecting the reservoir levels at Lake Mead and Lake Powell.

### **SNWA Water Resource Plan**

In January 2023, the SNWA Board of Directors adopted an updated Water Resource Plan, which provides a comprehensive overview of available water resources and demands over a 50-year planning horizon. This year's plan reflects ongoing discussions between the Colorado River Basin States and the Federal government to address and protect Lake Mead and Lake Powell from reaching critically low reservoir elevations. The plan maintains the key conservation efforts that will need to be successfully implemented to meet the community's water conservation goal of 86 gallons per capita per day (GPCD) by 2035.

### **Memorandum of Understanding**

In August 2022, the SNWA joined the Metropolitan Water District of Southern California, Aurora Water (Colorado), Denver Water (Colorado) and Pueblo Water (Colorado) in signing an agreement that commits the parties to reduce water use in their respective municipalities. Just three months later, the agreement was updated to include 25 additional municipal and public water providers. Specifically, signatories committed to take the following actions:

- Increase indoor and outdoor water use efficiency
- Reduce non-functional turfgrass
- Increase water reuse and recycling programs
- Implement best practices and share successful strategies
- Collaborate to bring the Colorado River into balance

### **Mandatory Water Use Reductions**

Under federal shortage rules and the Colorado River Drought Contingency Plan, it's likely that Nevada will see additional Colorado River water use reductions as water levels at Lake Mead continue to fall. The first-ever federally declared shortage on the Colorado River occurred in 2022. As hydrologic conditions worsened, a Stage 2 shortage was declared for 2023, reducing Nevada's Colorado River allocation from 300,000 acre-feet per year (afy) to 275,000 afy. While these reductions are significant and future reductions are likely, community conservation efforts have reduced Southern Nevada's annual consumptive use of Colorado River water to an amount below any supply reduction that may occur under existing rules. Processes to develop new short-term and long-term operating guidelines for the river are underway by the Bureau of Reclamation. SNWA is actively participating in both processes and the water resource plan and conservation strategies will be reevaluated as new guidelines are adopted.

## **Future Resources**

The Metropolitan Water District of Southern California (MWD) is moving forward with the planned development of a regional recycled water advanced purification center. Once complete, it is anticipated that the program will recover and treat up to 168,000 acre-feet of water per year. While the project is still in development, SNWA is pursuing opportunities with MWD to participate in this project, which will involve a Colorado River water transfer/exchange in return for a financial contribution from SNWA. Once fully approved, the facility will take about 11 years to design and construct.

## **Conservation**

Since 2000, Southern Nevada has reduced its Colorado River water use by approximately one-third despite a 49 percent population increase during that same period, demonstrating that economic growth and water efficiency can occur in tandem. Over the past year, the SNWA has identified additional conservation measures to reduce community water consumption and implemented programs and policies to dramatically reduce or eliminate the water footprint of new economic development. Successfully implementing the following efforts will help to ensure that the community has sufficient water resources to meet demands well into the future. They will also require significant and sustained water conservation contributions from all community sectors on an ongoing basis:

- Remove all non-functional grass in non-single family residential sectors by 2027 and prohibit the installation of grass in new development
- New development standards for limiting the size of residential pool, spas, and water features
- Incentivize the abandonment of septic systems and connection to the municipal sewer system
- Prohibit evaporative cooling in new development and incentivize the replacement of evaporative coolers with dry-cooled systems
- Prohibit new golf course development and reduce water budgets at existing golf courses

## **Water Smart Landscapes Program**

Participation in the Water Smart Landscapes Program continues to produce successful results. In 2022, single family residential and non-single-family residential customers combined to convert nearly 10 million square feet of turf, which will yield an estimated savings of 531 million gallons of water every year. The SNWA will look to build on the program's current momentum throughout 2023.

## **Water Efficient Technologies Program**

The Water Efficient Technologies Program also experienced success in 2022, with 45 projects completed for an estimated water savings of approximately 116 million gallons. The SNWA hopes to build on the program's success by focusing on cool-to-warm season turf conversions and cooling efficiency improvements throughout 2023.

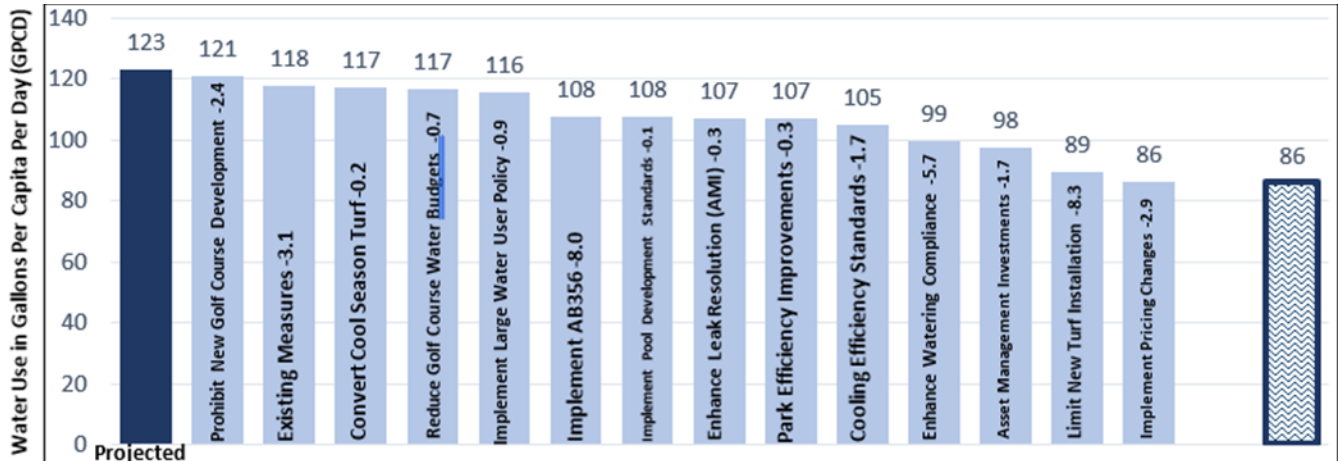
## **Additional Water Conservation Measures**

Over the past year, SNWA has identified various forms of consumptive water use throughout the valley and implemented programs to either dramatically reduce or eliminate the water footprint of each. Continuing to reduce consumptive water use will require a significant and sustained effort from all

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sectors of the community; however, it is anticipated that doing so will ensure that Southern Nevada reaches its conservation goal of 86 GPCD by 2035 and have sufficient water resources to meet future demands.

**Conservation Trajectory with Additional Measures**



**Prioritizing Water-Efficient Development.** To continue progress toward the community goal of 86 GPCD by the year 2035, SNWA staff continues to work alongside the economic development community to help ensure that Southern Nevada can continue to grow and diversify in a water-efficient manner. As such, SNWA is prioritizing development with non-consumptive water use. To aid this effort, SNWA is working to refine a water investment rating tool, which will consider a proposed project’s demand on water resources, whether water used can be recaptured and returned to Lake Mead, and how the proposed project will benefit the community. This information will help decision-makers in evaluating whether certain development proposals are viable options for Southern Nevada. While not yet final, the tool is under review and subject to input from the development community.

**Septic Conversion Program.** Colorado River water discharged to septic systems is lost and cannot be returned to Lake Mead for return flow credits. In March 2021, the Board of Directors approved development of, and initial funding for, a financial assistance program for the estimated 14,500 septic users throughout the Las Vegas Valley to abandon their septic tanks and connect to the municipal sewer system. Additional future code changes may limit the development of new septic systems in the Las Vegas Valley.

**Operations**

As the wholesale water provider, the SNWA is responsible for water treatment and delivery, as well as acquiring and managing long-term water resources for Southern Nevada. Collectively, SNWA member agencies serve more than 2.2 million residents in Southern Nevada.

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 2022, the LVVWD delivered approximately 109 billion gallons of water to customers throughout its

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service area. While the Las Vegas Valley continues to grow, new service connections were down slightly from the previous year, having dropped from 9,323 in 2021 to 8,091 in 2022.

### **Leak Repair**

To help detect leaks in their early stage, LVVWD relies on notifications from customers as well as an acoustic leak detection system that listens for underground leaks and pinpoints their location. In 2022, these efforts led to the quick repair of 1,921 service line leaks and 82 main breaks. Timely response to these types of leak events enables LVVWD to maintain stable operating costs and low non-revenue water losses. The LVVWD system currently experiences less than five percent water loss, compared to the 20 national average.

### **Rural Water Systems**

**Blue Diamond.** In 2019, LVVWD staff conducted an assessment of the Blue Diamond Water System, which indicated a need for various repairs and upgrades that will increase water system reliability and efficiency, enhance community fire protection and increase emergency storage to meet regulations. As such, LVVWD has plans to replace approximately 4,700 feet of pipelines, install a new pumping station, construct a new well and construction a storage tank that will double the community's water storage by 2025.

**Big Bend Water District (Laughlin).** The Big Bend Water District is continuing infrastructure improvements, including a recently completed major refurbishment of the 1130 Zone tank. This project consisted of significant inspection, repair and a full National Sanitation Foundation (NSF)-rated coating for tank protection. This project is part of the capital infrastructure improvement for Laughlin, funded by State Revolving Fund money from the State of Nevada.

**Kyle Canyon Water District.** Staff recently installed an inspection vault in the Rainbow subdivision. The vault will aide in evaluating the condition of a critical water main that distributes water from the Old Town subdivision to the Rainbow storage tank, helping to ensure reliable water delivery to one of the system's most critical reservoirs.

### **Springs Preserve**

The LVVWD also owns and operates the Springs Preserve, a 180-acre facility built to inspire culture and community, promote environmental stewardship in the Las Vegas Valley.

Over the past year, the Springs Preserve focused on various mission-driven projects and programming. During fiscal year 2022-23, the Springs Preserve hosted more than 200,000 visitors and the new Springs Café opened its doors in October.

Additionally, several improvement projects throughout Springs Preserve's natural area and Botanical gardens were completed to enhance the site and the visitor experience, including:

- Renovation of the quarter-acre Teaching Garden to accommodate larger groups and boost educational offerings
- Installation of additional interpretive panels throughout the Preserve's walking trails
- Overhaul of the Springs Preserve's Botanical Garden interpretation and wayfinding system

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- Starting construction of the new, grant-funded Ethnobotanical Garden, which will showcase traditional ecological knowledge and the cultural and sustainable living practices of Southern Nevada’s Native American communities

Annual community outreach events, designed to increase the Preserve’s visibility and celebrate the region’s cultural history, continued to draw large crowds and corporate sponsorships. Both the four-day Haunted Harvest and three-day Día de Muertos events sold out in advance. Combined, these events drew approximately 19,000 visitors to the campus. February’s Black History Month Festival saw record attendance and sponsorships in 2023.

## **Customer Care and Field Services**

LVVWD staff continues to evaluate and implement various programs and systems to support water conservation through its customer base. The increased availability of water usage data and the enhanced ability to convey that information to customers in a timely manner will yield additional awareness of, and response to, on-site water usage issues and conservation opportunities on a customer-by-customer basis.

### **Advanced Metering Infrastructure and Software (AMI)**

The AMI implementation project is in the final stages and scheduled for completion in the first quarter of 2023. By January 2024, the system is projected to have hourly usage reads for 98 percent of the LVVWD’s customers. Along with the new customer information system, C2M, AMI will optimize customer and field services communication and improve staff’s ability to monitor and quickly address water consumption issues. Eventually, this data will be available to customers through the LVVWD’s mobile app, SMS messaging, and web portal. These technologies will allow the LVVWD to provide enhanced customer service and interaction, increased support for conservation initiatives, optimized service response, and more efficient account management.

### **Weekly Irrigation Compliance Detection**

Completion of the AMI and C2M projects will enable staff to implement a data-driven single family residential (SFR) enforcement compliance program using a validated irrigation compliance detection system. This functionality is expected to be available by the end of 2023 and will provide automated review of all available SFR meter data to identify violations of time of day and day of week watering restrictions. This program is expected to result in a five percent annualized increase in compliance, estimated to save approximately 6,500 acre-feet of water each year.

## 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.***

### 2023-24 Performance Objectives

- Develop and maintain existing state, federal and international partnerships to advance and promote water-related technical development and innovative water-resource solutions.
- 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.

### 2022-23 Major Accomplishments

- Continued discussions with Colorado River Basin partners to achieve reductions in Colorado River consumptive use
- Staff continued efforts to implement community-wide water conservation initiatives, including turf removal, evaporative cooling reduction, septic system conversion, pool size limits and water waste monitoring and enforcement.
- The SNWA Board of Directors approved an updated Water Resource Plan for 2023. 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.
- Continued progress on asset management, necessary system expansion and water quality compliance projects provided within the LVVWD's 10-year Capital Improvement Plan.
- Continued collaboration with Metropolitan Water District to provide financial support for its regional recycling program in exchange for a portion of its Colorado River allotment.
- Continued design work on major components of the SNWA MCCP, including Horizon Lateral and the Garnet Valley water and wastewater systems.

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

### 2023-24 Performance Objectives

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

### **2022-23 Major Accomplishments**

- Completion of the Advanced Metering Infrastructure implementation project, which will provide hourly usage reads for 98 percent of LVVWD customers by January 2024. This infrastructure will allow for enhanced customer care interactions, increased conservation, optimized service response, and more efficient account management
- Continued installation of irrigation compliance detection. It is anticipated that, by the end of 2023, this project will be able to provide automated review of all available SFR meter data to identify violations of the watering day assignments and save approximately 6,500 acre-feet of water.

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

### **2023-24 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 ranch properties.
- Continue conservation education and incentive programs to maximize available water supplies.

### **2022-23 Major Accomplishments**

- SNWA was one of five original signatories to a Memorandum of Understanding to reduce Colorado River water use. The memorandum now includes 25 additional municipal and public water providers.
- More than 9.5 million square feet of turf replaced through the Water Smart Landscapes rebate program in 2022, saving an estimated 530.7 million gallons of water.
- Sustained water waste enforcement efforts to stimulate sustained water conservation throughout the community.
- Continued efforts to decrease consumptive water use through service rule and code revisions for all of SNWA's member agencies
- Ongoing 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.***

### **2023-24 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.

### **2022-23 Major Accomplishments**

- Completed 45 Water Efficient Technologies projects in 2022, resulting in an estimated water savings of 116 million gallons.

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- 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.***

**2023-24 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.

**2022-23 Major Accomplishments**

- The LVVWD ended fiscal year 2021-22 with an unrestricted reserve balance of \$547.6 million, exceeding its fund balance target by 143 percent.
- The SNWA ended fiscal year 2021-22 with an unrestricted reserve balance of \$936.6 million, exceeding its fund balance target by 122 percent.
- Applied for and received \$37.6 million in grant funding for SNWA, LVVWD and the Big Bend Water District in fiscal year 2021-22.
- Both LVVWD and SNWA maintained AA credit ratings, with stable outlook.

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

**2023-24 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.

**2022-23 Major Accomplishments**

- The LVVWD was recognized as one of America's best mid-size employers in 2022 by Forbes Magazine.
- Frost & Sullivan awarded the LVVWD its annual Excellence in Resourcefulness Award for its efforts to minimize the impact of climate change by improving its overall water management operations, proactively identifying leaks through new technologies and expanding its service capabilities to its customers.
- The Wall Street Journal published an in-depth feature recognizing the community's conservation efforts, calling Southern Nevada "one of the most water-minded places on Earth," amid the worst drought in 1,200 years.

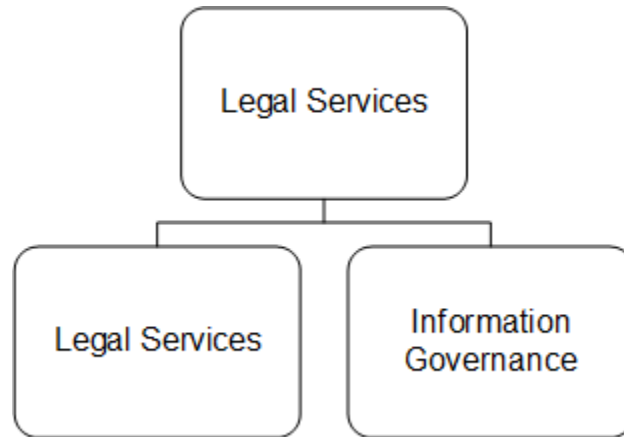
**Las Vegas Valley Water District**  
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- The Springs Preserve held its in-person Black History Month celebration in February 2023 welcoming more than 4,000 attendees. The event featured music and dance performances, educational children’s activities and informational speakers and presentations.

## LEGAL SERVICES

### Level: 1200

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### Mission

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

### Department Description

Legal Services acts as corporate counsel to the organization, providing legal review of policies and procedures to ensure compliance with applicable laws and regulations. The department represents the organization in court proceedings and before administrative boards and hearing panels in a variety of natural resource, property, personnel, and other litigation matters. The department reviews contract documents and provides services for land and natural resource acquisitions associated with capital development programs. Legal Services coordinates and monitors efforts of outside counsel who represent the organization. The department is involved in resource planning and continues to advise on electrical power issues. Additionally, The Legal Services department is also responsible for the organization’s Information Governance (IG) initiatives.

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.

The Information Governance division is responsible for managing the maintenance, retention, preservation, and disposition of the organization’s Records in accordance with federal, state, and local laws, ordinances, regulations, and rules, applicable contractual requirements, and regular business practices. In addition, IG is responsible for conducting forensic analysis on data loss scenarios in coordination with Risk Management, Information Technology (IT), and Public Services departments.

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**Legal Services**  
 Fiscal Year Ending June 30, 2024

## Budget Objectives and Highlights

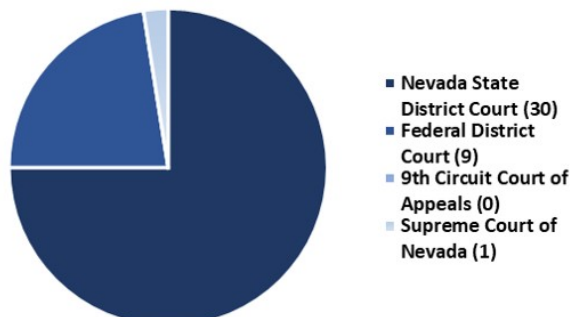
Attorneys in the department are performing a steadily increasing practice before Nevada courts, federal courts, and state and federal administrative agencies. The 2023-24 budget contains continuing funding to support these efforts and for outside counsel who perform a variety of other legal services for the organization. This year, the IG Division’s budget has also been added to the department budget.

LVVWD USES	Expenditures		
	Actual 2021-22	Budget 2022-23	Budget 2023-24
Materials and supplies	\$ 2,456	\$ 14,706	\$ 15,706
Maintenance and repairs	528,340	637,720	159,000
Rental and leases	205	—	—
Other employee expenses	27,737	99,916	151,516
Other operating expenses	1,623,851	2,748,918	2,890,468
<b>Total Operating Expenses</b>	2,182,588	3,501,260	3,216,690
Capital expenditures	—	—	2,300,000
Salaries and benefits	1,458,712	1,509,991	3,131,344
<b>TOTAL DEPARTMENT EXPENDITURES</b>	<b>\$ 3,641,300</b>	<b>\$ 5,011,251</b>	<b>\$ 8,648,034</b>
<b>FTE POSITIONS</b>	5.2	5.5	14.1

## Department Performance

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

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



**Las Vegas Valley Water District  
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Department Budgets**

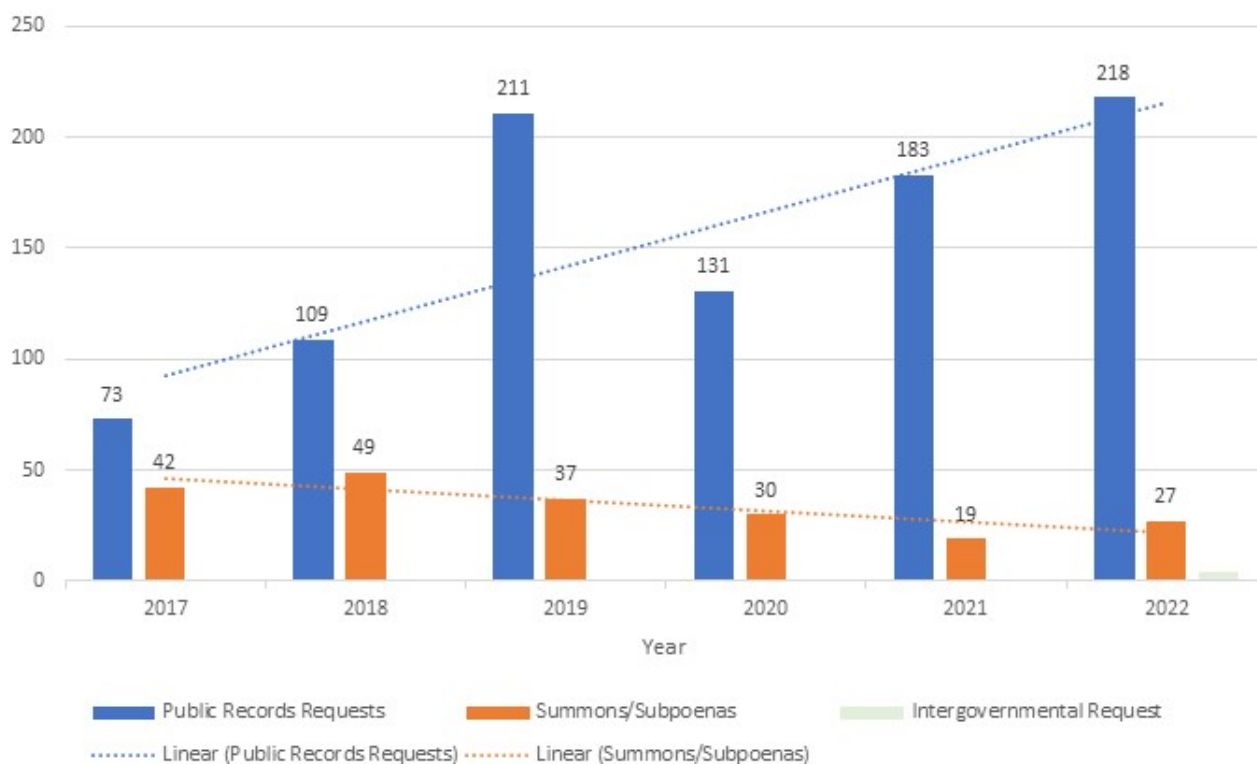
**Legal Services**

Fiscal Year Ending June 30, 2024

**Information Governance.** IG is responsible for managing numerous workstreams for the organization. Ongoing activities in 2022 included General Manager approval of the federal and state changes to the retention schedule.

IG manages Public Records Requests (PRRs) for the organization. In addition, IG processes select Summons and Subpoenas. During the CY 2022, the number of PRRs completed increased 16% from the year before, and 40% since 2020. This number surpasses pre-Covid levels and was the highest number of PRRs processed since data collection ensued in 2017. IG continues to manage two applications to process this work more efficiently for this workstream.

**PRRs and Summons/Subpoenas by Year**



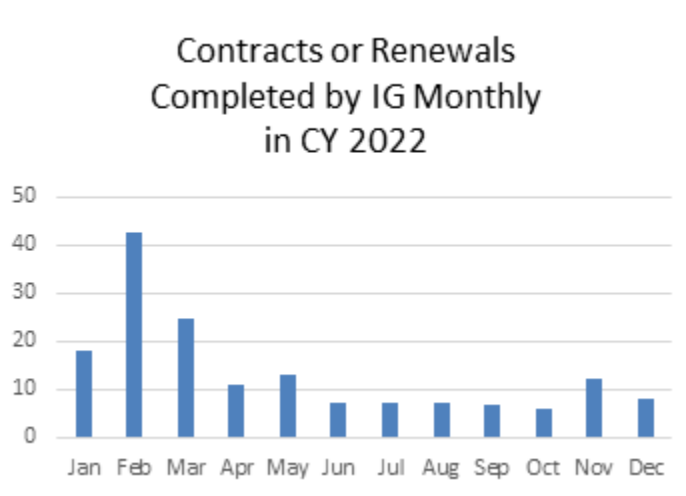
Work to retire legacy applications and either disposition or migrate content to new applications is ongoing with Information Technology (IT) and other departments. Similar to PRRs, the number of completed dispositions (paper and digital applications) increased by 128% over the previous CY.

IG also continues to be responsible for managing the Agenda Item System including the Board Pack Management workflow process permissioning, troubleshooting and related items. The team began planning for development work that includes upgrades and enhancements to the system, which will occur in CY 2023. Moreover, the team continued to support Legal Services staff with contract management.

IG was also responsible for supporting a new IT/Legal Services/Finance initiative, the Technical Purchasing Review (TPR) process. Currently, IG is responsible for reviewing and commenting on all new

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IT Purchases, as well as annual renewals, that have an IG-related function such as Legal Holds, Records Retention and Data Managing/Placement. IG participated in 144 TPR's for CY 2022.



The cleanup and migration of department data as part of the ATLAS project 1 continued through 2022 and will be completed finished in March 2023, paving the way for Project 2, Classification and Governance to begin.

## 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.

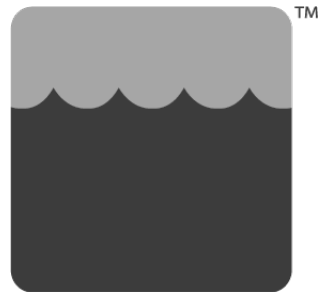
### **2023-24 Performance Objectives**

- 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.
- To complete ATLAS Project 1.
- To complete the cleanup of the organization's U and T drives.
- To implement the Upland Enterprise Federated Search solution for SharePoint and shared drives.
- To complete a Pilot for ATLAS Project 2, Classification and Governance and begin implementation.
- To update workflows in the Engineering Drawing Management System and successfully hand over management of system to Engineering and Infrastructure Management Departments

### **2022-23 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.
- General Manager approval of the federal and state changes to the retention schedule.
- Cleaned and moved content to the enterprise management system for 5 departments, as part of ATLAS Project 1.
- Successfully completed a Proof of Concept for the organizations' s Enterprise Federated Search solution for ATLAS Project 1.

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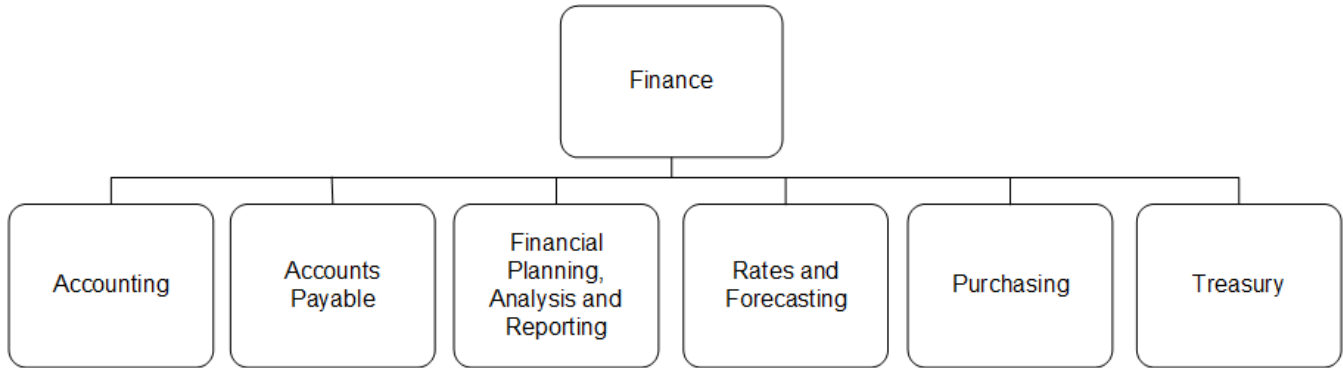
Finance

Fiscal Year Ending June 30, 2024

## FINANCE

Level: 2100

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### Mission

Ensure the financial integrity and safeguard the assets of the Las Vegas Valley Water District (LVVWD) and the Southern Nevada Water Authority (SNWA) by providing strategic planning and utilizing effective finance, budgeting, debt management, treasury, 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 2023-24 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.

	<b>Expenditures</b>		
	<b>Actual 2021-22</b>	<b>Budget 2022-23</b>	<b>Budget 2023-24</b>
<b>LVVWD USES</b>			
Purchased water	\$ 100,276,524	\$ 110,583,387	\$ 113,193,367
Energy	54,261	—	—
Materials and supplies	2,997,985	1,210,350	1,131,600
Maintenance and repairs	1,021,453	1,611,000	1,286,750
Rental and leases	—	—	—
Other employee expenses	41,175	65,248	67,298
Other operating expenses	224,396,033	213,593,350	236,867,284
<b>Total operating expenses</b>	<b>328,787,432</b>	<b>327,063,335</b>	<b>352,546,299</b>
Nonoperating expenses	1,117,118	838,477	21,554,664
Capital expenditures	—	—	—
Salaries and benefits	4,968,528	5,244,414	5,753,848
<b>TOTAL DEPARTMENT EXPENDITURES</b>	<b>\$ 334,873,078</b>	<b>\$ 333,146,226</b>	<b>\$ 379,854,811</b>
<b>FTE POSITIONS</b>	30.7	29.2	31.1

## 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 the LVVWD and the SNWA Annual Comprehensive Financial Reports and the BBWD Annual Report with their corresponding audit reports. In addition, the division prepares and submits the financial reporting related to grant activities for the LVVWD, SNWA, and BBWD.

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

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Accounting functions include: ensuring financial statements and reports are accurate, complete and consistent; performing various financial analyses, revenue billing, maintaining the general ledger, inventory, fixed asset and other system records; oversight of 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; and federal and state agency grant accounting that require preparation and submission of 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, the Accounting Division coordinates and processes group sales and vendor payments for special events, as well as providing revenue-based reports and analysis for organizational departments.

**Financial Planning, Analysis & Reporting.** The Financial Planning, Analysis & Reporting division provides a broad range of financial services including oversight of annual budgets and other budget-related financial reporting to management.

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

**Rates & Forecasting.** This division focuses on designing, analyzing, and recommending water rates; and providing short- and long-term financial plans, as well as support with the budget and reporting processes.

This division 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 and projections 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 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.

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**Treasury.** The Treasury division 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.

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## **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.***

### **2023-24 Performance Objectives**

- Identify and secure funding for critical infrastructure.
- Provide timely and accurate financial reporting.
- 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.

### **2022-23 Major Accomplishments**

- Continued to hold strong credit ratings, helping to secure funding for critical infrastructure. Current credit ratings are AA and Aa1 by Standard & Poor's (S&P) and Moody's, respectively.
- Developed updated monthly financial reports leveraging the Workiva and GL Connect systems.
- Started the development of a new Budget Dashboard with enhancements based on internal customer feedback.
- Continued coordination with the Project Controls Group to improve financial reporting from the organization's e-Builder capital project management system.
- Provided financial modeling analysis and support for all entities that the organization administers.

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

### **2023-24 Performance Objectives**

- Continue to optimize the procure-to-pay system and develop key performance indicators to more effectively manage the purchase of goods and services.
- Pursue process and system improvement initiatives to shorten the financial month-end close and complete the process before the end of the following month.
- Continue to improve and streamline day-to-day accounting practices, specialized processes, improved financial analyses, reporting, and information sharing to departments.
- Continue to efficiently procure and contract for products, equipment, and services.

### **2022-23 Major Accomplishments**

- Increased electronic invoicing to over 40 percent.
- Continued collaboration with all departments, including conducting the annual budget kickoff meeting on Microsoft Teams. A recording of the meeting was made viewable by posting on our Hydroweb/SharePoint Budget Help page.
- Revised the Purchasing Guidelines to reflect updated processes and procedures.

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

**2023-24 Performance Objectives**

- Select vendor and implementer for the replacement of the Oracle financial system through a Request for Proposal (RFP) effort.
- Continue active participation in the implementation of an Enterprise Asset Management system and its integration into financial and purchasing systems.
- Expand use of Fairmarkit quote-to-procure system to increase supplier competition in quoting and increase efficiency for the procurement of goods and services that do not require formal solicitation.

**2022-23 Major Accomplishments**

- Implemented Workiva data connectors and integrations to improve efficiency and accuracy of data transfers from existing financial systems and sources to the Workiva financial reporting software.
- Actively participated in defining financial information requirements to new system implementations or enhancements, which include but are not limited to, Apttus contract management, Customer-to-Meter (C2M), and SharePoint file management.
- Continued use of the Fairmarkit quote-to-procure system to manage the quoting process more efficiently for smaller dollar purchases that do not require a formal solicitation. First full year awarded savings totaled over \$542,000.
- Expanded use of Lease Query tool to manage compliance with GASB Statement No. 96, *Subscription-Based Information Technology Arrangements*.
- Completed a business process review with the Government Finance Officers Association (GFOA) Research and Consulting Center to evaluate options for the replacement of the Oracle financial system.

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

**2023-24 Performance Objectives**

- Continue to evaluate opportunities to issue refunding bonds for both the SNWA and LVVWD to generate savings.
- 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.
- Lead comprehensive financial planning and analytical support for various organizational initiatives.

**2022-23 Major Accomplishments**

- The long-term credit ratings of AA/Stable and Aa1/Stable were affirmed by S&P and Moody's, respectively. These ratings help keep rates affordable, and acknowledge LVVWD's strong financial management practices, policies, and maintenance of robust cash reserves.
- Implemented GASB Statement No. 96, *Subscription-Based Information Technology Arrangements*.

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- Processed approximately 20,000 supplier payments annually, earning more than \$130,000 in discounts on invoices processed in fiscal year 2020-2021, and achieved a rebate of \$50,000 on annual credit card spend.
- Continued to provide comprehensive financial planning and analytical support for the SNWA's Integrated Resource Planning Advisory Committee 2020.

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

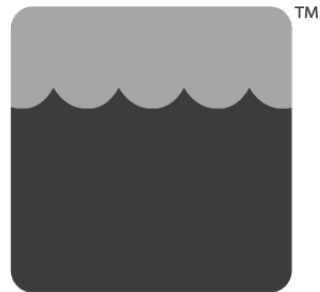
**2023-24 Performance Objectives**

- Receive unmodified opinions from external auditors for the LVVWD, SNWA, and BBWD fiscal year ending June 30, 2023 audits.
- Receive the Certificate of Achievement for Excellence in Financial Reporting from the GFOA for the LVVWD and SNWA Annual Comprehensive Financial Report for the fiscal year ending June 30, 2023.
- Receive the Distinguished Budget Presentation Award from the GFOA for the LVVWD and SNWA Operating and Capital Budgets for the fiscal year beginning July 1, 2023.

**2022-23 Major Accomplishments**

- Received the Certificate of Achievement for Excellence in Financial Reporting from the GFOA of the United States and Canada for the 44<sup>th</sup> consecutive year for the LVVWD Annual Comprehensive Financial Report for the year ended June 30, 2022.
- Received the Certificate of Achievement for Excellence in Financial Reporting from the GFOA for the 27<sup>th</sup> consecutive year for the SNWA Annual Comprehensive Financial Report for the year ended June 30, 2022.
- Received an unmodified opinion from external auditors for the LVVWD, SNWA, and BBWD fiscal year ended June 30, 2022 audits.
- Received the Distinguished Budget Presentation Award from the GFOA for the LVVWD and SNWA Operating and Capital Budgets for the fiscal year beginning July 1, 2022.
- Completed implementation of project management portfolio and reports for the execution of Finance Department's prioritized process improvement efforts.

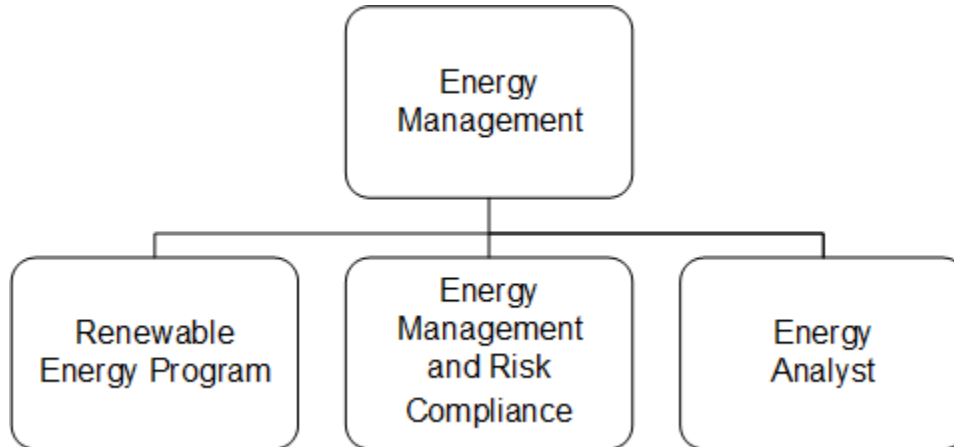
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## ENERGY MANAGEMENT

Level: 2200

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

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## Budget Objectives and Highlights

The fiscal year 2023-24 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.

LVVWD USES	Expenditures		
	Actual 2021-22	Budget 2022-23	Budget 2023-24
Materials and supplies	\$ —	\$ —	\$ —
Maintenance and repairs	—	—	—
Rental and leases	—	—	—
Other employee expenses	—	—	—
Other operating expenses	—	—	—
<b>Total operating expenses</b>	—	—	—
Capital expenditures	—	—	—
Salaries and benefits	—	—	—
<b>TOTAL DEPARTMENT EXPENDITURES</b>	\$ —	\$ —	\$ —
<b>FTE POSITIONS</b>	0.0	0.0	0.0

## Department Performance

**Silver State Energy Association (SSEA).** The SNWA has been instrumental in the formation and development of the SSEA, which has brought significant benefits to the SNWA, its member agencies and the SSEA members. In order to properly manage the energy needs of the SNWA, a certain minimum size of labor and infrastructure is required. The employees and systems of the Energy Management department and the CRC Energy Services group have met this need for many years now.

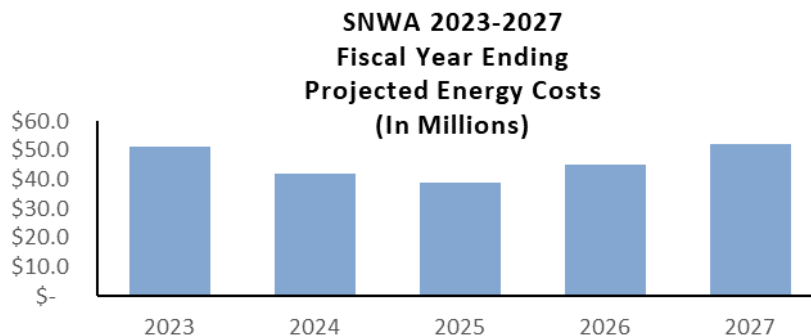
Expanding the energy portfolio managed by this group to include the SNWA member agencies and the members of the SSEA has brought significant economies of scale and portfolio synergies to each of the participants, including the SNWA. Furthermore, the energy portfolio has been able to be expanded in this way with only a minimal increase in the size of the labor and overhead required to properly

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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 been significantly reduced through calendar year 2025. 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. The chart below shows the SNWA’s actual and projected energy costs through fiscal year 2028 as of the end of February 2023.



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 \$51 million, excluding the estimated cost of capital associated with the SNWA’s energy assets for the fiscal year 2022-23. 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

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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 met its 2022 target 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.***

### **2023-24 Performance Objectives**

- Continue to work with the SNWA Environmental Division to secure a right-of-way grant from the Bureau of Land Management for the transmission portion of the Boulder Flats Solar Project.
- Work with CRC to finalize the design and begin construction of the 10-mile transmission line extension to connect the Boulder Flats Solar Project to the SNWA’s existing transmission system.
- Transition the maintenance for the LVVWD reservoir solar installations to another provider and cancel the current agreement with SunPower Corporation.
- Receive a settlement amount from Sharp in conjunction with warranty provisions for its solar panels installed on the LVVWD reservoirs.

### **2022-23 Major Accomplishments**

- Amended the 113 MW Power Purchase Agreement with Boulder Flats Solar to extend the completion date and to adjust the pricing to reflect changes in the market for labor and materials.
- Revised monthly scheduling and informational reports with Western Area Power Administration (WAPA) to accommodate new procedures.
- Developed automated reports to send hourly network customer meter data to the WAPA scheduling desk during a prolonged CRC/WAPA communications error. This was during the highly volatile month of September.
- Worked with WAPA staff on how and when to collect liquidated damages from counterparties for curtailments.
- Finalized a lease and easement agreement with the City of Boulder City for the transmission line that will connect the Boulder Flats Solar Project to SNWA’s transmission network.
- Completed the 60-percent design phase for the Boulder Flats Solar transmission system and began procurement of long lead-time items.
- Began rehabbing the LVVWD solar units with internal labor to address areas that can be immediately addressed. Have had success at all sites demonstrated by additional system power output.
- Evaluated and created a white paper on the various renewable energy options available to attain Net Zero by 2050.
- Developed and executed a transmission study agreement with Townsite Solar 2, a new utility-scale solar and battery storage project, to study the feasibility of selling transmission wheeling service on SNWA’s new 10-mile transmission line in Boulder City.

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

### **2023-24 Performance Objectives**

- Develop a multi-phased approach to the restructuring and modernization of settlement reporting and performance metrics. Phase 2 will include settlement, storage, capture, and reconciliation with WAPA Energy Imbalance Market (EIM) reporting, improved data display, and reporting functions.
- Expand MongoDB usage for report automation, better data accessibility, and superior data analysis functions.

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- Complete integration of new reporting, scheduling, and settlement procedures required by WAPA’s EIM participation.
- Continue to work with CRC staff to provide consultation to the Engineering Department teams on how to best provide power to their water infrastructure projects.
- Provide analytical support to member agencies as needed regarding their energy needs.
- Keep abreast of new legislative initiatives for the 2023 legislative session and communicate relevant impacts as needed.

**2022-23 Major Accomplishments**

- Worked with SNWA member agencies to execute amendments to the interlocal agreements for power provision accommodating a price increase necessary for the Boulder Flats Solar project to be constructed and operating in 2024.
- Maintained a managed portfolio of energy resources for all SNWA and member agency requirements within all hedge guidelines and procedures.
- Phase 1 of Settlement and Reporting Modernization included parallel storage, testing, and processing of WAPA monthly reports. Additionally, it also encompassed capture and processing of NV Energy EIM invoices, along with reconciling them with both WAPA scheduling data and CRC meter data. It also included the processing and storage of hydropower scheduling data and CRC meter data sanitization.
- Successfully integrated storage and processing of the Hitachi daily “deal data” file for trade capture and data integrity. It has become a key piece to processing and reconciling end-of-month reports from WAPA and CRC.
- Daily cloud backups for both the development environment and QuickBooks have been successfully enacted and successfully utilized.
- Created automation to report Mead forward price curves to an SNWA contractor (Xylem), who is developing a water-pumping decision tool. This automation creates and sends the report on a weekly basis, containing seven years of monthly forecasted price points.
- Submitted commodity and resource analysis while providing guidance to the City of Boulder City to help them complete their five-year Integrated Resource Plan.
- Transitioned the SSEA to new accounting firm, Baker Tilly, and worked with them on the SSEA accounting and settlement procedures, providing them with all requested documents.
- Provided three Engineering Department work teams with reports recommending how best to serve power to the new loads created by their projects. Provided support to those teams as they progressed through their designs and eventually into construction.
- Provided energy educational meetings with SNWA member agencies.

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

**2023-24 Performance Objectives**

- Monitor, evaluate and capture new hydropower allocation opportunities or layoffs as they become available.
- Monitor and track market conditions and adapt the Energy Risk Management Procedures accordingly and responsibly.
- Evaluate alternatives with other partners to obtain strategic value for the Newport to Silverhawk transmission right-of-way.

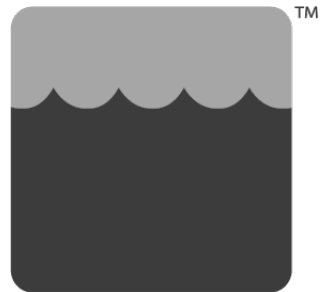
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- Work with the Operations Department to determine an optimal summer pumping profile to minimize summer power costs.
- Continue to look strategically for how best to transition to a Regional Transmission Organization (RTO). Identify potential options and perform preliminary feasibility evaluations for them.
- Work collaboratively with member agencies and exchange Portfolio Energy Credits among each other to achieve the 29-percent renewable energy portfolio standard for the upcoming year.
- Monitor and analyze power and gas price trends and correlations and anticipated structural changes to the marketplace to adjust hedging approach as needed.

**2022-23 Major Accomplishments**

- Successfully met the Nevada Renewable Portfolio Standard for 2022. Worked with member agencies to utilize their Portfolio Energy Credits and to exchange them among each other.
- Evaluated Basic Water Company's power assets and contracts to determine valuations and the optimal process for taking assignment of some of those assets.
- Worked with the Operations Department to determine an optimal summer pumping profile to minimize high peak-period power costs, adjusting the plan twice to accommodate unplanned maintenance outages.
- Analyzed power and gas price trends and correlations to modify long-term hedging approach.
- Negotiated an agreement to split the Eastern Nevada Transmission Project right-of-way and assign sole ownership of a portion of that right-of-way to the SNWA.
- Added over 22,000 MWh of additional hydropower resources to the energy portfolio through long-term and month-to-month hydropower contractor layoffs. These additional resources helped to lower commodity prices and was counted to meet the state mandated Renewable Portfolio Standard for the year.
- Provided scheduling, generation, and weather information to WAPA and its contractors to evaluate fiscal and scheduling options for current and future solar generation in the EIM.
- Applied Energy Risk Management Procedures to responsibly combat market scarcity and secure reliable physical power by issuing strategic exemptions and re-rating reliable counterparties.
- Daily automation and analysis of the reservoir solar locations was created and added as part of the MongoDB expansion.
- Implemented new accounting procedures to capture gas financial transactions to comply with GASB 53.
- Established credit with additional trading counterparties (Citigroup, Tenaska, Mercuria and Dynasty) to facilitate transactional liquidity at the Mead 230 Substation.
- Studied the price relationships among different potential hedging products, such as natural gas and Palo Verde, due to fundamental power market changes.
- Met with a regional transmission provider to entertain alternatives for SNWA's transmission assets in light of future migration to an RTO. Achieved a better understanding of the nuances of transitioning and the various value propositions associated therewith.

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## RISK MANAGEMENT Level: 2600

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### **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 reassesses the SWOT on an annual basis 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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LVVWD USES	Expenditures		
	Actual 2021-22	Budget 2022-23	Budget 2023-24
Materials and supplies	\$ 1,165	\$ 2,800	\$ 2,050
Maintenance and repairs	555	—	—
Other employee expenses	12,721	28,100	25,150
Other operating expenses	1,931,948	2,824,696	7,516,145
<b>Total Operating Expenses</b>	1,946,390	2,855,596	7,543,345
Capital expenditures	—	—	—
Salaries and benefits	546,659	495,922	502,138
<b>TOTAL DEPARTMENT EXPENDITURES</b>	<b>\$ 2,493,049</b>	<b>\$ 3,351,518</b>	<b>\$ 8,045,483</b>
<b>FTE POSITIONS</b>	2.7	2.5	2.5

## Department Performance

**Enterprise Risk Management.** 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.

**Captive Insurance.** In 2021, the Las Vegas Valley Water District formed LVVWD CI (the “Captive”), a wholly owned subsidiary of the Las Vegas Valley Water District, domiciled in the state of Nevada. The Las Vegas Valley Water District is currently the sole member of this captive insurance company. The Captive is a registered limited liability company formed to advance long-term risk management program strategies through the use of a formalized self-insurance program that can access the reinsurance markets. The Captive provides retention for worker's compensation, general/auto liability, public officials liability, cyber liability, employment practices, and property.

In addition, 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.

**Risk Management Information System.** Origami has grown from having workflows in two departments (Risk and Safety) in to ten departments; from 21 users to all employees (expected implementation 2023); from 9 incident types to 27; from 1 audit type to 60; daily usage from an average of 10 users to 50; averaging 12 entries a day through anonymous portals to 85 entries (expected daily increase with user implementation of 2023); and from 12 data updates creating 4 automated events a day to more than 200 data updates averaging 300 automated events in a day.

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**Liability Claims.** The annual number of claims processed by the department has been consistent over the past three years. The Risk Management team continues to evaluate ways to increase efficiencies and decrease claims costs. Key practices are:

- 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.

**Renewal Comparison**

LINE OF COVERAGE	Premiums			
	2019-2020	2020-2021	2021-2022	2022-2023
Operational property and builders risk	\$ 390,002	\$ 620,000	\$ 713,000	\$ 815,213
Terrorism	—	46,755	46,755	49,670
Excess liability	144,323	342,566	340,848	496,921
Excess workers' compensation	106,897	113,748	129,444	121,909
Employee fidelity	19,137	19,604	22,583	18,488
Public officials and employees liability	135,196	—	—	—
Employment practices liability	53,538	65,760	71,740	75,290
Cyber (digital technology liability)	63,639	68,990	107,485	148,960
Ocean marine	9,137	9,250	10300	11,375
Non-owned aviation	3,430	—	—	—
Pollution and remediation liability*	—	—	132,338	—
<b>Total</b>	<b>\$ 925,299</b>	<b>\$ 1,286,673</b>	<b>\$ 1,574,493</b>	<b>\$ 1,737,826</b>
Change from previous premium		39.1%	22.4%	10.4%
*3 year policy				

## Strategic Plan Objectives and Accomplishments

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

### 2023-24 Performance Objectives

- Future Origami Projects:
  - EHS – transition to EHS Module from CDEs, follow-up on Chemical Management System when SDS are available in Origami, consider workflow for Policies and Procedures, Certificate Tracking for CDL, Hearing Conservation Program, Respirator Certification Program, and EHS Training tracking by employee title
  - Risk Management – update COI for anonymous portal entry, consider CMS reporting and ISO Claim Search in Origami
  - Security – revamp notification and add supervisory protocol, automate Fire Extinguisher audits workflow
  - Administration – automate employee access based on Workday feed, work with Origami to move from Account level to Client level to improve efficiencies and updates, Mobile Application use for Audits and Incidents
- Captive Insurance Company
  - Recover all Property Damages not subrogated (Annual average \$180,000)
  - Recover all First-Party Damages no subrogated (Annual average \$105,000)
  - Recover Stolen Backflows (Annual average \$75,000)
- Enterprise Risk Management
  - Reassess Risks
  - Incorporate Emerging Risks

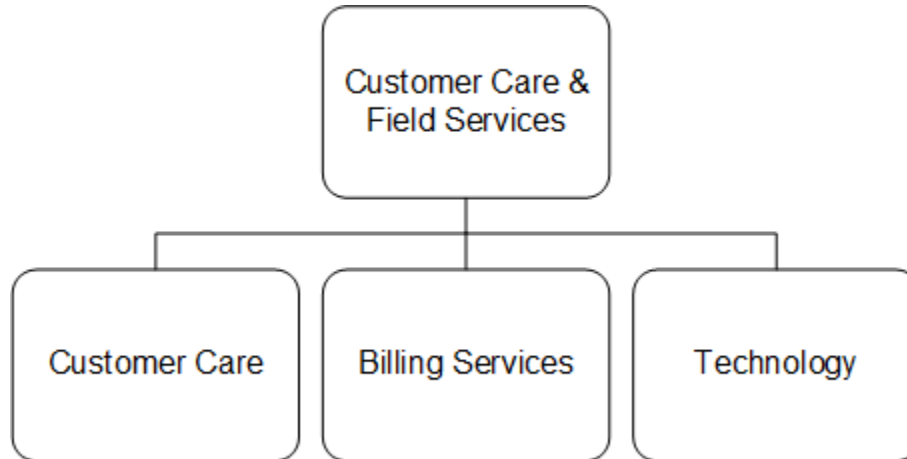
### 2022-23 Major Accomplishments

- Enterprise Risk Management (ERM) Initiatives Completed:
  - Created controls and mitigations for all risks
  - Developed resources, reports and tools that offer value for other Departments
  - Total Cost of Risk analysis added to SMT dashboard
  - 2022 Survey conducted for all supervisors, managers, and directors to review concerns on all active and emerging risks
- Origami:
  - EHS – completed Hot Work Permit and Confined Space Permit, completed Safety Meeting attendance, testing and answer keys for Big 5 in-person training, automated Hot Work Permits workflow and updated Incident Corrective Action workflow and process
  - Security – added Fire Extinguisher audits for all sites
  - Risk Management – began workflow automation for certificate of insurance module, Coupa Integration Feed with Purchasing, increased use of changing ERM module, created new dashboards for Captive, ERM Survey, and Annual Report
  - Maintenance Engineering – completed a Vault Asset Problem reporting system based on the Confined Space Audits
  - Inspection – Created a water loss leak calculator for tracking purposes
- Captive Insurance Company
  - Increased utilization

## CUSTOMER CARE AND FIELD SERVICES

Level: 3100

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### Mission

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

### Department Description

The Customer Care and Field Services department was created with the expressed 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 2023-24 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 that optimize the customer experience.

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

**Field Services.** The 2023-24 Budget Plan includes funding for meter maintenance, advanced metering infrastructure, and operational costs. Division objectives are to continue to ensure the accuracy of our metering infrastructure and provide our partners with near real-time data to support community conservation goals.

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**Technology.** Identify, explore, and implement new solutions supporting ongoing efforts to re-engineer business processes while being innovative in the approach, leveraging both existing and emerging technologies.

LVVWD USES	<b>Expenditures</b>		
	<b>Actual 2021-22</b>	<b>Budget 2022-23</b>	<b>Budget 2023-24</b>
Materials and supplies	\$ 1,001,340	\$ 565,500	\$ 1,476,000
Maintenance and repairs	5,190,612	6,947,000	7,405,540
Rental and leases	30	—	—
Other employee expenses	59,602	135,720	169,880
Other operating expenses	2,705,183	2,360,600	3,629,767
<b>Total Operating Expenses</b>	<b>8,956,767</b>	<b>10,008,820</b>	<b>12,681,187</b>
Capital expenditures	14,450,469	11,313,500	6,577,365
Salaries and benefits	22,556,303	23,823,453	25,619,034
<b>TOTAL DEPARTMENT EXPENDITURES</b>	<b>\$ 45,963,538</b>	<b>\$ 45,145,773</b>	<b>\$ 44,877,586</b>
<b>FTE POSITIONS</b>	151.1	159.7	158.9

## Department Performance

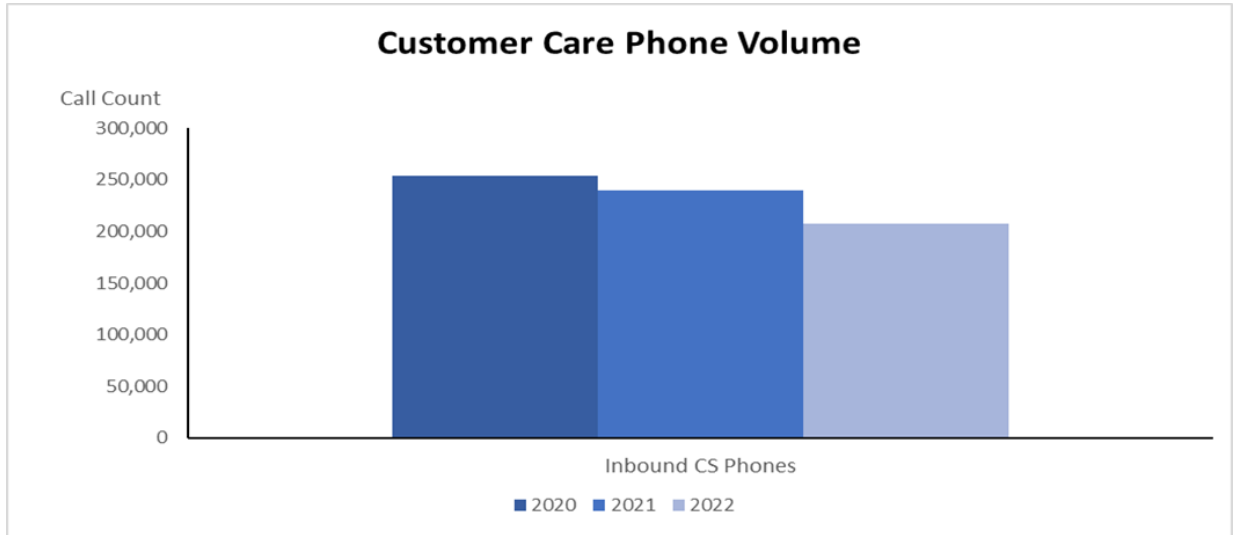
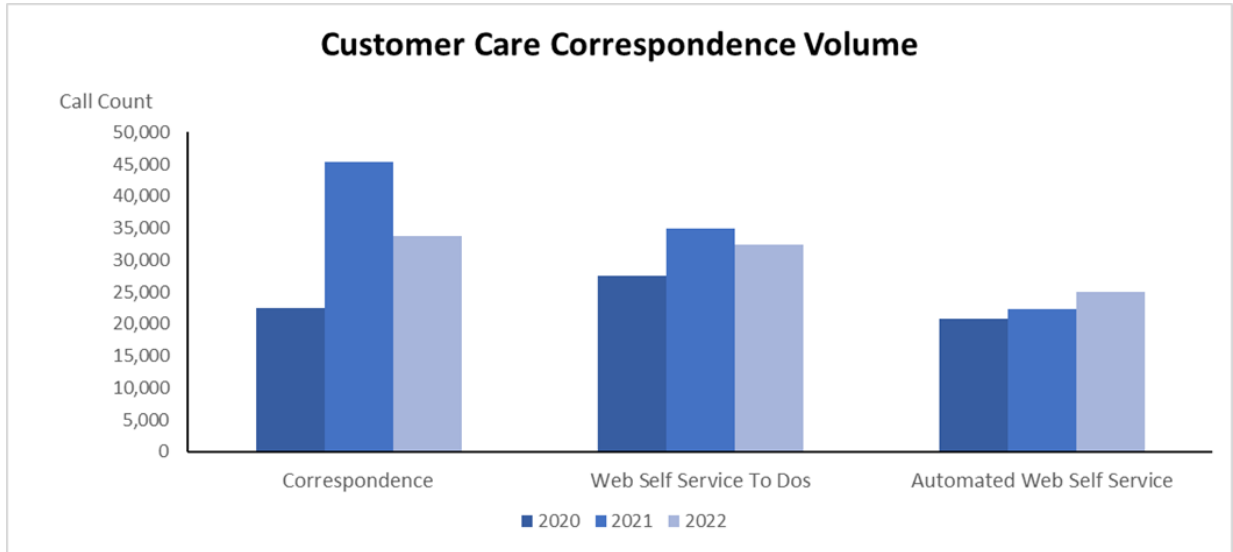
In 2022-23, the Customer Care and Field Services department continued to refine business processes and advance technology in service to the Las Vegas Valley Water District’s (LVVWD) customers. The department focused efforts on maximizing the customer experience with alignment to four strategic goals: Deliver 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 420,000 active services. The division manages customer care interactions that include phone, kiosk, chat, web requests, correspondence, and appointment requests. Customer Care handles payments, payment arrangements, courtesy collection calls, delinquent account processing, high consumption requests, water waste complaints, conservation inquiries, Springs Preserve customer support, 24/7 emergency phone coverage, and 24/7 dispatching while providing monthly billing to LVVWD customers.

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

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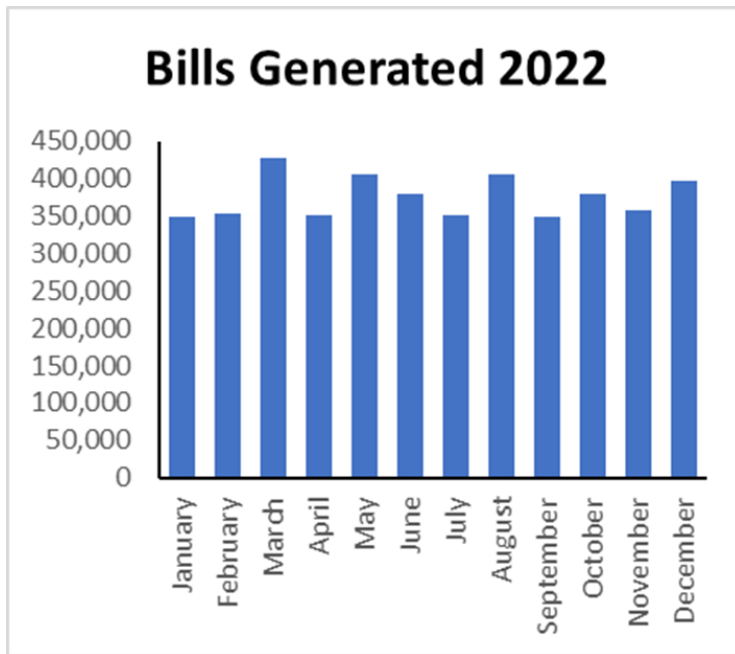
The following graph illustrates the shift in volume distribution over the past three years as process and technical innovations advance the meter to cash philosophy.



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, fire protection services, consumption notifications, and mobile meters.

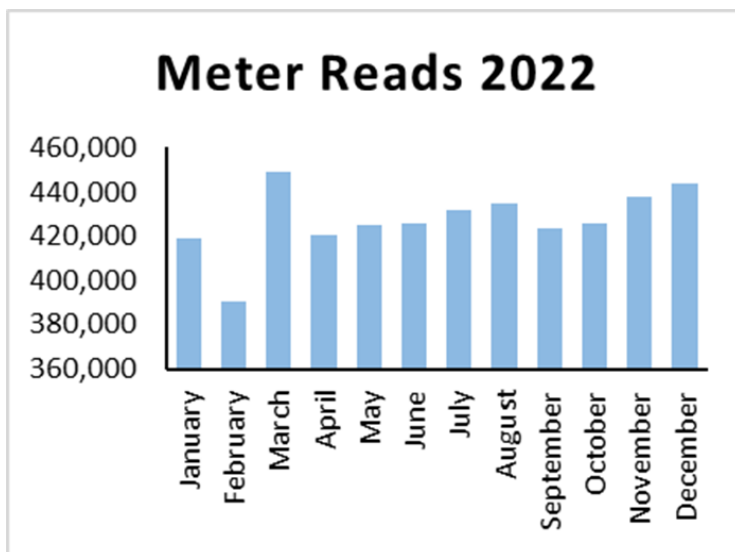
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The following chart depicts the total number of bills generated monthly in 2022.



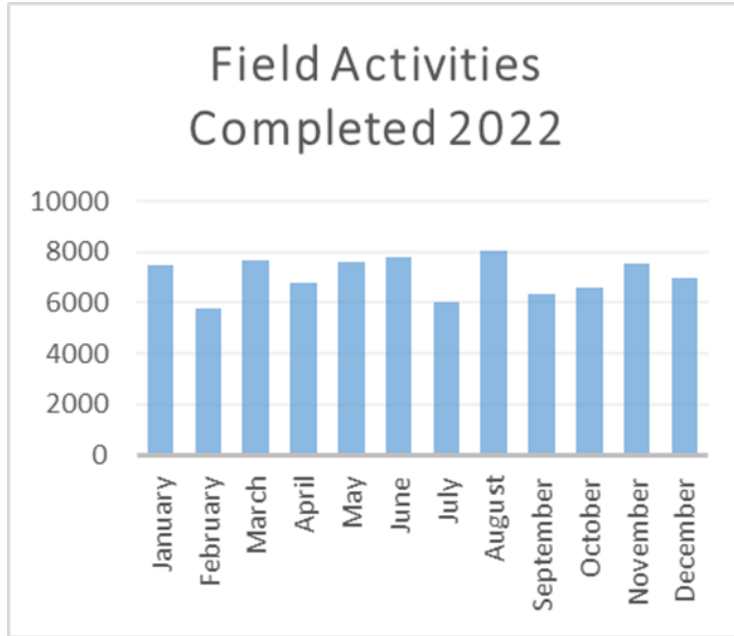
**Field Services.** The Field Services division is responsible for reading, testing, and maintaining residential and commercial meters for more than 430,000 services in Las Vegas, Searchlight, Blue Diamond, Kyle Canyon, Laughlin, and Jean. The division is responsible for meter maintenance field activities, responding to leak investigations, low pressure issues, high consumption, water waste inquires, and billing requests. Field Services maintains the AMI infrastructure in all service territories.

The Meter Reads chart illustrates the number of meter reads processed by Field Services in 2022 (more than 4.9 million total).



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The Field Activities chart illustrates the number of work orders processed by Field Services in 2022 (more than 85,000 processed).



**Technology.** The Technology division is responsible for implementing new technologies, software, and processes to modernize service offerings. The CCFS Technology Roadmap outlines the accomplishments in 2022, as well as current initiatives.

Current initiatives include the installation of Advanced Metering Infrastructure (AMI), proactive leak notifications, collaborating with I.T (Information Technology) to develop data-driven compliance, and development of a data warehouse. Accomplishments in 2022 include the deployment of rate modifications (Excessive Use Charge and Tier Equalization), migration to a new letter provider, redesign of the excessive leak program, and implementation of SMS communications (text messaging).

## Strategic Plan Objectives and Accomplishments

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

#### 2023-24 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.
- Enhance customer notification and self-service options.

#### 2022-23 Major Accomplishments

- Created meter maintenance program based on testing and benchmarking meter service life expectancy according to AWWA (American Water Works Association) and collected data.
- Converted drive-by reading system to Advanced Metering Infrastructure, bringing near real-time reads to our customer base.
- Expanded Callback accessibility within our Interactive Voice Response (IVR system) creating an enhanced customer experience.
- Implemented billing structure modifications with EUC and Tier Equalization.
- Collected 3.7 billion hourly reads to allow for outreach and education of customers on their consumptive use patterns. Upgraded our AMI head end system Network Administrative Application (NAA).

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

#### 2023-24 Performance Objectives

- Reduce and dispose of waste responsibly.
- Maintain proper disposal of scrap and waste products, especially lithium batteries.
- Continue supporting organizational water conservation efforts through improved technology and 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 to maximize service life and reduce non-revenue water.
- Implement new processes through Advanced Metering Infrastructure technology that will reduce our fleet carbon footprint.
- Implementation of golf course water budget modifications to promote conservation.
- Integrate new metering technology to capture lower flow rates to enhance conservation efforts.

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**2022-23 Major Accomplishments**

- Low Income Household Water Assistance Program (LIHWAP) incorporated into our business model.
- Mailed 11,926 Excessive Leak Letters in 2022, resulting in \$14,560 in fees assessed.
- Completed more than 85,000 field activities in 2022.
- Used data analytics to notify customers that they are watering on Sunday and a variety of other compliance scenarios.
- Successfully converted all 16 read/bill cycles, including the golf courses and District facilities, to fixed network/AMI.

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

**2023-24 Performance Objectives**

- Continue improvements to “My Account” to expand self-service options and support conservation efforts, including watering groups and customer notifications for leaks.
- Expanded use of SMS technology to provide additional communication channels.
- 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 end of service life to allow for proactive maintenance and replacement.
- Continued enhancement of notification preferences and customer engagement options.
- Improve technology solutions to provide more comprehensive business insights.
- Innovate self-service options to leverage technology and reduce call center hold times.

**2022-23 Major Accomplishments**

- Handled 18,357 kiosk transactions in 2022.
- Leveraged existing meter read and interval data through our AMI system to significantly reduce field work and allow staff to focus on system health.
- Identified leaks through the excessive leak program resulting in nearly 90 percent resolution rate within less than 100 days.
- Continued Sunday watering letter program and compliance pilot program.
- Launched letter outreach to inactive customers, reducing field activity and the number of unsigned services directly reducing consumption.

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

**2023-24 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 the team to provide feedback and solicit recommendations to create operational efficiencies.
- Establish continuous communication forum between workgroups to address interdepartmental challenges and business impacts.
- Coordinate with outside departments for knowledge sharing and training.

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- Leverage internal resources for mentoring employees to promote consistent knowledge and performance.
- Continued reduction of emissions by leveraging Advance Meter Infrastructure.

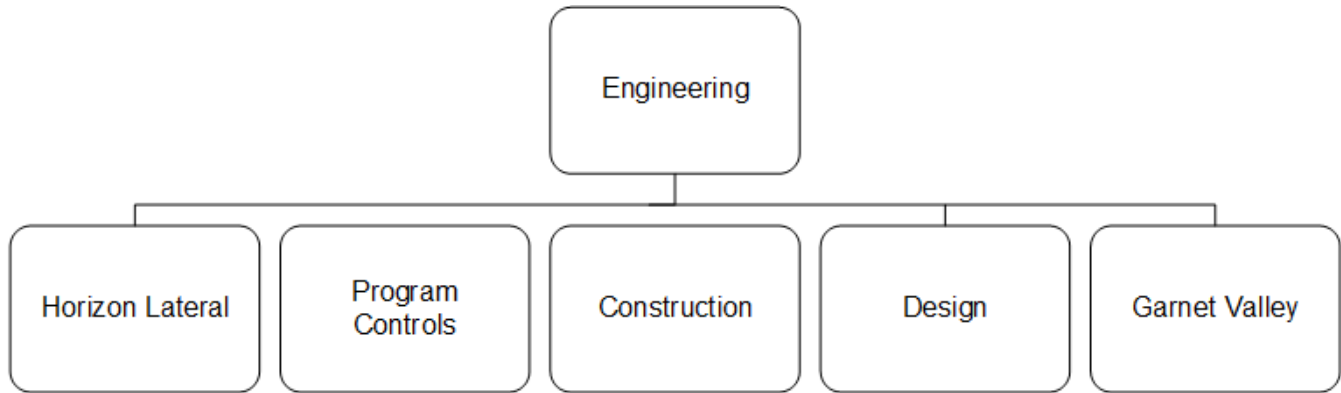
**2022-23 Major Accomplishments**

- Utilized various subject matter experts throughout the organization to support new rate structure implementation.
- Restructured Credit & Collections processing to improve field operations and increase communications with past-due customers.
- Incorporated other workgroups into Agile methodologies to improve project management and collaboration.
- Added a new channel to engage with customers through agent chat and chat bot.
- Repurposed space and equipment to support organizational training needs.

## ENGINEERING

Level: 3400

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### 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, Water Quality and Treatment, Water Resources, 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 (2020 MCCP). The 2020 MCCP describes ongoing projects and initiatives related to establishing and maintaining reliable system capacity, providing necessary support facilities, and developing access to new water resources. In coordination with the Operations, Water Resources, Water Quality and Treatment, and Infrastructure Management departments, Engineering provides design and construction services for many of the 2020 MCCP programs and projects.

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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.

## Budget Objectives and Highlights

The 2023-24 Engineering department budget demonstrates significant ongoing commitment for LVVWD CIP, development needs, Lower Las Vegas Wash Restoration Plan, and the 2020 MCCP. In addition, a major portion of the department staff will continue to be focused on many projects directly supporting the Operations, Water Quality and Treatment, Water Resources and Infrastructure Management departments in preserving the facilities needed to assure a reliable, quality water supply.

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.

LVVWD USES	<b>Expenditures</b>		
	<b>Actual 2021-22</b>	<b>Budget 2022-23</b>	<b>Budget 2023-24</b>
Materials and supplies	\$ 73,707	\$ 66,400	\$ 84,500
Maintenance and repairs	51,590	700,000	700,000
Rental and leases	—	—	—
Other employee expenses	39,983	107,915	119,315
Other operating expenses	997,412	1,133,270	1,236,640
<b>Total operating expenses</b>	<b>1,162,692</b>	<b>2,007,585</b>	<b>2,140,455</b>
Capital expenditures	66,733,976	159,657,792	140,593,227
Salaries and benefits	14,127,936	17,177,463	18,082,607
<b>TOTAL DEPARTMENT EXPENDITURES</b>	<b>\$ 82,024,604</b>	<b>\$ 178,842,841</b>	<b>\$ 160,816,289</b>
<b>FTE POSITIONS</b>	77.3	93.5	93.6

## 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 and SNWA capital plans.

**Major Projects.** Currently, the active major projects are the Lower Las Vegas Wash Stabilization, the Horizon Lateral, Stage II Reliability Upgrades, Stage II Sloan 2160 and Lamb 2350 Pumping Station Expansion, Ozone Equipment Upgrades, the Garnet Valley Water System, and the Garnet Valley Wastewater Systems. Professional services agreements for the above listed projects have all been executed and staff is managing the consultant design efforts.

**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 senior design division staff 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, inspectors, technical staff, and support staff 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.

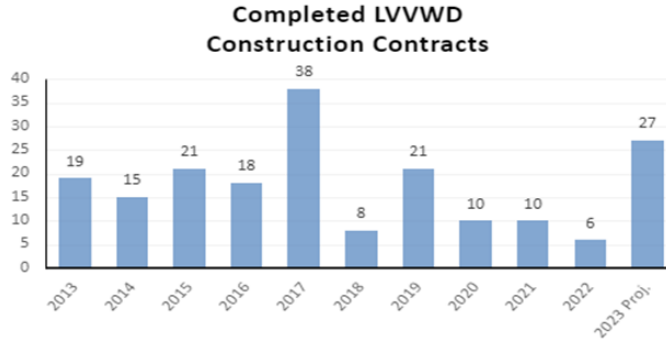
**Program Controls.** A technical support division organized to assist with the implementation and management of the LVVWD and SNWA capital programs through establishment of best practices for effective cost and schedule management and reporting and for management and review of engineering standards. This division manages the Project Management Information System (e-Builder) and analyzes capital program project data from 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. Further, this division maintains engineering design standards, department standard operating procedures, best management practices, schedule management tools and cost estimating resources.

**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.

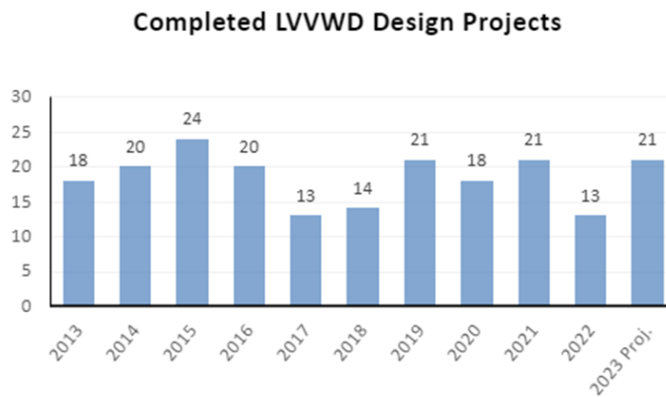
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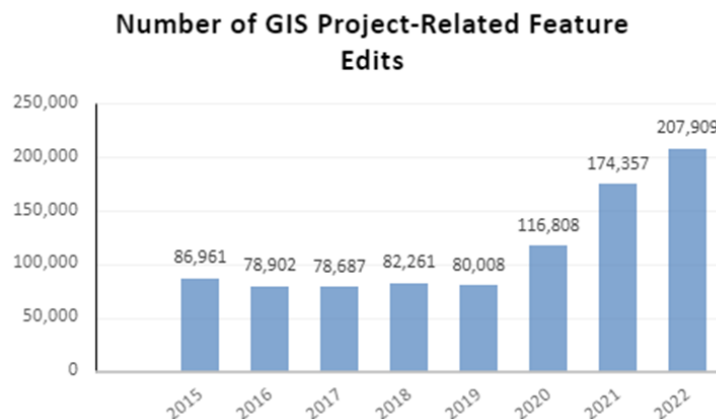
The chart below (Completed LVVWD Construction Projects) represents the number of the LVVWD construction projects completed by Engineering since 2013 and the number expected to be completed in 2023.



The following chart (Completed LVVWD Design Projects) illustrates the number of projects Engineering has designed since 2013 to support the infrastructure management requirements of the LVVWD.



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 eight 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.***

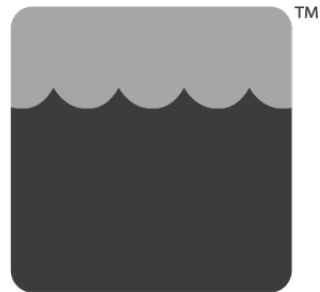
### **2023-24 Performance Objectives**

- 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, Water Quality and Treatment, Water Resources, and Operations departments with a high level of technical services and capital project support.
- Continue to optimize program management applications and processes to improve consistency, accountability, and reporting.
- Continue design efforts to support projects in the 2020 MCCP .
- Begin construction on Garnet Valley Wastewater System, weir 5 of the Lower Las Vegas Wash, and early procurement of equipment for Ozone Equipment Upgrades, Garnet Valley Water Transmission System, Stage II Reliability Upgrades, and Stage II Sloan 2160 and Lamb 2350 Pump Station Expansion project.

### **2022-23 Major Accomplishments**

- Completed the preliminary design for the Horizon Lateral and submitted right of way applications to the Bureau of Land Management.
- Completed the design for weir 5 for the Lower Las Vegas Wash Stabilization.
- Initiated final design for Stage II Reliability Upgrades, Stage II Sloan 2160 and Lamb 2350 Pump Station Expansion, Garnet Valley Water Transmission System, Garnet Valley Wastewater System, Ozone Equipment Upgrades, and common elements of the Horizon Lateral.
- Completed construction of 5 LVVWD projects valued at \$6.9 million related to improvement of the LVVWD's facilities.
- Awarded 19 LVVWD construction contracts valued at \$79.9 million related to improvement of the LVVWD's facilities.
- Performed inspections on approximately 840 different developer related projects, involving over 37,000 individual inspection actions.

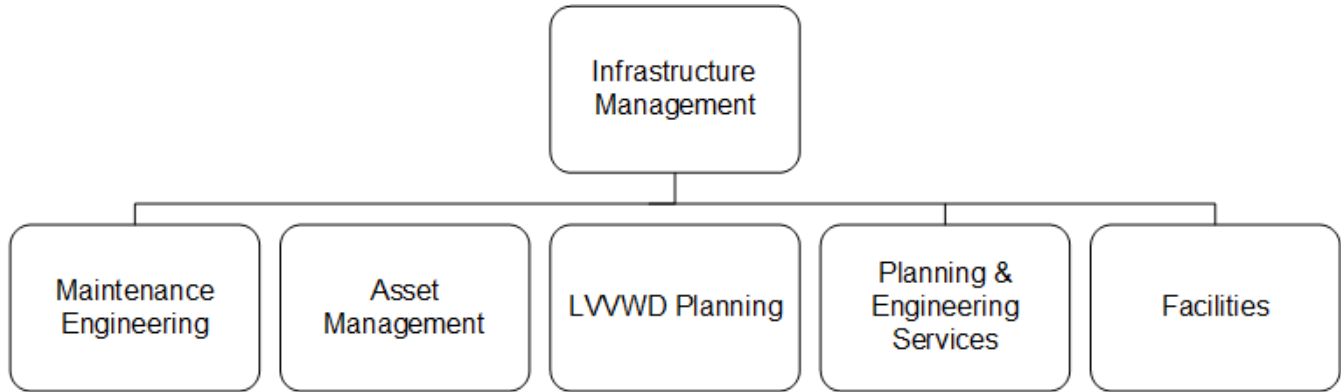
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## INFRASTRUCTURE MANAGEMENT

Level: 3700

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### 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 LVVWD's design and 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 Facilities division and the Operations, Water Resources, 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 Big Bend Water District (BBWD) operating systems. 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 and life safety systems such as plumbing, heating, ventilating, air conditioning, structures, roofs, elevators, fire sprinklers, and fire alarms.

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## Budget Objectives and Highlights

The 2023-24 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 LVVWD's and SNWA's projects.

Infrastructure Management's total operating expense budget between LVVWD and SNWA increased \$4,223,417 from budget year 2022-23 to 2023-24. Contributing factors to the increased operating expense budget include increased economic pricing versus last year; compensating for depressed spending over the past two years due to COVID related issues such as having less staff on site, less proactive maintenance, and supply chain restrictions; replacement of IoT devices due to 3G sunset; increase in on-call operating and maintenance contracts; furniture, painting, and paving projects being funded by operating rather than capital monies; increased resources within Asset Management to allow for increased leak detection and pipeline assessments; and inflated economic pricing for contract maintenance service providers.

LVVWD USES	Expenditures		
	Actual 2021-22	Budget 2022-23	Budget 2023-24
Materials and supplies	\$ 1,150,182	\$ 1,697,970	\$ 2,008,700
Maintenance and repairs	3,585,307	6,621,700	4,073,000
Rental and leases	155,639	100,500	—
Other employee expenses	63,982	194,621	278,450
Other operating expenses	133,012	691,460	5,853,400
<b>Total Operating Expenses</b>	<b>5,088,122</b>	<b>9,306,251</b>	<b>12,213,550</b>
Capital expenditures	3,672,214	36,186,345	41,335,818
Salaries and benefits	16,293,099	18,060,677	18,810,768
<b>TOTAL DEPARTMENT EXPENDITURES</b>	<b>\$ 25,053,435</b>	<b>\$ 63,553,273</b>	<b>\$ 72,360,136</b>
<b>FTE POSITIONS</b>	91.9	101.7	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, wells, water treatment facilities, and the distribution and transmission pipelines in a safe and efficient manner. The division provides 24/7/365 support for field automation equipment, the Supervisory Control and Data Acquisition system (SCADA), and the communications network for LVVWD, SNWA, and BBWD; specifies and procures long-lead electrical and automation equipment for large contracts to ensure consistent system performance; administers

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the testing of electrical distribution equipment and direct current battery plants; tracks vault and backflow condition and prioritizes repair and replacement projects; coordinates with the WQ&T and Operations departments to plan outages for projects at the Alfred Merritt Smith Water Treatment Facility (AMSWTF), River Mountains Water Treatment Facility (RMWTF), and Big Bend Water Treatment Facility (BBWTF); prepares preliminary engineering reports and applications for approval by the Nevada Division of Environmental Protection (NDEP); assists WQ&T with testing of prototype equipment and processes; collaborates with the Asset Management division to identify and oversee necessary remediation to tanks and piping; creates contracts and professional services agreements to execute capital projects and support requests; coordinates with the Water Resources department on drilling and equipping of new wells; 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 is currently managing over 90 active projects between LVVWD, SNWA, and BBWD with a capital budget of more than \$23 million. The division also routinely manages dozens of active support requests from the Operations department.

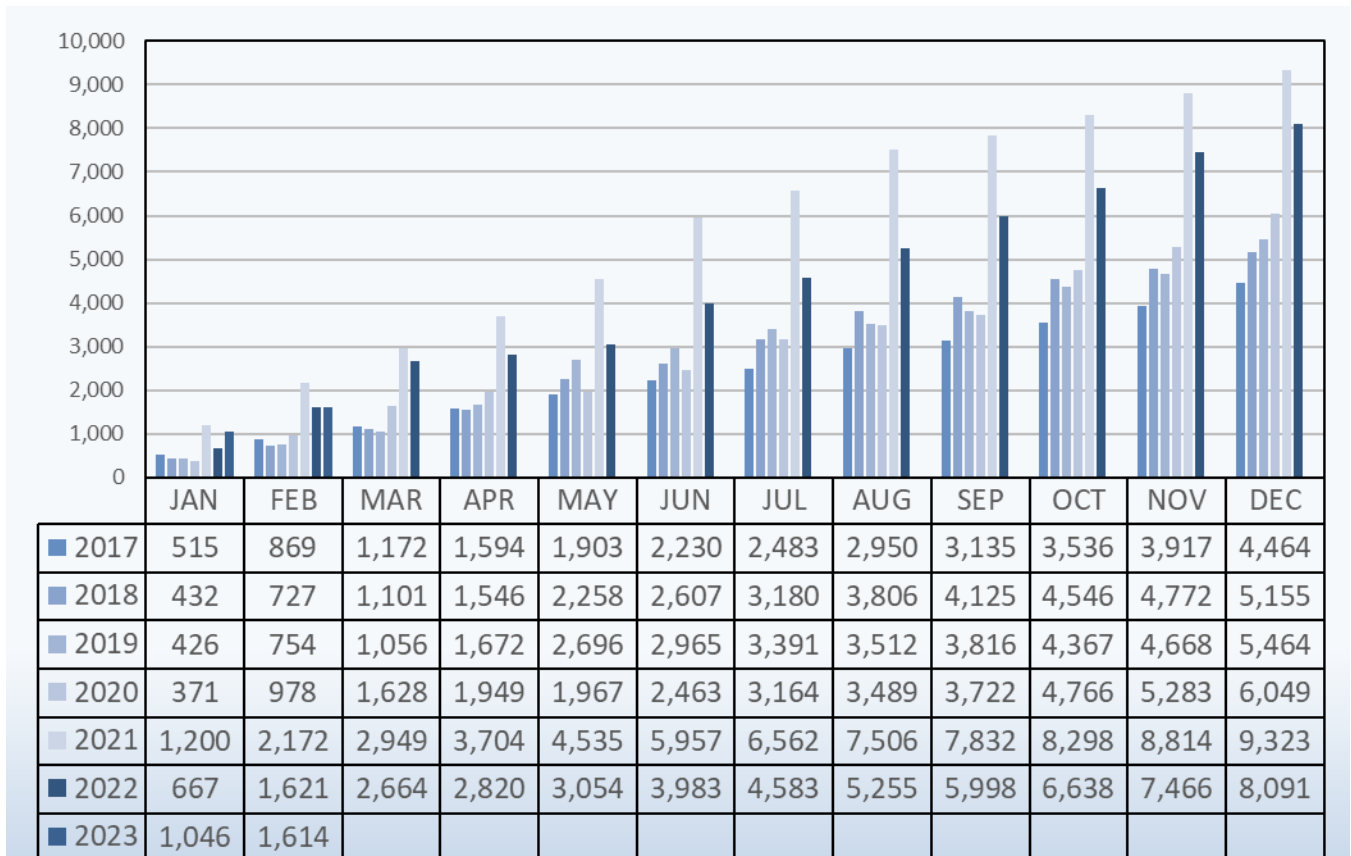
**Planning and Engineering Services.** The Planning and Engineering Services division provides research, analytics, modeling, and projections to support several activities for LVVWD, SNWA, and BBWD. The division evaluates near- and long-term demands and changing operating conditions for infrastructure planning, operations planning, and small system analyses. The team maintains an industry leading hydraulic model of the distribution system with cutting edge modeling capabilities that is utilized in conducting engineering analysis and decision support for system additions and modifications initiated by LVVWD, SNWA, or developers. The model is used to develop daily pumping plans, perform shutdown analysis, emergency response, and water quality analysis. Additionally, the team locates, sizes, and schedules new pumping stations, reservoirs, wells, and major pipelines; maintains the Asset Management model which is used to prioritize asset renewal projects and provide capital cost projections; conducts hydraulic criticality assessment of the distribution system to ensure system reliability; reviews pressure and fire flow availability for new developments; writes cost sharing agreements for the design and construction of major water facilities; collaborates with the WQ&T and Operations departments to address water quality compliance issues; researches and develops alternative technologies applicable to the LVVWD and SNWA systems; and plans for capital improvements and required monitoring for regulatory compliance.

The Planning and Engineering Services division is also responsible for reviewing and approving plans for LVVWD and SNWA systems additions and modifications initiated by developers, utilities, and public entities, ensuring they meet LVVWD and SNWA requirements for reliability and maintainability. The team routinely calculates fees; processes agreements; commits water resources to new developments; supports the water conservation initiatives, including the recent water service refusal on septic systems; coordinates with the Conservation division for landscape review and approval; coordinates with the Asset Management division to identify segments of existing water lines that are in poor condition and can be replaced within active public works projects through 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; assists developers, engineers, and contractors with the progression of their projects through meetings or onsite field visits; participates in other public works construction projects to minimize both LVVWD costs and inconvenience to the public; evaluates and tests products for use in the water distribution system and oversees the LVVWD Approved Products List; and reviews vacation requests for public rights-of-way, utility and patent

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easements, as well as fire sprinkler permits with sites that utilize chemical additives. The following chart represents LVVWD’s cumulative new service points data.

**New Service Points  
2017-2023 Cumulative New Service Points Received**



**Asset Management.** The Asset Management division manages LVVWD’s and SNWA’s assets from startup to retirement to help ensure assets continue to operate as designed in an efficient and reliable manner. Critical infrastructure is continually assessed and monitored to meet industry standards and, through several infrastructure programs, strives to be an industry leader. The division was recently restructured into two distinct groups: Vertical Asset Group and Horizontal Asset Group.

The Horizontal Asset Group focuses on underground infrastructure and performs condition assessments on pipelines utilizing state-of-the-art acoustic methods for both leak detection and pipeline condition assessment, closed-circuit television (CCTV) inspections, and pipe-wall measurements to determine the remaining useful life of the pipelines. These evaluations seek to locate subsurface pipeline leaks with the goal of reducing non-revenue water. Condition assessments of the transmission and distribution large diameter pipelines is vital in maximizing reliability and sustainability. Pipeline rehabilitation projects are identified, and recommendations are made for capital replacement. The Horizontal Asset Group is managing the multi-year Enterprise Asset Management (EAM) system upgrade. IBM Maximo will be implemented throughout the organization to improve operation and maintenance efficiencies and it will also provide the Horizontal Asset Group new geospatial tools to track pipeline assets.

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The Vertical Asset Group provides startup management and analyses necessary to maximize the life of installed water infrastructure. The group assess reservoirs and tanks using divers or remote operated vehicle (ROV) technology; conducts pump performance evaluations utilizing the SCADA historian data to determine the current pump efficiency; and analyzes transient pressure data to evaluate main breaks and provide pump operation recommendations. The group is also responsible for managing the corrosion control program for LVVWD, SNWA, BBWD, and the 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. Corrosion Control Systems Technicians collect annual corrosion data on over 4,300 corrosion protection test stations and 500 impressed current rectifiers. Finally, the group manages the startup of capital construction projects. The startup program is necessary to coordinate the safe integration of new equipment, components, and facilities into the LVVWD, SNWA, and BBWD operating systems.

**Facilities.** The Facilities division consists of Facilities Maintenance, Facilities Services, and Grounds Maintenance. The division has two separate components that primarily maintain the buildings and grounds property for LVVWD and SNWA. The division is responsible for ensuring all buildings and land meet organizational standards for appearance, quality, reliability, and cost-effectiveness. Additionally, the Facilities division supports rural system sites including BBWD, Warm Springs, Mt. Charleston, Jean, Searchlight, and the Northern Resources properties. The division provides support during the design and construction of new facilities, as well as site remodeling and/or retrofit support for existing structures.

## **Strategic Plan Objectives and Accomplishments**

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

### **2023-24 Performance Objectives**

- Further expand the leak detection program by leak testing all pipelines 24 inches and greater every five years. The program will prioritize 350 miles of pipe in 2023-2024 based on several 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 support Goal 6 of the Conservation Strategic Plan.
- In cooperation with a water loss consultant, coordinate and assist all SNWA member purveyors to conduct defensible water audits and prepare a water loss control plan.
- Plan capital improvement projects for LVVWD, SNWA, and the small systems to keep pace with increasing water demands while maintaining current or improved levels of service for existing customers.
- Identify, prioritize, scope, and budget projects to replace high-risk pipelines, reducing the risk of catastrophic failures and improving leak rates.
- Complete a revision to the Uniform Design and Construction Standards, coordinating revisions from multiple stakeholders.
- Complete the installation of ultraviolet (UV) equipment at five wells and submit plans to NDEP for approval to discharge into the distribution system.
- Complete equipping of the BBWD raw water well. This project has received State Revolving Fund financing in the amount of \$800,000.
- Complete the SCADA upgrade at BBWTF.

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- Replace electrical motor control equipment at a defined rate to improve equipment operability, reliability, and ease of maintenance at an estimated cost of \$2.8 million for the fiscal year.
- Update the SCADA policy document to be consistent with applicable requirements of the Cybersecurity and Infrastructure Security Agency and National Institute of Standards and Technology.
- Complete the replacement of legacy control equipment at six LVVWD sites, four SNWS sites, and seven BBWD sites.
- Replace end-of-life SCADA network switching/routing infrastructure.
- Replace end-of-life hyperconverged systems infrastructure for optimal supportability and reliability and integrate into a new data center.
- Add decomposed granite to multiple sites to reduce maintenance and improve sanitation around water facilities.

### **2022-23 Major Accomplishments**

- Asset Management crews leak tested 23 miles of large diameter pipeline in an effort to meet the Conservation Strategic Plan goal of 25 miles per year.
- Utilized the Sahara Platform, a tethered tool for inspection of pipelines developed by the condition assessment company Pure Technologies, to survey 3,000 feet of the Pitman Lateral with no leaks found.
- Utilized Pure Technologies to perform an electromagnetic inspection of the Aqueduct “B” Lateral. The purpose of the inspection was to understand the condition of the prestressing wires in this critical pipeline. In addition, the Asset Management team inspected the surge towers using their new tethered ROV during this outage.
- The team purchased and outfitted a CCTV inspection van that houses equipment capable of inspecting pipelines and reservoirs up to a maximum distance of 1,500 feet. Integrated inspection software will allow point observations of corrosion and degradation to be stored in a geographic information system (GIS) database. This purchase will allow for more efficient inspections and reports to be produced.
- Conducted several pilots to test new and emerging remote leak detection equipment.
- Executed major developer agreements in the northwest to fund design and construction of required facilities to maintain existing service levels for all customers.
- Implemented strategies for non-revenue water (NRW) reduction such as awarding construction projects averaging over \$17 million of pipeline rehabilitations or replacements each year, and tracked key performance indicators such as pipeline failure risk reduction to minimize NRW.
- Evaluated and provided preliminary scoping for \$300 million of infrastructure needs to provide redundancy for the South Valley Lateral due to the Horizon Lateral project encountering delays.
- Continued with the design and construction of the Blue Diamond Water System rehabilitation project at a cost of \$15 million in infrastructure improvements being funded by grant monies. In addition, a plan was prepared for water supply threats and emergency service for Blue Diamond.
- Assisted the WQ&T laboratory in completing the 2023 water quality monitoring plan maps for all SNWA member agencies and assisted in evaluating possible sources for a problem water sample.
- Maintenance Engineering successfully completed 44 projects totaling \$14 million. Highlights include:
  - Completed chlorine feeder system configuration modifications at AMSWTF.
  - Equipped Well J8 in Jean.
  - Installed a 90-inch isolation valve at the South Valley Regulating Tank. This will allow the tank to be taken out of service for long-duration maintenance activities.

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- Installed conventional UV equipment at Well 101 and UV LED lighting at Well 97, allowing these two wells to be utilized in the upcoming well production season.
- Recoated the 1130 Zone tank interior and installed cathodic protection equipment.
- Replaced electrical equipment at Pump Stations 1B and Decatur.
- Upgraded automation equipment at 12 sites totaling over \$1 million.
- Upgraded network switches at all SNWS facilities.
- Specified and procured more than \$2.3 million of replacement valves and actuators for SNWA sites.

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

**2023-24 Performance Objectives**

- Coordinate support for commissioning of facilities drawing on the Asset Management team’s expertise in facility commissioning and processes. Specifically, the team will complete all commissioning documentation for the Centennial Pump Station and Reservoir and Cougar Reservoir and provide support for other construction projects.
- Streamline and coordinate with agencies to minimize repetition and be more strategic in required comments and signatures on water plans.
- Continue to work with other agencies to include water facility upgrades and replacements in road improvement projects. Planned betterments for 2023-2024 year include Paradise Road and Pinto Lane improvements totaling over \$4.5 million in infrastructure costs. Partnering with other agencies saves significant costs and reduces inconvenience to the driving public.
- Complete the review of all submitted tenant improvement permit requests in one to two business days.
- Review and respond to all mapping reviews within ten days.
- Continue to provide 24/7/365 support for the programmable automation control, SCADA, and communications systems.
- Review and update internal service level agreements (SLAs) to provide optimal support of the Operations department’s needs.

**2022-23 Major Accomplishments**

- Provided startup services for Redrock North Reservoir and Summerlin 4125 Pumping Station.
- Created over 8,000 new service points and completed over 5,000 water plan reviews and 550 map reviews.
- Achieved 99.9 percent system availability of the Ethernet carrier communications network. This network supports corporate, SCADA, and security traffic.
- The Maintenance Engineering Automation Team completed 913 support tickets associated with Operations support.
- Implemented an on-call process for SCADA/Process Control/OT systems to improve response time and created SLAs for Operations support.
- The Facilities division completed 11,643 work orders during the 2022 calendar year. This work consisted of:
  - Predictive maintenance to determine priorities and avoid downtime of major operational support equipment by scheduling work before predicted failure.
  - Routine frequency preventive maintenance for lower priority, high quantity equipment and facilities.

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- Corrective work orders to make permanent changes that improve energy efficiency or provide permanent improvements in reliability.
- The Facilities division rolled out a new on-demand coffee service for the organization in an effort to minimize waste of unused bulk coffee and boost morale.

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

**2023-24 Performance Objectives**

- Assist with development of a successful Septic Conversion Program by streamlining processes with the City of Las Vegas, Clark County Water Reclamation District, and Southern Nevada Health District. Negotiate and execute sewer lateral extension projects when applicable, resulting in additional return flow credits which extend our water supply.
- Initiate conversion of recycled water customers to potable water to facilitate decommissioning of recycled water facilities.
- Upgrade irrigation controls at six sites to maximize water efficiency.

**2022-23 Major Accomplishments**

- Completed an agreement to install 12 sewer laterals with a public sewer line in Rosada Way.
- Prepared multiple scoping options for Boulder City to recycle or return wastewater resulting in beneficial use of the water supply.
- Completed installation of a zero-waste air cooled chiller system for the LVVWD West Administration Building. 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.

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

**2023-24 Performance Objectives**

- Continue to provide a world-class hydraulic model, with a new goal this year to implement a Smart Pressure Management System using transient analysis to increase pipeline longevity and reduce water loss due to breaks and leaks in the system. In addition, continue to collaborate with Operations and Information Technology to upgrade and enhance daily pumping plans and hydraulic modeling tools. The upgrades will result in improved system reliability, asset protection, emergency response, energy management, and water quality.
- Add a new solution to the VODA artificial intelligence platform that would predict likelihood of service lateral failures. This will help prioritize a proactive approach to replacing service laterals where appropriate.
- Create a digital workflow in the digital plan submittal portal for Project Support Team reviews.
- Assess and improve workflow processes for various groups using the RedEye document management system, which is transitioning to Infrastructure Management to manage.
- Work to move most Project Support Team processes and workflows into a digital, automated system to reduce printing and physical storage needs.
- Implement a private cellular network service using a commercial carrier to reduce reliance on low bandwidth radios.

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- Develop and design plans for the replacement of legacy SCADA radios with new technology, enabling faster response times by engineers supporting Operations.
- Develop and document functional improvements to automation software throughout LVVWD and SNWA to provide further operational insights.
- Expand data integration of the LVVWD, SNWA, and BBWD SCADA systems to support organization wide reporting and optimization technologies.

### **2022-23 Major Accomplishments**

- Created the digital fire hydrant meter request portal with an interactive GIS map.
- Integrated SNWA SCADA data into a cloud-based data portal for internal and external use with the Xylem optimization software.
- Developed a proof-of-concept for private 5G capability to enable multiple services at small sites near the LVVWD Valley View campus.

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

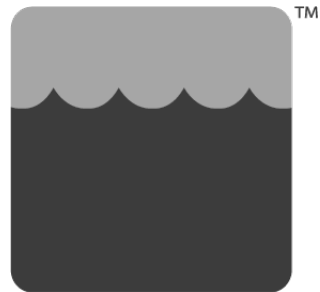
### **2023-24 Performance Objectives**

- Partner with a consulting firm to develop an Asset Management Policy and Strategic Asset Management Plan specific to horizontal assets. This effort aligns with Goal 6 of the Conservation Strategic Plan by addressing water conservation through proper management of the District's horizontal assets. The goal is to understand Asset Management best practices deployed by peer utilities both in the United States and internationally and to adopt and deploy solutions that support the workforce and improve service.
- Coordinate with the Project Controls group and EAM solution implementation team, Maximo. Project types will be categorized to better align with the long-term capital planning needs of the organization and appropriate budgets for rehabilitation of each project type will be consistently aligned with the Asset Management Policy and Strategic Asset Management Plan.
- Provide project support for the Maximo EAM implementation. This project involves nearly every work group in the organization and will not only build on the current Asset and Maintenance Management programs but will also implement industry best practices with a modern system.
- Prioritize critical pipeline infrastructure for installation of new impressed current cathodic protection systems.
- Continue to utilize the latest condition assessment technologies to determine the true condition and expected remaining life of the infrastructure.
- Complete agreements with major developers for the design and construction of additional reservoirs and pumping stations to serve the land that they are developing.

### **2022-23 Major Accomplishments**

- Completed installation and commissioning of a new impressed current cathodic protection system at the Big Bend raw water intake pumping plant and installed new galvanic anodes as part of the Big Bend 1130 Zone tank rehabilitation project.
- Completed various betterment and interlocal agreements.

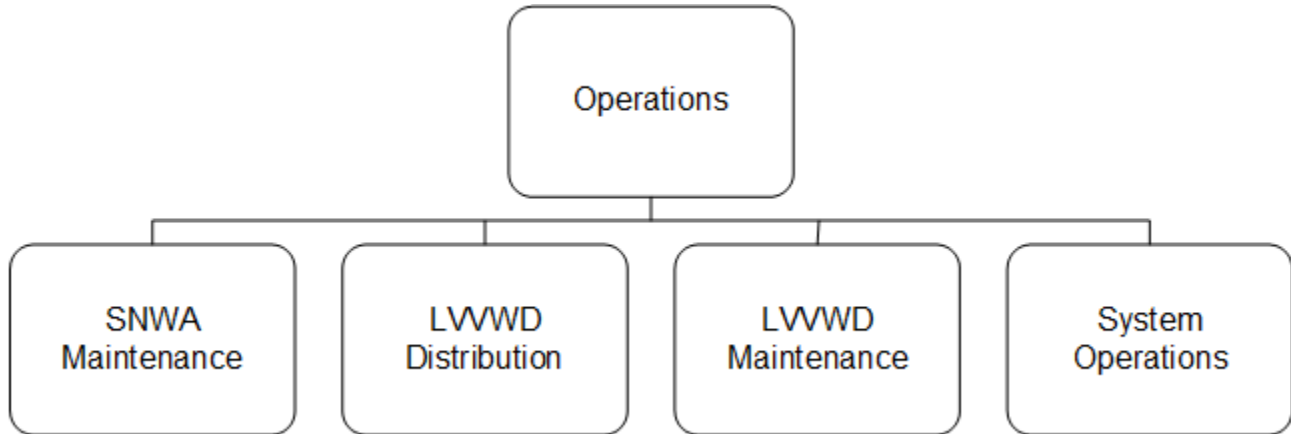
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## OPERATIONS

Level: 4100

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### 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 over 900 MG. The LVVWD has 62 potable wells capable of producing 174 MGD, and 26 specially constructed wells dedicated to recharging the groundwater basin with treated Colorado River water to create credits in the Southern Nevada Water Bank. In addition, 31 dual-use wells are capable of recharge are permitted; 28 of these are operationally ready.

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.

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

**Operations**

Fiscal Year Ending June 30, 2024

## 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 \$12,949,801 for the fiscal year 2023-24 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 2023-24 Budget Plan are shown on the following table.

Operations’ fiscal year 2023-24 overall budget totals \$87,759,114 between the LVVWD and the SNWA.

LVVWD USES	Expenditures		
	Actual 2021-22	Budget 2022-23	Budget 2023-24
Purchased water	\$ 18,356	\$ 24,000	\$ 24,000
Energy	9,947,386	10,284,000	14,312,392
Materials and supplies	6,756,454	5,961,610	7,420,395
Maintenance and repairs	866,082	1,223,600	1,745,050
Rental and leases	14,651	—	—
Other employee expenses	190,986	208,476	229,728
Other operating expenses	(104,872)	433,876	1,045,660
<b>Total Operating Expenses</b>	<b>17,689,043</b>	<b>18,135,562</b>	<b>24,777,225</b>
Capital expenditures	18,494,510	4,859,145	5,308,615
Salaries and benefits	30,570,815	33,028,671	34,665,746
<b>TOTAL DEPARTMENT EXPENDITURES</b>	<b>\$ 66,754,368</b>	<b>\$ 56,023,378</b>	<b>\$ 64,751,586</b>
<b>FTE POSITIONS</b>	<b>180.6</b>	<b>198.6</b>	<b>200.6</b>

## 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 7,074.9 miles of pipeline and laterals, 143,707 valves, 429,675 service laterals, 42,632 fire hydrants, and all related appurtenances comprising the LVVWD's distribution system. In fiscal year 2021-2022, Distribution crews completed 7,193 work orders consisting of repairs to pipelines and the repair and replacement of valves and fire hydrants. Additionally, 1,891 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 69,210 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 7,641 valves in fiscal year 2021-2022, keeping them in good working order and improving Distribution staff's ability to quickly perform main shutdowns in case of a leak or large emergency. This has helped Distribution staff lower the average time to shut down a leaking water main in an emergency and reduce non-revenue water losses.

*The Backflow Prevention section* administers the LVVWD's Backflow Prevention Program. This is a service protection program involving annual testing and repair of all backflow assemblies in the LVVWD distribution system. An active backflow program ensures contaminated water cannot enter the potable water system if a backflow, backpressure or back siphonage condition exists. The backflow technicians are certified by the California/Nevada section of the American Water Works Association (AWWA). They are currently managing approximately 33,919 backflow prevention devices.

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**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, 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.

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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 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.***

### 2023-24 Performance Objectives

- LVVWD SCADA operations will continue to fine-tune the new Aveva SCADA system. This system will be the model for the Laughlin and SNWA SCADA upgrades in future years. Significant effort is being made to monitor and adjust Aveva SCADA alarms to meet industry best practices.
- LVVWD SCADA Operations will begin developing loss of SCADA plans and exercises in the event communications are lost to pump stations and reservoirs due to radio repeater issues. These plans and exercises will include using flat pumping plans and dispatching personnel to stations and reservoirs to manually start and stop pumps and check residuals and reservoir levels.
- LVVWD SCADA Operations will continue 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 PRV and pressure station data for model calibration.
- SNWS SCADA operations will continue to run/exercise L3PS high lift pumping equipment for use in extracting Lake Mead water to deliver to the treatment plants.
- SNWA SCADA operations will continue low lift pumping from L3PS low lift pumps. IPS-1 remains out of service due to low lake level.
- SNWS SCADA operations will continue to 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 pumping 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 continue its efforts in standardizing the sodium hypochlorite rooms, including chemical storage tank, plumbing modifications, and floor coatings, bringing all sodium rooms up to industry standards
- The Disinfection Shop will continue to assist Maintenance Engineering, Asset Management, Water Quality Research and Development, and Well Crew teams with development and implementation of ultraviolet disinfection at several well sites, as well as cross-training with the Small Systems team to assist in the event of illness, vacation, and emergencies.
- Small Systems will partner with Maintenance Engineering, Water Resources, and the Army Corps of Engineers (ACE) for exploratory drilling of a backup well in Blue Diamond to increase source water reliability. The Small Systems will also be partnering with Maintenance Engineering, Planning, and the Army Corps of Engineers to upgrade the 3630 Zone booster pumping station. The total cost of the projects will be covered by ACE and State Revolving Fund grant monies.
- Small Systems will partner with Maintenance Engineering, Water Resources, contractors, and ACE to develop the S4 well in Searchlight. This will add an additional well that can be equipped in case the S2 or S3 wells experience a failure. With 75% of this project costs to be reimbursed by ACE.
- The Small Systems will be coordinating the replacement of the arsenic removal media at S2, with the costs being covered 100% by ACE and State Revolving Fund monies.
- Small Systems will partner with Telemetry to install an online Cl<sub>2</sub> analyzer in Searchlight to improve public safety and add remote water quality monitoring.

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- Small Systems will partner with Maintenance Engineering, Distribution, and contractors to reroute the Rainbow Well discharge line.
- Small Systems and Distribution will continue creating a service lateral inventory to document the material of all service lines, in accordance with the Revised Lead and Copper Rule.
- The Disinfection Shop has taken on the responsibility of on-site reservoir critical valve preventive maintenance that establishes readiness for unforeseen reservoir isolation needs.
- LVVWD Maintenance will continue a multi-year effort to install fiber optic and make 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.
- LVVWD Maintenance will begin installing UV LED systems at five wells in the valley for continued testing and demonstration.
- SNWA Maintenance will make motor control center upgrades at Decatur Pumping Station; change the valves at Sloan ROFCS to REXA valves; change all pumps to Rotork at Bermuda Pumping 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 install 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 replace Bermuda ROFC inlet and outlet valves and actuators.
- SNWA Maintenance will replace PS2A/PS2B forebay isolation gates.
- SNWA Maintenance will replace Warm Springs ROFC isolation valves and actuators.
- SNWA Maintenance will update DC excitation systems at various plants.
- SNWA Maintenance will upgrade medium voltage electrical equipment at multiple sites.
- SNWA Maintenance will replace Discharge valve actuators at Hacienda Pump Station.
- SNWA Maintenance will replace Isolation valves with Gate valves at Hacienda Pump Station.
- SNWA Maintenance will replace Pump Station 2A/2B Forebay Isolation Gate valves

**2022-23 Major Accomplishments**

- LVVWD SCADA Operations responded to a request by NV Energy to conserve power in the Southern Nevada area in September by curtailing pumping operations for several hours during a one-week span. By adjusting well run times and ensuring that pump stations using NV Energy power did not pump during peak hours, the LVVWD was able to achieve a significant reduction in power. The total power reduction achieved through this curtailment equaled 280 MW and led NV Energy to recognize our efforts.
- LVVWD SCADA Operations worked in tandem with Maintenance Engineering and Facilities to upgrade the SCADA room with new monitors, system maps, and other essential equipment to increase operator efficiency and ability to control the complex water system.
- LVVWD SCADA Operations worked in tandem with SNWS SCADA operations to support several main lateral outages, including two five-day AMSWTF outages, one two-week RMWTF outage, and a five-day South Valley Lateral outage. Water orders were adjusted, and internal pumping plans were altered to ensure no impact to customers.

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- SNWS SCADA operations oversaw the planning and execution of 109 individual site and equipment outages. These included two five-day AMS outages to repair a filter influent channel leak, repair the 90" interconnect valve between the B & C laterals, manned inspection of the B Lateral from PS-1B to the Forebay 2, AMS weir gate repairs, manned inspection of the A & B laterals from RT-2A to the Surge towers, rover inspection of approximately 1500 feet of the River Mountains Tunnel 2 from RT-2A, and miscellaneous electrical and controls work; a two-week RMWTF outage for filter influent valve repairs, filter #4 leak repair, valve installation on process area pumps, and miscellaneous electrical and controls work; 5 day South Valley lateral outage for the installation of a new 90" BF Valve at the South valley Reg Tank; outage to replace Pumps No. 2-5 at PS04 and PS05; a five-month Decatur PS outage to replace the station's electrical gear; replacement of all valves, actuators and venturis at ROFC 3; and replacement of all inlet isolation valves and actuators at Sloan ROFC and Warm Springs ROFC.
- Disinfection Shop staff completed three sodium room rehabilitations and planned and installed a prototype entry hatch on Reno Reservoir with the assistance of Asset Management and the welding shop.
- Disinfection Shop staff and Maintenance Engineering successfully completed the Re-lining of 2-5,000-gallon Bulk Naocl tanks at the Main Naocl building.
- Disinfection Shop staff successfully completed 24-hour Hazwoper certifications as requested by EH&S.
- Small Systems partnered with Water Resources, Maintenance Engineering, and the Well Crew to equip the new J8 Well in Jean for service in 2023 providing a reliable and sustainable water source for the future.
- Small Systems partnered with Maintenance Engineering and Distribution to reroute the transmission main in Jean at the chemical injection site. Doing so removed a section of corroded pipe, and eliminated a confined space, thereby improving employee safety when servicing the chemical feed system.
- Small Systems partnered with Maintenance Engineering, Water Resources and Army Corps of Engineers to replace steel and AC pipelines in Blue Diamond, thereby reducing leaks and improving fire protection. The total cost of the projects is covered by ACE and State Revolving Fund grant monies.
- Small Systems completed a service lateral inventory in Searchlight and Jean to document the material of all service lines, in accordance with the Revised Lead and Copper Rule.
- Small Systems staff increased outreach to customers in Blue Diamond, Kyle Canyon, and Searchlight regarding onsite (property owner) leaks. This enhanced outreach has made a major impact, especially in Searchlight, where there has been a substantial reduction in well production since July 2022.
- Small Systems staff worked with Asset Management and Distribution to install an inspection vault in the Rainbow subdivision of Kyle Canyon. This vault will allow for the inspection and locating of a critical transfer line between the Old Town subdivision and the Upper Rainbow Tank. Small Systems also worked with Asset Management to inspect the mainline going to the underground reservoir in the Echo subdivision of Kyle Canyon.
- 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. Distribution inspected 1,000 feet of pipeline and installed eight internal seals. The

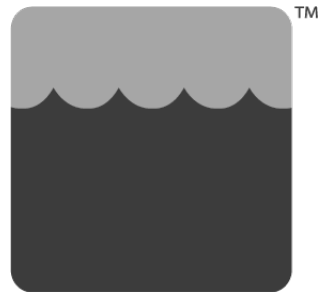
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project was completed prior to the repaving of Tropicana Avenue and will enable better isolation of the 60-inch line for future assessments and leak remediation.

- Distribution installed 1,400 feet of Primus liner to rehabilitate an 18-inch AC pipeline crossing interstate I-15 south of Blue Diamond.
- Distribution replaced 360 polyethylene service lines in Spring Valley, Los Prados, and Desert Shores.
- Distribution replaced a 36-inch valve at Lamb and Wyoming that was restricting flow through the transmission line. This included bolstering area connections to prepare for outages and performing an internal inspection of the 42-inch pipeline.
- LVVWD Maintenance restored and recoated multiple pumping stations and pumping equipment, including lead abatement where necessary.
- LVVWD Maintenance upgraded communications and reservoir sample analyzers at over 20 reservoir locations.
- LVVWD Maintenance upgraded multiple pumping stations with efficient LED lighting to enhance safety and reduce electrical consumption.
- SNWA Maintenance established a temporary generator power emergency preparedness program for all in-valley ROFCS.
- SNWA Maintenance installed new venturis at Unit No. 6B.
- SNWA Maintenance refurbished Motor No. 4 at Pumping Station No. 6.
- SNWA Maintenance replaced all control valve actuators at Magic ROFC.
- SNWA Maintenance replaced Sloan Inlet/Outlet Isolation valves and actuators.
- SNWA Maintenance replaced Grand Teton Inlet/Outlet Isolation valves and actuators.
- SNWA Maintenance replaced Simmons Discharge Isolation valves with Check Valves.

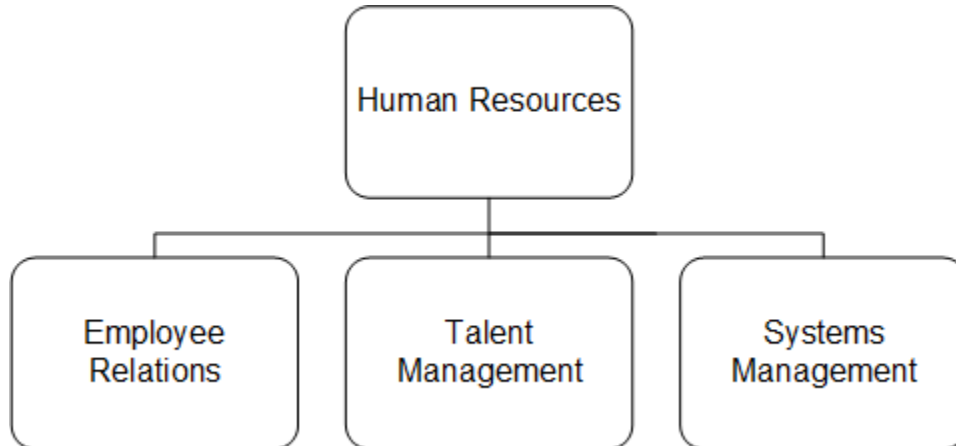
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## HUMAN RESOURCES

Level: 4200

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### Mission

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

### 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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LVVWD USES	Expenditures		
	Actual 2021-22	Budget 2022-23	Budget 2023-24
Materials and supplies	\$ 480,923	\$ 120,480	\$ 106,000
Maintenance and repairs	69,842	25,480	26,000
Other employee expenses	319,877	503,280	633,000
Other operating expenses	627,070	855,856	830,096
<b>Total Operating Expenses</b>	1,497,713	1,505,096	1,595,096
Capital expenditures	—	—	—
Salaries and benefits	3,341,587	8,338,102	10,339,039
<b>TOTAL DEPARTMENT EXPENDITURES</b>	<b>\$ 4,839,299</b>	<b>\$ 9,843,198</b>	<b>\$ 11,934,135</b>
<b>FTE POSITIONS</b>	19.5	56.2	63.7

## Department Performance

**Talent Management.** Provides recruitment and selection services; strategies to increase employee retention, engagement, appreciation, and wellness. Provides opportunities for employee professional and personal development. This group develops and administers recruitment and selection methods.

**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) and Legal Hold, Matter Management and Public Records Request applications (Exterro and LawBase/Worldox) 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 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.***

### 2023-24 Performance Objectives

- Eliminate the manual effort performed by accounting, by implementing the costing allocation splits for Payroll within Workday.
- Continue to implement Asset Management and Tracking for Information Technology in Workday.
- Launch the class and compensation job study for Operators within EH&S, Operations and Water Quality & Treatment.
- Continue the EH&S learning realignment in Workday to assist departments in maintaining employee's compliance.
- Implement new Workers' Compensation tracking and reporting for Payroll and EH&S.
- Continue to implement financial/retirement preparation programs focused on various employment and life stages.
- Streamline and improve EPDS process in Workday.

### 2022-23 Major Accomplishments

- Configured Benefits and Pay Hub Dashboard in Workday, including 'Model My Pay.'
- Created new Benefits billing worksheets that reduced processing effort from days to hours.
- Created new composite reports for payroll processing, eliminating manual effort.
- Implemented monthly workshops to provide training and support to management on performance assessments, managing hybrid staff and management skills.
- Completed digitization of employee personnel files in Workday.
- Completed a wall-to-wall class and compensation job study for Public Services, Springs Preserve and Finance.
- Concluded COVID protocols and developed guidance on how to manage illness moving forward.
- Introduced new financial wellness program for employees.
- Reduced time-to-fill for open positions by implementing a SME pass-through and contingent hiring for approved positions, reducing redundancies in position posting and applicant processing.
- Increased candidate pool volume and diversity by approving the application of work experience and/or transferable skills toward minimum job qualifications.
- Revised New Hire Orientation to include an in-person portion to supplement the online orientation.
- Developed a monthly engagement activities newsletter to provide to department executive assistants for distribution to all shift and satellite teams.
- Launched LVVWD Book and Bicycling Yammer groups.

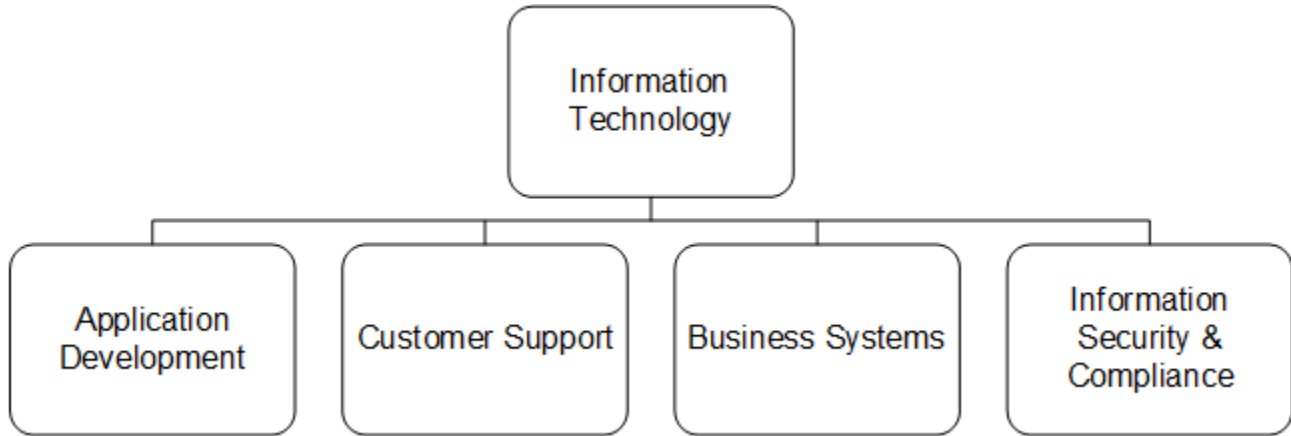
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- Facilitated two donation drives (Shade Tree and Safe Nest) and implemented 'Charity Champion' program. Donated approximately 35 pallets of goods and items to charities with 100% department participation for both drives.
- Launched new employee store with new vendor, adding more customizable options.
- Implemented monthly wellness topics and Wellness Warrior Program.
- Implemented on-site fitness classes through Camp Rhino.
- Partnered with EOS fitness for employee subscription discounts.
- Developed a training audit protocol to ensure organization-wide compliance with mandatory training requirements.
- Developed a robust leadership enhancement program to include training and development courses and initiatives for prospective, new and seasoned leaders.
- Facilitated the 2022 TAP Leadership Enhancement series of classes.
- Developed and implemented a mentoring program
- Developed a catalog with a searchable directory of online and in-person employee training and development classes.

## INFORMATION TECHNOLOGY

Level: 4300

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### 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 relaunched in 2022 and is comprised of multi-departmental leadership 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 2023-24 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.

LVVWD USES	Expenditures		
	Actual 2021-22	Budget 2022-23	Budget 2023-24
Materials and supplies	\$ 998,548	\$ 1,344,300	\$ 1,651,850
Maintenance and repairs	8,543,244	7,459,423	6,974,415
Rental and leases	544,590	679,900	604,150
Other employee expenses	51,456	243,733	192,857
Other expenses	1,902,501	3,761,220	3,016,340
<b>Total Operating Expenses</b>	<b>12,040,339</b>	<b>13,488,576</b>	<b>12,439,612</b>
Capital expenditures	2,214,319	12,939,049	26,531,149
Salaries and benefits	16,283,683	18,533,545	15,385,731
<b>TOTAL DEPARTMENT EXPENDITURES</b>	<b>\$ 30,538,341</b>	<b>\$ 44,961,170</b>	<b>\$ 54,356,493</b>
<b>FTE POSITIONS</b>	<b>78.7</b>	<b>90.6</b>	<b>71.4</b>

## Department Performance

Information Technology has 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 implementation of a new customer care, billing and meter management system, completion of Advanced Metering Infrastructure (AMI) installation, imagery analysis related to Assembly Bill 356, enhancements to the water plan review process, continuation of the endpoint equipment (PCs, monitors, iOS devices, and Laptops) refresh programs, and major enhancements to cybersecurity programs.

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

Applications supporting Operations, Customer Care, Water Resources and Finance are targeted for upgrades and enhancements.

The multi-year project to implement a new Enterprise Asset Management System kicked off in 2022 and will replace an aging application reaching end-of-life with a modern, best-in-class asset and work

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management system. Key features include preventative and predictive maintenance, inventory and material management, work management, reporting, and analytics. The system is projected to complete in 2025.

Efforts to support the organization's conservation initiatives will include leveraging meter data management systems, Advanced Metering Infrastructure (AMI), and Machine Learning (AI) technology for automated leak and non-compliance usage notifications, development of business intelligence tools and data analytics, new rates for BBWD and LVVWD, and initiating a project to develop a new application in support of water waste enforcement, to be completed in 2024.

The implementation of a new Financial Management System began in 2022 with efforts to analyze business processes and identify a replacement system. Vendor and implementor selection is anticipated in 2024-2025 with completion of the project in 2027-2028. In addition to the Financial Management System implementation, the corporate chart of accounts will be reviewed for restructuring.

**Administration and Infrastructure.** This division is comprised of five teams that provide support to the Information Technology Operations consisting of: IT Customer Support, System Administration, Application Administration, Geospatial Technologies, and the Mapping and Analysis teams.

The IT Customer Support team is responsible for many diverse functions within the company. This group is responsible for the infrastructure needed to remotely update, secure, manage and support over 2,600 work-from-home and on-premises desktops, field and personal laptops, iOS devices, and upwards of 450 iOS & desktop applications.

The System Administration and Application Administration teams are responsible for the application administration of business systems utilized throughout the organization. It is also responsible for the architecture and administrative support for the corporate infrastructure to include server, storage, and database administration, e-mail, web services, network infrastructure, and telecommunications. Additionally, this division is responsible for the maintenance of the Laboratory Information Management System (LIMS).

Geospatial Information Systems are comprised of two teams. The Mapping and Analysis team is responsible for the acquisition and delivery of high-resolution imagery and GIS project data management. The GIS Administration and Application Development team is responsible for GIS application development and GIS Enterprise infrastructure and maintenance to support the organization.

Enterprise support focuses on providing uninterrupted application services to customers during 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 upgrades and add 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. Continued implementation of the corporate local and wide area network backbone to support 100 GB between campuses, upgrades to the enterprise backup and recovery infrastructure,

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and a hardware refresh to support the virtual server infrastructure along with the initiation of a major call-center replacement project will take place this year.

**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 Services 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, providing guidance on the impacts of recently passed changes to Nevada Revised Statutes, 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). This division works closely with Legal Services, Information Governance, Purchasing and Risk Management to ensure the organization is addressing supply-chain and contractual security risks. In January 2022, the District launched a comprehensive vendor due diligence initiative which is managed by the Information Security & Compliance division. In addition, the division focuses on emerging regulatory requirements from state and federal agencies, as well as continuously evolving requirements from cyber insurance underwriters and bond rating entities.

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

#### **2023-24 Performance Objectives**

- Complete migration to the new LIMS application for the River Mountain Water Quality Lab. The new Labworks LIMS application is scoped to have minimal customizations and will provide the laboratory with advanced technology, compliance monitoring, and better integrations to instrument equipment.

#### **2022-23 Major Accomplishments**

- Implement improvements in systems that support water quality initiatives used by our organization and other agencies.

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

#### **2023-24 Performance Objectives**

- Implement automated start/stop/transfer service options for customers.
- Bring Phase One of the digital records management project to completion.

#### **2023-24 Performance Objectives**

- Implemented a fully online and contact-free method to accept approved engineering drawings to support the water plan review process.

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

#### **2023-24 Performance Objectives**

- Continue to progress conservation initiatives forward with proactive notifications related to leaks and compliance.
- Continue Turf and Vegetation Analysis to support ongoing water conservation efforts, including the Water Smart Landscape (WSL) Program and the Non-Functional Turf (NFT) Project.
- Complete 2023 Las Vegas Valley Imagery Project, including acquisition, performing quality assurance, and making imagery available for analysis related to water conservation programs.

#### **2022-23 Major Accomplishments**

- Continue to progress conservation initiatives forward with proactive notifications related to leaks and compliance.

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- Completed imagery analysis and GIS mobile application related to the new Assembly Bill 356 in identifying areas where Non-Functional Turf exists as relayed in the Bill.

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

**2023-24 Performance Objectives**

- Optimize our technology infrastructure to support a hybrid mobile and telecommute workforce.
- Support organizational initiatives with information security best practices guidance to ensure systems reliability.

**2022-23 Major Accomplishments**

- Built and enhanced various GIS mobile applications to support field data collections and dissemination of data, supporting important Organizational projects like Lead & Copper Revised Rule, Water Smart Landscape (WSL) Program, and Non-Functional Turf (NFT) Project.
- Implemented a new web site for the Las Vegas Wash project (LVWash.org).
- Completed Clark County LiDAR Digital Elevation Project, in conjunction with the USGS, to obtain updated elevation data to assist with a variety of Engineering, Planning, and Water Resources projects.

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

**2023-24 Performance Objectives**

- Continue work on the implementation of a new enterprise asset and work management system.
- Continue work on the implementation of a new financial management system.
- Substantially improve internal processes and software that support the organization’s water plan review processes.
- 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 to enhance cybersecurity programs throughout the organization to keep cyber insurance rates low and bond ratings high.

**2022-23 Major Accomplishments**

- Installation of Advanced Metering Infrastructure (AMI) across all service areas enabling proactive water usage intelligence.
- Made enhancements to cybersecurity which include the implementation of a department-wide change management program, additional threat monitoring tools, and further data separation to support latest changes to PCI compliance.

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

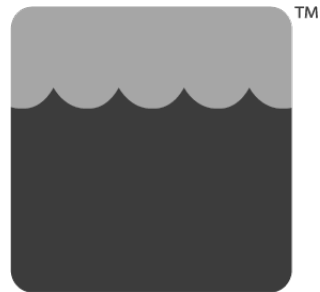
**2023-24 Performance Objectives**

- Engage Department of Homeland Security and CISA in performing information security and resilience assessments to prepare for emerging regulatory from federal and state agencies.
- Provide support and metrics regarding Public Records Requests, summons and subpoenas associated with Assembly Bill 356, sewer to public septic conversions and any other items that may arise.

**2022-23 Major Accomplishments**

- Gathered data and provided support and metrics regarding Public Records Requests, summons and subpoenas based on type.
- Developed metrics and dashboards to manage vulnerabilities, along with effectiveness of prevention and remediation efforts.
- Streamlined due diligence procedures to reduce the processing time of technology-based purchases by 68%.

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## ENVIRONMENTAL, HEALTH, SAFETY & CORPORATE SECURITY

Level: 4400

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### Mission

Provide world-class logistical support and customer service in a safe, resilient environment.

### Department Description

The Environmental, Health, Safety, and Corporate Security (EHSCS) Department is the organization's compliance, safety, and security arm and is comprised of the following divisions: Environmental, Health, and Safety (EHS); Corporate Security; Emergency Management; Fleet Services; and Material and Mail Services (MMS). Together, these divisions work to eliminate or mitigate overall organizational risk. Specifically:

- EHS ensures a safe workplace by promoting accident prevention, conducting employee training, monitoring trends, and performing permitting and compliance functions.
- Corporate Security maintains organizational security by providing 24-hour patrol, protection, response, and monitoring work across all facilities.
- Emergency Management safeguards the organization through year-round mitigation, planning, prevention, response, and recovery activities.
- Material Services keeps the organization reliably stocked in maintenance, repair, operations, and critical spare parts inventory.
- Fleet Services supports the organization's mission by procuring and delivering safe and reliable vehicles, equipment, tools, and communications equipment, and ensuring availability of ample fuel supplies.

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## Budget Objectives and Highlights

The 2023-24 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, reduce costs, and focus on sustainability, while skillfully maintaining goods, vehicle, and equipment inventory.

LVVWD USES	Expenditures		
	Actual 2021-22	Budget 2022-23	Budget 2023-24
Materials and supplies	\$ 2,464,122	\$ 2,961,500	\$ 2,749,989
Maintenance and repairs	321,434	367,400	323,000
Rental and leases	170,824	196,000	221,000
Other employee expenses	244,217	452,700	340,342
Other operating expenses	2,469,503	3,487,338	3,731,410
<b>Total Operating Expenses</b>	5,670,099	7,464,938	7,365,741
Capital expenditures	4,416,842	6,017,949	8,360,000
Salaries and benefits	8,255,519	9,444,935	9,394,377
<b>TOTAL DEPARTMENT EXPENDITURES</b>	<b>\$ 18,342,461</b>	<b>\$ 22,927,822</b>	<b>\$ 25,120,119</b>
<b>FTE POSITIONS</b>	53.2	61.8	60.1

## Department Performance

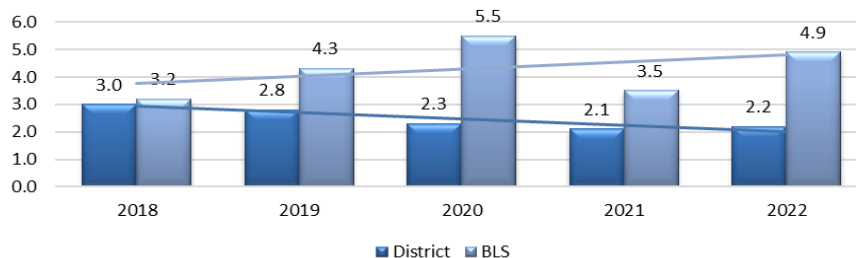
**Environmental, Health, and Safety Division.** The Environmental, Health, and Safety (EHS) division is responsible for overall management of LVVWD’s environmental, health, and safety program which governs employee safety in the workplace. EHS tracks leading and lagging indicators in the program, making necessary adjustments to ensure a positive safety culture is maintained, and provides ongoing EHS training for employees. The division employs an aggressive accident prevention program, investigating on-the-job accidents and injuries, and manages a comprehensive fleet safety program comprised of vehicle and heavy equipment, defensive driving, and commercial driver license training. Additional EHS responsibilities include drafting and publishing Occupational Safety and Health Administration (OSHA) and state compliant safety procedures; managing all federal, state, and local permitting and compliance activities; maintaining the Alfred Merritt Smith Water Treatment Facility’s Process Safety Management program; conducting monthly EHS Steering Committee meetings; and managing the organization’s asbestos, lead awareness and hearing conservation programs.

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## Recordable Injury Rates

EHS tracks recordable injuries and illnesses annually and compares them to the BLS annual averages for similar industries. The incidence rate of injuries and illnesses is computed using the following formula: (# injuries/illnesses X 200,000)/employee hours worked. The incidence rate for the District increased slightly from 2.1 in 2021 to 2.2 in 2022.

**Recordable Incident Rates**



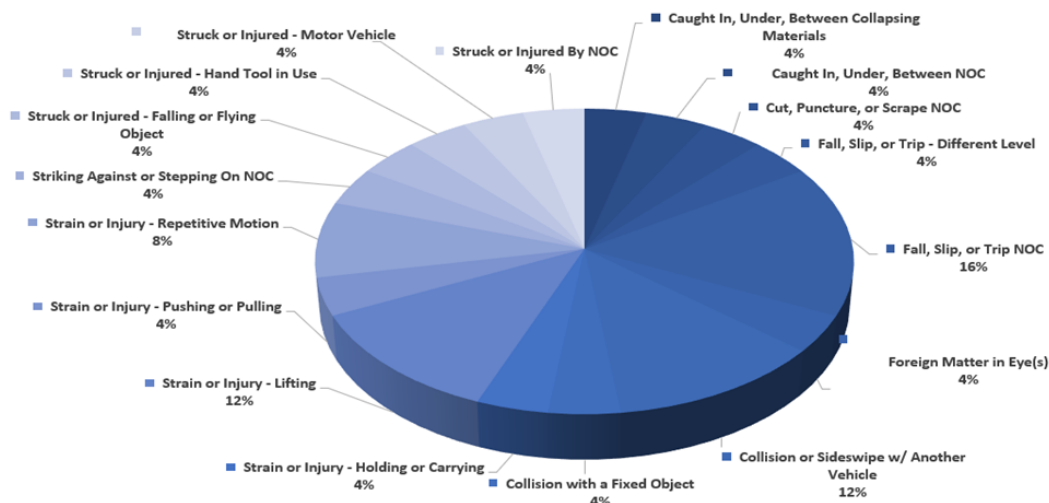
## Recordable Injuries by Category

In 2022, lost-time cases increased 50 percent from 2021. The increase was due to the severity of three claims that resulted in the need for extended time off and/or surgery. The water and wastewater industries continue to trend upward as the District continues to trend downward, well below the BLS incidence rate.

In 2022, four *Struck By* and four *Strain* recordable injuries were reported, which resulted in 32 percent of all recordable injuries.

EHS continued focused reviews at job sites for potential impact hazards with emphasis placed on general housekeeping, equipment and tool placement, and employee positioning. While the reviews did not reveal unmitigated hazards, strains and struck-by injury events remained the highest cause of employee injury. These two injury category types are considered emerging risks and remain a priority for the District.

**Recordable Injury Cause**

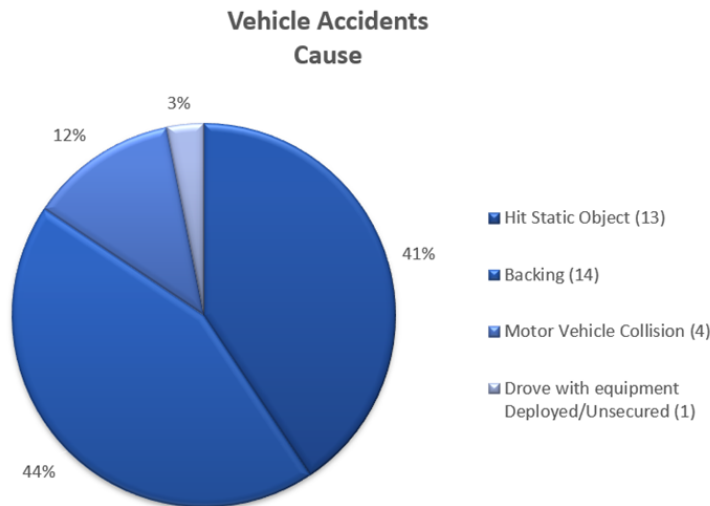
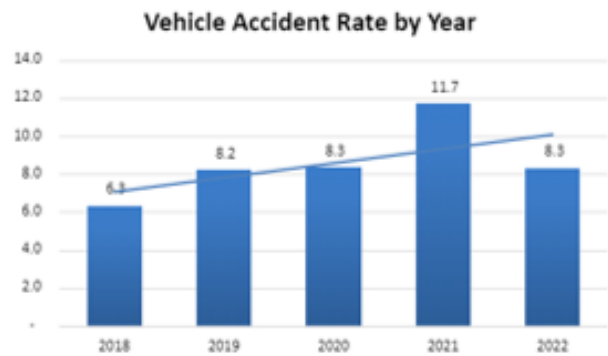
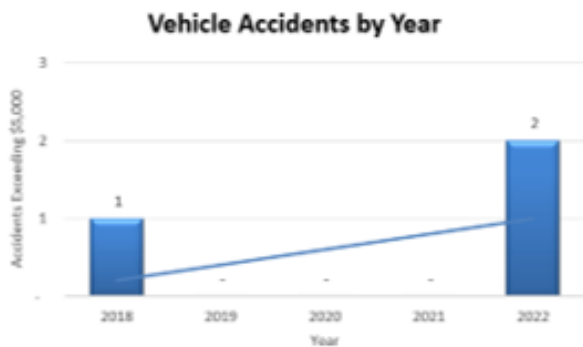


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## Vehicle Accidents

The District experienced an increase in at-fault vehicle accidents above \$5,000 (zero in 2021 vs. two in 2022) and a decrease in the total number of at-fault vehicle accidents (47 in 2021 vs. 32 in 2022). The District’s vehicle accident rate decreased from 11.7 in 2021 to 8.3 in 2022, although the vehicle accident rate trend has continued to climb over the five-year review period. Rates are computed using the following formula: # vehicle accidents X 1,000,000 miles/actual miles driven.

Most vehicle accidents were caused by preventable driving activities, with 41 percent attributable to *hitting stationary objects while driving forward* and 44 percent to *backing* incidents. Most accidents continue to be a direct result of drivers not conducting a safety circle check before moving a parked vehicle and ensuring adequate clearances for maneuvers both to the front and rear. Employees must take the time to verify that the path of travel is clear by conducting a safety circle check and, when possible, use a spotter. Training efforts and focused reviews in these specific areas will be included in the goals of the EHS Steering Committee and Safety Action Teams.



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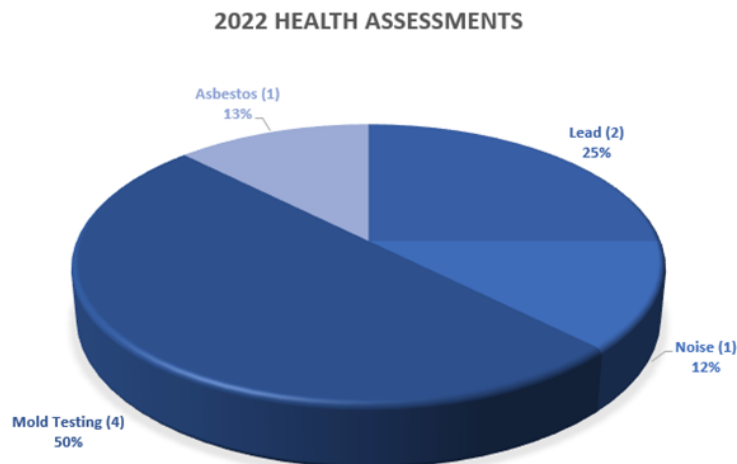
## Occupational Health

Occupational Health is the promotion and maintenance of the highest degree of worker well-being. Monitoring potential hazards associated with higher noise exposure and risk respiratory protection is an EHS priority. The Hearing Conservation and Respiratory Protection programs exist to test and train employees annually on hazard identification and mitigation.

The Hearing Conservation program includes 201 employees. Every employee available for testing underwent an audiometric exam in 2022. Results show zero employees who sustained a recordable shift and, as such, there were no claims filed for hearing loss.

The Respiratory Protection program continues to utilize the smoke tube evaluation process for employees. EHS fit tested 276 employees in 2022.

The number of health assessment requests decreased from 16 in 2021 to 8 in 2022. Various samples were collected and analyzed for exposure impact.

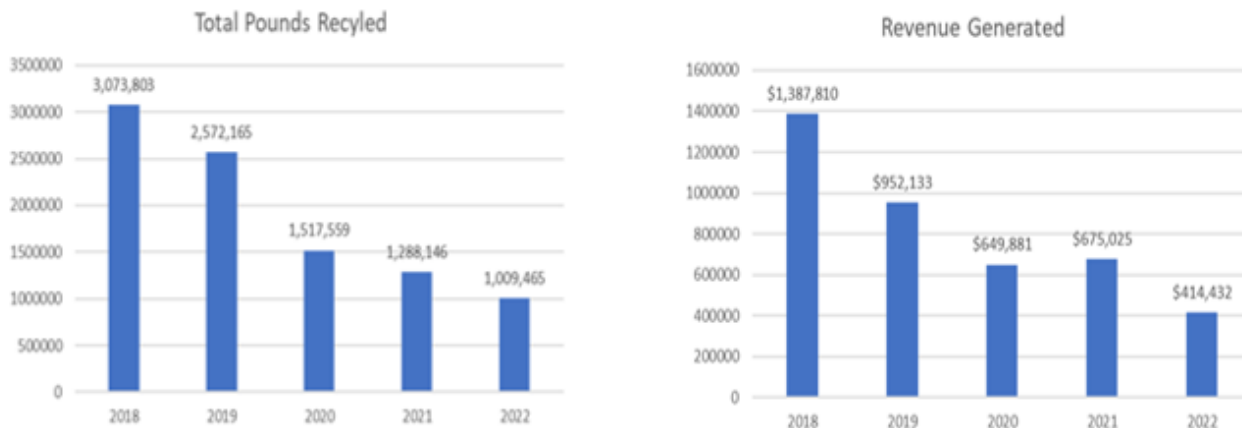


## Recycling Program

The organization recycled a combined total of 1,009,465 pounds of materials in 2022, which resulted in a 22 percent decrease from 2021. Total revenue for 2022 was \$414,432 (scrap = \$43,267, auctions = \$0.00, vehicles = \$371,165).

The decrease in recycled material can be directly attributed to the organization's hybrid working operations. The decrease in total revenue can be directly attributed to a decrease in the number of vehicles and lack of scrap metal sent to auction.

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**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, including intrusion alarm and service-call response; field crew escort and standby support during water service shut-off; reservoir and pumping station site patrol; LVVWD-involved vehicle collision investigation; emergency first aid and police/fire escort; fire protection equipment and alarm system inspection; customer parking assistance; customer, vendor, and visitor escort; information assistance and facility access; emergency evacuation and active shooter training; and vendor access monitoring and control of restricted areas. Physical security networks and systems, including electronic access control, security cameras, alarms, and locks, in conjunction with a 24/7 centralized security call center, are in place to assist officers in maintaining campus control. Additionally, Corporate Security has formed partnerships with federal, state, and local law enforcement authorities and other utilities in a collaborative effort to guard against malicious acts toward the organization.

**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 system’s function, or, if interruption occurs, to rapidly return the system to normal operating conditions. To meet or exceed federal guidelines for water sector preparedness and increase organizational resiliency, emergency management staff conduct work in all five phases of emergency management: mitigation, planning, prevention, response, and recovery.

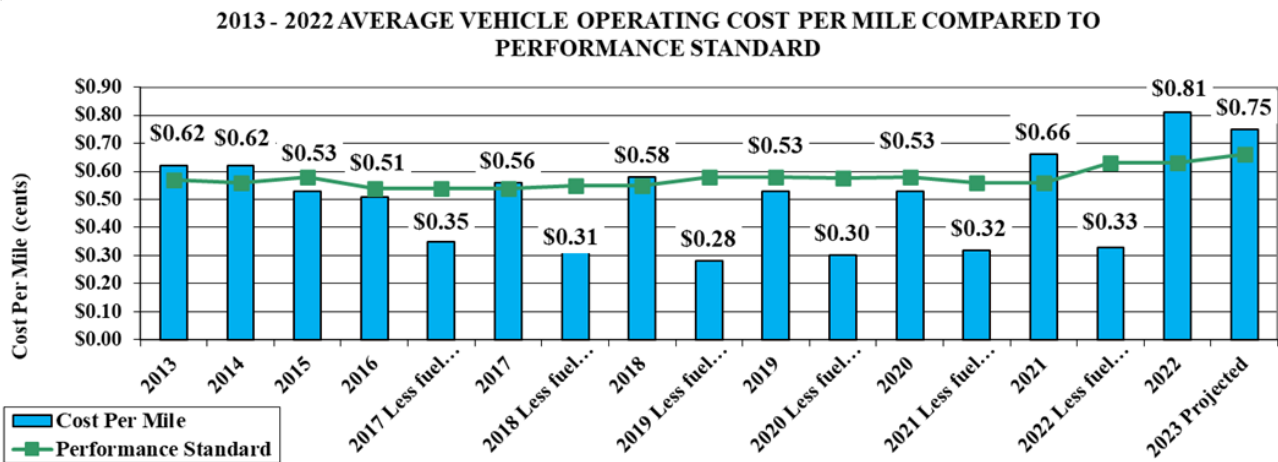
**Material Services.** Material Services is customer focused as it provides quality operating and maintenance products, material requirement planning, inventory management, and storage and retrieval services to the organization. In 2022, Material Services managed 14,000 inventory assets valued over \$20M. Material Services partners with internal customers to identify, forecast, and schedule capital and operations project material requirements and ensure delivery to all LVVWD facilities. Material Services also processes and delivers all items intended for auction, manages recycled metals, and administers the uniform process for employees.

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

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**Fleet Services.** Fleet Services provides safe, reliable, and functional vehicles, equipment, tools, fuel, and communications equipment that directly support water delivery. Currently, the division maintains more than 1,500 vehicles and support equipment pieces, and 1,000 pieces of communications equipment. Division responsibilities include repair service and maintenance, along with acquisition/disposition of all vehicles, communications and support equipment, and loanable tools. Fleet Services also operates seven service facilities and seven fueling facilities in Las Vegas, Boulder City, Henderson, and White Pine County.

The following chart reflects 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.*

### 2023-24 Performance Objectives

- Environmental, Health and Safety
  - Assure water quality by performing two comprehensive audits of departments involved in high-hazard activities in order to measure regulatory compliance.
  - Benchmark accident/injury standards to BLS comparable industries.
  - Conduct weekend/after-hour spot audits of industrialized work activities supporting water treatment, water quality, water distribution, or other activities.
  - Maintain a formalized training schedule for all EHS instructor-led courses.
  - Obtain all required operational water pollution control permits and continually monitor water discharge parameters to reduce pollutants discharged.
  - Review and update the EHS Manual and all internal EHS procedures.
  - Review maintenance and professional services contracts to ensure EHS operational compliance.
- Corporate Security
  - Increase lighting at the Foothills complex access gate and service roads in preparation for the Lakemoor housing development.
  - Purchase automated security gate with card readers for Foothills pumping complex main entrance.
  - Replace the current P-2000 access control program with the enhanced C-CURE 9000 security management system to provide critical security and safety protection for District employees, buildings, and assets.
  - Replace the entrance gate at Montessori satellite with a superior Wallace Gate.
  - Upgrade the Security Center with new camera and alarm systems that take advantage of available analytics and artificial intelligence technologies.
- Emergency Management
  - Build strong relationships with Federal Emergency Management Agency (FEMA) municipal and partner agencies.
  - Collaboratively develop, maintain, and revise rigorous training and emergency exercise programs.
  - Develop the NvWARN network to support Nevada safe drinking water/wastewater facility resilience.
  - Implement new document management software, Risk Solutions, to maintain and update critical emergency response documents while improving accessibility.
  - Improve mobile monitoring capabilities to provide leadership and improved field level situational awareness during emergencies.
  - Lead community effort and plan for drinking water distribution in the event of supply disruption.
  - Partner with the Department of Homeland Security (DHS) and Southern Nevada Counter-Terrorism Center (SNCTC) to prepare for potential threats to facilities or the water industry.
  - Provide additional on-site training opportunities for employees and partner agencies.
  - Train key employees and conduct drills on LVVWD's Emergency Response Plan (ERP).

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- Utilize the District's Emergency Operations Center (EOC) to engage with Incident Management Team.

### **2022-23 Major Accomplishments**

- Environmental, Health and Safety
  - Achieved recordable injury incidence rate of 2.2, compared to BLS rate of 4.9, extending LVVWD's history of falling below BLS rates.
  - Completed over 115 documented spot audits.
  - Conducted over 87 investigations related to recordable injuries, preventable vehicle accidents, and preventable property damage incidents, and made corrective action recommendations, as appropriate, to reduce the chance of recurrence.
  - Received no citations from OSHA or Environmental Protection Agency.
  - Renewed 175 environmental permits.
  - Reviewed the Industrial Scientific service contract parameters and equipment use which resulted in a reduction of the monthly contract expense.
  - Successfully completed Safety Stand Down Day with 258 employees in attendance.
- Corporate Security
  - Completed a comprehensive Corporate Security Manual review and update.
  - Completed the DHS Vulnerability Assessment at our most critical locations: Foothills pumping complex, Alfred Merritt Smith Water Treatment Facility (AMSWTF), and River Mountains Water Treatment Facility (RMWTF).
  - Completed Use of Force and Restraint Standard Operating Procedure for District Security Officers.
  - Installed new access control card readers at the main gates at AMSWTF, RMWTF, and IPS #1 to provide a safer entry by larger work trucks.
  - Installed fixed thermal camera at Foothills pumping complex main entrance drive.
  - Promoted Department of Homeland Security's national *If You See Something, Say Something™* campaign.
  - Provided increased security checks at critical sites, including water treatment plants and pumping stations.
  - Updated, redesigned, and issued new badges to all District employees.
- Emergency Management
  - Attended FEMA training to gain the FEMA ICS Trainer certification.
  - Coordinated aid response for the County of Hawaii to provide a critical piece of equipment.
  - Hosted several local first responder liaison days at AMSWTF and RMWTF.
  - Participated in state and community Threat Hazard Identification and Risk Assessment workshops, exercise planning meetings, and threat/risk exercises.
  - Reviewed and updated the continuity of operations plan.
  - Launched internal two-way notification system to communicate with staff on any emergencies.

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

**2023-24 Performance Objectives**

- Environmental, Health and Safety
  - Participate in local association meetings to gather information on best management practices to support the Safety Management System and adopt and implement proven work methods.
  - Provide evaluation forms for instructor-led courses to assess customer satisfaction.
- Corporate Security
  - Conduct ride-alongs and field escorts with Operations, Distribution, and water enforcement teams.
  - Enhance active shooter response and survival training and make it available to all work groups.
  - Explore and test new security technology and systems.
- Emergency Management
  - Attend briefings, meetings, training, and support groups for Utility Pipeline and Coordinating Group, InfraGard, SNCTC, DHS, LEPC, Southern Nevada Health Preparedness Coalition, American Water Works Association, etc.
  - Lead community effort and plan for drinking water distribution in the event of supply disruption.
- Material and Mail Services
  - Conduct monthly planning and review meetings with Field Services, Project Support Team, and Inspections to monitor and ensure consistent materials management and inventory replenishment for short- and long-term projects.
  - Handle logistics between District locations to ensure timely delivery of mail, materials, and equipment.
  - Meet customer shipping needs for outbound materials from all District campuses.
- Fleet Services
  - Expand telematics system to assess vehicle condition and reduce downtime.
  - Partner with all departments in the specification process for new and replacement vehicles/equipment.
  - Provide the best possible equipment choices to all departments to assist them in meeting their goals efficiently and effectively.
  - Provide state-of-the-art tools, equipment, and training to technicians to ensure maximum efficiency in services provided.
  - Respond to changing customer needs and implement/modify services to better support the mission.
  - Strive for 100 percent vehicle equipment availability.

**2022-23 Major Accomplishments**

- Environmental, Health and Safety
  - Collected student evaluation forms after each EHS instructor-led course to improve future course curriculums.
  - Conducted a survey of the Safety Stand Down event to obtain feedback and improve future training courses. The latest survey results show the highest overall employee satisfaction trending upward over the last three years.

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- Participated in meetings with Safety Action Teams, the EHS Steering and Sustainability cross-department committees, and the Public Employer Safety Officer (PESO) Coordination meeting.
- Recognized as “Best in Class.” for the second year in a row, by the American Water Works Association (AWWA) for Utilities with over 500 Employees.
- Updated electronic materials on the Hydroweb to ensure that all employees have access to useful health and safety literature and information.
- Corporate Security
  - Continued security patrols in areas of high backflow theft and developed partnerships with local scrap metal yards to identify and seize stolen backflows.
  - Deployed Traction Guest visitor management system in the main customer lobby.
  - Increased on-site training and strengthened partnerships with other emergency responders by allowing use of District facilities for rescue and emergency response training.
  - Launched an in-house preventative maintenance program for the Medeco lock system to ensure error-free operation for all employees.
  - Partnered with the local FBI Office to quickly evaluate, vet, and clear foreign nationals requesting access to District facilities.
  - Provided additional security presence for employees during heightened customer interactions, both on campus and at job sites.
  - Provided enhanced security coverage for multiple high-capacity events to support the reopening of the Springs Preserve to the public.
  - Utilized walkthrough metal detectors at public meetings and special events for increased employee and guest safety.
- Emergency Management
  - Educated workgroups on COVID-19 protocols to protect employees from illness and spread.
- Material and Mail Services
  - Worked diligently with Purchasing department and external vendors/suppliers to ensure a consistent stream and supply of materials required for uninterrupted District operations.
  - Received 100 percent accuracy rating during LVVWD’s Material Services audit.
  - Processed 83,656 material issues/returns and 39,410 individual receipts and delivered 8,274 packages District-wide.
  - Performed 252 pickups or deliveries for multiple departments.
- Fleet Services
  - Completed 9,684 work orders and 12,166 vehicle/equipment repair tasks.
  - Enhanced customer service in outlying areas through technology, improved parts availability, and on-site technician scheduling.
  - Involved customers in the vehicle/equipment specification process to ensure the best possible products were provided.
  - Maintained automotive service excellence Blue Seal of Service Award and World Class Technician status through training and certification.
  - Maintained I-Car Platinum status for the fleet paint and body operation through technician training and certification.
  - Monitored vehicle health status through our telematics system to identify equipment failures and reduce operator downtime.
  - Partnered with customers to review vehicle/equipment needs, identify areas in need of modification or improvement, and provide 3D drawings of special-build vehicles to ensure the best equipment fitment and product usability.

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

**2023-24 Performance Objectives**

- Environmental, Health and Safety
  - Prepare and submit environmental reports to regulatory agencies.
  - Review current recycling and waste streams to identify new recycling opportunities.
- Corporate Security
  - Increase water enforcement patrols and coordinate with Conservation to enforce service rules related to water theft.
  - Provide security oversight to construction projects associated with the Horizon Lateral project.
  - Utilize results from the Department of Homeland Security’s vulnerability assessments to further protect L3PS from human caused incidents.
- Fleet Services
  - Develop alternate fuel vehicle program, expand the District’s plug-in electric vehicle fleet, and add electric vehicle charging infrastructure.
  - Implement environmentally friendly practices in automotive paint and body repair.
  - Improve fleet vehicle/equipment utilization to reduce costs and resources.
  - Recondition and reuse service bodies and vehicle up-fit equipment for LVVWD vehicles and equipment, when feasible.
  - Recycle vehicle and equipment maintenance waste and expand recycling activities, when feasible.
  - Retrofit fleet paint booth with more environmentally friendly technology.
  - Use telematics and best management practices to reduce unnecessary vehicle fuel burn across the District’s vehicle fleet.

**2022-23 Major Accomplishments**

- Environmental, Health and Safety
  - Generated 4,780 pounds of hazardous waste.
  - Monitored recycling program which yielded \$414,432 (scrap = \$43,267, auctions = \$0, vehicles = \$371,165).
  - Tracked and submitted 175 environmental permits on time.
  - Tracked, contained, and cleaned up 18 unintentional releases of regulated material.
- Corporate Security
  - Assisted Public Services with multiple media tours to L3PS.
  - Provided security awareness, safety training, and escorts for employees who respond to water theft incidents and investigations.
- Material Services
  - Recycled 148,000 pounds of scrap brass, copper, and wire which sold at auction for \$348,750.
  - Recycled 742,000 pounds of miscellaneous scrap metals, resulting in \$43,000 of revenue.
- Fleet Services
  - Added dust free sanding equipment to our paint and body operation.
  - Achieved 79 percent alternative fuel burn rate for District vehicles/equipment.

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- Replaced older diesel and gasoline powered vehicles with alternative fuel and more efficient vehicles, which lowered capital cost and reduced carbon footprint.
- Reduced volatile organic compound usage within fleet paint and body operation by more than 20 percent in 2022, and over 95 percent in the past 20 years.
- Earned recognition as one of the 100 best fleets by the Top 100 Fleets in North America.

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

**2023-24 Performance Objectives**

- Environmental, Health, and Safety
  - Explore modern technologies and methods in the Worker’s Compensation Program Management.
- Corporate Security
  - Conduct monthly security meetings with Information Technology to monitor security risks and threats.
  - Partner with LVVWD Telemetry to leverage the full potential of our current security camera analytics.
  - Secure a cost-effective mobile guard post for the Springs Preserve entrance which will eliminate the need for an idling security vehicle.
- Fleet Services
  - Equip the fleet facilities with state-of-the-art testing and diagnostic equipment to accurately diagnose and repair vehicle and equipment failures.
  - Provide online technical and diagnostic training to technicians.
  - Utilize advanced telematics and fleet management tools to lower liability, reduce costs, improve efficiency, and better manage fleet assets.

**2022-23 Major Accomplishments**

- Environmental, Health and Safety
  - Completed Origami Safety Management update, including development of EHS training, and tracking and occupational health modules.
  - Implemented a new Worker’s Compensation Third Party Administrator (TPA), CorVel, which brings new technology, greater transparency, and new opportunities for employees to seek medical attention.
- Corporate Security
  - Continuously monitored more than 800 cameras in the Security Center.
  - Installed automatic gate at Northwest satellite location.
  - Partnered with Risk Management to utilize the security blotter system to accurately track theft, vandalism, and fire system outages.
- Material and Mail Services
  - Implemented Fastenal vending machines for personal protective equipment and consumables to increase efficiency and transparency and reduce overhead costs.
- Fleet Services
  - Equipped all fleet repair facilities with state-of-the-art diagnostic equipment, reducing vehicle downtime and repair costs.
  - Integrated fleet telematics system and asset management system to improve statistical data and reporting.

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- Provided online technical training and diagnostic information to technicians at all repair locations.
- Upgraded to cloud-based fuel management system to improve access and reporting capabilities.
- Replaced fleet paint and body estimating system with a more robust and intuitive system to improve estimate quality, efficiency, and cybersecurity defense.
- Utilized telematics system for early detection of equipment failures to improve safety, reduce operator downtime, and lower fuel usage.

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

### **2023-24 Performance Objectives**

- Environmental, Health and Safety
  - Identify new environmental, health, and safety regulations and policy changes, and collaborate with other pertinent agencies.
- Corporate Security
  - Collaborate with Las Vegas Metropolitan Police Department to explore drone training for use in security, emergency management, and remote-site inspections.
  - Partner with FBI InfraGard and Utility Pipeline Coordination Group to stay informed about current water sector threats.
  - Partner with Southern Nevada Counter Terrorism Center and Las Vegas Metropolitan Police Department Area Commands and attend classified briefings on critical infrastructure threats.
- Material and Mail Services
  - Develop and implement best-practice inventory management and reporting to minimize duplications and realign materials management.
- Fleet Services
  - Lifecycle vehicles and equipment to ensure fleet efficiency and best return on investment.
  - Reduce overall cost per mile/hour of operation for all vehicles and equipment.
  - Without compromising safety or level of service, reduce fleet operating costs through standardization opportunities, inactive inventory reduction, and continuous process improvement.

### **2022-23 Major Accomplishments**

- Environmental, Health and Safety
  - Achieved continuous monitoring of OSHA, EPA, and DIR regulations and guidelines to incorporate relevant changes.
  - Developed and implemented best practice in EHS management and reporting.
  - Partnered with the Public Employee Safety Officer (PESO) Coordination agencies.
- Corporate Security
  - Conducted over 150 security readiness drills to prepare security officers to better respond to unauthorized vehicles and persons, suspicious packages, and medical emergencies.
  - Hosted multiple confined space and rope rescue training scenarios at District reservoirs for local police and fire departments to increase responder readiness.

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- Increased security officer training for better response time to collisions involving District vehicles.
- Partnered with local FBI Office to provide employees with advanced insider threat training.
- Partnered with Valley law enforcement and area recycling centers and scrap yards to achieve a 75 percent reduction in backflow thefts.
- Material and Mail Services
  - Received and distributed over \$28.5M in materials.
  - Received zero findings during the July 2022 warehouse audit report by Baker Tilly Accounting Firm.
- Fleet Services
  - Completed the year with a fleet parts inventory on the dollar variance of 0.2 percent.
  - Recovered \$573,000 through vehicle and equipment auction and \$9,480 in vehicle warranty repairs through in-house warranty programs.
  - Replaced 54 vehicles and equipment pieces that were no longer cost effective to operate and maintain, while adding 16 pieces to accommodate growth and improve organizational capabilities.

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

**2023-24 Performance Objectives**

- Environmental, Health and Safety
  - Conduct instructor led EHS training for LVVWD employees.
  - Conduct investigations for all incidents and identify corrective actions.
  - Provide EHS information updates through ePipeline, Hydroweb, and electronic management advisory and safety alert messaging.
- Corporate Security
  - Educate employees on the importance of safeguarding themselves and company property while crews are working in the field.
  - Engage in future construction and maintenance contracts to ensure security issues and concerns are proactively addressed.
  - Expand installation of Nightlock devices for additional safe rooms at all campuses and Big Bend Water District.
  - Provide security refresher training to employees on active shooter awareness and Nightlock safe-room operations.
- Emergency Management
  - Foster relationships with local municipal and emergency management professionals to reinforce the importance of including LVVWD in local planning activities.
- Fleet Services
  - Partner with departments to better assess needs and improve design and capability of specialty vehicles and equipment.
  - Provide comprehensive preventive and predictive maintenance on vehicles and equipment to ensure optimum uptime.
  - Maintain Automotive Service Excellence Blue Seal certification and World Class Technician status.
  - Maintain I-CAR Platinum Class Certification for paint and body operations.
  - Train and certify fleet maintenance and service personnel in modern technology and repair techniques.

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## **2022-23 Major Accomplishments**

- Environmental, Health and Safety
  - Applied Origami software risk accident/incident tracking and reporting processes through the Security Center.
  - Completed the EHS Annual Report highlighting major accomplishments in 2022.
  - Implemented the Safety Minute on Yammer.
  - Received and monitored 12 Safety Action Requests to ensure corrective actions were implemented.
  - Successfully completed the Safety Stand Down event.
- Corporate Security
  - Cross-trained officers in all posts and duties and maintained proficiency through weekly rotation.
  - Implemented the recommended corrective actions that were identified in the internal audit of the Security Division.
  - Provided advanced Active Shooter response and Stop the Bleed training for all Security Officers.
  - Provided daily security escorts for Customer Service employees servicing kiosk terminals.
  - Received the American Society for Industrial Security Las Vegas Chapter Outstanding Member Agency award for 2022.
  - Standardized 100 percent employee identification badge checks at all facility entrance points and maintained tighter control of access points.

### Emergency Management

- Completed the Big Bend Water District Risk and Resilience Assessment (RRA) to identify highest risk facilities and areas to best use resources and improve resilience.
- Provided support for Clark County mutual assistance partners by offering utility expertise at the Multi-Agency Coordination Center for large-scale events, such as New Year's Eve, NASCAR, and Life is Beautiful.

### Material and Mail Services

- Implemented a quarterly staff rotation between satellite facilities to ensure all team members can provide the same level of service to internal and external customers.
- Installed safety gates for added protection on mezzanines in the Valley View warehouse.
- Partnered with key internal customers to better assess customer needs and improve distribution of products.
- Provided cross-training for Material Services and Mail Services employees to fill in, as needed.
- Transferred a large amount of inventory and materials to the Alfred Merritt Smith Water Treatment Facility warehouse to better utilize storage and available space.

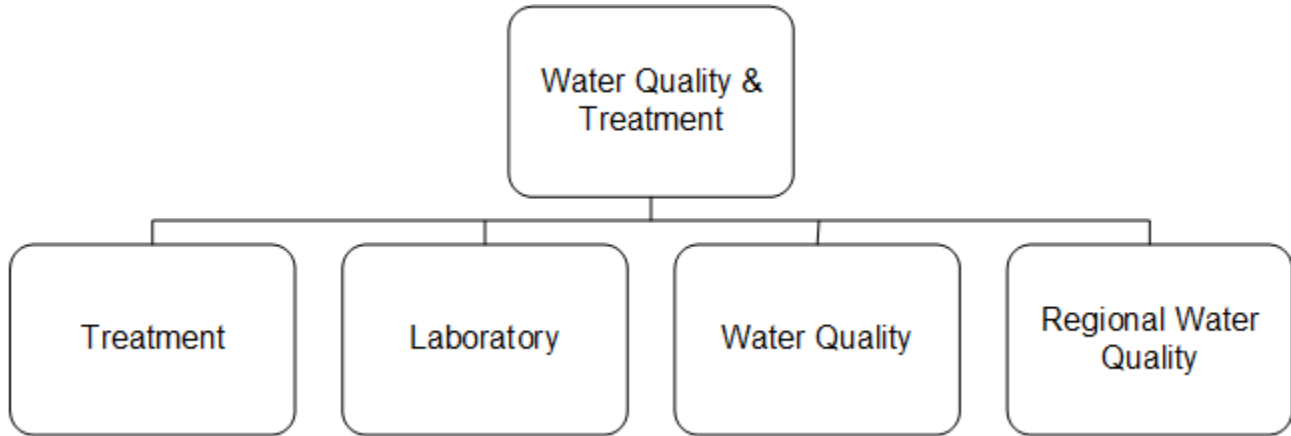
### Fleet Services

- Completed over 9,684 work orders and 12,166 repair tasks on vehicles and equipment.
- Maintained Automotive Service Excellence Blue Seal of Service Award and World Class Technician status.
- Maintained I-CAR Platinum Class Certification for paint and body operation.
- Maintained standing as one of the 100 Best Fleets in North America through North American Fleet Management Association.
- Partnered with key customers to better assess their needs and improve end products and services provided.

## WATER QUALITY & TREATMENT

Level: 4500

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### 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 Water Quality Research and Development (R&D) division is responsible for performing research and process optimization studies to ensure the Treatment division is prepared for changing and emerging water quality challenges. The Regional Water Quality division is responsible for monitoring, coordinating, and projecting water quality in the SNWA source waters. All these efforts are in support of the primary responsibility for the department.

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LVVWD USES	Expenditures		
	Actual 2021-22	Budget 2022-23	Budget 2023-24
Materials and supplies	\$ 7,896	\$ —	\$ —
Maintenance and repairs	233	—	—
Rental and leases	—	—	—
Other employee expenses	306	50,000	50,000
Other operating expenses	(72)	—	—
<b>Total Operating Expenses</b>	8,363	50,000	50,000
Capital expenditures	—	83,333	93,750
Salaries and benefits	504,353	187,422	244,922
<b>TOTAL DEPARTMENT EXPENDITURES</b>	\$ 512,716	\$ 320,756	\$ 388,672
<b>FTE POSITIONS</b>	1.2	0.7	0.7

## 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 water quality 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 53,653 samples were collected, and 297,644 analyses performed in 2022. The number of analyses can fluctuate year-to-year depending on the year’s monitoring requirements.

**Water Quality Research and Development.** The Water Quality Research and Development (R&D) division performs leading-edge water quality research and provides innovative treatment solutions with expertise in engineering, chemistry, and microbiology. Water quality and treatment research prepares the Organization for current and future U.S. Environmental Protection Agency (USEPA) compliance, advances the science of direct and indirect potable reuse, and provides guidance for full-scale capital improvement projects. Research areas focused on low-level environmental contaminants, emerging pathogens, and wastewater surveillance. In 2022-23, R&D was involved in \$17M of research in a principal investigator role and published 29 peer reviewed manuscripts.

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**Regional Water Quality.** The Regional Water Quality division is responsible for monitoring and coordination of regional water quality issues within the SNWA and other local, state, and federal agencies. To accomplish this, the division also analyzes 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](http://snwawatershed.org/members)). The division also operates and expands the Lake Mead Model, a 3D mathematical model for water movement and quality in Lake Mead with an emphasis on the potential impacts on the raw water supply.

## Strategic Plan Objectives and Accomplishments

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

#### 2023-24 Performance Objectives

- Provide updated model predictions of Lake Mead water quality as the US Bureau of Reclamation (USBOR) updates their predictions of Colorado River Operations to inform water treatment.
- Collaborate with LVVWD Operations and Nevada Division of Environmental Protection-Bureau of Safe Drinking Water (NDEP-BSDW) on the installation and evaluation of ultraviolet light emitting diode (UV-LED) technology for *Legionella* inactivation.
- Complete all Safe Drinking Water Act (SDWA) monitoring requirements for SNWS, LVVWD, North Las Vegas, Henderson, Boulder City, Nellis Air Force Base, BBWD, Blue Diamond, Kyle Canyon, Jean, Searchlight, Sloan Army Reserve, and Kapex.
- Support water quality monitoring activities at Lake Mead, water treatment plants, and distribution systems.
- Collaborate with member agencies to prepare for new regulatory requirements under the SDWA's Revised Lead and Copper Rule (LCRR).
- Implement new digital Polymerase Chain Reaction (PCR) technology into routine monitoring protocols for viruses, free-living amoeba, SAR-CoV-2, and other emerging microbial pathogens.
- Support compliance monitoring for *Escherichia coli*, *Cryptosporidium*, *Legionella pneumophila*, and algal toxins in drinking and source waters.
- Implement new Labworks Laboratory Information Management System (LIMS) with all functioning aspects needed to properly monitor water for all requirements of the SDWA. Continue to refine new LIMS, by identifying efficiencies in various workflow processes through use of enhanced configuration in LIMS.
- Complete replacement of wireless temperature monitoring system used for sample preservation and sample analysis. Upgrading the wireless temperature monitoring system will improve compliance integrity of sample storage requirements and data being produced by the laboratory.
- Complete The NELAC Institute International Standards Organization/International Electrochemical Commission (TNI ISO/IEC) 17025 gap assessment to identify corrective actions for continuous improvement upon quality driven efficiency in the laboratory.
- Procurement and installation of new purge and trap instrumentation for volatile organic compound analysis.
- Continue participation to complete Low Lake Level Treatability Study.
- Continue participation to complete design of enhancements to the ozone and oxygen systems at AMSWTF and RMWTF.
- Complete replacement of the motor control center (MCC) for the backwash pumps at the AMSWTF.
- Complete refurbishment of the remaining two Base Load Oxygen Compressors (BLOC) at AMSWTF and RMWTF.
- Replace ozone/oxygen dew points analyzers at the AMSWTF and RMWTF.
- Complete electrical upgrades at the BBWD raw water pump station.
- Work with the Supervisory Control and Data Acquisition (SCADA) team to upgrade the SCADA system at the BBWD.

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## **2022-23 Major Accomplishments**

- Continued to analyze Lake Mead and Mohave measured water quality data and to advise management on possible environmental impacts to the treatment system. Autonomous water quality monitoring platforms continue to provide additional information to supplement sampling by personnel. These analyses have become increasingly focused on predicting the impact of falling lake levels on future water quality.
- Continued the weekly wastewater surveillance effort at all the major wastewater treatment facilities in Southern Nevada. Summary reports were submitted to SNWA Management, the collaborating wastewater agencies, the Southern Nevada Health District (SNHD), the press, and the Governor's Pandemic Response Coordinator.
- Completed lab-scale and field-scale evaluations of conventional and innovative UV treatment technologies to inactivate *Legionella pneumophila* and prepared Preliminary Engineering Reports for submission to NDEP-BSDW.
- Coordinated and completed SDWA monitoring requirements for all member agencies. Met or surpassed SDWA monitoring requirements for SNWS, LVVWD, North Las Vegas, Henderson, Boulder City, Nellis Air Force Base, BBWD, Blue Diamond, Kyle Canyon, Jean, Searchlight, Sloan Army Reserve, and Kapex.
- Participated in the LCRR workshop with member agencies and NDEP-BSDW, and the LVVWD Groundwater Working Group.
- Completed required tasks for Unregulated Contaminant Monitoring Rule 5 (UCMR5), such as updating monitoring location and schedules for applicable member agencies. The monitoring period for UCMR5 will be between 2023-2025.
- Procurement of new digital PCR instrumentation for the monitoring of viruses, free-living amoeba, SARS-CoV-2, and other microbial pathogens.
- Developed sampling protocols for use in Next Generation Sequencing for monitoring treated wastewater returned to Lake Mead and the potential impacts on the treatment plant intake.
- Supported the ongoing efforts of monitoring for *Escherichia coli*, *Cryptosporidium*, *Legionella pneumophila*, and algal toxins.
- The LIMS Request for Proposal (RFP) process was completed. Labworks was chosen as the vendor to configure and implement a new LIMS, which will improve the laboratory's efficiency and traceability. The efficiency will cover the life of the sample from collection and receipt to analysis and reporting data of known and documented quality.
- Purchased new ion-chromatography mass spectrometer instrumentation for perchlorate analysis by EPA Method 332.0.
- Completed replacement of four critical use chlorine feeders at the AMSWTF.
- Completed replacement of one large backwash pump and motor, and MCC at the AMSWTF.
- Completed repairs to the gearboxes on weir gates at the AMSWTF.
- Completed repairs to leaking joints in ozone contactor influent channel at the AMSWTF. In addition, the following were replaced at AMSWTF: programmable logic controller (PLC) for the fluorosilicic acid feed system, 36-inch backwash rate of control valve, gearbox, actuator, and all electrical capacitors for ozone generators.
- Completed refurbishment of two BLOCs, one at the AMSWTF and another at the RMWTF.
- Completed replacement of electrical actuators for filter 23 and two air valves, including new gearboxes on Inlet and Drain Valve, at the AMSWTF.
- Completed replacement of critical electrical breakers at the RMWTF.
- Recoated the interior of the 1130 zone tank at the BBWD.
- Supported the install of new Cathodic Protection at 1130 Tank while being inspected and coated.

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- Repaired leak in 36-inch finished water line.
- Replaced failed air conditioning unit on main admin building MCC Room in BBWD.
- Completed replacement of heating, ventilation, and air conditioning (HVAC) system at the BBWD ozone building.
- Completed repairs to #1 return wash water (RWW) pump and motor at AMSWTF.
- Replaced rake drive motors on #1 and #2 thickener basins at AMSWTF.
- Replaced all drying bed inlet valve and actuators at AMSWTF.
- Supported Laboratory division in collecting of compliance Lead and Copper samples for BBWD.
- Replaced fluorosilicic acid bulk tank #1 at RMWTF.
- Completed water quality station upgrades at contactor influent, floc influent, and both floc effluent stations at the RMWTF.

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

**2023-24 Performance Objectives**

- Working with Information Technology transition the Lower Colorado River Water Quality Database to a new, more customer friendly, platform. This will enable internal and external customers to access water quality data more easily.
- Continue serving Water Research Foundation (WRF) on various Project Advisory Committees and Technical Advisory Committees.
- Continue serving the International Ozone Association – Pan American Group (IOA-PAG) on several committees and International President.
- Continue serving the Arizona Department of Environmental Quality, Nevada Direct Potable Reuse Forum, and SNWA Engineering through participation on discussion panels related to potable water reuse implementation.
- Continue serving Nevada public health officials through expanded implementation of wastewater surveillance for various pathogen and illicit drug targets.
- Implement customer data portal feature within Labworks LIMS to allow the Laboratory’s customers access to available data.
- Support various ongoing research projects by providing a high-level of quality in sampling and analytical services within a timely manner, including extensive lake and sources monitoring, complex storage/distribution system Trihalomethane (THM) monitoring, Legiolert study sampling, Lead and Copper study sampling, and additional ad-hoc water quality monitoring requests.
- Provide outstanding customer service to external customers through water quality investigations by responding to inquiries in a timely manner (within one business day), educating customers about water quality and what to look for, and leave them feeling that their concerns matter and that we want to help them resolve their problem.

**2022-23 Major Accomplishments**

- Prepared a fact sheet and provided WRF Research to LVVWD Public Information to better communicate the facts associated with per- and polyfluoroalkyl substances (PFAS).
- Served as a Guest Associate Editor for AWWA Water Science’s Topical Collection on PFAS Analytics and Treatment.
- Generated wastewater surveillance data that was cited by Governor Sisolak as a contributing factor in policy changes.

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- Developed first ever approach for detecting and quantifying antifungal resistant *Candida auris* in wastewater as a means of characterizing the ongoing public health crisis in Southern Nevada. Data were used to justify expanded public health surveillance in high prevalence areas.
- Supported various water quality monitoring requests and studies, for LVVWD, the Legiolert Study, and assisted R&D in ongoing *Legionella* removal efficacy studies at Well 101 and Well 97.
- Water Quality Monitoring staff assisted in multiple Public Information campaigns in support of media requests. Staff captained the sample vessel for media requests, tours of Intake Pump Station 1 (IPS-1), and routine photos of the lower lake levels.
- Assisted Regional Water Quality maintenance and repairs of the water quality monitoring buoys deployed in Lake Mead.
- In 2022, the Water Quality Monitoring team responded to water quality investigations throughout the LVVWD distribution system, totaling 39 samples for the year.
- Supported new and ongoing research projects with quality, timely data, such as WRF 5035, the Well *Legionella* Disinfection project, supported the ozone system replacement project, the Ketos-Searchlight project, the Horizon Lateral chlorine decay study, WRF 5082, and WRF 5053.

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

**2023-24 Performance Objectives**

- Staff will continue to use the Aquatic Ecosystem Model 3D-driven Lake Mead Model to evaluate changes due to climate drivers and changes in inflow, outflow, and water storage in the quality of water leaving Lake Mead and entering Lake Mohave at various lake surface elevations. Additional modeling efforts will focus on simplified predictions of water quality upstream of Lake Mead.
- Review the outcome of the Low Lake Level Treatability Study and evaluate potential treatment solutions for continued regulatory compliance.
- Evaluate the efficacy of innovative dissolved air flotation approaches to address potential for elevated turbidity and algal events resulting from lowering lake elevations.
- Evaluate effect of potential water quality changes (e.g., temperature, organic character/content, bromide) and water age on disinfection by-product (DBP) formation in the distribution system.

**2022-23 Major Accomplishments**

- Regional Water Quality provided guidance for water quality at the drinking water intakes for a range of lake surface elevations to guide the Enterprise Risk Management work. Simulated scenarios included the impacts of drawdown, projected rising air temperature from peer-reviewed climate models, Federal inflow and outflow projections, and turbidity.
- Regional Water Quality advised partners at Lake Mead National Recreation Area, USBOR-Lower Colorado River Region, and other Colorado River decision makers on the water quality impacts of continued drought conditions.
- Evaluated the impact of increased temperature on ozone system performance and bromate formation as part of the full-scale Ozone System Evaluation.
- New leak detection system was installed in the SNWA Laboratory's water purification system to help indicate leaks before a major leak event occurs.

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**Water Quality & Treatment**  
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***Strategic Plan Goal – Develop innovative and sustainable solutions through research and technology***

**2023-24 Performance Objectives**

- Provide water quality predictions based on predicted water levels to internal and external partners evaluating water treatment options and obstacles imposed by the drought.
- Continue evaluation of conventional and innovative technologies to inactivate *Legionella* in LVVWD groundwater supplies (e.g., Ultra-Violet-Low Pressure, High Output, Ultra-Violet-Light Emitting Diodes).
- Continue work on externally funded projects (i.e., emerging DBPs, online water quality monitoring, identifying and monitoring emerging chemical and pathogen contaminants, treatment evaluations, machine learning/AI) by the WRF, USBOR, USEPA, National Science Foundation (NSF), and the U.S. Centers for Disease Control and Prevention (CDC).
- Continue to develop the wastewater epidemiology program and track other constituents of interest to public health.
- Implement new digital PCR technology into routine monitoring protocols for viruses, free-living amoeba, SAR-CoV-2, and other emerging microbial pathogens.
- Process samples using Next Generation Sequencing protocols, 16S Metagenomics, and analyze data from samples for one year to see impact to microbial communities impacting Lake Mead.
- Collaborate with SNWA R&D to test and validate UV treatment systems at LVVWD groundwater wells for the effectiveness of treating *Legionella pneumophila*.
- Coordinate with Information Technology to ensure the Spatial Information Portal and the Navigator applications are best suited and up to date to complete support required monitoring tasks.

**2022-23 Major Accomplishments**

- The linked Lake Mead-Water Treatment model has been implemented and is being revised to incorporate energy costs into the prediction matrix.
- Regional Water Quality received funding from the USBR WaterSMART grant program to perform “Robust Updates to Advanced Lake Models to Inform Future Drinking Water Treatment Needs.”
- Installed first full-scale ultraviolet light emitting diode (UV-LED) reactor at LVVWD groundwater well for *Legionella* inactivation.
- Expanded wastewater surveillance capabilities to include other targets of interest to public health and the water industry, including SARS-CoV-2 variants of concern, *Candida auris*, monkeypox, enteric viruses, *Cryptosporidium*, *Giardia*, and illicit drugs and their metabolites.
- Awarded externally funded projects from the Water Research Foundation (3 Projects), USEPA (1 Project) and Bureau of Reclamation (BOR) (2 Projects).
- Completed externally funded projects: WRF 4960, 5205, 5305, 5104, 5031, 4913, 5048, 4971 and 4833, and Strategic Environmental Research and Development Program (W912HQ19C00210), BOR R19AC00095 and NSF Critical Resilient Interdependent Infrastructure Systems and Processes (CRISP).
- Procurement of new digital PCR instrumentation for the monitoring of viruses, free-living amoeba, SARS-CoV-2, and other microbial pathogens.
- Developed sampling protocols for use in Next Generation Sequencing for monitoring treated wastewater returns to Lake Mead and the potential impacts on the treatment plant intake.

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

**2023-24 Performance Objectives**

- Pursue external research funding to support water quality and treatment research.
- Procurement and installation of new autoclave for Laboratory Services prep laboratory.

**2022-23 Major Accomplishments**

- Involved in \$17M of research projects in a principal investigator role and published 29 peer reviewed manuscripts.
- Renewed service contracts to ensure long service life for analytical equipment.
- Purchased and installed the final two legacy dishwashers in the Laboratory Services prep laboratory.

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

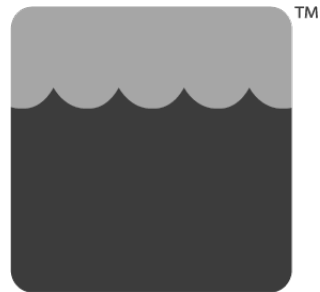
**2023-24 Performance Objectives**

- Continue to be a world-class leader in water quality and treatment research as demonstrated by scientific journal and report publications, industry presentations and service on advisory committees.
- Complete all water quality monitoring requests and data reporting for customers in timely manner that meets customer’s needs.
- No SDWA monitoring or compliance reporting violations for member agencies.
- Continued stewardship and support with the new requirements under the LCRR.
- To ensure a safe workplace and promote a positive safety culture, continue to support suggestions on ways to remain incident and accident-free within the laboratory.
- Continue to meet method certification criteria through performance testing and adherence to laboratory accreditation authorities.

**2022-23 Major Accomplishments**

- The SNWA Laboratory received TNI ISO/IEC 17025 Accreditation in December 2022 to become the first Public Water System (PWS) laboratory in Nevada to be TNI Accredited. This is the most stringent level of environmental laboratory accreditation and bolsters LVVWD in being a world-class organization. This also completes the corrective action from the LVVWD internal assessment report that recommended getting TNI ISO/IEC Accreditation.
- The laboratory addressed approximately 120 corrective actions from TNI ISO/IEC 17025 third-party gap assessments in 2019 and 2022.
- Regional Water Quality published four papers in scientific journals and two additional articles in scientific organization magazines.
- R&D published 29 articles in scientific journals, gave 42 conference presentations, and submitted reports for all completed projects.
- No SDWA monitoring or compliance reporting violations for member agencies.
- Maintained status as an AWWA Presidential Award facility at both AMSWTF and RMWTF.
- No substantial deficiencies reported following NDEP Sanitary Inspections at AMSWTF, RMWTF, and BBWD.

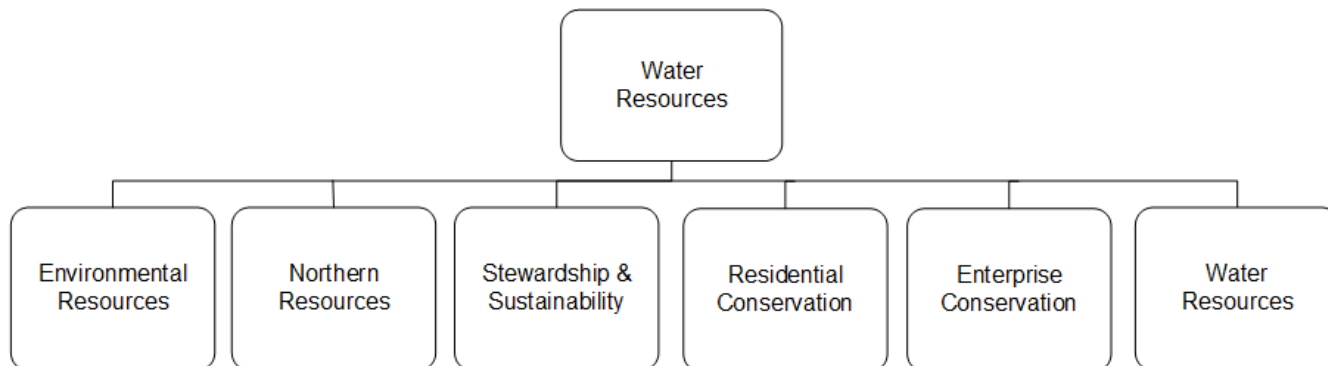
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## WATER RESOURCES

Level: 7100

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### 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 the 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; developing and administering 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 six divisions, including Water Resources, Residential Conservation, Enterprise Conservation, Stewardship and Sustainability, Northern Resources and Environmental Resources.

### Budget Objectives and Highlights

The 2023-24 Water Resources department budget of \$175,758,432 contains funding to maintain and enhance the necessary functions required by SNWA to provide quality services to internal and external customers. Funding will support water and environmental resource management efforts and conservation initiatives designed to help the community meet its conservation goal. Planned expenditures reflect SNWA’s long-term commitment to increased water conservation.

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<b>LVVWD USES</b>	<b>Expenditures</b>		
	<b>Actual 2021-22</b>	<b>Budget 2022-23</b>	<b>Budget 2023-24</b>
Materials and supplies	\$ 7,837	\$ 111,700	\$ 109,650
Maintenance and repairs	690	57,500	167,500
Rental and leases	—	—	—
Other employee expenses	5,006	36,900	37,400
Other operating expenses	14,823	36,300	234,800
<b>Total operating expenses</b>	28,355	242,400	549,350
Capital expenditures	11,250	3,120,000	5,920,250
Salaries and benefits	4,925,679	4,274,665	4,767,364
<b>TOTAL DEPARTMENT EXPENDITURES</b>	\$ 4,965,284	\$ 7,637,065	\$ 11,236,964
<b>FTE POSITIONS</b>	19.5	24.2	25.3

## Department Performance

**Water Resources.** The Water Resources Division is responsible for securing and managing regional and local groundwater and surface water resources to ensure a reliable water supply for Southern Nevada. Work efforts include managing existing Colorado River allocations and agreements; conducting regional water resource planning; identifying, evaluating, and developing sources of additional groundwater and surface water supplies; managing banked resources and establishing hydrologic and climate monitoring networks. Other efforts include securing water rights from the Nevada State Engineer’s Office, conducting water quality and hydrologic monitoring in the Las Vegas Wash, Muddy River and Lake Mead, and ensuring all water-resource assets remain in good standing.

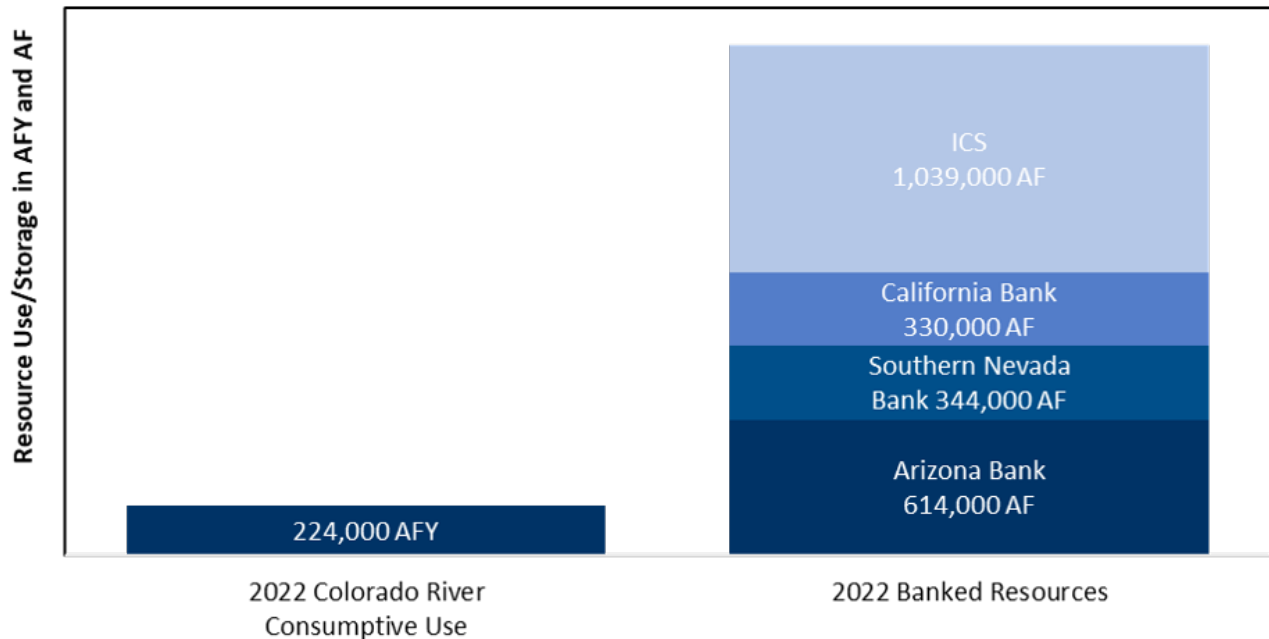
The division continued monitoring local and regional hydrologic conditions in 2022-23 and worked with other Colorado River Basin states to continue 2019 Drought Contingency Plan (DCP) implementation. Through local and collaborative efforts, the SNWA banked approximately 89,000 acre-feet of water in 2022, expanding the storage of temporary resources available for flexible use in meeting the community’s water resource needs.

The SNWA has stored 2.3 million acre-feet of water in total through 2022, more than ten times Nevada’s 2022 consumptive Colorado River water use. The chart below compares 2022 consumptive water use with the total volume of temporary resource supplies banked through 2022.

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The chart below compares 2022 consumptive water use with the total volume of temporary resource supplies banked through 2022.

**SNWA Banked Resources  
 Through Calendar Year 2022**



**Residential Conservation.** The Residential and Water Use Compliance Conservation division develops and implements demand management programs and strategies that target consumptive water use reductions among single-family residential homeowners. The division administers rebate and incentive programs for residential customers, including the Water Smart Landscapes (WSL) program. It also oversees water use compliance enforcement for the LVVWD and continues to support regional water waste enforcement efforts in Henderson and North Las Vegas.

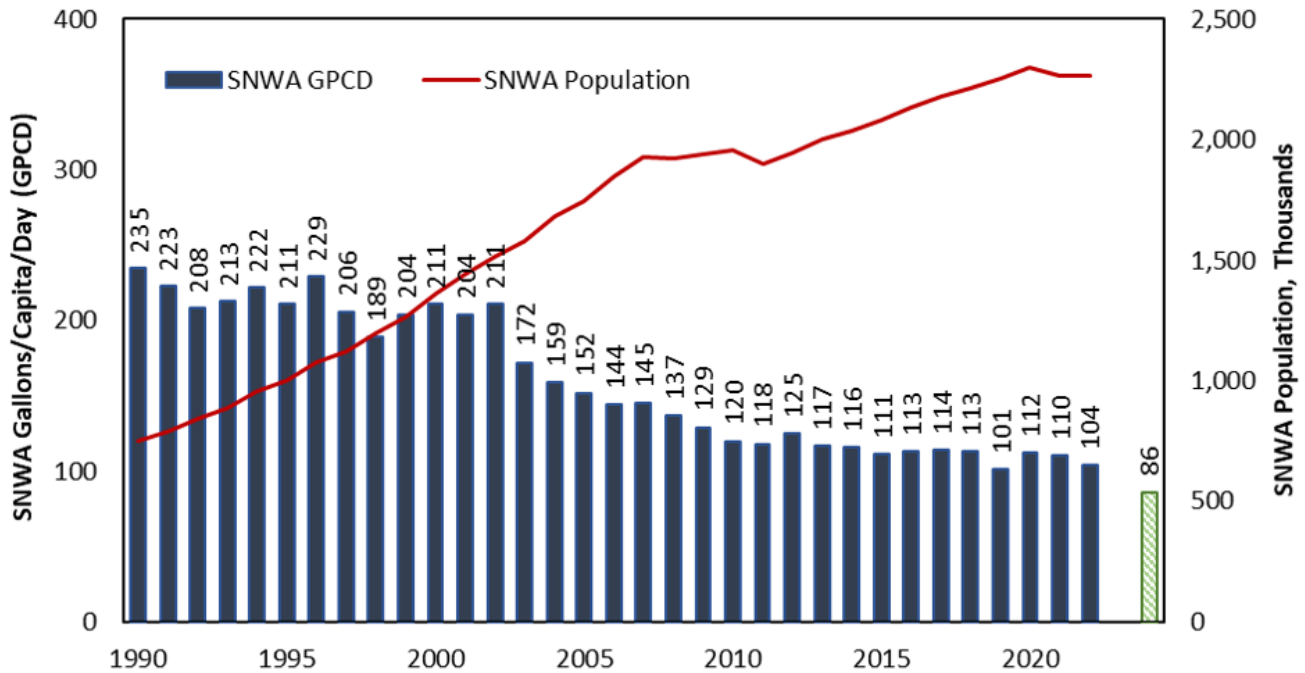
**Enterprise Conservation.** The Enterprise Conservation division administers outreach, engagement and incentive programs that target all sectors except single-family residential. The division aggressively promotes turf conversions and administers the Water Efficient Technologies (WET) incentive program for evaporative cooling replacement or efficiency projects, process water optimization and non-WSL-related turf conversions. The division also manages planning and implementation activities associated with Assembly Bill 356 (AB356), which effectively prohibits non-functional turf in non-single-family sectors, effective January 1, 2027.

The two conservation divisions work collaboratively to develop and administer regional conservation programs aimed at helping the community achieve its water conservation goal of 86 gallons per capita per day (GPCD) by 2035. The SNWA monitors regional water demand trends and 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.

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This chart shows 2022 per capita water use at 104 GPCD, a 5.5 percent reduction from the prior year and the lowest per capita water use level experienced to date except for 2019, which was atypically cool and wet.

**SNWA Per Capita Water Use  
1990 - 2022**



**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 2023-24. Improvements in agricultural practices, livestock genetics and husbandry have increased efficiency and effectiveness in utilizing federal range land 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. The division also coordinates the Sustainability Cross-Departmental Team to implement the organization’s Sustainability in Action Plan.

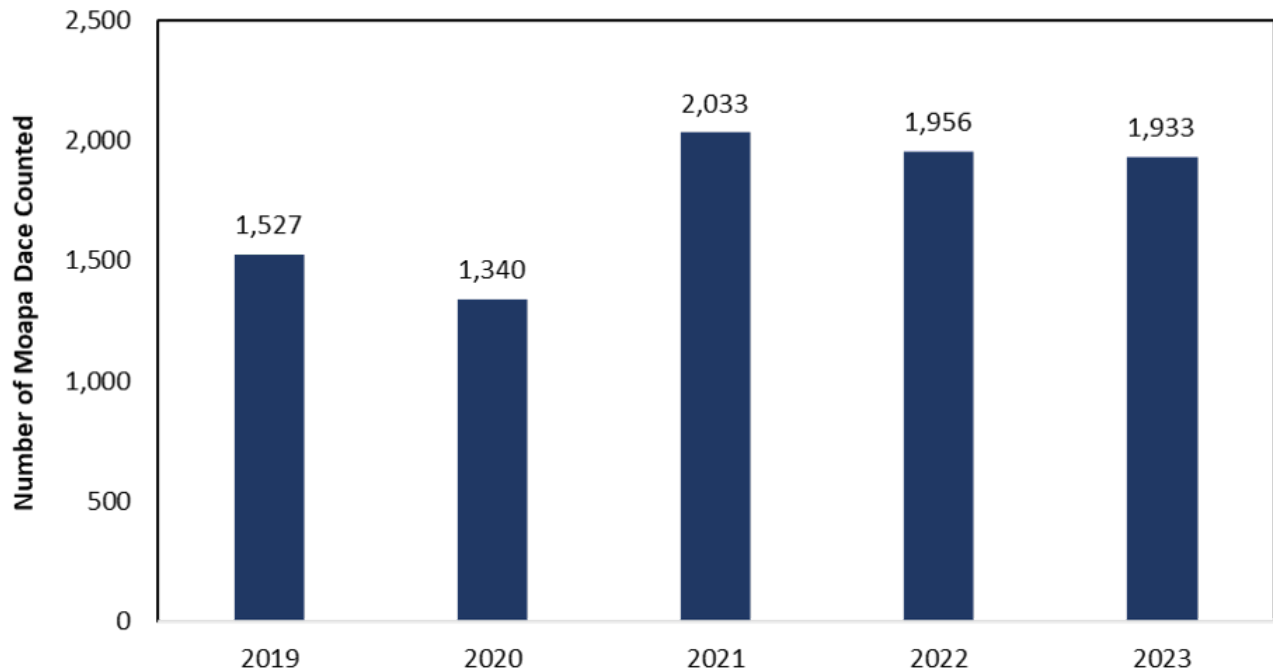
**Stewardship and Sustainability.** The Stewardship and Sustainability division manages Wash programs and the WSNA, including restoration, monitoring, compliance, and outreach activities. The division is responsible for the Wash Coordination Committee stakeholder process, implementing the Wash

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Comprehensive Adaptive Management Plan and coordinating the Lower Las Vegas Wash Stabilization Plan and associated environmental compliance. In addition, the division is responsible for the WSNA Stewardship Plan and Habitat Conservation Plan (HCP) for WSNA and the Hidden Valley Property. The division conducts management activities to benefit the Moapa dace and other sensitive species on site. Effective stewardship of the habitat used by the Moapa dace and other species under the WSNA HCP allows for flexible management of water resources in the upper Muddy River area.

Restoration efforts at the WSNA have bolstered Moapa dace populations. This federally endangered fish is endemic to the upper Muddy River. After a period of relatively low numbers, fish populations have increased and remained stable for the last three years. This chart shows the Moapa dace population rising from 1527 individuals in 2019 to nearly 2,000 in 2023.

**Winter Moapa Dace Numbers**  
**2019-2023**



## Strategic Plan Objectives and Accomplishments

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

### 2023-24 Performance Objectives

- Acquire and manage resources to meet current and future water demands, including implementation of conservation initiatives that improve efficiency and reduce water waste.
- Collaborate with partners on resource challenges and implement actions to mitigate Lake Mead water level declines. Support the development, operation, and maintenance of groundwater facilities for the LVVWD, small water systems and Great Basin Ranch. Prepare water resource assessments, evaluate system vulnerabilities, and take actions to improve system reliability.
- Conduct water-quality sampling and hydrologic monitoring to evaluate aquifer and water quality conditions and trends affecting LVVWD and SNWA resources.
- Provide environmental compliance and monitoring activities in accordance with permit requirements to operate existing SNWA, LVVWD and small systems facilities. Prepare and manage environmental compliance processes to support the development of new projects.

### 2022-23 Major Accomplishments

- Reviewed and updated the SNWA Water Resource Plan and SNWA Water Budget; stored approximately 89,000 acre-feet of temporary resources in 2022.
- Supported the development and implementation of new policies and programs to reduce consumptive water use. Updated rules and codes to restrict or reduce consumptive uses associated with new turf installations, golf course development, residential swimming pools, evaporative cooling and septic systems. Also supported the implementation of rate changes to promote water conservation, water budget reductions for golf courses and the septic system conversion program.
- Supported the implementation of the policies and programs designed to protect critical Lake Mead elevation, including the 2019 Drought Contingency Plan (DCP), 500+ Plan and Colorado River Pilot System Conservation Program. Water banking and other collaborative drought response actions have reduced Lake Mead's water level decline by an estimated 86 feet.
- Managed, supported, and collaborated with internal, external, and international partners to implement water and environmental management programs along the Las Vegas Wash, WSNA and Colorado River. Began implementation of the Wash Long-Term Operating Plan and the Habitat Conservation Plan for WSNA and the Hidden Valley property. Efforts also include implementation of the Lower Colorado River Multi-Species Conservation Program and Glen Canyon Adaptive Management Program.
- Provided environmental compliance and monitoring support for the operation of existing facilities and the development of new projects, including the Metropolitan Regional Recycled Water Program, the Lower Las Vegas Wash project, the Horizon Lateral project, the Boulder Flats Solar project, and Garnet Valley water and wastewater systems.
- Conducted water quality sampling and hydrologic monitoring of surface water and groundwater resources; represented Nevada as a member of the Colorado River Basin Salinity Control Forum and collaborated with other stakeholders to protect Nevada Colorado River return flows by ensuring continued compliance with U.S. Environmental Protection Agency salinity standards for the Colorado River.

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

**2023-24 Performance Objectives**

- Administer incentive programs, support outreach and education efforts and provide other services to the community to support water conservation goal achievement.
- Enhance the customer experience by adding administrative staff and creating water use compliance software.
- Engage with internal and external stakeholders and participate in the administration of public processes to enhance information sharing and build support for major initiatives.
- Leverage new and emerging technology to refine our understanding of consumptive water use, enhance operational efficiency and improve customer service.

**2022-23 Major Accomplishments**

- Modified and administered existing conservation incentive programs; expanded conservation staffing to support conservation initiatives, including water use compliance activities in Henderson and North Las Vegas. Conducted more than 12,700 residential property visits for WSL and more than 100 educational site visits with customers requiring assistance to abate water waste violations.
- Conducted 80 education and outreach events to community manager associations and single-family residential homeowners to support water conservation initiatives. Developed two state-certified Community Manager training workshops, an HOA financial workshop and a Tree Care workshop to support the implementation of AB356.
- Enhanced GIS tools to measure and classify turf. Pre-measured and classified turf at all municipal parks and Master Homeowner Associations.
- Performed data analysis and modeling to inform the development of conservation programs and policies.

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

**2023-24 Performance Objectives**

- Assess climate change impacts in long-term planning efforts, collaborate on local and regional climate change initiatives relevant to SNWA and pursue research to inform or enhance predictive modeling tools.
- Maximize the use of available resources by implementing water conservation programs and supporting Enterprise Risk Management efforts related to water demands and resource planning.
- 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 the SNWA's access to permanent, temporary, and future water resources.
- Work across the organization to mitigate water supply and demand risks due to climate change and hydrologic variability. Ensure reliability of Colorado River supplies through long-range resource planning and actively participate in environmental compliance and management programs.
- Support collaborative partnerships: analyze and implement policy and program initiatives to address and mitigate Lake Mead water level declines.

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### **2022-23 Major Accomplishments**

- Conducted research and analysis to support conservation goal (86 GPCD) achievement and continued implementation of the Conservation Strategic Plan. Reduced per capita water use by six GPCD between 2021 and 2022. Efforts resulted in a 653-million-gallon water savings for 2022.
- Worked with stakeholders to implement the 2019 DCP and 500+ Plan, administered Colorado River water delivery and interstate banking agreements and provided technical support for regional water recycling efforts. Expanded SNWA water banking opportunities and continued to explore collaborative resource projects to develop future resources.
- Modified the Colorado River Simulation System model to evaluate water resource availability under various long-term water supply and demand planning scenarios to support development of the 2023 SNWA Water Resource Plan; simulated proposed modifications to near-term reservoir operations and consumptive use reductions to support the development of alternatives for analysis in the Supplemental Environmental Impact Statement to the 2007 Interim Guidelines.
- Tracked the organization’s carbon emissions footprint and monitored key risk indicators and controls to provide an early warning of climate change risks to SNWA. Identified actions to mitigate those risks.
- Maintained regional monitoring networks to collect long-term hydrologic and climate data. Funded the operation of a ground-based weather modification generator to increase precipitation in the Spring Mountains.
- 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. Continued to conduct and support environmental monitoring and management programs at the Wash and WSNA, including species monitoring, habitat restoration, fuels removal and firebreak management.
- Continued to develop streamflow forecasts, SNOTEL sensitivity project, and MODIS Snow Water Equivalent projects and coordinated with central Arizona Project N-drip water irrigation conservation initiative. Participated in, reviewed, managed, and reported on the BOR Lower Basin AG Water Savings pilot project.

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

### **2023-24 Performance Objectives**

- Collaborate with water efficiency technology incubators and accelerators, including WaterStart, ImagineH2O, Metropolitan Water District of Southern California and Alliance for Water Efficiency.
- Conduct research to refine our understanding of HVAC system evaporative use. Evaluate cooling technologies with the potential to reduce consumptive water use and develop stakeholder partnerships that facilitate cooling water efficiency.
- Research and implement new technologies or other practices to support consumptive water use reductions and improve water efficiency.
- Explore best practices for quantifying agricultural water conservation.
- Study and evaluate the increased implementation of weather-driven “smart” irrigation controllers to maximize water savings.

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### **2022-23 Major Accomplishments**

- Designed and implemented a monitoring program to assess consumptive uses by evaporative cooling towers at 23 sites throughout the Las Vegas Valley; collaborated with a third-party vendor to design a pilot demonstration study to assess the capability of radiant cooling technology to reduce head loading to evaporative cooling systems.
- Pursued the implementation of a Water Smart Plumber program and continued evaluation of a service line warranty program.
- Deployed Advanced Metering Infrastructure (AMI) to support improved compliance goals, used metering technology to notify customers of potential watering restriction violations and used AMI data to assess customer watering patterns to assist in leak detection. Used metering data to guide the deployment of water waste investigators for improved effectiveness.
- Compiled and integrated existing well systems, groundwater and water quality data into the Common Data Repository to enhance cross-departmental collaboration. Augmented Business Intelligence software solutions to enhance organizational communication and collaboration related to well systems, water usage and water quality information.
- Supported pilot studies to assess state-of-the-art water-quality treatment technologies at production wellheads. Initiated pilot studies to evaluate potential water savings associated with compliance-programmed smart controllers.

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

### **2023-24 Performance Objectives**

- Implement hydrologic monitoring efficiencies with remote data collection.
- Partner with Colorado River Basin stakeholders to jointly fund water and environmental management initiatives and pursue and secure grants to support department priorities.
- Implement a new business system to streamline workflows, maintain accountability, reduce labor intensity through automation and expand the use of electronic documents. Pilot mobile devices in field operations to streamline data collection, increase productivity and reduce paper-based information management.
- Provide demand analysis and forecasts to reduce uncertainty in system operations, infrastructure planning and financial planning.
- Leverage volunteer and docent support when practical to support staff-guided restoration projects and other outreach activities.

### **2022-23 Major Accomplishments**

- Installed a Geostationary Operational Environmental Satellite telemetry system to transmit real-time water quality data characterizing Las Vegas Wash flows at the confluence with Lake Mead.
- Secured approximately \$25 million in state and federal funding to support water conservation programs, environmental initiatives, drought response efforts and system improvements.
- Partnered with hundreds of volunteers to revegetate several acres at the Wash and WSNA with thousands of native trees, shrubs and other vegetation.
- Collaborated with Information Technology to develop new versions of program management through software and field hardware upgrades.

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- Prepared water demand forecasts and updated long-range demand planning scenarios to support planning and operations.

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

**2023-24 Performance Objectives**

- Lead an interdepartmental team to develop a comprehensive annual groundwater management and well operations plan.
- Implement the Conservation Strategic Plan and meet or exceed annual benchmarks for SNWA conservation programs.
- Improve communication and coordination within the organization and among SNWA member agencies.
- Sustainably operate the Great Basin Ranch and implement department/division priorities within budget.

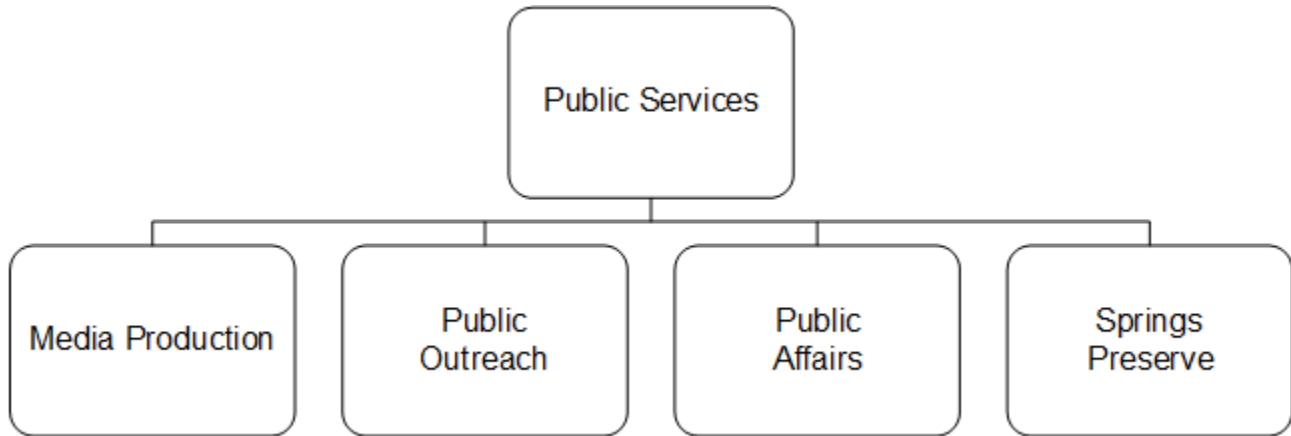
**2022-23 Major Accomplishments**

- Worked collaboratively with an interdepartmental team to update a comprehensive annual groundwater management and well maintenance and operations plan.
- Strengthened performance benchmarks for conservation programs for 2023 and reported progress to internal and external stakeholders for 2022 performance. Exceeded 2022 program benchmarks for WSL program participation, WET program water savings and water use compliance investigations.
- Continued to support implementation of the Conservation Strategic Plan and tracked progress. Conservation programs, policies and related outreach and education efforts have helped to reduce per capita water use by six GPCD between 2021 and 2022. Efforts resulted in a 653-million-gallon water savings for 2022.
- Developed a home audit class to address customer issues associated with higher water bills.
- Met the projected ranch revenue budget and operated the department within budget.

## PUBLIC SERVICES

Level: 7200

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### 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: Public Affairs; Media Production; 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 Public Affairs division oversees the organization's government affairs, agenda processes, public participation efforts and committees, grant writing, conference coordination and support, and provides analysis and support to senior management.

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

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**Public Services**

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LVVWD USES	<b>Expenditures</b>		
	<b>Actual 2021-22</b>	<b>Budget 2022-23</b>	<b>Budget 2023-24</b>
Materials and supplies	\$ 490,291	\$ 770,930	\$ 751,250
Maintenance and repairs	426,736	672,110	563,660
Rental and leases	—	16,500	6,500
Other employee expenses	91,741	169,533	142,939
Other operating expenses	1,457,925	2,664,594	3,198,864
<b>Total Operating Expenses</b>	2,466,693	4,293,667	4,663,213
Capital expenditures	1,145,028	5,478,250	6,215,941
Salaries and benefits	7,921,239	8,709,809	11,156,368
<b>TOTAL DEPARTMENT EXPENDITURES</b>	\$ 11,532,960	\$ 18,481,725	\$ 22,035,522
<b>FTE POSITIONS</b>	49.8	56.0	68.0

**Budget Objectives and Highlights**

The 2023-24 budget remains consistent with the organization’s efforts to enhance efficiency and service to internal and external customers.

**Department Performance**

Department staff worked a hybrid at-home/in-office schedule, while continuing to support the organization, its initiatives, and priorities:

**Public Affairs.** Public Affairs 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.

As water conservation remained a top priority, Public Affairs supported several efforts on behalf of the LVVWD and SNWA. The division coordinated updates to the LVVWD Service Rules with conservation-related initiatives that limited the size of new residential pools to no more than 600 square surface feet, reduced golf course water budgets from 6.3 acre-feet of water per irrigated acre to 4 acre-feet per irrigated acre annually, prohibited water service to new development using evaporative cooling systems and revised the incentive to replace industrial cooling towers or swamp coolers with a dry-cooled system or improve the water efficiency of existing evaporative cooling systems. Staff also continued to help with the implementation of AB 356 language and non-functional turf definitions across all Southern Nevada municipalities. These updates to the Service Rules aim to strengthen the system’s performance, integrity, and reliability, and will help conserve millions of gallons annually from consumptive uses of water.

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The 82<sup>nd</sup> Session of the Nevada Legislature convened on February 6, 2023. The Legislative Team worked on several bills with a nexus to water, including: groundwater boards, basin assessments, and a resolution urging the United States Bureau of Reclamation to consider actions, alternatives and measures for the protection and management of the Colorado River. In addition, the Legislative Team advocated for SNWA's omnibus water bill, Assembly Bill 220, which addresses five major issues focused primarily in Southern Nevada. The bill prohibits new septic systems in areas served by the Colorado River, codifies Colorado River water conservation initiatives, addresses development of water systems in outlying areas, makes modest changes to Nevada Water Law related to revocable permits, and makes changes to the Las Vegas Valley Groundwater Management Program.

Division staff also engaged with the Southern Nevada Health District and SNWA member agencies to further the septic conversion program focusing on connecting valley-wide septic systems to the sewer system to reclaim that water. Staff has been working to receive state and local funding to help offset septic conversion costs for its customers.

Staff continued to support the organization's small systems in Laughlin, Kyle Canyon, Blue Diamond, Searchlight and Jean, giving status and operational reports at each system's monthly town advisory board meetings. These systems experience their own unique challenges and staff's involvement and work with other departments has created solutions and/or processes to help achieve system success.

In an effort to increase awareness of water-related issues, educate the public and gain community support, Public Affairs continued coordination of a speakers bureau program and gave presentations and engaged in discussions with more than 60 community businesses and groups this past year. In addition, staff coordinated and supported the Colorado River Water Users Association's conference which took place in December 2022 and had a record attendance of nearly 1,400 attendees, representing all the Colorado Basin states, multiple Native American tribes, the federal government, and the country of Mexico.

Division staff also supported the organization's funding initiatives through grant development and fundraising activities to help offset programming, capital and operational expenses. Through staff's efforts, the organization received nearly \$22.5 million in funding from the Bureau of Reclamation (BOR) for various projects, including Lower Wash erosion control structures (\$9,040,000), the Lake Mead Hatchery Water Pipeline (\$8,499,582), Water Smart Landscaping rebates (\$2,000,000), the Septic System Conversion Incentive program (\$4,747,500), the Las Vegas Wash riparian restoration (\$900,500), water treatment research programs (\$200,000), and evaporative cooling technology research (\$50,000). The Nevada Department of Wildlife also awarded staff \$400,000 for design of the Lake Mead Hatchery Water Pipeline.

The Springs Preserve was also awarded funding through several local and federal funding sources, including \$11,991 for the Ponds Wildlife Exhibit, \$25,000 for the Butterfly Habitat, and \$205,000 from the U.S. Fish and Wildlife Service Recovery Challenge grant for work with the Pahrump poolfish.

**Media Production.** Media Production develops materials to reach customers through websites, social media, television, email and print.

Interactive Media

Over the past year, the Media Production team largely supported the implementation of LVVWD residential rate changes related to tier equalization and the excessive use charge. In collaboration with

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the Information Technology team, Media Production developed a bill estimator application on lvvwd.com to help customers view the impacts of these changes to their monthly bill. The estimator was also integrated with the My Account system to provide residential customers accurate bill comparisons by auto populating historical data. The bill estimator garnered approximately 53,000 views in the first three months of its launch. Social media posts driving customers to the estimator and website for rates information resulted in 774,159 impressions, 5,365 engagements and 819 clicks.

SNWA and LVVWD social media platforms saw increases in performance and engagement over the year. Posts published between July 2022 and January 2023, which were predominantly related to conservation, compliance, and shortage, resulted in nearly 17,000 impressions, 750,000 engagements and 150,000 clicks. The division played a large role in helping to reach a 69 percent watering restrictions compliance rate, a 20 percent increase from three years ago. The continued success of the Springs Preserve's social media program helped drive visitation, memberships, and ticket sales, including complete advance sell outs for the Haunted Harvest and Día de Muertos events.

Media Production's video team produced a half-hour roundtable discussion with the organization's executive team to address the federal water shortage and SNWA's efforts to protect the valley's water supply. Multiple, short segments were edited for a variety of uses on websites and social media platforms. The video about the potential of Lake Mead hitting dead pool produced 236,000 views on YouTube. The team also continued a weekly series of videos with management to inform employees about safety, HR activities, water resources and conservation initiatives.

In anticipation of increased participation in the Water Smarts Landscape (WSL) Rebate program, the division launched an online application for commercial and multifamily customers on snwa.com to streamline the application process for all customers. Conservation's residential and enterprise divisions received nearly 5,500 online applications through the website in the first half of the fiscal year.

In conjunction with the Public Outreach team, staff produced a dozen Water Smarts podcasts to convey the organization's most critical initiatives, such as business and commercial conservation incentives for evaporative cooling upgrades, LVVWD water rates, water waste investigations, AB 356 and SNWA's efforts to protect Lake Mead's water elevation. Over the year, the podcast was downloaded more than 1,500 times from Apple, Spotify and Google.

#### Design Production

Over the past year, the Design Production workgroup distributed a year-round watering schedule and seasonal watering reminders with a combined circulation of more than 2 million pieces. Staff also distributed more than 575,000 direct mail letters to residential customers notifying impacts on bills of tier equalization and excessive use charges. These letters were customized by meter size and contained a QR code to access an online rates estimator, which registered a significant increase in visits following the mailings. The team also transitioned LVVWD bill inserts to a new software platform, leveraging new customized messaging capabilities related to seasonal water use and rates messaging.

In addition, division staff launched a new Lake Mead Water Update publication which circulated to more than 860,000 properties throughout the community and reported on Lake Mead elevations, shortage conditions and conservation initiatives. The team also photo-documented historic declines in the lake's elevations, which were shared and used by peer utilities and media outlets around the world. Staff also assisted in publishing the annual LVVWD Water Quality Report, with mailings to approximately 369,000 households. This was accompanied by a new Water Quality campaign.

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Over the past year, the division also designed multiple in-house creative campaigns to advance conservation initiatives, including AB356, evaporative cooling, watering restrictions and drip education outreach, as well as creating a new interpretive experience at the Springs Preserve Botanical Garden, focusing on drought, climate change, conservation, and water-smart landscaping.

**Public Outreach.** The Public Outreach division is responsible for developing and implementing public awareness and educational campaigns that support organizational initiatives, managing communications with media and journalists.

#### Marketing

The Public Outreach division coordinated customer outreach about water rate changes, including the development of a creative brief, an implementation plan, a paid media plan, and a notification letter for tier equalization and rate modification outreach. Staff developed and launched watering restriction (*Get Real*) and water waste (*Law & Water*) public education and outreach campaigns in both English and Spanish and achieved several hundred-million impressions with thousands of ads running throughout the year promoting water conservation and water quality initiatives. Other in-house produced campaigns focused on evaporative cooling, water quality, Warm Springs Natural Area, and irrigation education, along with a “Thank You” campaign that highlighted the previous year’s community conservation successes while also reminding everyone to keep conserving water.

The team conducted more than 100 interviews with local, national, and international media outlets focused on water resources, shortage declarations, conservation, water waste, seasonal watering restrictions, environmental issues and water infrastructure. Staff also mailed approx. 24,000 letters to customers that were not complying with the mandatory seasonal watering restrictions, distributed nearly 10,000 letters to customers impacted by AB 356, sent new pool development standard letters to 119 pool builders, 34 home builders and 27 real estate companies, distributed water theft collateral to 2,000 Clark County contractors to increase awareness about theft penalties, and issued Water Update e-newsletters to nearly 4,000 subscribers regarding a wide-range of water related topics.

#### Conservation Outreach and Events

Over the past year, staff coordinated outreach efforts and business partnerships with 400 professional organizations, including NAIOP, CAI, NPFMA, and Vegas and Henderson Chambers, as well as local sports teams to promote water conservation and water waste initiatives. Staff members also participated in more than 50 community outreach events to provide the public with conservation-focused messaging and information. To support new Service Rule changes, staff distributed more than 5,000 new homeowner packets in the LVVWD, Boulder City, and North Las Vegas service territories regarding prohibition of grass and spray irrigation in backyards.

#### Operation and Construction Outreach

Staff conducted community outreach for multiple LVVWD operations and construction projects, including the Centennial, Cougar and Rome Reservoirs, contacting more than 3,300 residents and businesses. In addition, staff coordinated outreach related to major LVVWD infrastructure repairs and maintenance and distributed more than 35 notifications to municipal agencies regarding well start-ups.

**Springs Preserve.** Springs Preserve staff is responsible for the daily operations of the 180-acre Springs Preserve campus. This includes the maintenance and operation of museums, exhibits, meeting facilities, a botanical garden, natural trails, and animal habitats/ecosystems. Springs Preserve staff is also responsible for the creation and management of educational programming, community events,

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strategic partnerships, grant-funding opportunities, and the development of outreach content. During fiscal year 2022-23, the Springs Preserve hosted more than 200,000 visitors.

Focused on mission-driven projects and programming, the Springs Preserve directed much of its efforts this past year to the development and expansion of educational outreach. These efforts add deeper meaning to the visitor experience by highlighting the region's vibrant history and exploring Southern Nevada's sustainable future. Several improvement projects within Springs Preserve's natural area and botanical gardens enhanced and increased the sites' educational offerings, including a renovation of the quarter-acre Teaching Garden to accommodate larger groups, installation of interpretive panels within the trail system of the Preserve's natural area, an update to the Botanical Garden interpretation and wayfinding system with new content and designs. The new interpretive panels in the natural area and garden provide visitors practical information about water conservation, sustainable living, and environmental protections in Southern Nevada. In spring, construction started on the new, grant-funded Ethnobotanical Garden that showcases traditional ecological knowledge and the cultural and sustainable living practices of Southern Nevada's Native American communities.

The Preserve's educational outreach expanded to include two, full-day comprehensive teacher trainings. Funded and supported by the Nevada Department of Environmental Protection and several community partners, the symposium-style training provided K-12 educators with the data and tools necessary to skillfully teach students about the region's complex water story. More than 150 teachers participated in the trainings. Collectively, these educators teach approximately 20,000 students annually. The Preserve's on-going educational programming includes Conservation for Kids classes, pop-up programming, the SPRINGBOARD virtual learning platform and Youth Conservation Council program, which saw its participation grow by 40 percent this year.

Annual community outreach events, designed to increase the Preserve's visibility and celebrate the region's cultural history, continued to draw large crowds and corporate sponsorships. Both the four-day Haunted Harvest and three-day Día de Muertos events sold out in advance. Combined, these events drew approximately 19,000 visitors to the Preserve campus. February's Black History Month Festival saw record attendance and doubled sponsorship goals. Earth Day at Springs Preserve, in its second year, grew into Earth Month including on-site programming, focused on water conservation and sustainable living, and was offered every weekend in April.

Community partnerships continued this past year with the addition of "Science at the Springs," a speaker series offering after-hour, over-21, events that explore the fascinating research of the Desert Research Institute. Additional partnerships included Get Outdoors Nevada, with continued support of teacher training sessions; the Las Vegas Clark County Library District offered Preserve passes for check-out through the library system with cross-promotional opportunities; and the Native American community through shared knowledge, educational opportunities, and horticultural resources. After months of preparation by staff, the Springs Café reopened with a new food and beverage contractor. The Bronze Café and Inspire opened operations at the café in October.

Funded by a grant through the State of Nevada, the Preserve launched the design development phase of a five-year project to remodel two galleries within the OriGen Museum. The galleries will become a cutting-edge exhibit about the Colorado River. The remodel is the first of three major projects that will transform the OriGen Museum complex into a science and sustainability center.

## 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.***

### 2023-24 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.

### 2022-23 Major Accomplishments

- During the 2023 legislative session, the Legislative Team advocated for SNWA's omnibus water bill – Assembly Bill 220 - which addresses five major issues focused primarily in Southern Nevada. The bill prohibits new septic systems in areas served by the Colorado River, codifies Colorado River water conservation initiatives, addresses development of water systems in outlying areas, makes modest changes to Nevada Water Law related to revocable permits, and makes changes to the Las Vegas Valley Groundwater Management Program.
- Assisted with the implementation of AB 356 language and non-functional turf definitions across all Southern Nevada governmental jurisdictions.
- Engaged with community partners to further the septic conversion program focusing on connecting valley-wide septic systems to the sewer system to improve water quality and reclaim that water.
- Conducted more than 100 interviews with local, national, and international media outlets focused on water resources, shortage declarations, conservation, water waste, seasonal watering restrictions, environmental issues, and water infrastructure.
- Engaged in community outreach for multiple LVVWD operations and construction projects, contacting more than 3,300 residents and businesses.
- Coordinated outreach related to major LVVWD infrastructure repairs and maintenance and distributed more than 35 notifications to municipal agencies regarding well start-ups.
- Continued to support the small systems by delivering monthly status and operational reports at each system's town advisory board meetings and working with other departments to help achieve system success.
- Photo-documented historic declines in the lake's elevations, which were shared and used by peer utilities and media outlets around the world.

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

**2023-24 Performance Objectives**

- Assess customer satisfaction, establish benchmarks and determine where improvements are required.
- Continuously improve service processes and practices based on customer assessments.
- Utilize appropriate technology to simplify and improve the customer experience.
- Provide necessary training and development to ensure an exceptional 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.

**2022-23 Major Accomplishments**

- Supported the LVVWD rate changes of tier equalization and excessive use charge, by:
  - updating the LVVWD Service Rules to reflect the new rates.
  - developing a bill estimator application on lvvwd.com to help customers view impacts to their monthly bill; the estimator was integrated with the My Account system to provide residential customers accurate bill comparisons.
  - distributing more than 575,000 direct mail letters to residential customers notifying impacts on bills of tier equalization and excessive use charges.
- Distributed more than 2 million year-round watering schedule and seasonal watering reminders to single-family residences in the Las Vegas Valley.
- Coordinated a speakers bureau program, giving presentations and engaging in discussions with more than 60 community businesses and groups.
- Launched a direct mail campaign reaching approx. 24,000 LVVWD customers who were out of compliance with the year-round watering schedule, resulting in significant water savings.
- Distributed 10,000 letters to customers impacted by AB 356, sent new pool development standards to 119 pool builders, 34 home builders and 27 real estate companies, distributed water theft collateral to 2,000 contractors to increase awareness about theft penalties, and issued Water Update e-newsletters to nearly 4,000 subscribers regarding a wide-range of water related topics.
- Supported new Service Rule changes by distributing more than 5,000 new homeowner packets regarding prohibition of grass and spray irrigation in backyards.
- Published and mailed the annual LVVWD Water Quality Report to more than 369,000 households.
- Participated in more than 50 community outreach events providing the public with conservation-focused messaging and information.
- Drove visitation, memberships, and ticket sales, including complete advance sell outs for the Haunted Harvest and Día de Muertos events hosted by the Springs Preserve.

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

**2023-24 Performance Objectives**

- Enhance understanding of climate change impacts among ourselves and our stakeholders.

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- 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.

### **2022-23 Major Accomplishments**

- Continued to educate and inform the LVVWD and SNWA Board of Directors on water-related issues, policies and initiatives throughout Southern Nevada.
- Assisted in updating the LVVWD Service Rules with conservation-related initiatives that limited the size of new residential pools to no more than 600 square surface feet, reduced golf course water budgets from 6.3 acre-feet of water per irrigated acre to 4 acre-feet per irrigated acre annually, prohibited water service to new development using evaporative cooling systems and revised the incentive to replace industrial cooling towers or swamp coolers with a dry-cooled system or improve the water efficiency of existing evaporative cooling systems; worked to implement these changes with other Southern Nevada municipalities to create consistency and uniformity in the support and management of our water resources.
- Produced a half-hour roundtable discussion with management to address the federal water shortage and SNWA's efforts to protect the valley's water supply; short segments were edited for a variety of uses on social media platforms.
- Launched an online application to streamline the application process for all WSL customers; nearly 5,500 online applications were submitted through the website in the first half of the fiscal year.
- Coordinated and supported the Colorado River Water Users Association's conference which had a record attendance of nearly 1,400 attendees.
- Circulated a new Lake Mead Water Update publication to more than 860,000 properties throughout the valley that reported on Lake Mead elevations, shortage conditions and conservation initiatives.
- Began construction on the new, grant-funded Ethnobotanical Garden that will showcase the ecological, cultural, and sustainable living practices of Southern Nevada's early Native Americans.
- Renovated the Springs Preserve Teaching Garden to accommodate larger groups and enhance the sites' educational offerings.

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

### **2023-24 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.

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### **2022-23 Major Accomplishments**

- Secured \$22.5 million in funding from the Bureau of Reclamation for various infrastructure and water resource projects, including \$1.7 million for the Septic System Conversion Incentive program.
- Applied for and received more than \$240,000 from multiple sources for the Springs Preserve for new informative exhibit panels, the Butterfly Habitat, and the Preserve's refuge ponds.
- Received funding and support from NDEP and several community partners to provide K-12 educators with the necessary tools to teach students about the region's complex water story; more than 150 teachers participated in the trainings, reaching approximately 20,000 students annually.

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

### **2023-24 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.

### **2022-23 Major Accomplishments**

- Designed in-house English and Spanish language campaigns focused on conservation initiatives, including AB 356, evaporative cooling, watering restrictions (*Get Real*), water waste (*Law & Water*), and drip education outreach; garnered several hundred-million impressions with thousands of ads running throughout the year.
- Saw increases in performance and engagement from both LVVWD and SNWA social media platforms with posts predominantly related to conservation, compliance, and shortage.
- Produced a dozen Water Smarts podcasts to convey critical initiatives, such as conservation incentives, LVVWD water rates, water waste investigations, AB 356, and efforts to protect Lake Mead's water elevation; the podcast was downloaded more than 1,500 times from Apple, Spotify and Google.
- Continued to establish relationships with local businesses and organizations to help educate and promote water conservation and seasonal watering restrictions.
- Utilized the LVVWD's messaging system to inform all customers about the federally declared shortage and seasonal watering restrictions.
- Created a new interpretive experience at the Springs Preserve Botanical Garden focused on drought, climate change, conservation, and water-smart landscaping.
- Launched the design phase of a multi-year project to remodel two galleries within the Springs Preserve's OriGen Museum that will become cutting-edge exhibits about the Colorado River.

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

### **2023-24 Performance Objectives**

- Improve the consistency and openness of communication to ensure employees are engaged and well informed.

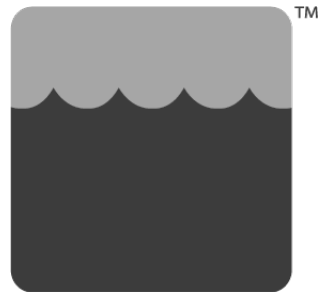
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- Increase the effectiveness of professional development by providing additional diverse learning opportunities.
- Hold ourselves accountable for delivering quality products and services to our customers, each other and the environment.
- Identify, 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.

**2022-23 Major Accomplishments**

- Staff continued to work a hybrid at-home/in-office schedule.
- Produced an in-house “Thank You” campaign that highlighted the previous year’s community conservation successes while also reminding everyone to keep conserving water.
- Continued to produce a weekly series of videos with management to inform employees about safety, HR activities, water resources, infrastructure updates and conservation initiatives.

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# **SECTION 6**

## **CAPITAL PLANS**

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## 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, totaling \$227.5 million, consists of new pumping stations, reservoirs and wells, land acquisition, new water pipelines, and other distribution system facilities. The capital equipment budget, totaling \$15.7 million, consists of vehicles, Information Technology equipment, water works and diverse industrial equipment. Some of the capital projects will become operational by the end of fiscal year 2023-24, 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 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.

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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.

### **Prioritization of Capital Projects**

New capital projects are submitted for review and approval for consideration of prioritization to the asset owner department Director with supporting documentation that identifies scope of the work, project schedule, and estimated project budget and an initial establishment of project criticality. The project is also reviewed against existing projects to identify any project scope overlap. If approved, the project is forwarded to the Deputy General Manager for concurrence and the project is included in the criticality evaluation as part of the annual capital budget process.

During the annual capital budget process, data in the project management system is updated by project participants to reflect changes in project schedules and funding requirements. This may also lead a project to fall out of the budget year review, but still be prioritized and ranked for future fiscal years. In addition, the project participants also conduct a criticality evaluation to prioritize and rank projects based on the risk of deferring and impacts to water quality, operations, and system reliability using the criteria outlined below. While the project management system houses data for long-range project planning, detailed reviews are largely focused on the upcoming three fiscal years to coincide typical capital project schedules.

#### **Category 4: The projects in this category cannot be deferred.**

- The project is active (in construction) and ongoing; or
- The project draws funds from sources other than the Capital Budget and cannot be deferred. Other funding sources for these projects include the oversizing fund, grants, and developer contributions.

#### **Category 3: The projects in this category have a high risk of deferring and have been deemed required or critical to:**

- Meet a statutory or regulatory requirement, court order or consent decree; or
- Correct an immediate threat to public health and safety; or
- Correct an immediate threat to worker health and safety; or
- Correct an immediate failure of water quality and treatment systems; or
- Correct an immediate failure of transmission or distribution systems; or
- Strengthen, protect, and/or secure the community's water supply.

#### **Category 2: The projects in this category have a medium risk of deferring and have been deemed necessary to:**

- Ensure public health and safety; or
- Maintain worker health and safety; or
- Sustain water quality and treatment systems; or
- Support transmission or distribution systems; or
- Strengthen, protect, and/or secure the community's water supply; or
- Directly reduce costs and/or increase revenues.

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**Category 1: The projects in this category have a low risk of deferring and are desired to enhance or provide improved:**

- Water quality and treatment systems; or
- Transmission or distribution systems; or
- Service to customers.

**Category 0: The projects in this category have no risk of deferring.**

The listed criteria present a framework for project prioritization. The senior management team may modify these guidelines or re-prioritize projects based on current needs at any time.

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 2023-24 fiscal year.

**LVVWD: CAPITAL BUDGET 2023-24**

**CAPITAL EQUIPMENT**

**3100 - Customer Care & Field Services**

Water Meters	\$ 5,000,000
<b>Subtotal</b>	<b>\$ 5,000,000</b>

**3400 - Engineering**

Base Stations (Survey)	\$ 90,000
<b>Subtotal</b>	<b>\$ 90,000</b>

**3700 - Infrastructure Management**

Field Services Hot Water Heater install X 2	\$ 40,000
Monitored Tool/ Equipment Lockers	50,000
Ice Machine Replacements (IceHouse 1 & 2) 3 Units	75,000
East Administration Boiler 2 & 3 upgrade improvement	80,000
Operation AC# 8 (Aaon Unit)	125,000
LVVWD Necessary Unforeseen Equipment	200,000
Upgrade 5 Heaters in Fleet Services Building	225,000
LVVWD Campus and Offsite HVAC upgrades	350,000
<b>Subtotal</b>	<b>\$ 1,145,000</b>

**4100 - Operations**

Dynamic Balance and Vibration Analyzer- DigivibeMX M30	\$ 15,000
Field crew welding table	25,000
Hydraulic Chain Tong	35,000
Sediment filters and appurtenances for reservoir cleaning	36,000

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Doble protective relay tester MTS-5100	75,000
30 HP Heavy Duty Lathe	265,000
<b>Subtotal</b>	<b>\$ 451,000</b>

**4300 - Information Technology**

Stand alone servers	\$ 150,000
SQL Server Hardware	250,000
General Infrastructure Support	250,000
<b>Subtotal</b>	<b>\$ 650,000</b>

**4400 - EHS & CS**

1 Each Light Duty Tire Balancer (LVVWD Item GL 11000)	\$ 12,000
1 Each 6.5' X 18' Enclosed Cargo Trailer (LVVWD Item GL 11000)	17,000
1 Each Electric Golf Cart (LVVWD Item GL 11000)	17,000
1 Each 8.5' X 16 Enclosed Cargo Trailer (LVVWD Item GL 11000)	17,000
1 Each Service Tech Tool Box and Tool Set. (LVVWD Item GL 11000)	20,000
Gas Boy Fuel Site Island Controller (LVVWD Item GL 11000)	20,000
1 Each Heavy Duty Tire Balancer. (LVVWD Item GL 11000)	22,000
1 Each Crew Cab 3/4 Ton Truck 4X4 (LVVWD Item GL 11000)	55,000
1 Each Crew cab long bed Utility 4X4 (LID 4490 LVVWD GL 11000)	70,000
1 Each Double Cab 3/4 ton Utility 4X4 pick-up. (LVVWD Item GL 11000)	72,000
3-Each midsize sedans (LVVWD Items GL 11000)	105,000
2 Each 15,00lb Extended cab utility with ladder rack. (LVVWD Item GL 11000)	160,000
1 Each 2,000 Gallon Water Truck (LVVWD Item GL 11000)	175,000
1 Each Re-Budgeted Service trucks (LVVWD Items GL 11000)	241,000
1 Each Re-Budgeted Service Truck (LVVWD Item GL 11000)	241,000
1 each 33,000lb Extended Cab utility with Crane and Welder (LVVWD Item GL 11000)	280,000
1 Lot of 9 Replacement equipment pieces (LVVWD Items GL 11000)	401,000
1 Lot of 29 Replacement Vehicles (LVVWD GL 11000) LID 4490	3,143,000
1 Lot of 24 Re-Budgeted Vehicles (LVVWD GL 11000)	3,292,000
<b>Subtotal</b>	<b>\$ 8,360,000</b>

**7100 - Water Resources**

GR30 Reference Station for land subsidence monitoring	\$ 26,000
<b>Subtotal</b>	<b>\$ 26,000</b>

<b>TOTAL CAPITAL EQUIPMENT</b>	<b>\$15,722,000</b>
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**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Capital Plans**  
Fiscal Year Ending June 30, 2024

**CAPITAL PROJECTS**

**1200 - Legal Services**

ATLAS Content Services Platform Classification and Search for M365	\$	2,300,000
<b>Subtotal</b>	<b>\$</b>	<b>2,300,000</b>

**3100 - Customer Care & Field Services**

AMI Endpoint Replacement	\$	1,577,365
<b>Subtotal</b>	<b>\$</b>	<b>1,577,365</b>

**3400 - Engineering**

Farhills 3435 Zone Reservoir Site Modifications	\$	2,903
RESERVOIR SLIDING HATCH REPLACEMENT (C1522)		8,625
FAYLE RESERVOIR PERIMETER FENCE IMPROVEMENTS (C1562)		37,703
4125 Zone South Pipelines Phase 2		77,375
4125 Zone South Pipelines Phase I (L0257)		84,922
Pipeline Installation and Zone Conversion near Warm Springs Road and Hinson Street		87,516
WELL DERRICK RESTORATION (C1518)		88,440
LVVWD Campus Site - LVVWD Coating and Blast Booth Installation		109,985
4125 Zone South Pipelines Phase 3		188,976
PARADISE ROAD WATER LINE REPLACEMENT (C1477)		199,644
3630 Zone Pumping Station Discharge Pipeline and PRV		250,000
Pipeline Installation and Zone Conversion near Buffalo Drive and Eldora Avenue		343,600
Meranto Pumping Station Sewer Lateral Installation		357,717
South Boulevard 2975 Zone Pumping Station Discharge Pipeline		376,165
Rainbow Well Discharge Line Relocation		400,000
Blue Diamond 3630 Zone Pumping Station		451,607
Charleston Heights Site - Refurbish one 10-MG tank		454,981
Cactus Site - THM Mitigation System Installation		465,912
Angel Park Site - THM Mitigation System Installation (MEPS6616)		472,487
South Boulevard 2745 Zone Reservoir Inlet Outlet Pipeline		475,066
South Boulevard 2975 Zone Tanks Inlet/Outlet Pipeline		475,777
4125 Zone Pumping Station (C1547)		500,000
Reno THM Mitigation System Installation		500,000

**Las Vegas Valley Water District**  
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Fiscal Year Ending June 30, 2024

MISCELLANEOUS VAULTS, RECONSTRUCTION AND REPAIR, PHASE XXIII (C1466)	550,891
Power Extension for Rome 2745 Reservoir, 2975 Zone Pumping Station & 2975-2860 Zone PRV Power Extension	585,840
MISCELLANEOUS PIPELINE INSTALLATIONS, PHASE II (C1574)	600,000
Pipeline Installation in Desert Inn Road at Arville Street	640,590
New Facilities Fiber Optic Cable Installation	662,624
MISCELLANEOUS LARGE BACKFLOW INSTALLATIONS PHASE VIII (C1505)	666,147
El Capitan Site - El Capitan THM Mitigation System Installation (MEPS6612)	723,046
CENTENNIAL 2635 ZONE RESERVOIR AND 2745 ZONE PUMPING STATION (C1481)	750,000
South Boulevard 2975 Zone Tanks	854,063
Elkhorn Site - Install Permanent THM System	868,853
Beltway Site - Beltway THM Mitigation System Installation (MEPS6613)	921,689
Meranto Site - Install New THM system (MEPS7275)	950,000
Septic Sewer Conversion - Tioga and La Madre	1,008,173
MISCELLANEOUS LARGE BACKFLOW INSTALLATIONS PHASE IX (C1506)	1,077,462
EAST ADMIN ROOF REPLACEMENT (C1516)	1,108,076
Miscellaneous Pipeline Replacements, Phase IV (C1564)	1,150,988
Pipeline Installation in Tamarus Street from Flamingo Road to Rochelle Avenue	1,190,455
WEST ADMIN BUILDING 3RD FLOOR IMPROVEMENTS	1,288,984
2150 ZONE & CHRISTY LANE EMERGENCY PRVS (1521)	1,361,738
LVVWD - Miscellaneous Small Backflow Installations, Phase XVI (C1555)	1,602,985
REPLACE SCCP & ACP ON FLAMINGO ROAD (C1510)	1,882,536
EAST ADMIN HUMAN RESOURCES RENOVATION (C1500)	1,900,000
South Boulevard 2745 Zone Reservoir and 2975 Zone Pumping Station	2,210,200
Springs Preserve Cienega Modifications, PHASE II	2,255,025
MEDICAL DISTRICT ZONE CONVERSION (C1515)	2,794,582
MISCELLANEOUS LARGE BACKFLOW INSTALLATIONS, PHASE XI (C1556)	2,933,775
Backflow Retrofit Survey and ROW Support (G0999)	3,651,670
REHAB SCCP IN SAHARA AVENUE (C1509)	3,693,386
COUGAR 3090 ZONE INLET/OUTLET PIPELINE (C1551)	4,325,951
PIPELINE REPLACEMENT IN PARADISE ROAD BETWEEN TWAIN AVE AND KAREN AVENUE (C1530)	5,244,431
Rome Facilities Pipelines (C1561)	5,357,688
4125 Zone South Reservoir	7,759,401
COUGAR 3090 ZONE RESERVOIR (C1550)	8,189,912
Paving Work Order Project	9,100,000

**Las Vegas Valley Water District  
Operating and Capital Budget  
Capital Plans**

Fiscal Year Ending June 30, 2024

LAS VEGAS BOULEVARD IMPROVEMENTS, PHASE III (C1497)	9,470,819
Backflow Retrofit Program (L0089)	10,004,872
ROME 2745 RESERVOIR, 2975 ZONE PUMPING STATION & 2975-2860 ZONE PRV (C1528)	34,756,974
<b>Subtotal</b>	<b>\$ 140,503,227</b>

**3700 - Infrastructure Management**

Pipeline Participation Projects (Orig Funded Bucket)	\$ 10,000
2035 Zone Flowmeter Installation at Stewart Washington	39,118
2055 PZ Pressure Transient Mitigation	60,000
Alpine Ridge 3090 Zone North Pipeline, Phase II	60,558
Ice house chiller replacement	65,000
Spring Mountain Durango LED Lighting	98,000
LVVWD Miscellaneous Projects	99,823
Pipeline replacement in 17th and 18th Steet	100,000
LVVWD - SCADA - PC/Server Hardware Upgrades	100,000
Tropical Satellite Facility Site - Drying Bed Modifications (MEPS8258)	100,000
Annual Transformer Replacements	100,000
Springs Preserve Site - Landscape Lighting Installation	100,000
West Vegas Drive Site - Electrical Rehabilitation (MEPS8373)	100,000
PRV 196 and 197 - Install Data Monitoring	100,000
Day Care Turf removal + add shade structures	100,000
LVVWD Campus Site - Welders Shop Concrete Apron Replacement	130,000
PRV-91 Relocation	133,000
Springs Preserve - Renovation of 3 sets of restrooms on the Springs	133,547
Broadbent Site - Broadbent Pump Station Crane Upgrade (MEPS8513)	150,000
Fiber Vault Lid Replacements FY22/23	150,000
Fort Apache Site - Equipping New Well 125 at Fort Apache Reservoir	150,000
Multi-Site Large Backflow Installations	150,000
Campus/Valley AC units	150,000
Water reclaimers for conservation of water in wash bays	153,500
PRV-42 Relocation	158,000
District Service Area - Cathodic Protection Test Station Installation/Repair	160,000
LVVWD Pump Instrumentation Upgrades	166,667
Pipeline Replacement in Vegas Valley Drive	174,625
East Administration Boiler replacement	175,000
Mezzanine Plywood Replacement	177,000
Springs Preserve Miscellaneous	177,141
West Charleston Site - Electrical Equipment Replacement	180,000
Upgrade Valley View Metasys building management system	190,000
Developer Assisted Service Upgrades	200,000
LVVWD - Network Switch Upgrades	200,000

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
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Fiscal Year Ending June 30, 2024

LVVWD ControlLogix Hardware Upgrades (MEPS-8395)	200,000
SCADA Radio Upgrades	200,000
District Service Area - Misc. Vault Repair	200,000
East admin lower level Main Drain	210,000
LVVWD Campus Site - Welders Shop Ventillation Improvements	256,664
Main Administration Campus - Design and Install HVAC Unit in Pump	274,820
Alta ICCP - CO770 Critical Pipeline Expansion	285,000
Operation Electrical/ Pump Shop Restroom Main Drain	300,000
Spring Mountain Durango A and C Pump Actuator Replacements	315,000
Pipeline Replacement in St Louis Avenue	341,250
LVVWD - Replace PLC 5 Remote Racks From Sites	350,000
Distribution System Improvement Pipeline Replacement in Highland Drive	475,000
Pipeline replacement in Stewart Avenue	475,000
Infrastructure Management Innovation Projects	500,000
Bermuda/Meranto Gates	500,000
Northwest Reliability PRVs	504,000
Alpine Ridge 3090 Zone North Pipeline, Phase I	522,662
Pipeline Replacement in Wendell Avenue	666,250
UV Installation at Five Well Sites	800,000
Miscellaneous High Risk Pipeline Replacements	850,000
Vegas Heights Subdivision	984,000
<u>Washington 2035 Zone Tank Rehabilitation</u>	1,000,000
Well 124 Equipping Construction	1,000,000
2500 West Bonanza Rd. Pipeline Replacement	1,070,480
Miscellaneous Vault Rehabilitations	1,227,215
Steel Pipeline Renewals / Rehab	2,692,500
Pipeline Participation Projects (City/County)	6,500,000
Oversizing Project	13,000,000
<b>Subtotal</b>	<b>\$ 40,190,818</b>

**4100 - Operations**

Switchgear IR windows	\$ 60,620
Replace Large Magnetic Flow Meters	96,000
Annual Pump Repair	100,000
Electric Motors Repair or Replace	100,000
Repair or Replace System Valves	100,000
Motor Control Center, Starters, Transformers, and Other Repairs	234,243
Replace Aging/Failed Surveillance and Networking Equipment	477,759
LVVWD Distribution Division Pipeline Rehabilitation, Replacement, &	691,121
Well and Pump Rehabilitation	1,087,556
Service Line Replacement	1,910,315

**Las Vegas Valley Water District  
Operating and Capital Budget  
Capital Plans**

Fiscal Year Ending June 30, 2024

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<b>Subtotal</b>	<b>\$</b>	<b>4,857,615</b>
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**4300 - Information Technology**

Rack Wiring Switch Upgrade Project	\$	424,693
Virtualization Infrastructure Upgrade		1,273,675
Contact Center Replacement		1,422,819
Data Backup Infrastructure		1,668,637
Oracle Supercluster		2,927,987
Conservation CDT with C2M & AMI		3,562,865
Oracle Financials + Chart of Accounts		5,271,467
Enterprise Asset Management Software Replacement		9,329,007
<b>Subtotal</b>	<b>\$</b>	<b>25,881,149</b>

**4500 - Water Quality & Treatment**

Backflow Meter Box Retrofit	\$	93,750
<b>Subtotal</b>	<b>\$</b>	<b>93,750</b>

**7100 - Water Resources**

Blue Diamond Backup Well - Exploration and Well Construction	\$	1,000,000
Land Acquisition for New LVVWD Production Well Sites		1,497,000
Construct LVVWD Replacement Well W026A		1,497,250
Construct LVVWD Replacement / New Wells		1,900,000
<b>Subtotal</b>	<b>\$</b>	<b>5,894,250</b>

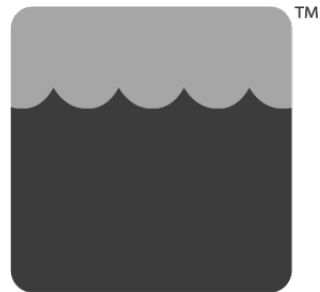
**7200 - Public Services**

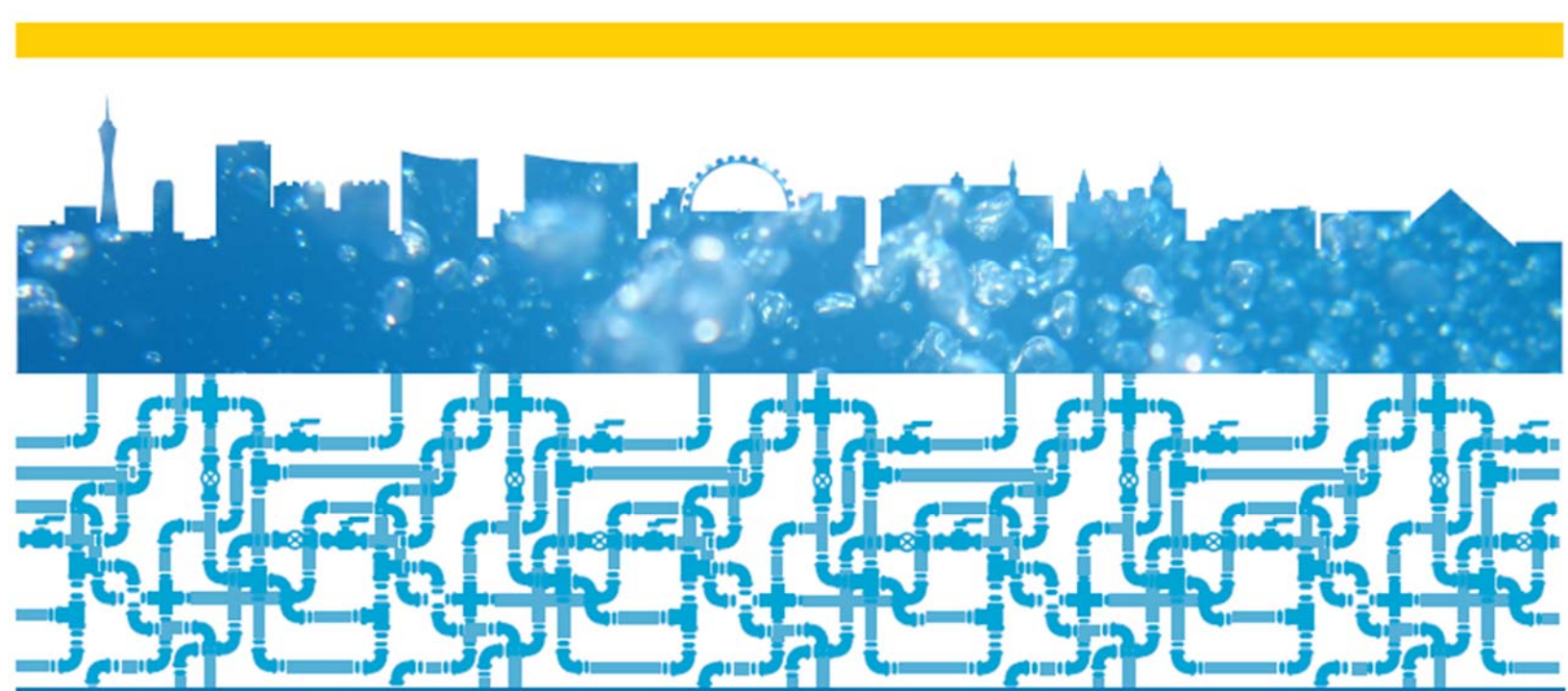
Refugia Pond Electrical Support	\$	15,655
NV State Museum Parking/Road Improvements		125,000
Springs Preserve Gift Shop remodel		150,000
South Fork Refugia Pond Project		203,876
Springs Preserve Garden Pathway Paving (C1579)		229,900
Restore Garden Wetlands Area		250,000
Springs Preserve Gardens speakers and low voltage wiring installation		250,000
Springs Preserve Security Gates		350,399
Evaporative Cooling Replacement at Springs Preserve		432,261
Springs Preserve Native American Exhibit/Ethnobotanical Garden (L0184)		502,437
SPRING PRESERVE EVENT SITE (C1525)		879,269
Springs Preserve Misc. Capital 22-32		1,034,483

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
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Fiscal Year Ending June 30, 2024

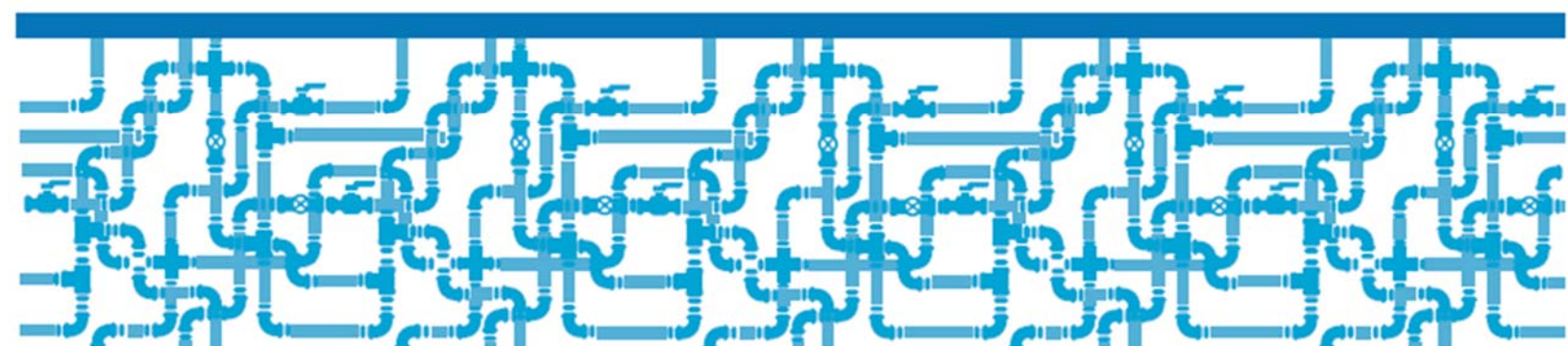
Origen Remodel	\$ 1,792,662
<b>Subtotal</b>	<b>\$ 6,215,941</b>
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<b>TOTAL CAPITAL PROJECTS</b>	<b>\$ 227,514,115</b>
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<b>TOTAL CAPITAL BUDGET</b>	<b>\$ 243,236,115</b>
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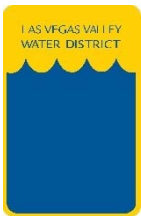
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LAS VEGAS VALLEY WATER DISTRICT  
**CAPITAL IMPROVEMENTS PLAN**  
**2017**





**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

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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.

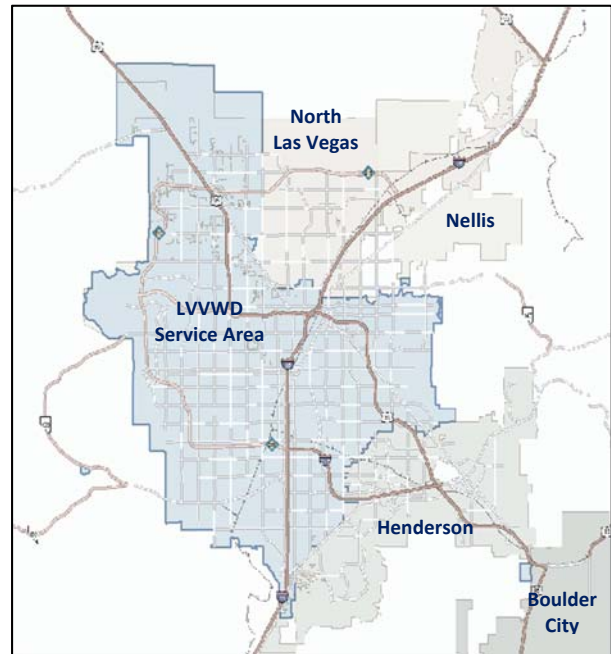


Image: LVVWD Service Area

### 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.

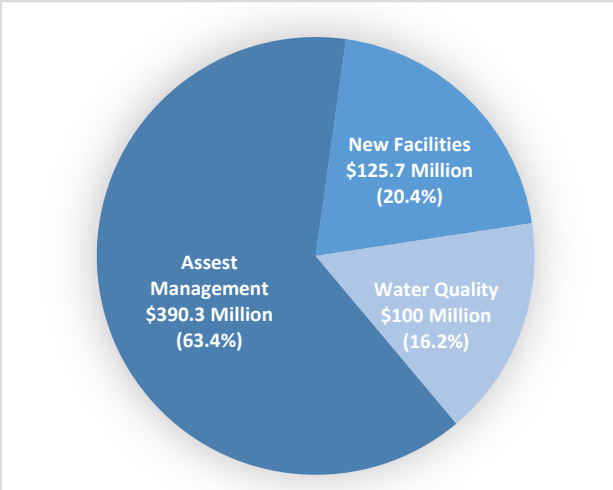
### **New Development Improvements**

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

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### 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:

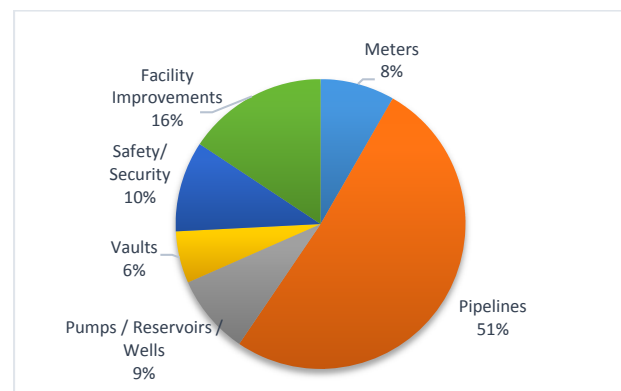
- Extend infrastructure life and prevent failures through timely maintenance and repairs
- Protect system assets through continual condition assessments
- Assess and prioritize projects to ensure critical system operations remain functional
- Minimize financial impacts through orderly, phased implementation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



**Image:** Valve/Vault Repair

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

manufactured. As meters age, they can begin to under-report usage, resulting in customers using more water than is accounted. Potential revenue loss associated with this is estimated to be as much as \$1 million annually.

To address failing meters, the District has implemented a Preventative Maintenance Program to replace aging metering equipment. In addition to ensuring that customers' bills are commensurate with their demand, replacing high-volume meters with new technology—such as turbine meters—mitigates pressure loss, improving those properties' level of service. The LVVWD anticipates that costs associated with this program will be approximately \$3.25 million annually over the next decade. A portion of those outlays will be recovered as those customers' water use is more accurately billed through the new meters.

## **Water Quality Controls**

Although water delivered to the District from the Southern Nevada Water Authority and groundwater wells has been treated and tested to ensure it meets all state and federal health standards, the integrity of customers' drinking water must be maintained and carefully monitored all the way to the tap. For instance, chlorine levels dissipate over time, requiring periodic rechlorination to prevent bacteria from entering the water. Conversely, levels of chlorination byproducts—which themselves can have harmful effects—must be carefully managed.

To maintain water quality in the distribution system, the District operates scores of sampling stations, from which more than 30,000 samples are drawn annually for analysis. Additionally, the centralized Supervisory Control and Data Acquisition (SCADA) center allows operators to monitor the water system 24 hours a day, including the use of in-line sensors to detect subtle changes in water quality.

Costs associated with this critical function are relatively modest. The high-tech SCADA center, for instance, is projected to require approximately \$6 million in upgrades over the planning horizon—much of it associated with upgrades to rapidly-advancing computer hardware and software. Other investments in water quality are embedded in broader facility maintenance initiatives that cover security enhancements and a host of other water quality protection-oriented projects.



**Image:** Supervisory Control and Data Acquisition (SCADA) center.

## **Groundwater Wells**

Originally the sole source of water for Las Vegas residents, groundwater today represents about 10 percent of the District's supply. Despite its relatively modest role as a resource, groundwater is integral to meeting summer peak demand. The ability to supplement water from Lake Mead with this renewable supply reduces the strain on the region's water treatment facilities and extends our community's Colorado River allocation. Additionally, wells—which can be operated if necessary by generators—represent an excellent emergency water source.

To prevent adverse hydrologic impacts associated with withdrawals, groundwater pumping is distributed through more than 70 wells, largely located in the central and western parts of the Las Vegas Valley. Some of these wells are also used to store water saved through the community's successful conservation efforts; by reversing the powerful pumps, water can be injected into the aquifer for storage and future use.

A well system is comprised of two major components: the pumping equipment, and the wellbore itself. The service life expectancy of a wellbore can vary significantly depending upon its composition. Newer



**Image:** LVVWD Groundwater Well window.

wells have an expected lifespan of 75 years, while older wells typically last between 40 and 60 years. Pumping equipment has a far shorter service life, rarely exceeding 13 years. Technicians monitor pumping efficiency to determine the optimal replacement or refurbishment

Over the next 10 years, 13 wellbores will require significant rehabilitation or redrilling, while five well pumps require replacement or rebuilding annually. During the 10-year planning horizon, the District anticipates that well- and pump-related costs will be approximately \$15.6 million.

## Facilities and Capital Improvements

Treating and delivering water requires a tremendous amount of electrical energy; from pumping stations and reservoirs to well facilities and the LVVWD’s main campus, maintaining the reliability of the power supply is critical to the agency’s operations. This entails assessing and servicing transformers and electrical panels throughout the valley. In support of its sustainability initiatives, the LVVWD also operates several solar photovoltaic generation facilities, which are co-located with existing infrastructure and provide electrical power to support operations.

Information systems also play a crucial role in ensuring that the community’s water supply remains both reliable and safe. As noted above, the SCADA control center—which monitors water quality and production levels in virtually real-time—relies upon an extensive communications network. In addition, electronic facility intrusion detection and cyber-security are central to the ongoing protection of the community’s water system.

The District maintains a fleet of more than 600 automotive vehicles and a similar number of heavy machines, including cranes, used to support facility maintenance and replacement, respond to emergency service outages, and conduct routine functions like valve cycling and meter reading. This award-winning fleet is housed at the District’s main campus on Valley View Boulevard, which also serves as the base for the agency’s customer service center,

equipment warehouse, fleet maintenance center, administrative offices and other core functions. This 300,000-square-foot complex encompasses numerous buildings with all of the associated electrical, HVAC, communications and office infrastructure, and equipment.

Security, safety and fleet-related expenditures are projected at approximately \$3.9 million annually over the next decade. Costs associated with electrical, telemetry and other related infrastructure is budgeted at \$3.45 million per year over the next 10 years, with an additional \$2.7 million annually for repair, replacement, and upgrades to infrastructure and equipment housed at the primary campus.

## Asset Management Summary

A summary of forecasted Asset Management activities and associated costs over the 10-year planning horizon is detailed in Figure 1.6. Costs are represented in aggregate; however, LVVWD work efforts will be executed in a phases based on asset assessment results and need. Proposed expenditures to support this work will be presented to the Board of Directors for consideration and authorization as part of the annual budget process.

**Figure 1.6:** Projected Asset Management Activity and Cost by Asset Type

ACTIVITY	10-YEAR	PERCENTAGE
Meter Program	\$32.4 million	8%
Vault Program	22.5 million	6%
Service Laterals	70.0 million	18%
Pipeline Rehabilitation and Replacement	130.0 million	33%
Facilities Improvements	27.0 million	7%
SCADA	6.0 million	2%
Pump Stations	6.7 million	2%
Reservoirs	4.65 million	1%
Wells	15.6 million	4%
Reclaimed Water	1.7 million	<1%
Fleet, Safety and Security	39.3 million	10%
Misc. Capital	34.5 million	9%
<b>TOTAL</b>	<b>\$390.3 million</b>	

# CAPITAL IMPROVEMENT PLAN

## WATER QUALITY

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The District is responsible for ensuring that municipal water supplies meet strict state and federal health standards. To accomplish this, the agency collects more than 33,000 water samples a year and analyzes them for more than 100 regulated and unregulated contaminants. The instrumentation used to test water quality can detect some compounds at one part per trillion, the equivalent of one teaspoon of water in 2,100 Olympic-size swimming pools. Additionally, the LVVWD's high-tech SCADA operations center uses advanced instrumentation to detect minute changes in water quality, providing a greater degree of protection.

To support its mission of providing customers with a safe, reliable water supply, the District works closely with the State of Nevada to identify and reduce any potential vulnerabilities to water contamination, including conditions known as backsiphonage or backpressure, more commonly referred to as backflow. This occurs when negative pressure in the system causes water to reverse its flow. There are a number of situations that can potentially cause this to occur. For example, a sudden decrease of water pressure due to a main break or a significant draw on hydrants for firefighting efforts can potentially cause backflow conditions. When this occurs, water from an individual property's plumbing system can be drawn back into the public portion of the water distribution network.

To prevent this from occurring, the State of Nevada in the mid-1990s began requiring the installation of backflow prevention devices on all new properties except single-family homes. These valve-like devices protect the community's drinking water system by preventing water from being siphoned back into water mains from private properties. This mandatory program is managed by the Nevada Division of Environmental Protection and requires that all backflow devices be tested annually by a certified technician.

### System Needs

Approximately 35,000 meters within the District's service area require backflow protection. To fulfill state requirements, the District prioritized backflow installations based on their degree of risk to the system and has begun systematically retrofitting properties that require backflow protection. An annual cost of \$10 million is needed over the 10-year planning horizon to implement its backflow retrofit program. The cost of individual retrofits varies by meter size and range from approximately \$3,000 for small meters to more than \$33,000 for 10" meters. The projected cost is anticipated to address approximately one-third of outstanding retrofit needs over the next decade. The quantity of devices involved and labor-intensive nature of the installations precludes a more aggressive approach.



Image: Commercial Backflow Assembly

## CAPITAL IMPROVEMENT PLAN

### NEW FACILITIES

Since its inception, the District has worked to develop, operate and maintain its water distribution system in a manner that meets the needs of the community. This includes ensuring the reliable delivery of high-quality water to all customers. Over the decades, this has required the agency to install thousands of miles of water mains, hundreds of millions of gallons worth of reservoir storage and massive pumping stations necessary to move water around the valley.

When the recession that began in 2007 brought commercial and residential development to a virtual standstill, the District quickly responded by curtailing facility expansion and reliability enhancement projects, and by deferring many of the major asset management needs discussed in the preceding section. In total, hundreds of millions of dollars' worth of construction activities were postponed, which increased the strain on the community's water system. Given the uncertain financial climate, it was determined this action to be in the best interest of both ratepayers and the organization.

#### System Needs

Today, development activity has resumed in Southern Nevada, although certainly not to the degree experienced in the decades prior to the recession. Accordingly, the LVVWD has resumed planning activities associated with expansion of the community's water delivery system. This action is necessary for the organization to fulfill its mission of providing a safe, reliable water system to all municipal water customers in its service area.

Below is a summary of three major system improvement projects planned for development within the 10-year planning horizon. None of these projects are being constructed exclusively for prospective development; rather, all simultaneously benefit existing customers while facilitating access to the municipal water supply for planned developments.

#### NEW FACILITIES

##### *Northwest Major Facilities (NW)*

Within the northwest portion of the Las Vegas Valley, approximately 21,000 customers in three separate pressure zones are serviced by a single pumping

station and a single reservoir; a major development currently under construction is anticipated to bring that number to nearly 30,000 customers. In the event of a service interruption, current reservoir storage is inadequate to support customers for extended periods of time. New facilities are needed to address the strain on existing infrastructure and to reduce residents' vulnerability to service interruptions associated with scheduled or emergency outages.

New facilities planned for construction include the development of two new water storage reservoirs—one with a capacity of 10 million gallons, the other with a capacity of 5 million gallons—along with two pumping stations and associated appurtenances. The estimated cost of these improvements is \$61.8 million.

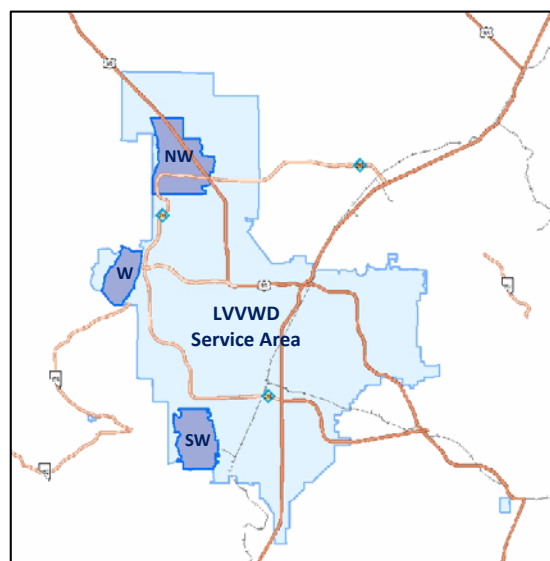


Figure 1.7: Customers to be served by new facilities

##### *West Major Facilities (W)*

Unlike the vast majority of customers in the District's service area, residents and businesses in this portion of the valley depend on direct delivery for their water service. As discussed previously, direct delivery is less reliable and impacts could arise in the event of scheduled and unanticipated outages, such as a water main break. Without storage or other redundant systems, customers could experience immediate service impacts.

# SECTION 7

## DEBT MANAGEMENT POLICY

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**LAS VEGAS VALLEY  
WATER DISTRICT™**



Las Vegas Valley Water District  
Operating and Capital Budget  
Debt Management Policy  
Fiscal Year Ending June 30, 2024

## Debt Management Policy

In Accordance With  
NRS 350.013



**LAS VEGAS VALLEY  
WATER DISTRICT™**

June 30, 2023

Las Vegas Valley Water District  
Operating and Capital Budget  
**Debt Management Policy**  
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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.

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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 Bond Indebtedness Additionally Secured by LVVWD 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 intends to issue approximately \$230 million debt in fiscal year 2023-24. In addition, the bond market is monitored for savings opportunities via refunding or restructuring existing debt issues.

**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

**Bonded Indebtedness.** The following table shows the outstanding LVVWD Water Bonds as of June 30, 2023.

Bond Series	Issue Date	Original Amount Issued	Outstanding Principal
2010A BABS	Jun-10	75,995,000	75,995,000
2014 SRF Loan	Dec-14	19,929,329	14,396,535
2015A	Jun-15	172,430,000	63,635,000
LVVWD 2016B	Apr-16	108,220,000	81,610,000
2016 SRF Loan	Sep-16	15,000,000	12,316,216
2017 SRF Loan	May-17	15,000,000	12,456,834
2017A	Mar-17	130,105,000	107,650,000
2018A	Jun-18	100,000,000	90,615,000
2020B	Mar-20	22,240,000	19,685,000
2020D	Mar-20	98,080,000	85,220,000
2020C	Jul-20	100,000,000	94,465,000
2021B	Mar-21	32,795,000	22,910,000
2022B	Mar-22	31,495,000	31,495,000
2022D	Jun-22	70,555,000	69,220,000
Total			\$ 781,669,584

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**Existing, Authorized, and Proposed General Obligation Bond Indebtedness Additionally Secured by SNWA Pledged Revenues (“SNWA Water Bonds”)**

The LVVWD has issued general obligation bonds for the SNWA. The SNWA Water Bonds constitute direct and general obligations of the LVVWD, and the full faith and credit of the LVVWD is pledged to the payment of principal and interest due thereon. The SNWA Water Bonds are payable from property taxes on all taxable property within the LVVWD service area, subject to Nevada constitutional and statutory limitations on the aggregate amount of property taxes. The SNWA Water Bonds are additionally secured by certain pledged revenues (the “SNWA Pledged Revenues”) as set forth in NRS 350.13 (4). The SNWA Pledged Revenues currently consist of fees and charges for water imposed by the SNWA upon its wholesale water customers (the LVVWD, Henderson, North Las Vegas, and Boulder City). Under the SNWA Revenue Act, the SNWA is required to maintain its fees and charges for water at a level sufficient to allow it to meet its obligations to the LVVWD to pay the LVVWD’s SNWA Water Bonds.

Nevada statutes provide that no act concerning the SNWA Water Bonds or their security may be repealed, amended, or modified in such a manner as to impair adversely the Bonds or their security until all of the Bonds have been discharged in full or provision for their payment and redemption has been fully made.

The payment of the SNWA Water Bonds is not secured by an encumbrance, mortgage, or other pledge of property of the SNWA (other than the SNWA Pledged Revenues) and no property shall be liable to be forfeited or taken in payment of the SNWA Water Bonds, provided the payment of the Bonds is secured by the proceeds of general (property) taxes and the SNWA Pledged Revenues, which are pledged for the payment of the Bonds. Furthermore, section 350.606 of the Bond Act provides no recourse shall be had for the payment of the principal of, interest on, or any prior redemption premiums due in connection with municipal securities such as the SNWA Water Bonds, or for any claim based thereon or otherwise upon the resolution authorizing their issuance, against any individual trustee, officer, employee or other agent of the LVVWD, past, present or future, either directly or indirectly by virtue of any statute or rule of law.

The LVVWD has never levied a property tax to pay the SNWA Water Bonds because SNWA Pledged Revenues have always been sufficient to pay debt service on all the LVVWD's bonds and obligations secured by such revenues.

**Authorized and Proposed Future SNWA Water Bonds.** The LVVWD intends to issue approximately \$270 million debt in fiscal year 2022-23 for the SNWA. In addition, the bond market is monitored for savings opportunities via refunding or restructuring existing debt issues.

**Debt Service Requirements.** See appendix for a table that shows the debt service to maturity for the SNWA Water Bonds.

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**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.

**Bonded Indebtedness.** The following table shows the outstanding SNWA Water Bonds as of June 30, 2023.

Bond Series	Issue Date	Original Amount Issued	Outstanding Principal
2015	Jan-15	\$ 332,405,000	\$ 332,405,000
2015B	Jun-15	177,635,000	91,365,000
2015C	Jun-15	42,125,000	21,175,000
2016A	Apr-16	497,785,000	408,100,000
2017B	Mar-17	22,115,000	15,175,000
2018B	Mar-18	79,085,000	33,425,000
2019A	Mar-19	107,975,000	97,570,000
2019B	Oct-19	90,280,000	59,130,000
2020A	Mar-20	123,860,000	103,830,000
2021A	Mar-21	144,685,000	120,485,000
2021C	Mar-21	208,145,000	183,615,000
2022A	Feb-22	292,240,000	287,205,000
2022C	Mar-22	253,820,000	245,925,000
			\$ 1,999,405,000

## 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):

*(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.

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**Negotiated Sale**

In a negotiated sale, an exclusive arrangement is made between the issuer and an underwriter or underwriting syndicate. At the end of successful negotiations, the issue is awarded to the underwriter.

A negotiated underwriting may be considered based upon one or more of the following criteria:

- Extremely large issue size.
- Complex financing structure (i.e. new security feature, variable rate financings, new derivatives, and certain revenue issues, etc.) which provides a desirable benefit to the LVVWD.
- Difficulty in marketing due to credit rating or lack of bids.
- Private placement, or sale to a municipality, to the state, or a federal agency.
- 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

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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 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.

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Prior to beginning a refunding bond issue the LVVWD will review an estimate of the savings achievable from the refunding. The LVVWD may also review a pro forma schedule estimating the savings assuming that the refunding is done at various points in the future.

The LVVWD will generally consider refunding outstanding bonds if one or more of the following conditions exist:

- 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

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Bond insurance can be purchased directly by the LVVWD prior to the bond sale (direct purchase) or at the underwriter's option and expense (bidder's option).

When insurance is purchased directly by the LVVWD, the present value of the estimated debt service savings from insurance should be greater than the insurance premium. The bond insurance company will usually be chosen based on an estimate of the greatest net present value insurance benefit (present value of debt service savings less insurance premium).

**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. Next Five Years of Existing and Proposed Debt Service
2. Existing Debt Service Additionally Secured by LVVWD Pledged Revenues
3. Existing Debt Service Additionally Secured by SNWA Pledged Revenues
4. Existing Debt Service all Revenue Pledges
5. Proposed Debt Service Secured by LVVWD Pledged Revenues
6. Existing and Proposed Debt Service Secured by LVVWD Pledged Revenues
7. Net Pledged Revenues

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**Next Five Years of Existing and Proposed Debt Service  
As of June 30, 2023**

<u>Fiscal Year</u>	<u>LVVWD Revenue Pledge <sup>(1)</sup></u>	<u>SNWA Revenue Pledge <sup>(2)</sup></u>	<u>Total</u>
2024	\$ 86,553,586	\$ 208,849,050	\$ 295,402,636
2025	94,207,003	199,346,675	293,553,678
2026	94,243,253	199,253,300	293,496,553
2027	85,157,253	189,771,375	274,928,628
2028	76,271,752	154,030,000	230,301,752
Total <sup>(3)</sup>	<u>\$ 436,432,846</u>	<u>\$ 951,250,400</u>	<u>\$ 1,387,683,246</u>

<sup>(1)</sup> This is debt service on the existing and proposed outstanding principal balance of general obligation debt additionally secured by LVVWD pledged revenues.

<sup>(2)</sup> This is debt service on the outstanding principal balance of general obligation debt additionally secured by SNWA pledged revenues in accordance with interlocal agreements.

<sup>(3)</sup> Totals may be off slightly due to rounding.

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Existing Debt Service Additionally Secured by LVVWD Pledged Revenues  
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<u>Fiscal Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2024	\$ 45,878,570	\$ 33,104,183	\$ 78,982,753
2025	48,134,729	30,882,273	79,017,003
2026	50,432,325	28,620,428	79,052,753
2027	43,791,390	26,174,113	69,965,503
2028	37,016,961	24,061,542	61,078,502
2029	38,794,073	22,298,800	61,092,872
2030	40,627,763	20,449,070	61,076,832
2031	42,583,069	18,509,603	61,092,672
2032	44,505,030	16,573,872	61,078,903
2033	39,163,685	14,649,197	53,812,883
2034	40,649,076	13,167,104	53,816,180
2035	41,384,275	11,707,120	53,091,395
2036	42,153,149	10,205,678	52,358,827
2037	26,410,490	8,645,296	35,055,786
2038	25,830,000	7,654,156	33,484,156
2039	26,375,000	6,638,318	33,013,318
2040	27,635,000	5,379,288	33,014,288
2041	10,645,000	4,055,463	14,700,463
2042	10,995,000	3,707,263	14,702,263
2043	11,360,000	3,341,713	14,701,713
2044	11,735,000	2,963,063	14,698,063
2045	12,135,000	2,565,850	14,700,850
2046	12,550,000	2,154,300	14,704,300
2047	12,970,000	1,727,813	14,697,813
2048	13,410,000	1,286,188	14,696,188
2049	8,190,000	828,713	9,018,713
2050	8,430,000	581,875	9,011,875
2051	3,865,000	315,400	4,180,400
2052	4,020,000	160,800	4,180,800
2053	-	-	-
Totals *	<u>\$ 781,669,584</u>	<u>\$ 322,408,477</u>	<u>\$ 1,104,078,061</u>

\* Totals may be off slightly due to rounding.

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<u>Fiscal Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2024	\$ 115,880,000	\$ 92,969,050	\$ 208,849,050
2025	112,195,000	87,151,675	199,346,675
2026	117,950,000	81,303,300	199,253,300
2027	114,370,000	75,401,375	189,771,375
2028	83,930,000	70,100,000	154,030,000
2029	74,815,000	66,230,500	141,045,500
2030	77,555,000	62,545,113	140,100,113
2031	70,700,000	58,713,625	129,413,625
2032	90,605,000	55,293,000	145,898,000
2033	106,915,000	51,307,200	158,222,200
2034	111,555,000	46,662,750	158,217,750
2035	83,205,000	42,215,450	125,420,450
2036	87,025,000	38,396,700	125,421,700
2037	91,020,000	34,399,550	125,419,550
2038	119,690,000	30,215,850	149,905,850
2039	149,675,000	24,612,450	174,287,450
2040	49,420,000	17,451,150	66,871,150
2041	51,605,000	15,258,400	66,863,400
2042	53,900,000	12,967,450	66,867,450
2043	37,250,000	10,573,350	47,823,350
2044	38,990,000	8,833,350	47,823,350
2045	40,815,000	7,011,250	47,826,250
2046	42,720,000	5,103,000	47,823,000
2047	14,330,000	3,104,800	17,434,800
2048	14,905,000	2,531,600	17,436,600
2049	15,500,000	1,935,400	17,435,400
2050	16,120,000	1,315,400	17,435,400
2051	16,765,000	670,600	17,435,600
2052	-	-	-
2053	-	-	-
<b>Totals *</b>	<b>\$ 1,999,405,000</b>	<b>\$ 1,004,273,338</b>	<b>\$ 3,003,678,338</b>

\* Totals may be off slightly due to rounding.

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Existing Debt Service all Pledged Revenues  
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<u>Fiscal Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2024	\$ 161,758,570	\$ 126,073,233	\$ 287,831,803
2025	160,329,729	118,033,948	278,363,678
2026	168,382,325	109,923,728	278,306,053
2027	158,161,390	101,575,488	259,736,878
2028	120,946,961	94,161,542	215,108,502
2029	113,609,073	88,529,300	202,138,372
2030	118,182,763	82,994,182	201,176,945
2031	113,283,069	77,223,228	190,506,297
2032	135,110,030	71,866,872	206,976,903
2033	146,078,685	65,956,397	212,035,083
2034	152,204,076	59,829,854	212,033,930
2035	124,589,275	53,922,570	178,511,845
2036	129,178,149	48,602,378	177,780,527
2037	117,430,490	43,044,846	160,475,336
2038	145,520,000	37,870,006	183,390,006
2039	176,050,000	31,250,768	207,300,768
2040	77,055,000	22,830,438	99,885,438
2041	62,250,000	19,313,863	81,563,863
2042	64,895,000	16,674,713	81,569,713
2043	48,610,000	13,915,063	62,525,063
2044	50,725,000	11,796,413	62,521,413
2045	52,950,000	9,577,100	62,527,100
2046	55,270,000	7,257,300	62,527,300
2047	27,300,000	4,832,613	32,132,613
2048	28,315,000	3,817,788	32,132,788
2049	23,690,000	2,764,113	26,454,113
2050	24,550,000	1,897,275	26,447,275
2051	20,630,000	986,000	21,616,000
2052	4,020,000	160,800	4,180,800
2053	-	-	-
Totals *	<u>\$ 2,781,074,584</u>	<u>\$ 1,326,681,814</u>	<u>\$ 4,107,756,398</u>

\* Totals may be off slightly due to rounding.

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Proposed Debt Service Secured by LVVWD Pledged Revenues  
As of June 30, 2023

<u>Fiscal Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2024	\$ -	\$ 7,570,833	\$ 7,570,833
2025	3,690,000	11,500,000	15,190,000
2026	3,875,000	11,315,500	15,190,500
2027	4,070,000	11,121,750	15,191,750
2028	4,275,000	10,918,250	15,193,250
2029	4,485,000	10,704,500	15,189,500
2030	4,710,000	10,480,250	15,190,250
2031	4,945,000	10,244,750	15,189,750
2032	5,195,000	9,997,500	15,192,500
2033	5,455,000	9,737,750	15,192,750
2034	5,725,000	9,465,000	15,190,000
2035	6,010,000	9,178,750	15,188,750
2036	6,310,000	8,878,250	15,188,250
2037	6,630,000	8,562,750	15,192,750
2038	6,960,000	8,231,250	15,191,250
2039	7,305,000	7,883,250	15,188,250
2040	7,675,000	7,518,000	15,193,000
2041	8,055,000	7,134,250	15,189,250
2042	8,460,000	6,731,500	15,191,500
2043	8,880,000	6,308,500	15,188,500
2044	9,325,000	5,864,500	15,189,500
2045	9,795,000	5,398,250	15,193,250
2046	10,280,000	4,908,500	15,188,500
2047	10,795,000	4,394,500	15,189,500
2048	11,335,000	3,854,750	15,189,750
2049	11,900,000	3,288,000	15,188,000
2050	12,495,000	2,693,000	15,188,000
2051	13,120,000	2,068,250	15,188,250
2052	13,780,000	1,412,250	15,192,250
2053	14,465,000	723,250	15,188,250
Totals *	<u>\$ 230,000,000</u>	<u>\$ 218,087,833</u>	<u>\$ 448,087,833</u>

\* Totals may be off slightly due to rounding.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Debt Management Policy  
Fiscal Year Ending June 30, 2024**

Existing and Proposed Debt Service Secured by LVVWD Pledged Revenues  
As of June 30, 2023

FiscalYear	Principal	Interest	Total
2024	\$ 45,878,570	\$ 40,675,016	\$ 86,553,586
2025	51,824,729	42,382,273	94,207,003
2026	54,307,325	39,935,928	94,243,253
2027	47,861,390	37,295,863	85,157,253
2028	41,291,961	34,979,792	76,271,752
2029	43,279,073	33,003,300	76,282,372
2030	45,337,763	30,929,320	76,267,082
2031	47,528,069	28,754,353	76,282,422
2032	49,700,030	26,571,372	76,271,403
2033	44,618,685	24,386,947	69,005,633
2034	46,374,076	22,632,104	69,006,180
2035	47,394,275	20,885,870	68,280,145
2036	48,463,149	19,083,928	67,547,077
2037	33,040,490	17,208,046	50,248,536
2038	32,790,000	15,885,406	48,675,406
2039	33,680,000	14,521,568	48,201,568
2040	35,310,000	12,897,288	48,207,288
2041	18,700,000	11,189,713	29,889,713
2042	19,455,000	10,438,763	29,893,763
2043	20,240,000	9,650,213	29,890,213
2044	21,060,000	8,827,563	29,887,563
2045	21,930,000	7,964,100	29,894,100
2046	22,830,000	7,062,800	29,892,800
2047	23,765,000	6,122,313	29,887,313
2048	24,745,000	5,140,938	29,885,938
2049	20,090,000	4,116,713	24,206,713
2050	20,925,000	3,274,875	24,199,875
2051	16,985,000	2,383,650	19,368,650
2052	17,800,000	1,573,050	19,373,050
2053	14,465,000	723,250	15,188,250
Totals *	<u>\$ 1,011,669,584</u>	<u>\$ 540,496,310</u>	<u>\$ 1,552,165,894</u>

\* Totals may be off slightly due to rounding.

**Las Vegas Valley Water District  
Operating and Capital Budget  
Debt Management Policy**  
Fiscal Year Ending June 30, 2024

**Net Pledged Revenues  
For Fiscal Years Ended June 30**

	2018 (Actual)	2019 (Actual)	2020 (Actual)	2021 <sup>(5)</sup> (Actual)	2022 (Actual)
<b>Revenues<sup>(1)</sup></b>					
Water Sales	\$ 366,696,687	\$ 368,415,325	\$ 367,251,189	\$ 393,153,616	\$ 400,207,485
Inspection/Application Fees	2,788,421	3,106,856	3,091,750	4,311,045	3,825,425
Springs Preserve	2,756,528	3,047,093	1,965,658	387,554	1,699,744
Facilities Connection Charges	16,171,119	18,185,794	17,628,602	33,131,272	23,578,591
Investment Earnings <sup>(2)</sup>	2,256,083	17,227,950	20,110,119	(681,187)	(24,163,160)
Other	66,489	76,631	12,260	11,845	753,804
<b>Total Revenues</b>	<b>\$ 390,735,327</b>	<b>\$ 410,059,649</b>	<b>\$ 410,059,578</b>	<b>\$ 430,314,145</b>	<b>\$ 405,901,889</b>
<b>Operating Expenses<sup>(3)</sup></b>	<b>\$ 255,815,010</b>	<b>\$ 240,742,943</b>	<b>\$ 276,072,659</b>	<b>\$ 248,183,391</b>	<b>\$ 275,364,147</b>
<b>Net Revenues</b>	<b>\$ 134,920,317</b>	<b>\$ 169,316,706</b>	<b>\$ 133,986,919</b>	<b>\$ 182,130,754</b>	<b>\$ 130,537,742</b>
Add Beginning Unrestricted Fund Balances	\$ 276,864,411	\$ 350,525,644	\$ 422,313,800	\$ 421,854,132	\$ 501,332,244
<b>Amounts Available for Debt Service</b>	<b>\$ 411,784,728</b>	<b>\$ 519,842,350</b>	<b>\$ 556,300,719</b>	<b>\$ 603,984,886</b>	<b>\$ 631,869,986</b>
<b>Parity and Subordinate Lien Obligations Debt Service<sup>(4)</sup></b>	<b>\$ 60,064,751</b>	<b>\$ 66,939,561</b>	<b>\$ 67,560,760</b>	<b>\$ 74,228,063</b>	<b>\$ 73,831,659</b>
<b>Coverage</b>	<b>6.86</b>	<b>7.77</b>	<b>8.23</b>	<b>8.14</b>	<b>8.56</b>

<sup>(1)</sup> Excludes the SNWA Regional Commodity Charge, the Regional Reliability Surcharge, the Regional Connection Charge and the Regional Infrastructure Charge. The District excludes SNWA charges and operating expenses from its financial statements.

<sup>(2)</sup> Includes unrealized gains and losses due to fair market value adjustments in accordance with GAAP.

<sup>(3)</sup> Excludes depreciations expense. Decrease in fiscal year 2019 reflects a favorable settlement of claims of approximately \$20.8 million which was credited against operating expenses. Decrease in fiscal year 2021 is primarily attributable to decreased pension and OPEB expenses resulting from gains on asset investments and lower power and purchased water costs and reductions in expenses in response to the COVID-19 pandemic.

<sup>(4)</sup> The debt service includes the federal subsidy for the District's Build America Bonds. The District did not have any Superior Lien Obligations outstanding in fiscal years 2017 through 2021.

<sup>(5)</sup> Fiscal year 2021 was restated in fiscal year 2022 to reflect the impact of the implementation of GASB Statement No. 87, Leases, which required reclassification of expenses from operations and maintenance expenses to amortization.

# SECTION 8

## STATISTICAL INFORMATION

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**LAS VEGAS VALLEY  
WATER DISTRICT™**



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Statistical Section**  
Fiscal Year Ending June 30, 2024

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Las Vegas Valley Water District  
 Operating and Capital Budget  
 Statistical Section  
 Fiscal Year Ending June 30, 2024

**Demographic Statistics**  
**Clark County, Nevada**  
**Five Calendar Years**

<u>Calendar Year</u>	<u>Clark County Population (1)</u>	<u>Per Capita Income (2)</u>	<u>Clark County Personal Income (In Million \$)(2)</u>	<u>Median Household Income (3)</u>
2022	2,331,934	N/A	N/A	N/A
2021	2,333,092	58,276	133,597	63,735
2020	2,376,683	53,562	121,767	62,496
2019	2,325,798	51,012	114,155	62,131
2018	2,284,616	47,814	104,986	57,155

<u>Calendar Year</u>	<u>LVVWD Service Area Population</u>	<u>School Enrollment (4)</u>	<u>Total Labor Force(5)</u>	<u>Unemployment Rate (6)</u>
2022	1,539,277	304,276	1,130,205	5.4%
2021	1,539,067	310,556	1,100,264	8.3%
2020	1,583,746	310,493	1,104,388	15.5%
2019	1,551,304	323,787	1,131,564	4.2%
2018	1,527,068	325,081	1,093,988	4.6%

**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 (Retrieved from FRED, Federal Reserve Bank of St. Louis)

(4) Clark County School District, Count Day Enrollment History. Data are for School Year (e.g. 2022 is for School Year 2022-2023)

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

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

**Top Ten Employers<sup>(1)</sup>**  
**Clark County, Nevada**  
**Calendar Year 2022**

<b>Employer Trade name</b>	<b>Employees <sup>(2)</sup></b>	<b>Ranking</b>
US Nellis Air Force Base	10,000 or More	1
Intercontinental the Venetian	10,000 or More	2
Encore Casino	10,000 or More	3
Las Vegas Metropolitan Police	5,000 to 9,999	4
Flamingo Las Vegas Hotel-Casino	5,000 to 9,999	5
MGM Grand Las Vegas	5,000 to 9,999	6
Linq	5,000 to 9,999	7
Las Vegas Sands Corp	5,000 to 9,999	8
Orleans Hotel & Casino	5,000 to 9,999	9
Mandalay Bay	5,000 to 9,999	10
Total Labor Force <sup>(3)</sup>	1,130,205	

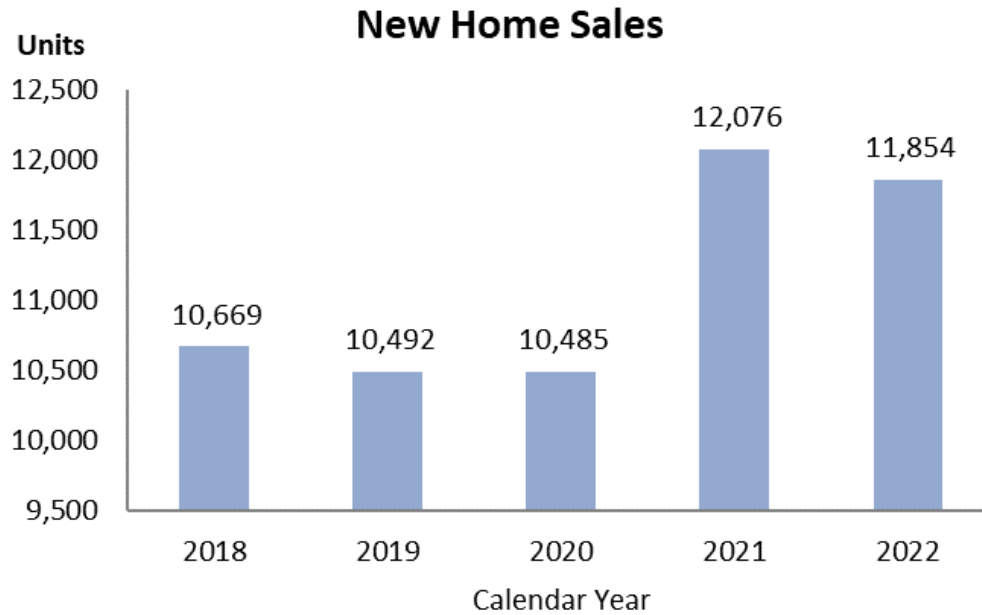
Sources:

(1) Nevada Department of Employment, Training & Rehabilitation (DETR). The data is a 1st release of 2023 (as of April 6, 2023). 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.

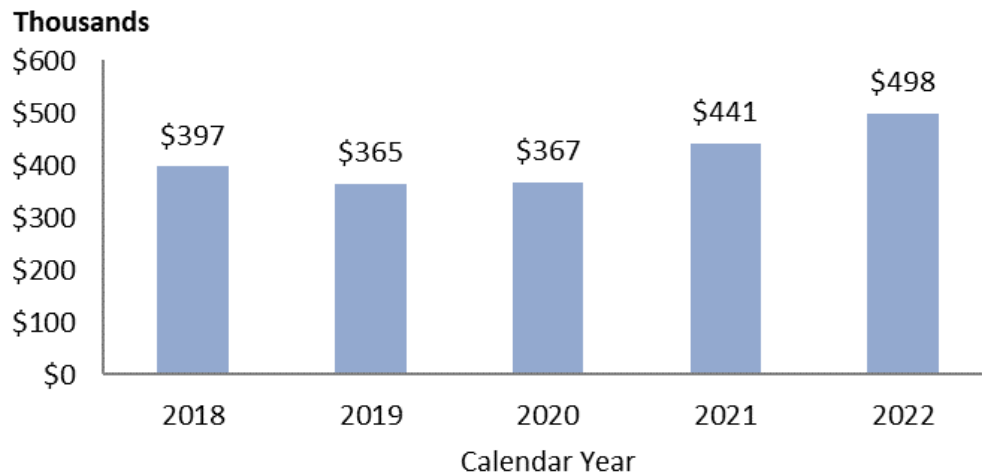
(3) Total Labor Force is sourced from Bureau of Labor Statistics (Local Area Unemployment Statistics) for calendar year 2022 for the Clark County.

## Residential Real Estate Clark County, Nevada



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### New Home Median Price



Las Vegas Valley Water District  
 Operating and Capital Budget  
 Statistical Section  
 Fiscal Year Ending June 30, 2024

**Secured Tax Roll**  
**Clark County, Nevada**  
**2022 - 23**

	<u>Taxpayer</u>	<u>Taxable Assessed</u>	<u>Taxable Appraised</u>
1.	VICI PROPERTIES INC	\$3,996,752,110	\$11,419,291,743
2.	THE BLACKSTONE GROUP	1,988,609,070	5,681,740,199
3.	CAESARS ENTERTAINMENT	1,169,684,990	3,341,957,113
4.	WYNN RESORTS LIMITED	926,978,368	2,648,509,622
5.	STATION CASINOS LIMITED LIABILITY	875,632,786	2,501,807,960
6.	GENTING GROUP	734,901,496	2,099,718,561
7.	MGM RESORTS INTERNATIONAL	578,563,575	1,653,038,787
8.	HOWARD HUGHES CORPORATION	547,573,792	1,564,496,548
9.	BOYD GAMING CORPORATION	489,173,376	1,397,638,217
10.	RUFFIN COMPANIES	458,029,236	1,308,654,960
		<u>\$11,765,898,799</u>	<u>\$33,616,853,710</u>

Source: Clark County Assessor's Report Dated October 31, 2022

Las Vegas Valley Water District  
 Operating and Capital Budget  
 Statistical Section  
 Fiscal Year Ending June 30, 2024

## Temperature and Rainfall

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

Month	2017			2018			2019		
	Temperature			Temperature			Temperature		
	Max.	Min.	Rainfall	Max.	Min.	Rainfall	Max.	Min.	Rainfall
January	57	42	0.9	64	44	1.5	59	42	1.0
February	65	49	0.6	64	44	0.0	56	39	2.1
March	77	54	0.0	70	50	0.3	70	51	0.4
April	81	59	0.0	84	61	0.0	82	60	0.4
May	89	66	0.1	90	68	0.2	82	61	0.8
June	105	79	0.0	103	79	0.0	99	77	0.0
July	107	85	0.1	107	85	0.8	105	83	0.0
August	103	81	0.2	105	84	0.1	107	82	0.0
September	92	72	0.5	100	77	0.0	95	73	0.2
October	84	60	0.0	79	61	0.1	78	55	0.0
November	73	53	0.0	68	48	0.2	69	48	1.1
December	63	42	0.0	59	42	0.2	57	42	0.9
<b>Average Annual Temperature/ Total Rainfall</b>	<b>82.9</b>	<b>61.7</b>	<b>2.4</b>	<b>82.6</b>	<b>61.7</b>	<b>3.4</b>	<b>79.7</b>	<b>59.3</b>	<b>6.9</b>

Month	2020			2021			2022		
	Temperature			Temperature			Temperature		
	Max.	Min.	Rainfall	Max.	Min.	Rainfall	Max.	Min.	Rainfall
January	60	41	0.0	59	40	0.2	60	39	0.1
February	64	44	0.3	64	45	0.0	64	42	0.0
March	67	50	1.6	68	47	0.6	73	50	0.1
April	80	59	0.4	83	60	0.0	81	59	0.0
May	92	69	0.0	90	67	0.0	89	66	0.0
June	99	75	0.0	104	81	0.0	101	78	0.0
July	107	83	0.0	106	84	0.5	104	82	0.7
August	107	84	0.0	104	82	0.0	101	82	0.6
September	99	74	0.0	97	75	0.1	97	76	0.5
October	88	62	0.0	78	57	0.1	83	62	0.0
November	69	48	0.0	74	53	0.0	62	43	0.1
December	59	38	0.0	58	41	0.3	58	40	0.1
<b>Average Annual Temperature/ Total Rainfall</b>	<b>82.5</b>	<b>60.5</b>	<b>2.4</b>	<b>82.1</b>	<b>61.0</b>	<b>1.9</b>	<b>81.1</b>	<b>59.8</b>	<b>2.1</b>

Las Vegas Valley Water District  
 Operating and Capital Budget  
 Statistical Section  
 Fiscal Year Ending June 30, 2024

**Average Monthly Consumption Per Active Service**  
**Thousands of Gallons**

Month	2018	2019	2020	2021	2022	Average
January	15.1	14.1	12.8	13.9	13.5	13.9
February	13.3	13.2	14.8	13.0	13.1	13.5
March	17.6	14.6	16.3	16.6	17.4	16.5
April	20.3	20.2	15.9	20.3	20.4	19.4
May	26.0	24.0	21.8	24.9	23.6	24.1
June	31.0	26.6	31.0	32.1	30.1	30.2
July	32.7	31.5	30.6	30.2	28.7	30.8
August	32.3	32.9	32.8	29.9	29.2	31.4
September	30.2	29.4	30.0	28.1	24.4	28.4
October	25.9	23.1	23.5	22.7	22.7	23.6
November	18.4	18.5	18.3	17.1	17.6	18.0
December	15.3	12.6	13.2	14.4	13.2	13.7
<b>Total for Year</b>	<b>278.1</b>	<b>260.7</b>	<b>261.0</b>	<b>263.3</b>	<b>253.9</b>	<b>263.4</b>
<b>Average Month</b>	<b>23.2</b>	<b>21.7</b>	<b>21.8</b>	<b>21.9</b>	<b>21.2</b>	<b>22.0</b>
<b>Maximum Month</b>	<b>32.7</b>	<b>32.9</b>	<b>32.8</b>	<b>32.1</b>	<b>30.1</b>	<b>31.4</b>
<b>Minimum Month</b>	<b>13.3</b>	<b>12.6</b>	<b>12.8</b>	<b>13.0</b>	<b>13.1</b>	<b>13.5</b>

Las Vegas Valley Water District  
 Operating and Capital Budget  
 Statistical Section  
 Fiscal Year Ending June 30, 2024

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

Class of Service	2018	2019	2020	2021	2022
Residential - Single Service	133	126	124	129	123
Residential - Duplex/Triplex/Fourplex	242	233	234	233	226
Apts. Condos, & Townhomes	3,837	3,819	3,773	3,956	3,972
Residential, Other	5,184	5,292	5,382	5,513	5,254
<b>Subtotal (Residential)</b>	<b>9,396</b>	<b>9,470</b>	<b>9,513</b>	<b>9,831</b>	<b>9,575</b>
Hotels	40,558	37,998	30,860	29,816	34,375
Motels	4,781	4,680	4,261	4,583	4,614
Community Facilities	2,105	1,988	1,964	2,006	1,885
Schools	2,532	2,442	2,235	2,159	2,352
Fireline	100	100	109	108	136
Irrigation	2,133	1,995	2,061	2,153	1,960
Commercial/Business	1,056	1,059	980	995	1,019
Recreational	3,187	3,059	2,922	2,859	2,840
Industrial	1,114	1,106	1,011	1,032	1,089
Construction Water	395	414	350	593	579
Other	1,368	2,012	3,418	3,243	148
<b>Subtotal (Non-Residential)</b>	<b>59,329</b>	<b>56,853</b>	<b>50,171</b>	<b>49,547</b>	<b>50,997</b>
<b>TOTAL</b>	<b>68,725</b>	<b>66,321</b>	<b>59,685</b>	<b>59,380</b>	<b>60,572</b>

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Statistical Section**  
Fiscal Year Ending June 30, 2024

## Percent of Total Water Billed by Class of Service

Class of Service	2017	2018	2019	2020	2021	2022
Residential - Single Service	43.3%	43.6%	43.1%	43.7%	43.9%	42.4%
Residential - Duplex/Triplex/Fourplex	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
Apts. Condos, & Townhomes	15.1%	15.4%	15.9%	16.0%	16.2%	16.4%
Residential, Other	1.0%	1.0%	1.0%	1.1%	1.1%	1.0%
<b>Subtotal (Residential)</b>	<b>60.0%</b>	<b>60.7%</b>	<b>60.6%</b>	<b>61.4%</b>	<b>61.7%</b>	<b>60.4%</b>
Hotels	9.0%	9.0%	9.0%	7.6%	6.8%	8.4%
Motels	1.1%	1.1%	1.1%	1.0%	1.0%	1.1%
Community Facilities	2.1%	2.0%	2.0%	2.0%	2.0%	1.9%
Schools	1.7%	1.6%	1.6%	1.6%	1.5%	1.6%
Fireline	0.5%	0.5%	0.5%	0.6%	0.6%	0.7%
Irrigation	14.0%	13.4%	13.2%	14.1%	14.4%	13.6%
Commercial/Business	8.2%	8.3%	8.6%	8.2%	8.1%	8.4%
Recreational	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Industrial	1.3%	1.3%	1.3%	1.2%	1.2%	1.3%
Construction Water	1.5%	1.4%	1.3%	1.3%	1.8%	1.4%
Other	0.6%	0.6%	0.5%	0.8%	0.8%	1.0%
<b>Subtotal (Non-Residential)</b>	<b>40.0%</b>	<b>39.3%</b>	<b>39.4%</b>	<b>38.6%</b>	<b>38.3%</b>	<b>39.6%</b>
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Las Vegas Valley Water District  
 Operating and Capital Budget  
 Statistical Section  
 Fiscal Year Ending June 30, 2024

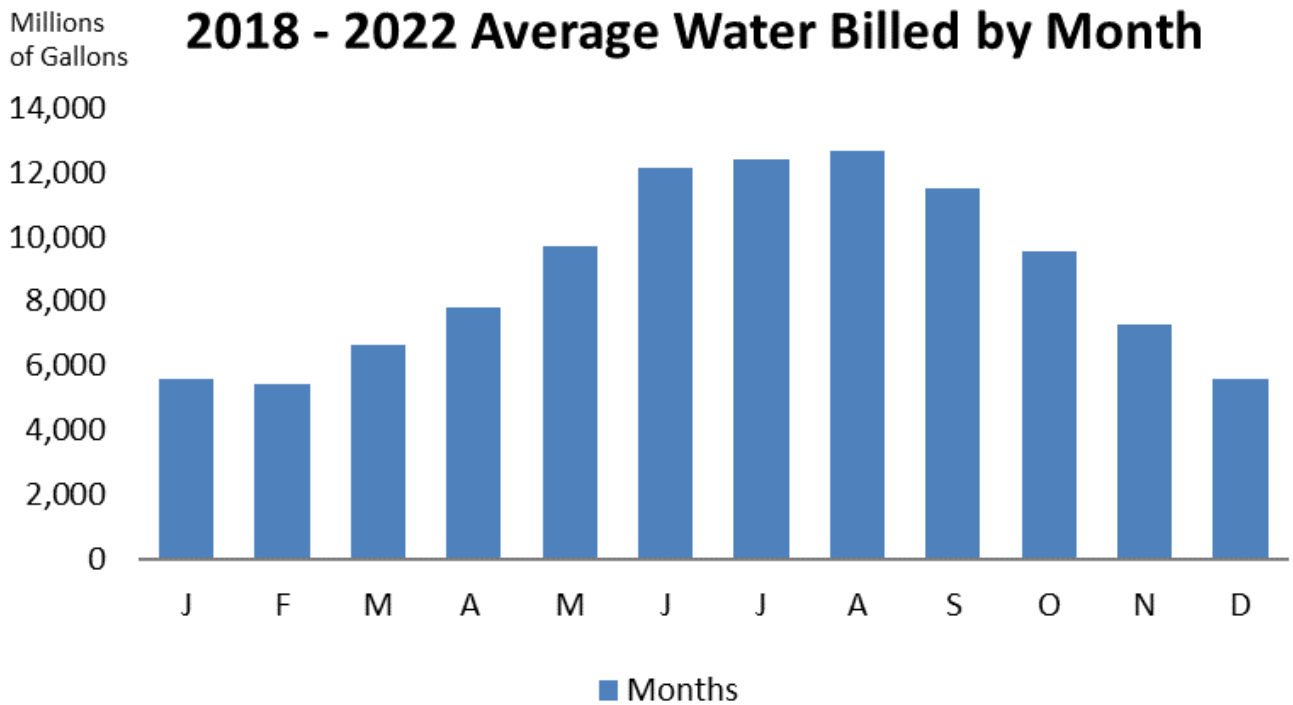
**Average Consumption and Monthly Revenue from Water Sales  
 Per Active Account (kgal)**

<b>Month</b>	<b>2017</b>		<b>2018</b>		<b>2019</b>	
	<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	13.5	\$73.1	15.1	\$83.8	14.1	\$83.5
February	12.3	71.0	13.3	78.4	13.2	79.3
March	17.1	88.7	17.6	93.9	14.6	86.5
April	22.7	105.6	20.3	102.8	20.2	104.7
May	25.6	118.8	26.0	124.0	24.0	119.7
June	33.0	150.8	31.0	151.6	26.6	140.9
July	33.2	145.3	32.7	147.1	31.5	141.5
August	34.0	154.5	32.3	153.1	32.9	157.7
September	28.5	133.3	30.2	142.8	29.4	143.2
October	23.4	110.8	25.9	124.7	23.1	114.8
November	20.2	97.3	18.4	95.4	18.5	98.2
December	16.5	85.0	15.3	85.7	12.6	78.6
<b>Monthly Average</b>	<b>23.3</b>	<b>\$111.2</b>	<b>23.2</b>	<b>\$115.3</b>	<b>21.7</b>	<b>\$112.4</b>

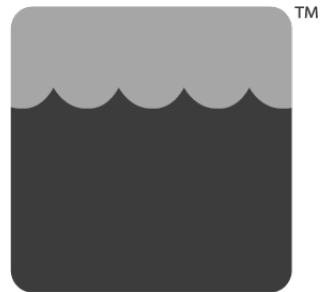
<b>Month</b>	<b>2020</b>		<b>2021</b>		<b>2022</b>	
	<u>Avg. Use</u>	<u>Avg. Revenue</u>	<u>Avg. Use</u>	<u>Avg. Revenue</u>	<u>Avg. Use</u>	<u>Avg. Revenue</u>
January	12.8	\$80.7	13.9	\$84.9	13.5	\$86.2
February	14.8	86.3	13.0	79.7	13.1	\$84.4
March	16.3	92.8	16.6	95.1	17.4	\$103.6
April	15.9	87.7	20.3	108.0	20.4	\$114.3
May	21.8	111.6	24.9	126.1	23.6	\$129.5
June	31.0	155.8	32.1	161.3	30.1	\$163.1
July	30.6	143.5	30.2	149.4	28.7	\$152.4
August	32.8	159.1	29.9	152.4	29.2	\$152.0
September	30.0	149.1	28.1	141.2	24.4	\$134.4
October	23.5	120.3	22.7	118.2	22.7	\$125.3
November	18.3	99.2	17.1	96.9	17.6	\$104.6
December	13.2	81.6	14.4	86.7	13.2	\$87.9
<b>Monthly Average</b>	<b>21.8</b>	<b>\$114.0</b>	<b>21.9</b>	<b>\$116.7</b>	<b>21.2</b>	<b>\$119.8</b>

**Water Billed by Month**  
 Millions of Gallons

Month	2018	2019	2020	2021	2022
January	5,880	5,577	5,139	5,636	5,569
February	5,217	5,234	5,950	5,297	5,403
March	6,900	5,803	6,570	6,749	7,161
April	7,961	8,013	6,387	8,291	8,397
May	10,207	9,539	8,778	10,168	9,735
June	12,169	10,559	12,490	13,129	12,413
July	12,856	12,535	12,359	12,360	11,864
August	12,699	13,082	13,246	12,236	12,086
September	11,918	11,708	12,134	11,527	10,097
October	10,196	9,226	9,533	9,292	9,392
November	7,249	7,404	7,407	7,028	7,313
December	6,031	5,034	5,355	5,921	5,491
<b>Total</b>	<b>109,283</b>	<b>103,713</b>	<b>105,345</b>	<b>107,635</b>	<b>104,922</b>



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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™**



## **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.

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

Purpose

The purpose is to establish a policy for maintaining adequate reserves of cash and investments. Maintaining adequate and prudent cash reserves is an important tool in mitigating the risks of significant and unexpected decreases in sources of funds and/or increases in the uses of funds. The benefits include stable services and fees. This policy applies to all unrestricted cash and investments of the Las Vegas Valley Water District (LVVWD).

Authority

The Government Finance Officers Association (GFOA) recommends local governments adopt a target amount of working capital to maintain in each of their enterprise funds. Because the purposes, customers, and other characteristics of enterprise funds can vary widely, the GFOA recommends that governments develop a target amount of reserves that best fits local conditions for each fund. The following are some of the key considerations for the LVVWD's reserve policy:

1. Volatility in Sources of Funds – Some of the LVVWD's sources of funds have experienced significant volatility; for example, connection charges and sales tax, in periods where the local economy suffers.
2. Likelihood of Successful Rate Increases – Although the LVVWD has enjoyed tremendous support from its Board of Directors and the community, it is possible that these conditions could change in the future, thus impacting the LVVWD's ability to adjust rates to meet increasing costs.
3. Asset Age and Condition – As the infrastructure ages, maintenance and replacement costs will increase. Also, there is the possibility of unexpected failures that can be quite expensive. Such failures could result from age-related causes, terrorism, or natural disasters.

4. Control Over Expenses – Although most of the LVVWD's expenses are predictable, there remains the possibility of large, unexpected expenditures; for example, litigation, natural disasters, increases in water, energy and chemical costs.

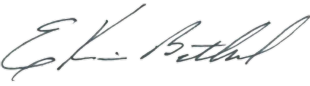
### Reserve Components

The following four components identified for the LVVWD's reserves listed by funding priority:

1. Base Operating Reserve – Adequate reserves to fund 180 days of operating and maintenance expenses. This will help insulate the LVVWD and its customers from volatility in operating revenues and expenses, as well as from other casual factors that could interrupt cash flow or impose unforeseen costs.
2. Debt Service Reserve – Adequate reserves to fund one year of the maximum annual debt service. For both credit rating considerations and prudent financial practices, the LVVWD should strive to achieve this level of reserves to ensure access to lower cost capital in future years, help mitigate the impact of disruptions in the credit markets on operations, and provide assurances to investors that the LVVWD has the financial resources necessary to make its ongoing debt service payments.
3. Capital Related Reserve – Adequate reserves to fund a one year average of future capital needs. As a method to determine future capital needs, a capital improvement plan may be used. This reserve will fluctuate over time as projects change. This level of capital reserve will enable the LVVWD to better react to capital needs as they may arise and to properly address the timing of infrastructure improvements relative to system needs. This reserve will also enable the LVVWD to continue with uninterrupted critical capital improvements during times of difficulty within the capital markets.
4. Unforeseen Events Reserve – Adequate reserves to fund one percent of assets subject to depreciation. This is to mitigate one-time, unforeseen infrastructure or major capital equipment failures and other significant non-recurring impacts to operating revenues and expenses.

### Reporting

The General Manager shall notify the Board of Directors of the status of reserves at least annually and more often as significant changes occur.

<b>LAS VEGAS VALLEY WATER DISTRICT FINANCE POLICY</b>		
<b>SUBJECT:</b>	<b>CAPITALIZATION POLICY</b>	<b>NUMBER: 2</b>
<b>APPROVED BY:</b>	<b>CHIEF FINANCIAL OFFICER</b>	
<b>DATE:</b>	<b>January 2, 2023</b>	<b>PAGES: 9</b>

**I. PURPOSE**

This policy establishes the standards and procedures for ensuring that accounting for capital assets and depreciation follow management’s objectives and generally accepted accounting principles (“GAAP”).

**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**

Capital assets are defined as tangible and intangible assets used in operations that generally provide benefits well beyond a single reporting period.

Costs related to capital assets can be classified into one of two categories. The accounting treatment of the same type of cost will vary depending upon which of the two categories below that it falls under:

A. Costs to the original purchase/construction of an asset.

For costs related to the original purchase/construction of an asset - All land, improvements to land, buildings, building improvements, vehicles, machinery, equipment, works of art and historical treasures, infrastructure, and all other tangible or intangible assets other than software (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 should be capitalized.

- Cost includes freight, taxes, fees, installation, labor, materials, as well as any other allowable costs necessary to place the asset into service in its intended location.
- Identifying details of any new capital asset will be gathered by Finance and added to the capital asset subledger when applicable. Examples of identifying details consist of, but are not limited to – Model, Manufacturer, General Description, Serial Number, Capital Project Number, Physical Location and Department Owner.
- 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 significant to our operations and are capitalized regardless of individual unit cost. These groups of assets include meters, service laterals and pipelines. Assets/asset groups deemed significant may be revised only with written approval of the Chief Financial Officer.

B. Costs to an already existing asset, such as a repair or an improvement.

For costs related to an already existing asset, such as a repair or an improvement - A decision must be made as to whether the cost can be capitalized as an improvement to the original asset or should be recorded as an operating maintenance expense.

Capital asset related costs are deemed improvements and should be capitalized only if:

1. The costs exceed the capitalization dollar threshold, and
2. At least one of the following criteria is met:
  - The useful life of the asset is significantly extended past its original estimated life, or
  - The capacity of the asset is significantly increased, or
  - The quality of the output of the asset is significantly increased, or
  - The efficiency of the asset is significantly increased

Otherwise, the cost is considered normal maintenance and repairs since it does no more than return a capital asset to its original condition and does not qualify for capitalization. Costs related to normal maintenance and repairs are expensed and not capitalized. See [Attachment A](#) for a decision-tree to assist in determining whether expenditures are capital or operating and maintenance.

#### IV. COMPUTER SYSTEM SOFTWARE

Major on-premises computer software and Software-as-a-Service (SaaS) that 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, whether purchased or internally developed, should be capitalized if the capitalizable cost exceeds \$100,000 and the useful life is at least three years.

Internally developed software has three phases of development. The accounting treatment of internally developed software costs depend heavily on both the nature of the activity and what phase of the project the cost is incurred. The type of costs typically found in each phase of the project and its proper accounting treatment are listed in the phases below.

- A. Preliminary Project Phase (Period before the date a commitment was made to purchase the software) – Expensed as incurred
  - Due diligence leading up to selection of software, including evaluation of alternatives and conceptual formulation
- B. Application Development Phase (Period starting after the date a commitment was made to purchase the software, but before the software is deemed substantially complete and operational) – Capitalized into the cost of software and amortized over useful life
  - Initial cost of software
  - Design of chosen path
  - Software configuration and software interfaces
  - Coding
  - Installation of software to hardware
  - Testing (Including parallel processing phase)
  - Data conversion (Only to the extent it is determined to be necessary to make the software operational)
- C. Post-Implementation/Operation Phase (Period after the date that the software is considered substantially complete and operational) – Depends on the situation, see below
  - Software support/maintenance agreement costs – Expense
  - Application training costs – Expense
  - Annual licensing fees – Expense
  - Data conversion – Expense (Only for data conversion that takes place after the software is determined to be operational)

- Modifications/updates – Depends on the situation, see below
  1. Modifications made to the software post-implementation that exceed \$100,000, by either internal parties such as IT, or an outside party, that do any of the following should be capitalized as an improvement to the existing software.
    - a. An increase in the functionality of the computer software, that is, the computer software can perform tasks that it was previously incapable of performing.
    - b. An increase in the efficiency of the computer software, that is, an increase in the level of service provided by the computer software without the ability to perform additional tasks.
    - c. An extension of the original useful life of the software.
    - d. If the modification/update does not result in any of the above outcomes (a., b., or c.) the modification should be considered maintenance, and the associated costs should be expensed as incurred.

NOTE: The activities within the phases of development may occur in a sequence different than described above. The recognition guidance for costs associated with the development of internally generated software should be applied based on the nature of the activity as the overriding factor, not the timing of its occurrence. For example, costs associated with application training activities that occur during the application development phase should still be expensed as incurred.

#### **V. DONATED FACILITIES**

Donated developer facilities are capitalized at the engineering estimates of acquisition value at the time the assets are donated.

#### **VI. DISPOSAL OF CAPITAL ASSETS**

Departments should notify Finance, via the Capital Asset Change Form found in [Attachment B](#), when disposing of capital assets so that Finance can remove the disposed assets from the capital asset system and properly calculate any gain/loss on disposal.

#### **VII. TRANSFER OF CAPITAL ASSETS**

Departments should notify Finance, via the Capital Asset Change Form found in [Attachment B](#), when an asset under their custody is being transferred to another department/location. This allows for Finance to update the location of the asset in the capital asset system.

**VIII. IMPAIRMENT OR LOSS OF CAPITAL ASSETS**

An impairment of a capital asset is defined as a significant, unexpected decline in the service utility of a capital asset. A capital asset should be tested for impairment by Finance when any one of the following triggering events occurs:

- Significant decline in the market value of the asset
- Significant change in the way the asset is used or a physical change in the asset
- Adverse changes in legal factors or business climate that affect the asset
- Current expectation that the asset will be disposed of significantly before the end of its useful life
- Project cancellation for capital asset still in development/construction
- An asset is lost or stolen

NOTE: If it is determined that a significant and unexpected decline in service utility has occurred that is more than temporary, it must be measured and reported in the financial statements. Departments should notify Finance, via the Capital Asset Change Form found in [Attachment B](#), of any potentially impaired or lost assets.

**IX. CONSTRUCTION WORK-IN-PROCESS**

In-process capital project costs will be recorded as Construction Work-in-Process (CWIP) until the project is deemed ready to be placed into service. Departments should notify Finance of any capital projects that reach substantial or final completion as soon as possible. Costs to be capitalized include material costs and labor, as well as any allowable ancillary costs that are necessary to place the asset into service in its intended location.

**X. DEPRECIATION**

Capital assets will be depreciated in the month placed into service using the straight-line method over the assets estimated useful life. Useful lives are determined by asset category. See below for a list of asset types and their useful lives. Assets with indefinite lives, such as land, will not be depreciated.

**Major Capital Asset Categories**

<b>LVVWD, and other entities for which LVVWD has fiduciary responsibility</b>	<b>Global #</b>	<b>Useful Life (Years)</b>
Collect/Impounding Structure	10201	20-50
Land/Land Rights	10101	Indefinite
Office Furniture/Equip (Excluding Computer System Software)	10901	5-10
Office Furniture/Equip (Computer System Software)	10901	5
Organizations & Improvements	10001	20-50
Pump Station/Wells	10401	11-30
Purification Equipment	10501	15-25
Services/Meters	10801	20-30
Telemetry/Valves/Miscellaneous	10701	10-75
Transportation/Work/Equipment	11001	3-10
Transmission/Distribution/Mains	10601	75

<b>SNWA</b>	<b>Global #</b>	<b>Useful Life (Years)</b>
SNWA - Land Warm Springs Ranch	19513	Indefinite
SNWA - Communication Equipment	19556	12
SNWA - Distribution Reservoirs	19526	50
SNWA - Laboratory Equipment	19552	15
SNWA - Lakes, Rivers, Other Intake	19512	75
SNWA - Land/Land Rights	19506	Indefinite
SNWA - Leasehold Improvement	19500	10
SNWA - Miscellaneous Equipment	19558	15
SNWA - Office Furniture/Equip (Excluding Computer System Software)	19548	5
SNWA - Office Furniture/Equip (Computer System Software)	19548	5
SNWA - Power Operated Equipment	19554	10
SNWA - Pumps & Pumping Equipment	19518	40
SNWA - Silverhawk Power Plant	19564	30
SNWA - Stores Equipment	19560	15
SNWA - Structures & Improvement	19508	20
SNWA - Supply Mains	19514	50
SNWA - Tool Shop/Garage Equipment	19550	15
SNWA - Transmission & Distribution Mains	19528	75
SNWA - Transportation Equipment	19562	5-10
SNWA - Water Treatment Equipment	19534	15
SNWA - Ranch Fencing	19576	7
SNWA - Ranch Machinery & Equipment	19577	7
SNWA- Ranch Miscellaneous	19582	5-7
SNWA- Ranch Office/Computer Equipment	19583	5
SNWA- Ranch Pumping Equipment	19580	7
SNWA- Ranch Residential Property	19579	27
SNWA- Ranch Structures	19578	10
SNWA- Ranch Vehicles	19581	5
SNWA- Ranch Wells	19575	15

**XI. PHYSICAL INVENTORY**

Departments who are in custody of major capital asset equipment or vehicles shall perform physical inventories of those assets compared to their internal listings and/or listings provided from Finance from the capital assets subledger at least once every five years. The results of these inventories are shared with Finance personnel responsible for updating the asset listing in the capital assets subledger. Those counts are reconciled to the capital asset subledger by Finance.

**XII. ANNUAL REVIEW**

This policy is to be reviewed annually to ensure compliance with accounting standards, evaluate efficiency of capitalization-related processes, and periodically review established capitalization thresholds.

**XIII. GLOSSARY**

**Capital Assets:** Capital assets are constructed or acquired for use in operations and not for resale. They are long term in nature.

**Depreciation:** The systematic and rational allocation of the historical cost of a capital asset – or if donated, the acquisition value of the capital asset at the time of donation – over its estimated useful service life.

**Estimated Useful life:** The estimated amount of time that an asset is expected to be useful. It is the period over which an asset's cost will be depreciated.

**Historical Cost:** The actual exchange value in dollars at the time the asset was acquired. It is measured by cash or cash equivalent price of obtaining the asset and any charges necessary to bring it to its intended location and to place the asset in its intended condition for use.

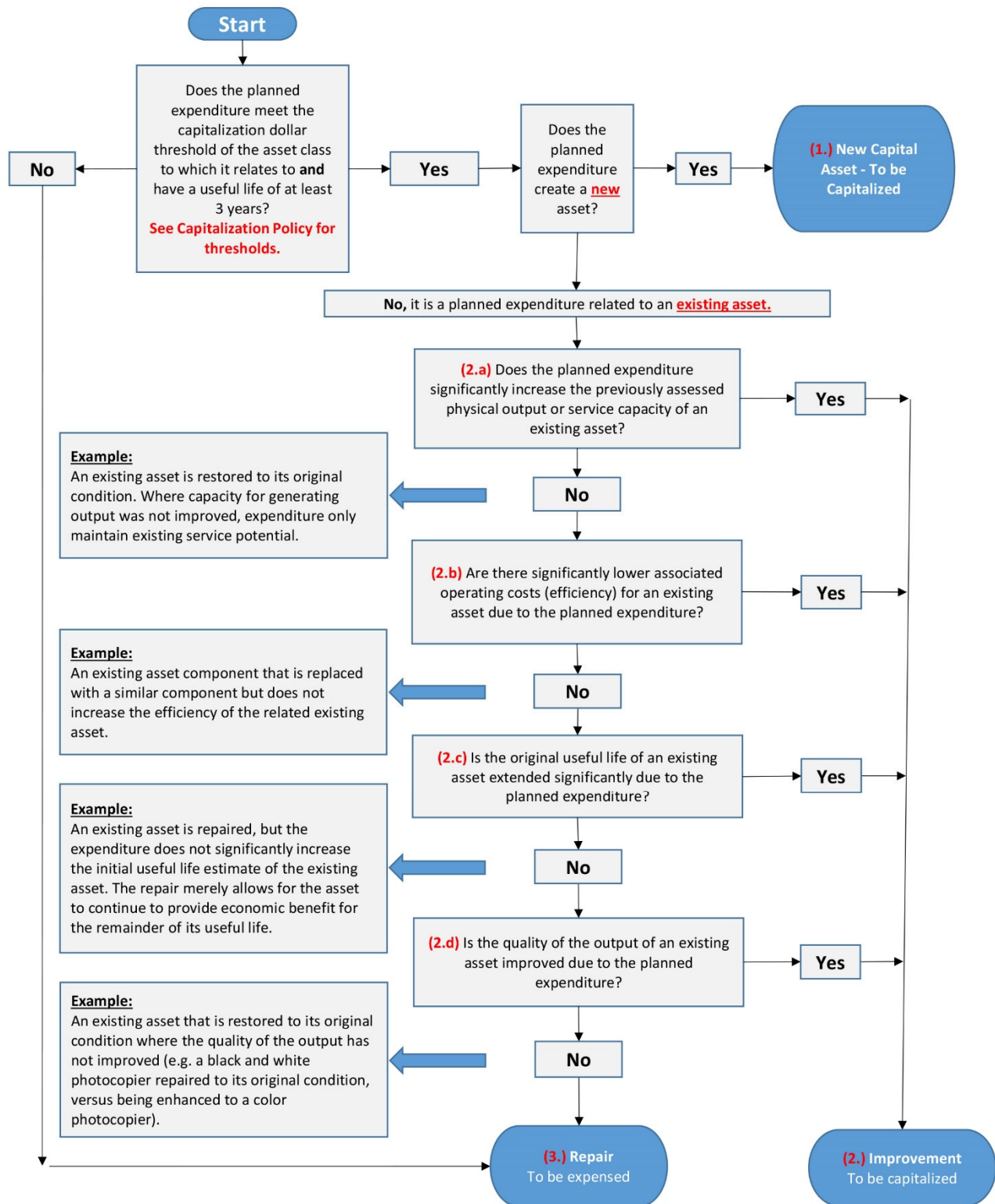
**Straight-Line Depreciation Method:** Is determined by the formula:  $\text{Cost} - \text{Salvage value} / \text{Estimated useful life} = \text{Depreciation per period}$ .

**XIV. AUTHORITY**

- GASB Statement No. 34, *Basic Financial Statements—and Management's Discussion and Analysis—for State and Local Governments*
- GASB Statement No. 42, *Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries*
- GASB Statement No. 51, *Accounting and Financial Reporting for Intangible Assets*
- GFOA Best Practices, *Capitalization Thresholds for Capital Assets*
- GFOA Best Practices, *Inventories of Tangible Capital Assets*

**ATTACHMENT A**

**New Asset vs. Improvement vs. Repair Decision Tree**



**ATTACHMENT B**



Three companies, one job:  
Working for a sustainable Nevada  
LVVWD • SNWA • SPRINGS PRESERVE

**Capital Asset Change Form**

Date of Action: \_\_\_\_\_

**Reason for disposal/move action:**

- Damaged Beyond Repair
- Obsolete
- Destroyed
- Donated to: \_\_\_\_\_ . Please attach documentation.
- Lost/Stolen
- Sold, Sale Price \$ \_\_\_\_\_ . Please attach sales paperwork.
- Transfer
- Traded In
- Other

Explain: \_\_\_\_\_

Property Detail				
Asset Manufacturer	Serial #/VIN	Asset Description	Physical Location Before Action Date	New Physical Location

(Attach additional pages if necessary)

\_\_\_\_\_  
Person Completing this form

\_\_\_\_\_  
Date

**Transfer Details (If Transferring)**

From Department \_\_\_\_\_ To Department \_\_\_\_\_

**Approvals**

\_\_\_\_\_  
Signature of Department Releasing the Capital Asset

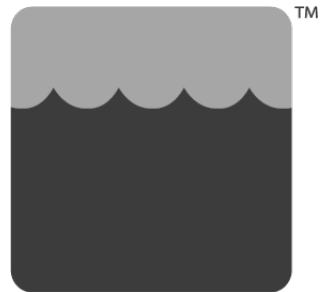
\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Department Receiving the Capital Asset  
(If Transferring)

\_\_\_\_\_  
Date

**Please send the completed form to Finance at [AssetAccounting@lvvwd.com](mailto:AssetAccounting@lvvwd.com). Contact Finance with any questions regarding completion of this form:**

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# **SECTION 10**

## **GLOSSARY**

Glossary..... 10 - 1



**LAS VEGAS VALLEY  
WATER DISTRICT™**



**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Glossary**

Fiscal Year Ending June 30, 2024

**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.

**Annual Comprehensive 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).

**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.

**Las Vegas Valley Water District**  
**Operating and Capital Budget**  
**Glossary**

Fiscal Year Ending June 30, 2024

**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 that 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. The BOR 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 project portfolio that identifies the time, cost and scope of capital projects and identifies options for financing.

**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.

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**Clark County Water Reclamation District (CCWRD).** Nevada's largest wastewater agency, treating wastewater from 248,000 accounts with over 2,200 miles of pipeline and 23 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.

**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.

**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)**

**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.

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**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.

**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.

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**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 2023-24 ends on June 30, 2024.

**Fringe Benefits.** Various types of non-wage compensation provided to employees in addition to their normal wages or salaries.

**Full-Time Equivalent (FTE).** The number of positions that equate to a 40-hour work week for 52 weeks, or one full year. For example, two part-time positions, each working 20 hours per week, equals one FTE.

**Full-Time Equivalent Employee (FTE).** A person employed in the capacity of a Full-Time Equivalent.

**Fund.** A fiscal and accounting tool with a self-balancing set of accounts to record revenue and expenditures.

**Fund Balance.** Also known as beginning balance and ending balance. This represents the estimated cash balance in a specific fund at the beginning or ending of an accounting period.

**Fund Equity.** The excess of an entity's assets over its liabilities.

**Gallons Per Minute (GPM).** Also known as 'flow rate', GPM is a measure of how many gallons of water flow out of your shower head each minute.

**General Obligation Debt.** Bonds where the full faith and credit of the issuer is pledged to the repayment of the bonds.

**Generally Accepted Accounting Principles (GAAP).** A body of accounting and financial reporting standards set by the Governmental Accounting Standards Board (GASB) for state and local governments, and by the Financial Accounting Standards Board (FASB) for private sector organizations.

**Geographical Information Systems (GIS).** Geographical Information System is a system designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographical data.

**Global Positioning System (GPS).** The Global Positioning System is a space-based navigation system that provides location and time information in all weather conditions, anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellites.

**Government Finance Officers Association (GFOA).** A professional association of more than 21,000 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.

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**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 State Engineer, and pay for general maintenance costs of the groundwater management program.

**Home Owner Association (HOA).** An organization in a subdivision, planned community or condominium that makes and enforces rules for the properties within its jurisdiction.

**Intake No. 3.** One of the largest municipal water projects in the United States constructed to draw water from Lake Mead at levels as low as 1,000 feet, 75 feet lower than SNWA's highest intake.

**Intentionally Created Surplus.** A type of surplus water that has been created or credited to a water agency through actions that conserve water and increase Lake Mead storage.

**Interest Earned.** Monies earned by investing idle funds in the open market.

**Intergovernmental Revenue.** Revenue received from other governments in the form of grants, entitlements, shared revenues, or payments in lieu of taxes.

**International Ozone Association – Pan American Group (IOA-PAG).** A nonprofit educational and scientific organization dedicated to the collection and dissemination of information on, and to promote research in, any and all aspects of ozone and related oxygen species technologies.

**Investment.** Securities and real estate purchased and held for the production of income in the form of interest, dividends, rentals or base payments.

**Labor.** A budget category that includes all LVVWD employee salaries including overtime, longevity pay, and benefits. Labor can either be paid by operating funds or capital funds according to then activity/project in which it was expended.

**Laboratory Information Management System (LIMS).** A laboratory information management system is a software-based laboratory and information management system with features that support a modern laboratory's operations.

**Las Vegas Metropolitan Statistical Area (MSA).** Las Vegas metropolitan area, is in the southern part of the U.S. state of Nevada, coextensive since 2003 with Clark County, Nevada. A central part of the metropolitan area is the Las Vegas Valley, a 600 sq. mi (1,600 km<sup>2</sup>) basin that includes the metropolitan area's largest city, Las Vegas.

**Las Vegas Valley Groundwater Management Program (LVVGMP).** In 1997, the Nevada Legislature directed the Southern Nevada Water Authority (SNWA) to develop the Las Vegas Valley Groundwater Management Program to protect and manage the valley's primary groundwater supply. The program protects the local groundwater basin from over-drafting and potential sources of contamination.

**Las Vegas Valley Water District (LVVWD).** The largest water retailer in southern Nevada with a customer base of more than 1.5 million people. The LVVWD is the operating agent of the Southern

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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.

**Lease.** A contract that conveys control of the right to use another entity's nonfinancial asset (the underlying asset) as specified in the contract. Lease contracts are bound by a period of time.

**Line Item.** Unique identification number and title for an expenditure category; represents the most detailed level of budgeting and recording expenditures.

**Lower Colorado River Multi-Species Conservation Program.(LCRMSCP)**

**Low Lake Level Pumping Station (L3PS).** A significant component of the entire Intake No.3 Project, this portion includes the construction of a pumping station which will facilitate drawing water from lower levels of Lake Mead.

**Maintenance Improvement Team.(MIT)**

**Major Construction and Capital Program (MCCP).** A schedule of approved capital projects for SNWA, their estimated costs, and funding sources.

**Major Construction and Program (MCP).** A schedule of approved capital projects, their estimated costs, and funding sources.

**Megawatt Hour (MWh).** A unit of power equal to one million watt hours. Energy in watt hours is the multiplication of power in watts and time in hours.

**Million-Gallon per Day (MGD).** A unit of flow measurement. MGD is a standard measurement in the water utility industry.

**Mission.** A description of the basic purpose and responsibility of an organizational unit.

**Mobile Data Dispatch System and Mobile Data Terminals.(MDT)**

**Mobile Workforce Management System.(MWFMS)**

**Mobile Workforce Management Team.(MWM)**

**Modified Accrual Accounting.** A basis of accounting in which expenditures are accrued when liability is incurred, but revenues are recognized only when they are measurable and available as net current assets. This method of accounting is statutorily required in Nevada.

**National Environmental Policy Act (NEPA).** A United States environmental law that established a U.S. national policy promoting the enhancement of the environment.

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**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-Employee Benefits. (OPEB)**

**Period.** The date (usually a 12-month span) that expenditures, encumbrances, etc. are recorded for reporting purposes.

**Period Ending.** The last date any expenditures, encumbrances, etc. are recorded for reporting purposes. Any data received after this date will be reflected in the next report. A Period Ending may be the end of a pay period, the end of the last pay period of a month, or the end of a calendar month.

**Polymerase Chain Reaction (PCR).** A method widely used in molecular biology to make many copies of a specific DNA segment.

**Positions.** Authorized (created by the LVVWD Board of Directors) employee slots (either currently filled or vacant) that are specifically funded through the budget process.

**Potable water.** Water that has been treated and meets or exceeds standards set by the Safe Water Drinking Act.

**Power.** Electricity and natural gas costs that are used for the transportation and transmission of water throughout the LVVWD distribution system.

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**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 control the speed of an actuator by regulating the flow rate.

**Recharge.** Lake water injected directly into the aquifer by wells to store it for future use.

**Reclaimed Water Distributions (RWDS).** This is wastewater that has been treated to specific standards.

**Reliability Centered Maintenance.(RCM)**

**Remote Operated Vehicle (ROV).** Unoccupied, highly maneuverable underwater robots, typically operated by at, or above, the water surface.

**Remote Terminal Unit, Programmable Logic Controller (RTU/PLC).** A microprocessor-controlled electronic device that interfaces objects in the physical world to a distributed control system or SCADA.

**Research and Development (R&D).** Work directed toward the innovation, introduction, and improvement of products and processes.

**Revenues.** Funds received from various sources and treated as income to LVVWD to finance expenditures.

**Revenue Bonds.** Bonds where pledges are made to dedicate specific revenue sources to repay the bonds.

**Right-of-Way (ROW).** A right of way is a type of easement granted or reserved over the land for transportation purposes, this can be for a highway, public footpath, rail transport, canal, as well as electrical transmission lines, oil and gas pipelines.

**Risk Management.** An organized attempt to protect organization's assets against accidental loss in the most economical method.

**River Mountains Treatment Plant (RMTP).** Facility treats up to 300 million gallons of water per day. The facility provides additional reliability and capacity to Southern Nevada's municipal water treatment and distribution capabilities. It began delivering treated water in October 2002.

**Rural System Operator.(RSO)**

**Safe Drinking Water Act (SDWA).** Act is the principal federal law in the United States intended to ensure safe drinking water for the public. Pursuant to the act, the Environmental Protection Agency (EPA) is required to set standards for drinking water quality and oversee all states, localities, and water suppliers who implement these standards.

**Salaries and benefits.** 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.

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**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.

**Streamlined Reliability Centered Maintenance (SRCM).** A systematic evaluation of plant equipment and maintenance requirements.

**Subscription Based Information Technology Arrangements (SBITA).** A SBITA is defined as a contract that conveys control of the right to use another party's information technology software, alone or in combination with tangible capital assets for a period of time specified in the contract.

**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.

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**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.

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