

Water Authority charges

In addition to addressing our region's unique water needs, the Southern Nevada Water Authority (SNWA) treats and delivers the wholesale water supply to municipal water providers. Costs related to water treatment, water resources, and the Water Authority distribution network are covered by several surcharges.

Reliability Surcharge

This charge is based on the premise that customers have varying levels of need for water and should pay accordingly. While everyone expects water to flow when they turn on the tap, some customers—such as businesses—have a greater need for system reliability, especially during peak usage periods. The surcharge, which is applied against the total water bill with a few line-item exceptions, is 0.25 percent for residential customers and 2.5 percent for others.

Commodity Charge

A charge of \$0.48 per 1,000 gallons on each water bill pays for water quality improvements and enhancements to the reliability of the regional water system.

Infrastructure Charge

The SNWA's Infrastructure Charge contributes toward funding the regional water infrastructure necessary to deliver high-quality drinking water throughout the valley. Initiated in 2013 at the recommendation of our citizens' advisory committee known as the [Integrated Resource Planning Advisory Committee](#), the Infrastructure Charge was being phased in over five years. Through this charge, all water customers contribute toward funding critical facilities such as Intake No. 3 and the Low Lake Level Pumping Station.

The SNWA Infrastructure Charge rates vary based on meter size and are calculated daily.

SNWA Daily Infrastructure Charge (Residential)

"Meter
5/8"

2013

\$0.1667
2014 \$0.1880
2015 \$0.2120
2016 \$0.3196
2017 \$0.3906
2018 \$0.4306

"Meter 3/4"
2013 \$0.1667
2014 \$0.1880
2015 \$0.2120
2016 \$0.3196
2017 \$0.3906
2018 \$0.4306

Meter size (inches) 1"
2013 \$0.6403
2014 \$0.6806
2015 \$0.7263
2016

\$0.9300
2017 \$1.0646
2018 \$1.1403

Meter size (inches) 1 1/2"
2013 \$1.2803
2014 \$1.3610
2015 \$1.4520
2016 \$1.8599
2017 \$2.1287
2018 \$2.2803

Meter size (inches) 2"
2013 \$2.0486
2014 \$2.1780
2015 \$2.3233
2016 \$2.9760
2017 \$3.4063
2018 \$3.6487

Meter size (inches) 3"
2013 \$4.0966
2014 \$4.3553
2015 \$4.6460
2016 \$5.9510
2017 \$6.8120
2018 \$7.2966

Meter size (inches) 4"
2013 \$6.4010
2014 \$6.8050
2015 \$7.2596
2016 \$9.2986
2017 \$10.6433
2018 \$11.4010

Meter size (inches) 6"
2013 \$12.8016
2014 \$13.6096

2015
\$14.5190

2016
\$18.5973

2017
\$21.2863

2018
\$22.8011

Meter size (inches)

8"

2013
\$20.4823

2014
\$21.7753

2015
\$23.2296

2016
\$29.7550

2017
\$34.0580

2018
\$36.4823

Meter size (inches)

10"

2013
\$20.4823

2014
\$21.7753

2015
\$23.2296

2016
\$31.8850

2017
\$37.2487

2018 \$40.7333

Meter size (inches) 12"

2013 \$20.4823

2014 \$21.7753

2015 \$23.2296

2016 \$31.8850

2017 \$37.2487

2018 \$40.7333

SNWA Daily Infrastructure Charge (Non-Residential)

Meter size (inches) 5/8"

2013 \$0.6350

2014 \$0.6563

2015 \$0.6803

2016 \$0.7879

2017 \$0.8589

2018 \$0.8989

Meter size (inches)

3/4"
2013 \$0.6350
2014 \$0.6563
2015 \$0.6803
2016 \$0.7879
2017 \$0.8589
2018 \$0.8989

Meter size (inches) 1"
2013 \$1.2026
2014 \$1.2430
2015 \$1.2886
2016 \$1.4923
2017 \$1.6270
2018 \$1.7027

Meter size (inches) 1 1/2"
2013 \$2.4053
2014 \$2.4860
2015

\$2.5770

2016 \$2.9849

2017 \$3.2537

2018 \$3.4053

Meter size (inches)

2"

2013 \$3.8483

2014 \$3.9776

2015 \$4.1230

2016 \$4.7756

2017 \$5.2059

2018 \$5.4483

Meter size (inches)

3"

2013 \$7.6966

2014 \$7.9553

2015 \$8.2460

2016 \$9.5510

2017 \$10.4120

2018

\$10.8966

Meter size (inches)

4"

2013

\$12.0263

2014

\$12.4303

2015

\$12.8850

2016

\$14.9239

2017

\$16.2686

2018

\$17.0263

Meter size (inches)

6"

2013

\$24.0523

2014

\$24.8603

2015

\$25.7696

2016

\$29.8480

2017

\$32.5370

2018

\$34.0523

Meter size (inches)

8"

2013

\$38.4833

2014
\$39.7763

2015
\$41.2306

2016
\$47.7560

2017
\$52.0590

2018
\$54.4833

Meter size (inches)
10"

2013
\$55.3196

2014
\$57.1783

2015
\$59.2690

2016
\$61.6503

2017
\$74.8350

2018
\$78.3196

Meter size (inches)
12"

2013
\$55.3196

2014
\$57.1783

2015
\$59.2690

2016
\$61.6503

2017 \$74.8350
2018 \$78.3196

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OPERATING & CAPITAL BUDGET 2019

Fiscal year ending June 30, 2019



On the cover:

As part of the Low Lake Level Pumping Station project, workers are installing a 54-foot-diameter surge tank that will help equalize the flow of water to the Alfred Merritt Smith Water Treatment Facility as well as protect the pumping station pumps from a water-surge event. The high-volume pumping station, combined with the recently completed Lake Mead Intake No. 3, will provide the community continued access to its primary water supply even as lake levels fluctuate as a result of the ongoing drought. The project is scheduled for completion in 2020.

Southern Nevada Water Authority

Operating & Capital Budget Fiscal Year Ending June 30, 2019



SOUTHERN NEVADA WATER AUTHORITY®

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Chief Financial Officer**

**Matt J. Chorpening
Assistant Chief Financial Officer**

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

Note of Appreciation

We would like to express our appreciation to the Finance department staff, and staff members of other departments for their special work in the preparation of the 2018-19 budget document.

CERTIFICATE OF ACHIEVEMENT

The Government Finance Officers Association of the United States and Canada (GFOA) presented an award of Distinguished Presentation to the **Southern Nevada Water Authority for its annual budget for the fiscal year beginning July 1, 2017.**

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 Authority 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

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Budget Presentation
Award*

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**Southern Nevada Water Authority
Nevada**

For the Fiscal Year Beginning

July 1, 2017

Christopher P. Morrill

Executive Director

Southern Nevada Water Authority
Operating and Capital Budget
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SECTION 1

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SOUTHERN NEVADA WATER AUTHORITY®

FISCAL YEAR 2018-19

OPERATING AND CAPITAL BUDGET

SOUTHERN NEVADA WATER AUTHORITY

GENERAL MANAGER'S INFORMATION REPORT

DATE: April 17, 2018

NO. 40

SUBJECT: SOUTHERN NEVADA WATER AUTHORITY
PROPOSED OPERATING AND CAPITAL BUDGET FOR FISCAL YEAR 2018-19

The Tentative Operating and Capital Budget of the Southern Nevada Water Authority (SNWA) for fiscal year 2018-19 was submitted by April 15, 2018, to the State of Nevada Department of Taxation in accordance with NRS 354.596. Attached for your review is the General Manager's Information Report.

Executive Summary

The SNWA's top priority is to provide Southern Nevada with a high quality, reliable water supply. To that end, the organization continues to implement varying approaches to drought, conservation and the identification of technology to address present and future infrastructure and resource needs.

Community investment plays a vital role in combating drought and promoting conservation practices. Improvements in infrastructure and technology; collaboration on local, regional and federal levels; and continued community conservation efforts have enabled the SNWA to meet conservation goals and further secure a reliable water supply for Southern Nevada.

While these efforts have yielded considerable progress, Lake Mead water levels are projected to continue to decline and future shortages on the Colorado River are probable. Therefore, fiscally-responsible planning for additional resources and infrastructure continues to be a priority moving forward.

The fiscal year 2018-19 Budget Plan reflects the maintenance of SNWA's financial position, continued conservation efforts, and the development and protection of water resources for Southern Nevada.

Drought and Water Resources

Southern Nevada obtains 90 percent of its water supplies from the Colorado River. More than 18 years of persistent drought conditions, the worst in the basin's recorded history, have affected supply and forced stakeholders and the community to change the way water is utilized in Southern Nevada. The SNWA has worked extensively with partners throughout the Colorado River Basin to develop and implement programs to mitigate drought impacts on a regional level.

In early January 2018, Lake Mead's elevations hovered around 1,083 feet—a decline of 131 feet since the onset of the drought. There was slight improvement due to above average runoff and interstate collaborations during 2017. However, snowfall and runoff into the Colorado River Basin have stayed well below normal between 2000 and 2017, resulting in the lowest 18-year average inflow to the Colorado River system since 1906. Current projections indicate a 15 percent chance of a declared shortage in 2019, in which case the amount of Colorado River water available to Arizona and Nevada will be reduced.

Because of long-standing community conservation practices, Southern Nevada

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finds itself in a position in which water demands would still be met, even under a shortage declaration. Moreover, investments made in the regional water system will help Southern Nevada reliably deliver water even during the most severe drought conditions.

Water Resource Plan

The Water Resource Plan provides a comprehensive overview of water resources and projected demands in Southern Nevada. The plan is reviewed and adjusted on an annual basis, and in 2017, the SNWA Board of Directors approved an update to Southern Nevada's Plan that extends water supply and demand planning scenarios through the year 2068.

The scenario-based planning approach examined a wide range of conditions that may be experienced over the 50-year planning horizon. The scenarios represent the demand for water in Southern Nevada and the available supply under variable conditions. The 2017 Water Resource Plan also emphasizes the importance of public involvement early in the planning process, and frequently reassessing the plan as drought conditions continue to change.

Other updates to this plan include:

- The impacts of Minute 323, which was approved in 2017.
- Updated the methodology for gallons per capita per day (GPCD) accounting. The SNWA changed its approach to report GPCD information for the 2017 Water Resource Plan and translated water use figures and goals into net GPCD (net of return flow credits). This approach, recommended by the Integrated Resource Planning Advisory Committee (IRPAC),

more accurately communicates the water resource implications associated with conservation progress and provides a more consistent comparison with other communities.

- Colorado River modeling performed by the Bureau of Reclamation in 2017 projects an approximately 15-50 percent chance of a shortage declaration on the Colorado River in years 2019 to 2022. The probability of a shortage declaration ranges between 60 to 70 percent in years 2023-2068. The short-term outlook improved slightly from the 2015 Water Resource Plan due to above-average inflows in 2017. However, the high likelihood of shortage remains the same in the longer-term planning horizon.

Minute 323

On August 17, 2017, the SNWA Board of Directors approved six agreements, among Colorado River water users in the United States and the country of Mexico, that will boost reservoir levels by adding billions of gallons of water to Lake Mead. The agreements will also support water conservation projects, expand wildlife habitat and environmental restoration. The agreements relate to Minute 323, which built upon the binational operating agreement under the 1944 water treaty between the United States and Mexico.

Under the terms of Minute 323, Mexico will be permitted to create a "water reserve" by deferring delivery of its portion of the Colorado River. The deferred water will remain in Lake Mead, and help maintain elevation levels and avoid shortage declarations. Mexico has also agreed to absorb a share of shortages should Lake Mead fall below specific elevation levels.

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In the agreement, the SNWA Board of Directors authorized up to \$7.5 million in contributions for conservation projects in Mexico. These projects could potentially yield 35 billion gallons of water. In return, a portion of this water has been designated for Nevada's use. On September 21, 2017, Minute 323, the agreement between the U.S and Mexico, was officially executed and became effective.

Low Lake Level Pumping Station

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

Workers recently completed construction on a pair of discharge aqueducts that will feed water to the Alfred Merritt Smith and River Mountains water treatment facilities. Contractors also finished work on 34 deep well shafts, each 6 feet in diameter and plunging 500 feet into the ground, which will house pumping units that will draw water from the lake.

Underground, work is finished on the top half of the pumping stations forebay — a 12,500-square-foot underground cavern. Work on the forebay's bottom half is expected to be completed within the year.

Once complete, the L3PS will help Southern Nevada maintain reliable access to its primary water supplies even if drought conditions worsen.

Pilot System Conservation Program

The SNWA, the Metropolitan Water District of Southern California, Denver Water, and the Central Arizona Water Conservation District

signed an agreement with the Bureau of Reclamation in 2014, to jointly fund voluntary water conservation projects to benefit the Colorado River. Under the funding agreement, federal and non-federal partners have the authority to provide more than \$30 million in funding to support projects in both the Upper and Lower Colorado River Basins.

The SNWA continues to partner with the Bureau of Reclamation and water users in the Upper and Lower Colorado River Basins on the System Conservation Pilot program. By the end of 2017, the SNWA and its partners had supported 10 projects in the Lower Colorado River Basin and 45 projects in the Upper Basin, with additional projects anticipated to be completed in 2018. There continues to be broad interest in this voluntary program from water users in both basins and preliminary findings indicate it will continue to yield substantial water conservation achievements.

Groundwater Hearings

As recommended by IRPAC, the SNWA continues to maintain the Clark, Lincoln and White Pine Counties Groundwater Development Project as part of its water resource portfolio. While the project is unlikely to be needed in the short-term, it will help meet the community's future demands and provide a water supply separate from the Colorado River.

In September 2017, the Nevada State Engineer held a continuation of the public-hearing process to review water rights associated with the SNWA's Clark, Lincoln and White Pine Counties Groundwater Development Project. The hearings focused on monitoring, management and mitigation plans for protection of existing water rights and the environment, as well as verification

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that specified quantities of groundwater can be sustainably developed. A decision from the State Engineer is expected in 2018.

Conservation

The efforts of the SNWA and the community play a pivotal role in the conservation of water in Southern Nevada. The SNWA continues to tackle conservation from different angles by collaborating with the private and public sectors, maintaining existing infrastructure and looking for and investing in innovation and available technology.

Policy changes, incentive programs and outreach efforts to encourage community participation have cumulatively saved more than 386,000 acre feet of water (about 126 billion gallons) in the past 16 years. Southern Nevada has come together and embraced water conservation initiatives, which will continue to make a positive impact on the way water is utilized in the community.

Smart Irrigation Controllers. The fastest-growing conservation program in 2017 was an incentive for smart irrigation controllers. In 2017, there were nearly 924 participants in the program; a 14 percent increase from the prior year. Through this program, traditional set-time watering controllers are replaced or augmented with devices that adjust irrigation based upon weather conditions or soil moisture levels. These controllers can save significant volumes of water by reducing irrigation when it is not needed.

Technology and Business Development Efforts. The SNWA partnered with the Governor's Office of Economic Development (GOED) WaterStart Program and MGM Resorts International to review innovative

technologies from companies that may have the opportunity to relocate to Nevada. This partnership affords the SNWA access to emerging water efficiency technologies that can be piloted in Southern Nevada.

The SNWA also continued its partnership with the Metropolitan Water District of Southern California in support of its Innovative Conservation Program, a multi-agency initiative that evaluates potential of various water efficiency technologies and techniques.

WaterSmart Landscapes. The WaterSmart Landscapes program has been very successful and proven to yield great conservation benefits. The amount of square feet of turf that has been converted utilizing the program is sufficient to roll an 18-inch-wide strip of sod 96 percent of the circumference of the Earth. Since the program began in 1999, 118 billion gallons of water have been saved by converting 188 million square feet of turf to desert landscaping.

Sunday Watering. In 2017, the SNWA member agencies restricted watering on Sunday's during the summer. It is estimated turning off landscape watering on Sundays saves the community up to 900 million gallons of water each year.

Environmental Stewardship

Warm Springs Natural Area

The Warm Springs Natural Area (WSNA) opened to the community on December 9, 2017. It will be open from Labor Day to Memorial Day during the year for local residents and visitors from everywhere to enjoy, learn and explore at no cost.

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WSNA was purchased by SNWA in 2007 with a \$72.9 million grant from the Southern Nevada Public Land Management Act (SNPLMA) to serve as a park, trail and natural area. Improvements for public access were funded by two additional SNPLMA grants. A condition of the purchase was that the site remain a natural area with low-impact public use.

The WSNA is one of the most significant environmental resources in Southern Nevada. The area contains a number of perennial springs that form the headwaters to the Muddy River. These flows play a critical role in the regional watershed. In addition, biological work, archeological and cultural assessments have been conducted, which have led to some interesting discoveries. These archeological resources are available for viewing at the site, as they have been restored to preserve the historic aspects of the property.

Community relationships have improved significantly, and the public facilities have been well received by the neighbors and town board. High school students in the Future Farmers of America Program at Moapa Valley High School help with plant propagation, picnic table construction and fence installation. Local Boy Scouts also have conducted over 50 Eagle Scout Projects at the WSNA.

The development of the site was divided into two phases. In 2011, the SNWA received \$275,000 in SNPLMA funds for Phase I of the public use improvements. The project was completed in 2013. Phase I improvements consisted of:

- Conceptual design of a trail system and interpretative elements
- Engineering design
- Native landscaping

- Construction of a trail
- Interpretative kiosks
- Stream viewing platform
- Rebuild historic entrance stone gate

In 2016, the SNWA received \$875,000 in SNPLMA funds for Phase II of the public use improvements. Construction was completed in August 2017. Phase II consisted of:

- A restroom
- Drinking fountain
- Paved parking area
- Spring viewing platform
- Construction of additional trail
- Construction of a shaded overlook
- Benches and tables
- An amphitheater
- Native landscaping
- Fencing

Las Vegas Wash

After nearly two decades of efforts dedicated to building and revegetation, Sunrise Mountain Weir, the final weir of the Comprehensive Adaptive Management Plan (CAMP) is under construction, and expected to be completed by 2019. This weir will aid in efforts to stabilize head-cutting that has formed within the Las Vegas Wash. Correcting this head-cut is of critical importance as it threatens downstream water quality, habitat restoration efforts, recreational amenities and nearby public facilities.

The completion of the project will facilitate the re-establishment of wetlands habitat, protect Southern Nevada's water supply from sedimentation, directly support the Clark County Wetlands Park recreational amenities, and satisfy the goals established in the Las Vegas Wash's CAMP.

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Financial Considerations/ Capital Funding

Key initiatives for fiscal year 2018-19 include the continuation of Major Construction and Capital Plan (MCCP) projects and water resource management efforts.

Financial Stability

In January 2016, the SNWA Board of Directors established a policy for maintaining adequate reserves of unrestricted cash and investments. This policy serves as an important tool in long-term financial planning, as credit rating agencies consider the availability of reserves in their evaluations of continued creditworthiness. The policy also aids in mitigating the risks of significant or unexpected fluctuations in funding and helps to ensure stable services, rates and fees.

Infrastructure Charge

Due to potential impacts on water delivery and availability if Lake Mead's elevation fell below 1,000 feet, IRPAC recommended the construction of a new low lake level pumping station. This project would be funded through fixed charges based on meter size and phased in over three years. The first two increases were implemented in 2016 and 2017, and the third and final increase occurred in January 2018.

Fiscal Year 2018-19 Objectives

- Treat and deliver high quality drinking water supplies to customers in Southern Nevada.
- Continue to work with basin partners to protect Lake Mead water levels.

- Monitor declining Lake Mead water levels for impacts to water quality.
- Maintain sufficient water resources to meet near and long-term projected water demands.
- Continue assessments of critical assets.
- Continue construction of the L3PS.
- Continue to seek grant funding to support activities in the areas of drought management, resource development, water quality, infrastructure and environmental management.

Financial Summary

The table on the following page contains a summary of sources and uses of funds for the SNWA's fiscal years 2016-17, 2017-18 and 2018-19.

Southern Nevada Water Authority
Operating and Capital Budget
General Manager's Information Report
Fiscal Year Ending June 30, 2019



Budget Summary
(\$ Millions)

	Actual 2016-17	Budget 2017-18	Tentative Budget 2018-19	Budget-to-Budget Variance	
				\$	%
Sources					
Wholesale Delivery Charge	\$ 130.1	\$ 130.8	\$ 141.2	\$ 10.4	8%
Infrastructure Charge	132.5	149.1	158.6	9.5	6%
Commodity Charge	65.4	68.5	69.8	1.3	2%
Connection Charge	57.0	63.3	62.3	(1.0)	-2%
Reliability Surcharge	5.3	5.3	5.6	0.3	5%
Sales Tax	60.9	62.3	65.5	3.2	5%
Investment Income	4.9	3.8	5.9	2.0	53%
Groundwater Management Fees	0.9	0.9	0.9	(0.0)	-1%
LV Wash Program Fees	0.4	0.4	0.4	(0.0)	-1%
Grant Proceeds	1.4	4.7	0.4	(4.3)	-91%
Other Revenues	94.4	4.7	5.4	0.7	16%
Subtotal	\$ 553.1	\$ 493.9	\$ 516.0	\$ 22.1	4%
Debt Issuance Proceeds	-	-	-	-	
Total Sources	\$ 553.1	\$ 493.9	\$ 516.0	\$ 22.1	4%
Uses					
Water Resource Investments	\$ 3.5	\$ 12.1	\$ 19.0	\$ 6.9	57%
Energy	36.6	37.0	35.7	(1.3)	-3%
Payroll & Related	69.8	77.2	83.1	5.9	8%
Operating Expenses	41.4	54.5	69.3	14.8	27%
Capital Expenditures	166.4	213.7	188.2	(25.5)	-12%
Debt Service	265.0	264.0	266.6	2.7	1%
Total Uses	\$ 582.7	\$ 658.4	\$ 661.9	\$ 3.6	1%
Total Net Surplus/(Deficit)	\$ (29.6)	\$ (164.5)	\$ (146.0)		

Sources

The 2018-19 Budget Plan's total sources of funds are projected to be \$516.0 million, or a 4 percent increase compared to the 2017-18 Adopted Budget Plan. The increase is primarily attributable to growth in the Wholesale Delivery Charge and the Infrastructure Charge.

The Wholesale Delivery Charge and Infrastructure Charge are budgeted to increase \$10.4 million and \$9.5 million

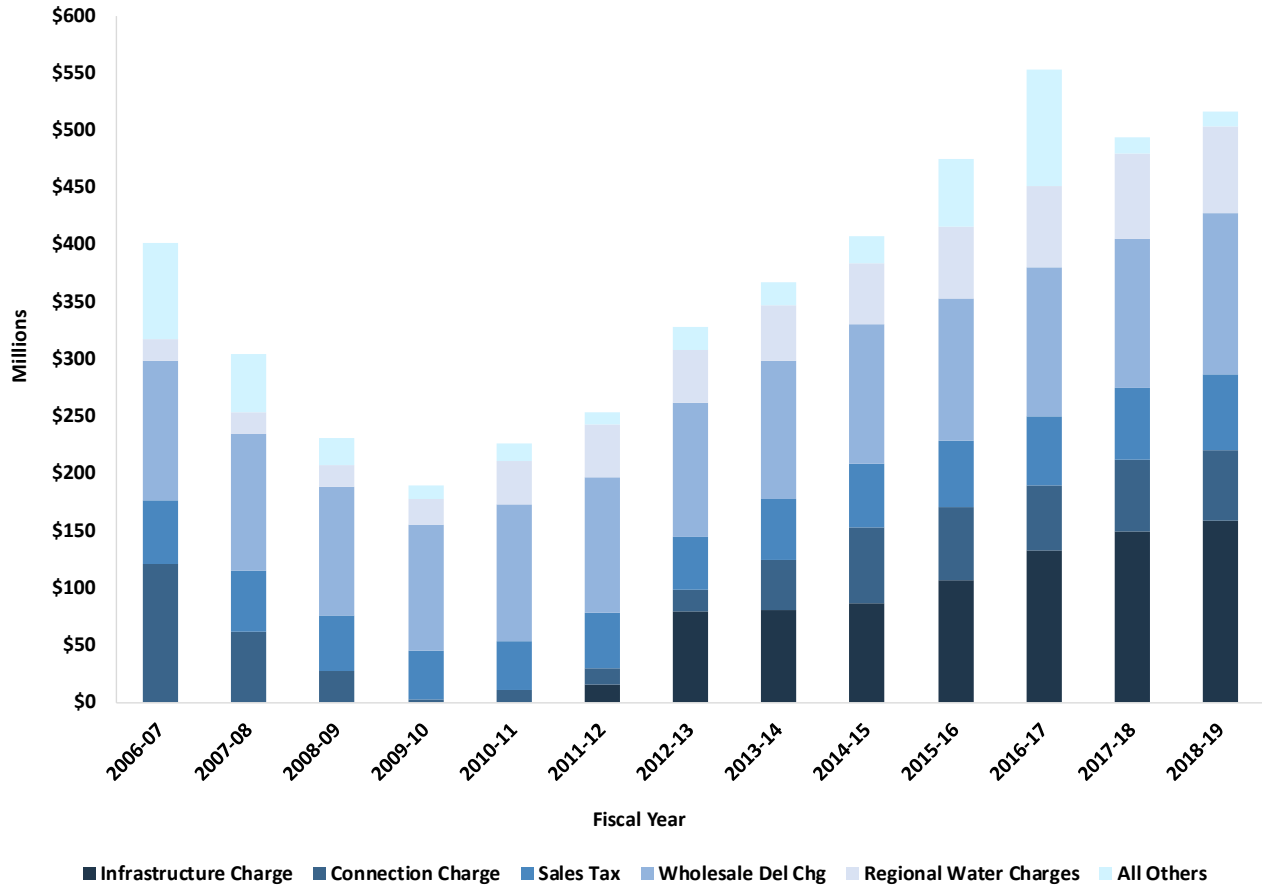
respectively, as compared to the 2017-18 Adopted Budget Plan. The increase in the Wholesale Delivery Charge is due to a rise in the quantity of water sold and the projected Wholesale Delivery Charge rate increase of \$10 per acre foot. The increase in the Infrastructure Charge is a result of 2018-19 being the first fiscal year of the completely phased-in rate, with the final increase having occurred in January 2018. With the infrastructure charge becoming the largest revenue component, the SNWA's sources of

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funds have increased stability over past years with reduced dependence on more volatile

growth related Connection Charge revenue, as illustrated in the chart below.

Sources of Funds History



Uses

The 2018-19 Budget Plan's total uses of funds are projected to be \$661.9 million, a \$3.6 million increase compared to the 2017-18 Adopted Budget Plan.

Water Resource Investments are budgeted to increase \$6.9 million, primarily due to water banking costs with Arizona. Energy costs are projected to decrease by 3 percent. Payroll costs are anticipated to increase by \$5.9 million, or 8 percent, compared to the 2017-

18 Adopted Budget Plan. Demands to secure and protect water resources, ensure efficient use of existing resources, and provide a safe and reliable water supply under current operational conditions have resulted in increased staffing requirements for the SNWA.

Non-payroll operating expenses are projected to increase \$14.8 million, or 27 percent. The rise in budgeted costs is due to increased operations and maintenance costs, including increased conservation efforts and an

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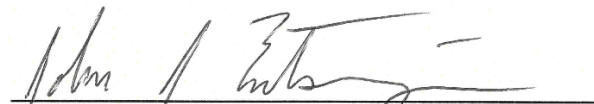
organizational shift to more “cloud-based” software solutions. Capital expenditures are budgeted to decrease \$25.5 million. The L3PS, in its fourth year of construction, remains the largest component of capital expenditures. Debt service is projected to increase \$2.7 million. Debt service costs are projected to remain relatively stable for the next ten years, then decline thereafter. In addition, there may be savings from future debt refundings, depending on market conditions.

Summary

The SNWA's fiscal year 2018-19 Budget Plan presents a stable outlook, with total uses of funds increasing by 1% and sources of funds expected to rise by 4%. Capital expenditures will be largely funded by existing bond proceeds.

Approval

The public hearing on the SNWA's 2018-19 Tentative Budget, and adoption of the Final Budget, is scheduled for 11:00 a.m., Thursday, May 31, 2018. The public hearing will be held in the Colorado River Conference Rooms, 100 City Parkway, Seventh Floor, Las Vegas, Nevada.



John J. Entsminger, General Manager

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SOUTHERN NEVADA WATER AUTHORITY®

SECTION 2

INTRODUCTION AND STRATEGIC PLAN

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SOUTHERN NEVADA WATER AUTHORITY®

FISCAL YEAR 2018-19
OPERATING AND CAPITAL BUDGET

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Introduction

Purposes and Powers.

The Southern Nevada Water Authority (SNWA) is a political subdivision of the State of Nevada created on July 25, 1991, pursuant to Nevada Revised Statutes Chapter 277.080 to 277.180, inclusive, by a cooperative agreement among the Big Bend Water District, the City of Boulder City, the City of Henderson, the City of Las Vegas, the City of North Las Vegas, the Clark County Water Reclamation District, and the Las Vegas Valley Water District (LVVWD). The Cooperative Agreement has been amended on November 17, 1994; January 1, 1996; February 18, 2010; and June 21, 2012.

The SNWA was created to secure additional supplies of water for Southern Nevada and to effectively manage existing supplies of water through the cooperative action of its member agencies. Because the SNWA is governed equally by a seven-member Board of Directors (SNWA Board) composed of one director from each member agency, and the SNWA operations are autonomous from its member agencies, its financial statements are not included in the financial statements of another entity.

The SNWA Board appoints a General Manager (GM). In January 1993, the LVVWD's GM was also appointed GM of the SNWA, and the LVVWD was named Operating Agent for the SNWA. The GM has two Deputy General Managers (DGM's), a Chief Financial Officer (CFO) and General Counsel overseeing the operations of the LVVWD and the SNWA.

Since October 1993, the LVVWD has been paying many expenses on behalf of the SNWA. The SNWA reimburses the LVVWD for those expenses, including the cost of the LVVWD employees allocated to the SNWA. The SNWA has no employees of its own.

The Board of the SNWA has the power to periodically assess the member agencies directly for operating and capital budgets and for the satisfaction of any liabilities imposed against the SNWA. Each member made an initial contribution to the SNWA for operating and administrative expenses in the amount of \$15,000. Assessments for additional funds needed by the SNWA, in accordance with operating and capital budgets, have been apportioned to member agencies on the basis of water deliveries to those agencies. Funding received by the SNWA from its member agencies for operations is recorded as operating revenue, while funding received for capital purchases is recorded as capital contributions. Member agencies who are not water purveyors, i.e., the City of Las Vegas and the Clark County Water Reclamation District, each contributes towards the SNWA operations for the fiscal year 2018-19.

Transfer Act.

Pursuant to the Transfer Act, Assembly Bill No. 542, approved June 28, 1995 by the Nevada Legislature, the assets of the Southern Nevada Water System (SNWS), as well as responsibility for operations of the system, were transferred from the Colorado River Commission (CRC) to the SNWA effective January 1, 1996. Along with the assets, the CRC transferred all books and records in its possession relating to the project and its facilities. In addition to the assets, all

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liabilities of the CRC related to the SNWS were to be transferred to the SNWA.

The transfer was a non-cash transaction. In order to affect the transfer, CRC prepared from its SNWS accounting records an unaudited trial balance as of January 1, 1996, which was given to the SNWA. To record the transfer, the SNWA posted the entire CRC trial balance to its General Ledger as of January 1, 1996. The accuracy of that trial balance was verified by the June 30, 1996, audits of both the SNWA and CRC. The CRC detail property listing was posted to the SNWA Property Ledger.

Intergovernmental Relationships.

In addition to its members, the SNWA also works with other agencies of state and federal government. The following outlines some of those intergovernmental relationships.

Major Water Purveyors. The SNWA diverts Colorado River water from Lake Mead, treats it to federal Clean Drinking Water Act standards, and delivers treated water to the facilities of water purveyors in the Las Vegas Valley and Boulder City. The major water purveyors and their percentage of total SNWA water deliveries are as follows: Boulder City (2.5 percent), Henderson (15.8 percent), North Las Vegas (12.0 percent), the LVVWD (69.5 percent) and others (0.2 percent).

Wastewater Treatment Agencies. Wastewater treatment agencies in the SNWA service area are the Cities of Las Vegas, Henderson, and Boulder City, and the Clark County Water Reclamation District.

Colorado River Commission. The CRC is an agency of the State of Nevada created in 1935

to acquire and hold in trust Nevada's right to water and power resources from Colorado River water apportioned among the seven Colorado River Basin states and Mexico. The seven member CRC Board is made up of four members appointed by the Governor (including the Chairperson) and three SNWA Board members.

U.S. Bureau of Reclamation (Bureau). The Bureau is a division of the U.S. Department of the Interior. It is charged with the responsibility of managing the Colorado River for the benefit of the users with rights to Colorado River water. Any changes to laws governing the Colorado River benefiting Nevada will require the cooperation and approval of the federal government via the Bureau and all seven of the Colorado River Basin states.

Southern Nevada Water System. The SNWS is the regional water system diverting raw Colorado River water from Lake Mead, treats it to federal Clean Drinking Water Act standards, pumps it through the River Mountains, and delivers potable water to the facilities of the water purveyors in the Las Vegas Valley and Boulder City. The SNWS was built in two stages (1971-first stage, and 1983-second stage) by the federal government acting through the Bureau, and the State of Nevada acting through its CRC. The Bureau built the transmission facilities, which are referred to as the Robert B. Griffith Water Project. The CRC built the treatment facility, which is known as the Alfred Merritt Smith Water Treatment Facility. The SNWS was owned by CRC and operated under contract by the LVVWD. On January 1, 1996 the assets and liabilities of the SNWS as well as responsibility for operations were transferred

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from CRC to the SNWA. The LVVWD continues to operate the SNWS under contract with the SNWA. The projects in the SNWA's Major Construction and Capital Plan (MCCP) are expansions or improvements of the SNWS.

Robert B. Griffith Water Project Title Transfer.

The SNWS was built in two stages by the State of Nevada acting through the CRC and the Bureau. CRC funded its portion by issuing State of Nevada general obligation bonds. The Bureau funded its portion from federal budget appropriations. After completion of each phase, the Bureau determined total reimbursable costs for constructing its portion of the SNWS and the CRC entered into a water delivery and repayment contract with the Bureau to repay those costs plus interest. The terms of the repayment contract required 50 annual payments at 3.25 percent interest. According to the terms of the repayment contract, the federal government would retain title to the facilities it built, even after the repayment contract was fully paid.

The role of the federal government in financing improvements of the SNWS has been declining. When the first phase of the SNWS was completed in 1971 at a total cost of \$62 million, 85 percent of that cost was provided by the federal government. After completion of the second phase in 1983, the ratio provided by the federal government had dropped to 71 percent. In 1995 the SNWA began work on its \$2.1 billion Capital Improvement Plan to expand and improve the

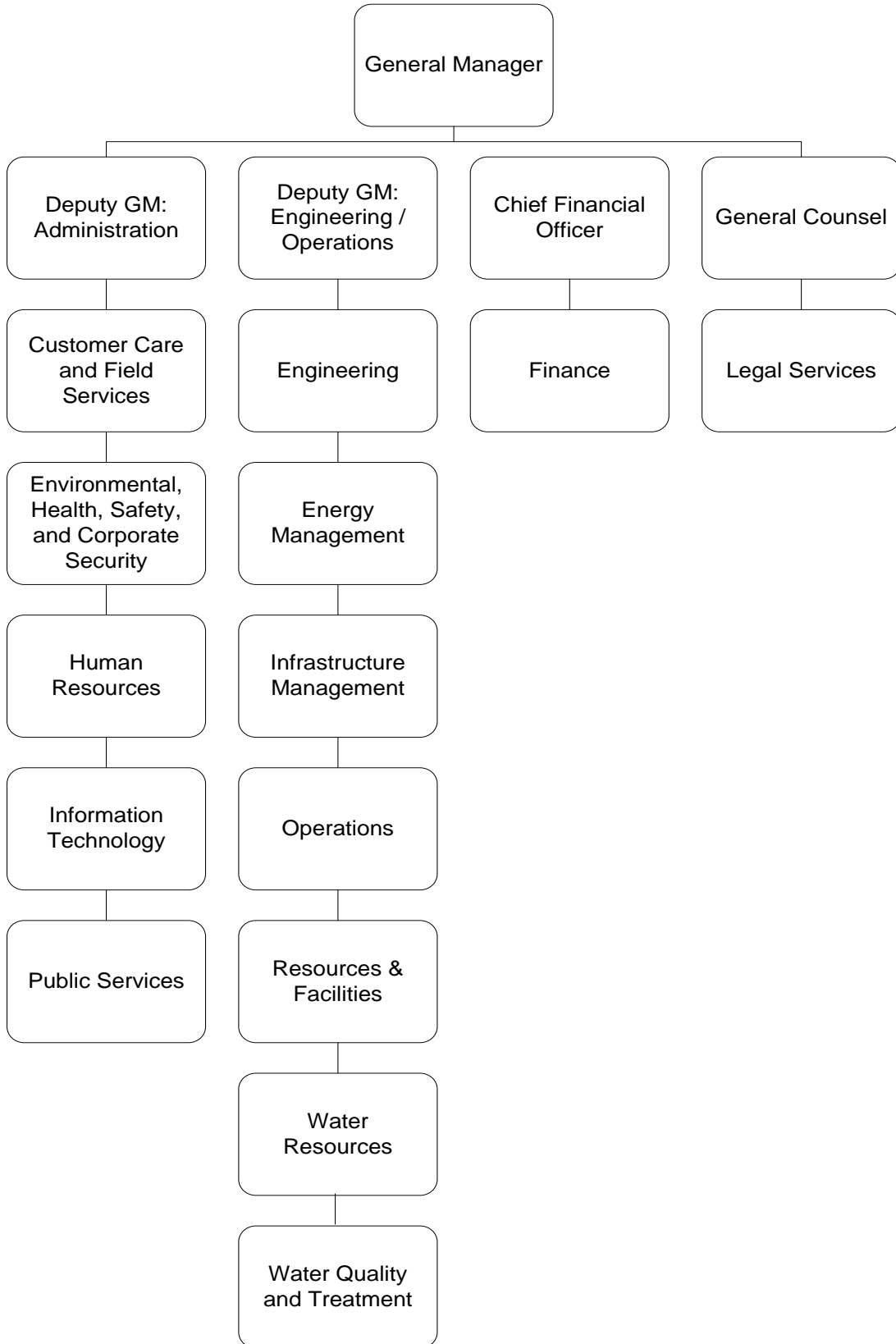
SNWS. Because the Bureau was, and always would be, the owner of the facilities built with federal funding, the SNWA would always be required to obtain Bureau approval to maintain, modify, or improve the federal facilities which are an integral, but increasingly smaller, part of the total system.

In July 2000, the U.S. Congress passed, and President Clinton signed, into law the Griffith Project Prepayment and Conveyance Act (Public Law 106-249), which directed the Secretary of the Interior to transfer title to the Robert E. Griffith Project to the SNWA, subject to prepayment of the Project's federal repayment obligation. According to guidelines published by the Office of Management and Budget, the price of the title transfer was set at \$121.2 million, plus accrued interest, less any principal payments made subsequent to September 30, 1999.

Organizational Structure.

The LVVWD operates the SNWA under contract; however, the two entities are legally separate. The LVVWD pays substantially all expenses on behalf of the SNWA, including the cost of employees allocated to the SNWA and is reimbursed monthly for these costs. SNWA has no employees of its own. The organizational chart shows the SNWA organization and how the different departments are arranged. For a further breakdown per department, please see Section 5, Department Budgets.

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Financial Structure and Controls.

Proprietary Fund Type - Enterprise Fund. The SNWA's operations are accounted for as a single Enterprise Fund. A fund is a fiscal and accounting entity with a set of self-balancing accounts comprising its assets, liabilities, fund equity, revenues, and expenses. Enterprise Fund operations are presented using the full accrual basis of accounting wherein revenues are recognized in the accounting period in which they are earned and expenses are recognized in the period incurred, regardless of when payments for such revenues or expenditures are actually made. In this regard, the SNWA operations are accounted for in a manner similar to a private business enterprise, where the intent of the governing body is that the costs of providing goods and services to the general public on a continuing basis are financed or recovered primarily through user charges, and its financial measurement focus is on determination of net income, financial position, and cash flows.

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 the balance of bond proceeds be maintained in restricted acquisition and construction accounts until they are expended. Assets restricted for specific purposes (e.g. additions to plant or repayment of bonds) and liabilities payable from such assets are accounted for separately until disposition. Earnings on these assets are also considered restricted.

Internal Controls. In developing the SNWA's accounting system, consideration focused on the adequacy of internal accounting controls. Internal accounting controls are designed to

provide reasonable, but not absolute assurance regarding the safeguarding of assets against loss from unauthorized use or disposition; and the reliability of financial records for preparing financial statements and maintaining accountability for assets. The concept of reasonable assurance recognizes the cost of a control should not exceed the benefits likely to be derived, and the evaluation of costs and benefits requires estimates and judgment by management. All internal control evaluations occur within the above framework. The SNWA's internal accounting controls safeguard assets and provide reasonable assurance of proper recording of financial transactions. The SNWA will continue to identify ways in which it can strengthen its control procedures.

Debt Administration. It is the general intent of the SNWA that rates and charges are adequate to provide for all costs, and reliance on property taxes is to be avoided. Ad valorem taxes have never been needed to support the SNWA's operations or debt service. For a full discussion of debt objectives and guidelines see section 7, Debt Management Policy.

The State of Nevada operates a Municipal Bond Bank Program, which is designed to assist municipalities in undertaking local projects for the protection and preservation of the property and natural resources of the state. In May 1997, the SNWA was authorized to sell bonds directly to the state bond bank. Additionally the SNWA issues bonds through the Clark County bond bank and through the LVVWD. As a result of legislation approved by the 1999 Legislature, Clark County established a bond bank to assist municipalities within Clark County. The LVVWD issues short-term

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or variable rate debt for the SNWA in addition to standard debt issues.

The State of Nevada general obligation debt is rated “Aa2” by Moody’s and “AA” by Standard & Poor’s. Clark County’s general obligation debt is rated “Aa1” by Moody’s and “AA+” by Standard and Poor’s. The LVVWD’s general obligation debt is rated “Aa1” by Moody’s and “AA+” by Standard & Poor’s. It is expected that the SNWA will still utilize the state and county bond banks and the LVVWD to issue debt. The SNWA obtained the credit rating primarily at the request of parties who wished to enter into long term purchased power agreements with the SNWA and needed an evaluation of the SNWA’s credit worthiness.

As of July 1, 2018, the SNWA has \$3.36 billion in outstanding debt, excluding unamortized premiums and discounts. All debt is backed by a pledge of the SNWA’s revenues. All applicable bond covenants such as ratios of net income to debt service, sinking funds, and insurance coverage have been met or exceeded.

Cash Management. Funds not immediately required for paying operating or capital expenditures are invested in U.S. Government and agency securities and other money market instruments. Nothing in the Cooperative Agreement creating the SNWA or the Facilities and Operations Agreement governing the SNWA’s relationship with its purveyor members dictates permitted investments. Also, there is no applicable Nevada law. However, the SNWA chooses to comply with Nevada Revised Statutes (NRS) 355.170, which governs permitted investments for counties, cities, and school

districts in Nevada. NRS 355.170 limits investments to obligations of the federal government and its agencies, commercial bank certificates of deposit, obligations of state and local governments rated A or above, bankers’ acceptances, repurchase agreements, and money market mutual funds. All investments are held by a commercial bank’s trust department in the name of the SNWA and are insured or collateralized with securities held by a third party in the name of the SNWA.

Risk Management. The SNWA employs a multifaceted approach to risk management, which includes the transfer, elimination, avoidance, reduction and/or assumption of risk of loss. The SNWA also purchases risk insurance (including terrorism insurance) from the commercial insurance market on real and personal property, including earthquake and flood, with common policy restrictions, covering direct physical loss of or damage to buildings, fixtures, equipment, boilers, machinery and supplies. The blanket limit of liability under the property insurance program is \$500 million per occurrence with a deductible of \$1 million per occurrence. The program also includes earthquake coverage (\$100 million limit) and flood coverage (\$50 million limit) each having a \$100,000 deductible. The SNWA self-insures the first \$1 million for its automobile and general liability exposure and purchases \$30 million of excess liability insurance.

In contracts, the SNWA obtains indemnification and hold-harmless agreements, and requires that contractors name the SNWA as an additional insured under the indemnitor’s insurance coverage,

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usually \$1 million to \$10 million for commercial general and auto liability insurance. The SNWA provides builders risk insurance for all construction projects with a blanket limit of \$100 million per contract, or higher as needed, with a \$50,000 deductible per claim, except earthquake and flood where the deductible is \$500,000 per claim.

Capital Project Structure and Controls.

Identification of Capital Project Need. Capital projects for the SNWA are proposed in response to identified needs for improvements to the facilities providing for delivery of community water supplies to the members of the SNWA. These improvements may be either 1) new facilities to expand or enhance capabilities or 2) repair, upgrade or replace existing facilities no longer functioning as required.

Identification of proposed new facilities to meet expanding water delivery requirements is accomplished through a process involving continuing assessment of current and projected future community water demands. The SNWA works with its purveyor members to establish both short-range and long-range projections of future water demands. These water demands are compared to the capacities of the existing SNWA water facilities. Where facility capacities are insufficient to meet projected demands, the SNWA undertakes efforts to plan potential new facilities to address the projected shortfall. New facilities may also be proposed to enhance the reliability of the water delivery facilities, or to enhance the quality of the water provided to the community.

Identification of existing facilities requiring repair, upgrade or replacement comes about through continuous monitoring and assessment of facility performance. To the extent possible, major repair, upgrade or replacement projects are identified in time to allow for planning and scheduling of the projects to minimize costs and interruptions to operations of other facilities.

The SNWA meets periodically with its purveyor members to discuss water demand projections, compare those projections to existing system capacities, review operational issues, define an annual operating plan, discuss progress on approved capital projects under design and construction, and consider proposals for new capital projects. Proposals for new capital projects are presented to the Southern Nevada Water System Work Group (Work Group), a formal advisory committee composed of representatives of the SNWA and the SNWA Purveyor Members. Upon endorsement by the Work Group, new projects are incorporated into amendments to the SNWA's capital plans and are presented to the SNWA Board for approval. If the amended capital plan requires an increase in the total cost of the plan, then the amended capital plan must also be approved by the governing body of each Purveyor Member.

Execution of Capital Plan. After approval of the capital plan by the SNWA Board, the Engineering department assembles a staging plan for each project and develops specifications to be used as criteria during the competitive bidding process. Major construction portions are then let to an open competitive bidding process. All bids are reviewed and the lowest qualifying bid is

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presented to the Board for their approval. At the approval date, the Finance department (Finance) and the Engineering department encumber the total amount of the contract. Change orders are submitted to the SNWA Board as needed with full explanations as to why the change is necessary.

The Engineering department issues capital plans annually. The most recent capital plans can be viewed in Section 6 of this 2018-19 Budget Plan document. The capital plan reflects all capital projects, their projected start and end dates, their projected costs, the gross amount of expended or encumbered funds per project, projected future cash requirements, and the budget variance of each project. Finance also tracks expenditures and encumbrances for capital projects and plans future debt service issues on these calculations.

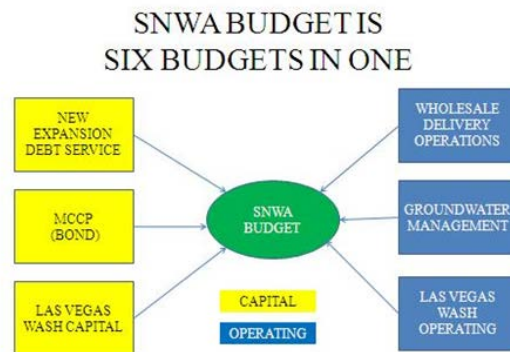
Upon completion of a project, the Engineering department presents a summary of the project to the SNWA Board for their review and approval. The project is then moved from construction work in progress to property, plant and equipment by Finance.

Budget Controls and Process

Basis of Accounting.

The SNWA's audited Comprehensive Annual Financial Report (CAFR) is presented on the full accrual basis of accounting wherein revenues are recognized in the accounting period in which they are earned, and expenses are recognized in the period incurred, regardless of when payments are actually

made. However, the budget is presented on a modified cash basis. In addition, the budget is broken into sub funds of the single proprietary fund, which shows beginning balance, sources of funds, uses of funds, and ending balance. The SNWA is an enterprise fund; the sub funds are an internal cost control aiding management in insuring revenues and expenses for major projects are properly matched. The SNWA maintains six separate sub funds. Three track the financial activity of SNWA's capital programs while the other three track day-to-day operations.



Sub fund balances are reconciled to the audited CAFR. For budget preparation and presentation, the Las Vegas Wash Capital and Las Vegas Wash Operating sub funds are combined into one sub fund for simplification purposes.

Budgetary Controls.

By State statutes, the SNWA's budget is approved annually, following a public hearing by the SNWA Board, and a copy is submitted to the State Department of Taxation. Budgetary controls are established at the levels of total estimated operating and non-

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

The SNWA is encouraged, but is not required by law, to adopt a balanced budget. A balanced budget is defined as a budget where sources of funds are equal to, or exceed, uses of funds. Throughout the budget process, the SNWA examines projected financial needs and determines whether or not rates, fees and charges should be adjusted to make funds available for those needs.

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 Finance 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 (IT). Finance 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 staffing is controlled by the Human Resources department (HR).

Budget Process.

The SNWA's budget process starts in December of each year, and proceeds with a series of meetings with the department directors. Financial analysis is done to project the revenues under current rate structures. Wholesale Delivery Charge revenue projections are based on the estimated water the SNWA is planning to deliver in the coming year. The budget reflects the strategies and goals adopted by the SNWA.

Budget staff disseminates current and historical information to managers to assist them in preparation of future budgets within budgeting guidelines. The budget process consists of three major phases. The first phase includes preparing new requests for capital and staff positions for the new fiscal year. The second phase consists of preparing department operating budgets, including payroll and related expenditures. Estimating payroll and related expenditures are based on current approved positions and factors based on historical adjustments throughout the year. The third phase involves department directors, managers and supervisors meeting with Executive Management to justify expenditure requests. After all of the departments' budgets have been reviewed and approved by Executive Management, the budget is consolidated 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 non-compliance with the statutory laws of the State of Nevada.


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On the fifth Thursday in May, the SNWA's Board conducts a public hearing to allow the public an opportunity to discuss the proposed budget. During the public hearing, the GM requests final approval from the Board. The approved final budget document is filed with the State of Nevada. Once approved and filed, departments are provided copies of their budgets. The approved budget is implemented on July 1, the first day of the new fiscal year.

Budget Augmentation.

Nevada State law (NRS 354.493) defines budget augmentation as a procedure for increasing appropriations of a fund with the express intent of employing unbudgeted resources to carry out the purpose for the increased appropriations. To augment the budget, the SNWA Board must adopt a resolution providing for an augmentation at a regular meeting of the SNWA 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 Department of Taxation.

FISCAL YEAR 2018-19 BUDGET CALENDAR

	All Departments	Financial Services	Executive Management	Human Resources
<p>Dec</p>	<p>Tue Dec 12 – Wed Jan 17 Personnel related requests will be coordinated through each department’s Director and Deputy General Manager</p>	<p>Tue Dec 12 Budget instructions and calendar sent to departments</p>		<p>Dec December organization charts distributed to departments. Adjustments to organization charts due to Human Resources by Wednesday, January 17, 2018</p>
		<p>Wed Dec 13 Operating expense files sent and departments assistance begins</p>		<p>Thu Dec 21 List of existing interns and summer hire positions distributed to departments. Updates, corrections and new requests due to Human Resources by Wednesday, January 17, 2018</p>
<p>Jan</p>	<p>Wed Jan 17 Adjustments to organization charts submitted to Human Resources</p>	<p>Thu Jan 18 Major data processing and equipment requests submitted to Information Technology and Fleet Services for review and coordination</p>		<p>Thu Jan 18 List of existing interns and summer hire position renewals sent to Financial Services</p>
	<p>Wed Jan 17 Final requests for interns and summer hire positions submitted to Human Resources</p>	<p>Mon Jan 22 Coordination with departments incurring intercompany and overtime payroll costs begins</p>		
	<p>Thu Jan 25 Final 2018-19 capital budget requests and operating expense budgets submitted to Financial Services</p>			

FISCAL YEAR 2018-19 BUDGET CALENDAR



	All Departments	Financial Services	Executive Management	Human Resources
Feb	Mon Feb 5 Budget narrative instructions received	Mon Feb 5 Budget narrative instructions sent to departments		
		Mon Feb 26 Summaries and detail of operating expense & capital expenditure budgets sent to departments		
		Mon Feb 26 Assisting departments in preparation for the Senior Management Team (SMT) budget meeting presentations begins		
Mar	Tue Mar 13 Department proposed budget meetings with SMT	Tue Mar 6 Budget overview briefing with Executive Management (E-team)	Tue Mar 6 Budget overview briefing with Executive Management (E-team)	
		Tue Mar 13 Department proposed budget meetings with SMT	Tue Mar 13 Department proposed budget meetings with SMT	
	Mon Mar 19 Budget narratives submitted to Financial Services		Tue Mar 13 – Mon Mar 19 Final budget decisions made by Executive Management	
Apr		Thu Apr 5 Proposed draft budgets completed for Budget Workshops with Boards of Directors	Thu Apr 19 Board of Directors Budget Workshops for SNWA	
		Thu Apr 12 Preliminary Budgets filed with the Nevada State Department of Taxation	Mon Apr 23 Board of Directors Budget Workshops for LVVWD (including BBWD & Coyote Springs)	

FISCAL YEAR 2018-19 BUDGET CALENDAR



All Departments	Financial Services	Executive Management	Human Resources
<p>May</p>	<p>Thu May 3 SNWA Public hearing notice published in LVRJ</p>	<p>Thu May 17 SNWA Board of Directors public hearing conducted on the proposed budget for possible adoption</p>	
	<p>Tue May 8 LVVWD, BBWD, and Coyote Springs Public hearing notice published in LVRJ</p>		
	<p>Thu May 24 Adopted budgets sent to the Nevada Department of Taxation</p>	<p>Mon May 21 LVVWD Board of Directors public hearings conducted on proposed budgets of LVVWD, Big Bend, and Coyote Springs for possible adoption</p>	
<p>Jun</p>	<p>Thu Jun 21 LVVWD, SNWA, BBWD & Coyote Springs annual summary fiscal reports published in LVRJ</p>		
<p>Jul</p>	<p>Thu Jul 26 Proof of publication of fiscal reports submitted to the Nevada State Department of Taxation</p>		
<p>Aug</p>	<p>Thu Aug 9 Budget Award Application submitted to the GFOA</p>		

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Southern Nevada Water Authority Strategic Plan

Strategic Plan Background.

The SNWA's Strategic Plan represents the latest iteration in the SNWA's long-standing commitment to self-assessment, continuous improvement, and comprehensive planning. The Strategic Plan provides future direction for the SNWA, 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 SNWA, senior management and employees of the SNWA, with policy guidance from the SNWA Board, completed a comprehensive Strategic Plan in 1993. The SNWA's Strategic Plan identified forces influencing decision-making and formulated goals and strategies to guide the SNWA in responding to the challenges, and evolve into a dynamic, responsive and effective organization. In 1997, the SNWA 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 SNWA's Strategic Plan, and a revised plan with new goals and strategies was presented to and adopted by the SNWA 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 SNWA and the member agencies.

In fall 2012, the Senior Management Team began meeting to update the strategic plan. This strategic planning process allows the SNWA and the member agencies 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 2018-19 Budget Plan Preparation.

The SNWA's Strategic Plan serves as a guide in the development of the SNWA'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 2017-18 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 SNWA has a long-standing commitment to self-assessment, continuous improvement, customer service and comprehensive planning, and has undergone several strategic planning initiatives over the past two 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 challenges of the current economic climate, organizational realignment and operational needs.

For the past decade, Southern Nevada has weathered unprecedented drought conditions on the Colorado River and, more recently, has survived the effects of the recent

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economic downturn. The recession impacts included a change in the community's business environment, a decrease in water sales and sales tax revenue, and a significant decrease in the SNWA connection charges. During this period of economic uncertainty, organizational structure and budgetary issues have been closely evaluated to ensure the organization's focus meets current community needs. The strategic plan represents a roadmap for the next three to five years which realigns the organization's focus on enhancing service levels, improving asset management, providing rate stability and streamlining the organization to meet current and future community needs.

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

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

workgroup has the ability to monitor its own progress through an online administrative tool.

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

VISION

To be a global leader in service, innovation and stewardship

MISSION

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

GOALS

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

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Strategic Plan Strategies.

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

Assure quality water through reliable and highly efficient systems.

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

Deliver an outstanding customer service experience.

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

development to ensure a quality customer service experience.

- Communicate with and receive continuous feedback from employees on organizational policy changes and improvements.
- Monitor other organizations/industries to identify innovations, best practices and ways to improve the customer experience.

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

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

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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.

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

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

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SECTION 3

OPERATING AND CAPITAL BUDGET PLAN

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SOUTHERN NEVADA WATER AUTHORITY®

FISCAL YEAR 2018-19
OPERATING AND CAPITAL BUDGET

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The fiscal year 2018-19 Budget Plan reflects the continued commitment of the Southern Nevada Water Authority (SNWA) to provide water resources and services to meet the demands of Southern Nevada. The SNWA utilizes its Strategic Plan as a guide in shaping its annual Budget Plan. The fiscal year 2018-19 Budget Plan's total sources of funds are projected to be \$516.0 million, or a 4

percent increase compared to the fiscal year 2017-18 Adopted Budget Plan. The fiscal year 2018-19 Budget Plan's total uses of funds are projected to be \$661.9 million, or a 1 percent increase compared to the fiscal year 2017-18 Adopted Budget Plan. The table below shows the Sources and Uses Summary for the fiscal years 2016-17, 2017-18, and 2018-19.



Budget Summary

	Actual 2016-17	Budget 2017-18	Budget 2018-19	Budget-to-Budget Variance	
				\$	%
Sources					
Wholesale Delivery Charge	\$ 130,115,594	\$ 130,773,096	\$ 141,151,263	\$ 10,378,167	8%
Infrastructure Charge	132,471,445	149,098,164	158,564,232	9,466,068	6%
Commodity Charge	65,382,163	68,539,517	69,814,797	1,275,280	2%
Connection Charge	57,024,817	63,284,557	62,298,684	(985,872)	-2%
Reliability Surcharge	5,268,565	5,312,719	5,569,153	256,434	5%
Sales Tax	60,856,934	62,294,313	65,506,404	3,212,091	5%
Investment Income	4,917,264	3,849,077	5,880,785	2,031,708	53%
Groundwater Management Fees	886,929	906,481	896,494	(9,987)	-1%
LV Wash Program Fees	356,365	429,845	426,040	(3,806)	-1%
Grant Proceeds	1,430,863	4,685,046	420,165	(4,264,882)	-91%
Other Revenues	94,416,821	4,690,094	5,436,366	746,272	16%
Subtotal	\$ 553,127,761	\$ 493,862,910	\$ 515,964,384	\$ 22,101,474	4%
Debt Issuance Proceeds	-	-	-	-	-
Total Sources	\$ 553,127,761	\$ 493,862,910	\$ 515,964,384	\$ 22,101,474	4%
Uses					
Water Resource Investments	\$ 3,491,404	\$ 12,137,045	\$ 19,016,798	\$ 6,879,753	57%
Energy	36,631,385	36,987,491	35,727,002	(1,260,489)	-3%
Payroll & Related	69,759,148	77,173,738	83,096,589	5,922,851	8%
Operating Expenses	41,443,135	54,461,097	69,263,847	14,802,750	27%
Capital Expenditures	166,442,141	213,684,051	188,228,615	(25,455,437)	-12%
Debt Service	264,956,748	263,950,998	266,611,625	2,660,627	1%
Total Uses	\$ 582,723,961	\$ 658,394,419	\$ 661,944,475	\$ 3,550,056	1%
Total Net Surplus/(Deficit)	\$ (29,596,200)	\$ (164,531,509)	\$ (145,980,091)		

Southern Nevada Water Authority
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Sources

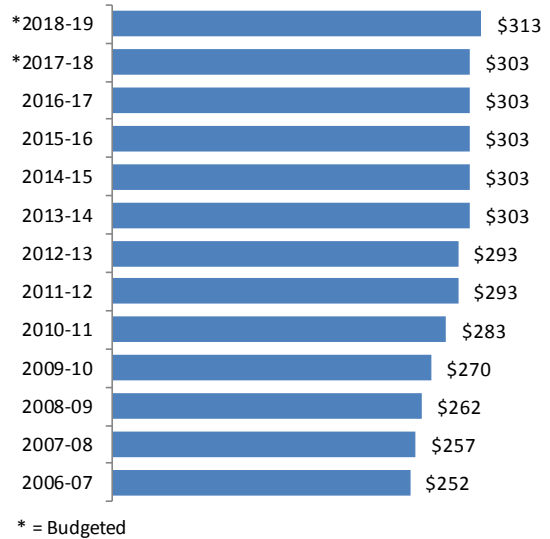
The fiscal year 2018-19 Budget Plan’s total sources of funds are projected to be \$516.0 million, which is a 4 percent increase compared to the 2017-18 Adopted Budget Plan. The increase is primarily attributable to increases in the wholesale delivery charge, infrastructure charge, and sales tax.

Wholesale Delivery Charge.

The wholesale delivery charge is the revenue generated from Colorado River water delivered by the SNWA to its purveyor members. Those purveyor members then sell the purchased water to end-users. The SNWA has no retail customers. For fiscal year 2018-19, the wholesale delivery charge will rise by \$10 per acre-foot for treated water. This increases the charge from \$303 to \$313 per acre-foot.

Periodic rate increases have kept the wholesale delivery charge revenue relatively stable during periods of flat-to-declining usage. The increase of \$10.4 million (8 percent) in fiscal year 2018-19 is the result of the rate increase, as well as growth in water sales to purveyor members. As the following chart illustrates, the SNWA makes a concerted effort to keep the wholesale delivery per acre-foot charge economical for its purveyor members.

Wholesale Delivery Charge Rate
 (\$ per Acre Foot)



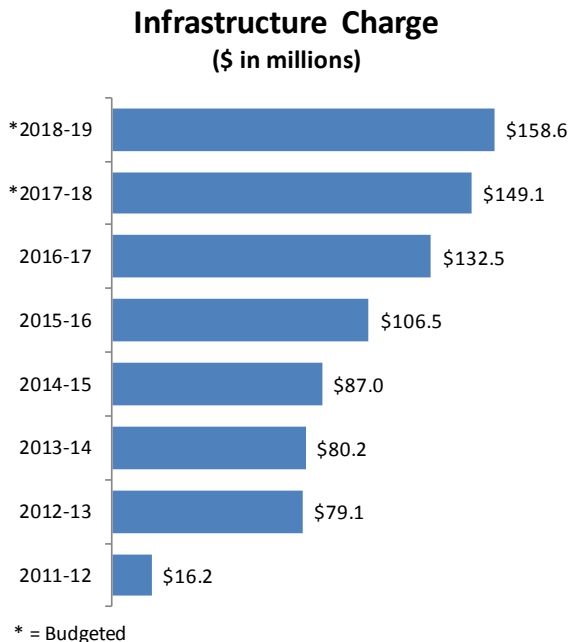
Infrastructure Charge.

In October 2011, the Board authorized an extensive rate study and a public outreach process to study various alternative rate structures to service the SNWA’s outstanding debt. In February 2012, the Board approved an infrastructure charge. This charge is applied by the SNWA purveyor members, typically to retail bills, and is a fixed charge assessed based on meter size and customer class. Consumption is not considered in the application of the charge. Revenue is remitted to the SNWA, from its purveyor members, on a monthly basis. At the same time in 2012, the SNWA Board of Directors (Board) appointed a 21-member Integrated Resource Planning Advisory Committee (IRPAC). The IRPAC reviewed financial projections of the SNWA and recommend strategies concerning the financial commitments. IRPAC’s Phase 1 recommended, with subsequent Board approval, a four-year step-in increase of the infrastructure charge beginning January 1,

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2014, and increased annually through January 1, 2017.

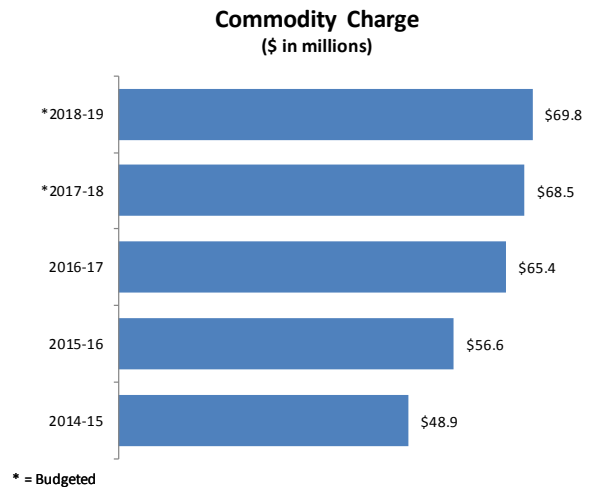
In addition to IRPAC’s Phase 1 recommended increases to the infrastructure charge, IRPAC’s Phase 2 recommended, with subsequent Board approval in December 2014, to increase the fixed monthly charges. This charge was called the Drought Protection Charge and was added to the infrastructure charge. IRPAC Phase 2 had a three-year step-in increase of the infrastructure charge beginning January 1, 2016, and increased annually through January 1, 2018. Infrastructure Charges are budgeted to increase \$9.5 million compared to the 2017-18 Adopted Budget Plan. This increase is primarily due to 2018-19 being the first fiscal year of the fully stepped-in charge.



Commodity Charge.

The commodity charge went into effect in November 1996. This charge is typically collected by purveyor members and remitted

to the SNWA monthly. The commodity charge is applied to retail water bills. In addition to the infrastructure charge mentioned earlier, IRPAC’s Phase 1 recommended, with subsequent Board approval, the commodity charge be increased annually through the same duration as the Phase 1 increases to the infrastructure charge. The \$0.30 per 1,000 gallons rate increased to \$0.34 in January, 2014, to \$0.38 in January, 2015, to \$0.44 in January, 2016, with the final increase to \$0.48 in January, 2017.

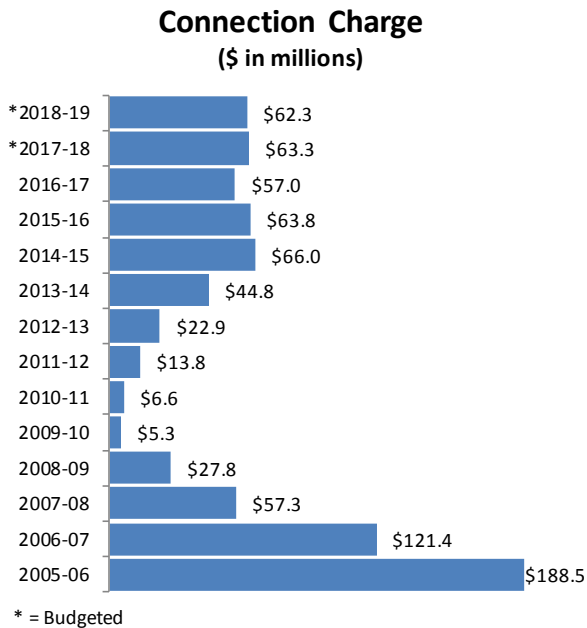


Connection Charge.

The connection charge is a charge assessed for new connections to the potable water system and is based on customer type, land usage, and meter size. The SNWA’s purveyor members collect these charges when customers apply for new water services and they are remitted to the SNWA monthly. The fiscal year 2018-19 projection of connection charge revenue is \$62.3 million, which is lower (2 percent) than the 2017-18 Adopted Budget Plan. Connection charge collections were one of the SNWA’s largest sources of funds in the mid-2000s. However, during the subsequent recession, this revenue fell

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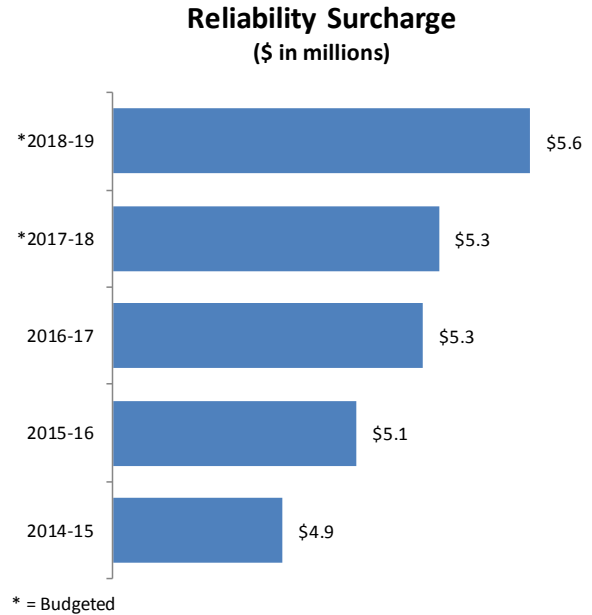
sharply with the lack of construction activity in the SNWA’s service area. Since reaching a low in fiscal year 2009-10, connection charges have increased steadily, however the fiscal year 2018-19 is projecting a decrease is due to pace of new service connections moderating recently.



Reliability Surcharge.

The reliability surcharge went into effect in April 1998 and is based on the total water bill, excluding the infrastructure charge, of the SNWA’s purveyor members. The rate is 0.25 percent for residential customers and 2.5 percent for non-residential customers. These revenues are collected by purveyor members from retail billings and are remitted to the SNWA monthly. The fiscal year 2018-19 reliability surcharge is projected to increase \$0.3 million, or 5 percent. Because this surcharge is based on the total water bill charged to an end user by a purveyor, less the infrastructure charge, the reliability surcharge will increase when a purveyor approves a retail rate increase, when the

SNWA increases the commodity charge and when additional customers are added to the system.



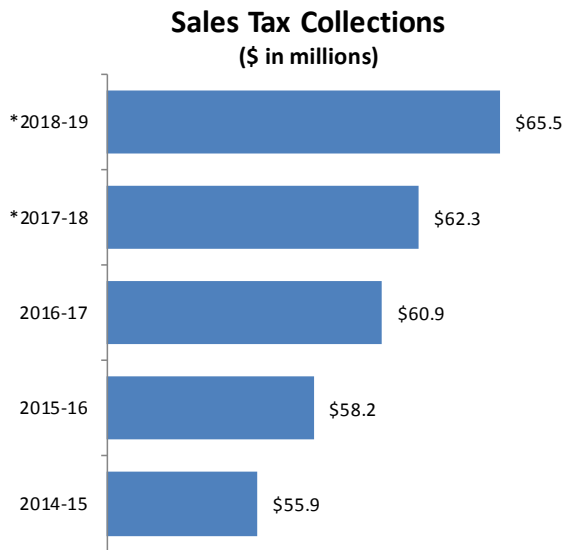
Sales Tax.

The only taxes the SNWA receives are sales taxes. The SNWA does not levy taxes on its own. The Clark County Water and Wastewater Infrastructure Sales Tax went into effect on April 1, 1999. At that time, this increased the sales tax rate in Clark County from 7.0 percent to 7.25 percent. The tax is collected by the Nevada Department of Taxation (DOT) and remitted to the SNWA monthly. Of the gross amount received from the DOT, approximately 3.3 percent is forwarded to rural areas in the county and 4.0 percent is held in reserve by the SNWA to fund needed capital improvements in the Las Vegas Wash. The Las Vegas Wash is the primary channel through which excess water returns from Las Vegas to Lake Mead. The water flowing through the wash comprises less than 2 percent of the water in Lake Mead and consists of urban runoff, shallow

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groundwater, storm water and releases from the three water reclamation facilities within the Las Vegas area.

By agreement with the wastewater agencies in the service area, the SNWA received 100 percent of the remaining sales tax proceeds for the first two years. Since then, the remainder has been split between water and wastewater based on the relative size of their capital improvement plans. The fiscal year 2018-19 projection of sales tax revenue is \$3.2 million, or 5 percent, higher than the 2017-18 Adopted Budget Plan, due to an improving economy.



* = Budgeted

Investment Income.

Investment income includes both interest from bank accounts and investment earnings. The primary objectives of such investments are, in order of importance, safety of principal, maintenance of liquidity, and return on investment (ROI). Investment income is projected to increase \$2.0 million (53 percent) over the 2017-18 Adopted Budget Plan. This increase is primarily

attributable to the increases in interest rates and return on investments.

Groundwater Management Program Fees.

The groundwater management program fees consist of an annual fee of \$30 per acre-foot of permitted groundwater rights or \$30 per domestic well. The fee consists of \$13 reserved for operation and maintenance expenses and \$17 reserved for recharge water purchases. The SNWA will have no recharge water available for purchase for the groundwater management program in fiscal year 2018-19. Consequently, for the sixth year in a row, the SNWA will not charge the \$17 portion of the groundwater management fee. Revenue is projected to be fairly consistent with the fiscal year 2017-18 Adopted Budget Plan.

Las Vegas Wash Program Fees.

The SNWA, along with the City of Henderson, Clark County Water Reclamation District, City of Las Vegas, Clark County, and the Clark County Regional Flood Control District, has entered into an interlocal agreement establishing funding for annual operations of the Las Vegas Wash. Each participant will be billed for budgeted costs according to the interlocal agreement. The program fees of \$0.4 million are projected to remain relatively flat in fiscal year 2018-19 as compared to the 2016-17 Adopted Budget Plan.

Grant Proceeds.

The SNWA attempts to secure grant monies from federal and state sources to help defray some construction, research, and operation costs. These proceeds are expected to be \$0.4 million in fiscal year 2018-19. This is a

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decrease of \$4.3 million compared to the 2017-18 Adopted Budget Plan. The decrease is largely due to weir construction in the upper Las Vegas Wash, which was the basis for a significant portion of the grants, nearing completion. Final construction work is expected to be completed by the end of December 2018.

Other Revenues.

Other revenues are budgeted to increase \$0.7 million (16 percent) from the fiscal year 2017-18 Adopted Budget Plan. The increase is largely due to a rise in revenues related to the operations of the SNWA Ranches.

Debt Issuance Proceeds.

The SNWA is not projected to issue any new money debt in 2018-19.

Uses

The fiscal year 2018-19 Budget Plan’s total uses of funds are projected to be \$661.9 million, a 1 percent increase compared to the 2017-18 Adopted Budget Plan. The uses remained fairly constant from the prior year due to increases in water resource investments, payroll and related, and operating expenses being offset by decreases in capital expenditures.

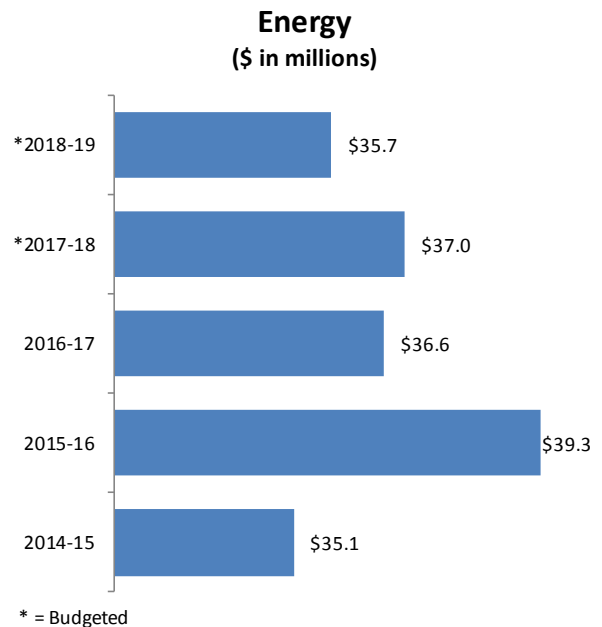
Water Resource Investments.

Southern Nevada obtains 90 percent of its water supplies from the Colorado River. Since the year 2000, persistent drought conditions, the worst in the basin’s recorded history, have affected supply and forced stakeholders and the community to change the way water is utilized in Southern Nevada. Because of long-standing community conservation

practices, Southern Nevada finds itself in a position in which water demands would still be met, even under a shortage declaration. Moreover, investments made in the regional water system will help the SNWA reliably deliver water even during the most severe drought conditions. The 2018-19 Budget plan reflects these investments, which are expected to be \$19.0 million, a \$6.9 million (57%) increase compared to the 2017-18 Adopted Budget Plan.

Energy.

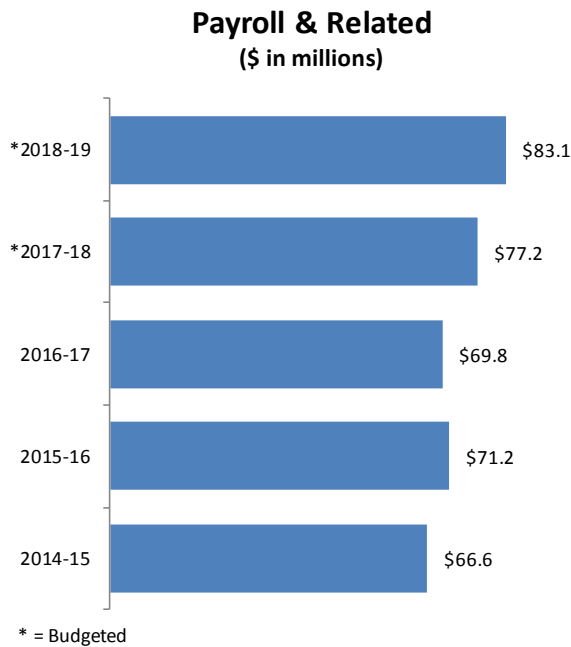
Treating raw water from Lake Mead and delivering it to the Las Vegas area is energy intensive. The cost of energy for fiscal year 2018-19 is projected to decrease \$1.3 million (3 percent) over the fiscal year 2017-18 Adopted Budget Plan. This decrease is primarily due to lower anticipated energy prices.



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Payroll & Related.

The SNWA does not have any employees. As described in the introduction section of this budget document, the Las Vegas Valley Water District (LVVWD) is the operating agent for the SNWA. A significant portion of the SNWA’s operating expenses, including payroll costs, are initially paid by the LVVWD and then reimbursed by the SNWA. Payroll and related includes wages, salaries and benefits. For fiscal year 2018-19, payroll and related expenses are anticipated to be \$83.1 million. This represents an increase of \$5.9 million, or 8 percent, compared to the 2017-18 Adopted Budget Plan.



Full-time equivalent (FTE) is a unit of measurement which represents the workload of one full-time employed person. The SNWA’s FTE count is expected to increase by approximately 8 employees over the fiscal year 2017-18 Adopted Budget Plan. Demands to secure and protect water

resources, ensure efficient use of existing resources, and provide a safe and reliable water supply under current operational conditions has resulted in increased staffing requirements for the SNWA. The following chart summarizes the number of equivalent FTE positions by department charging time to the SNWA.

FTE Summary

<u>Department</u>	<u>Actual</u> <u>2016-17</u>	<u>Budget</u> <u>2017-18</u>	<u>Budget</u> <u>2018-19</u>
Executive Management	7.0	5.0	5.5
Legal Services	6.1	8.0	8.5
Finance	21.1	23.0	24.2
Information Technology	24.8	39.6	40.1
Human Resources	4.6	3.5	4.6
Public Services	31.3	40.3	39.8
Environmental, Health, Safety & Corporate Security	15.4	18.6	19.7
Customer Care & Field Services	4.7	2.9	2.9
Engineering	23.7	24.8	23.3
Resources & Facilities	63.5	75.8	78.9
Infrastructure Management	17.0	24.6	23.6
Water Resources	40.3	41.5	40.5
Energy Management	6.0	6.0	6.0
Operations	52.6	54.0	57.3
Water Quality & Treatment	82.8	85.8	86.4
Total	400.9	453.1	460.8

**Totals may be off slightly due to rounding*

Operating Expenses.

Operating expenses include all normal operating costs of the SNWA except energy, payroll and related, capitalized expenditures, and debt service, which are presented separately. Examples include, but are not limited to, materials and supplies, maintenance and repairs, rental and leases, water treatment chemicals, research and studies, legal fees, and office supplies. Operating expenses are projected to increase \$14.8 million (27 percent) as compared to the 2017-18 Adopted Budget Plan. The rise in operating expenses is due to increased

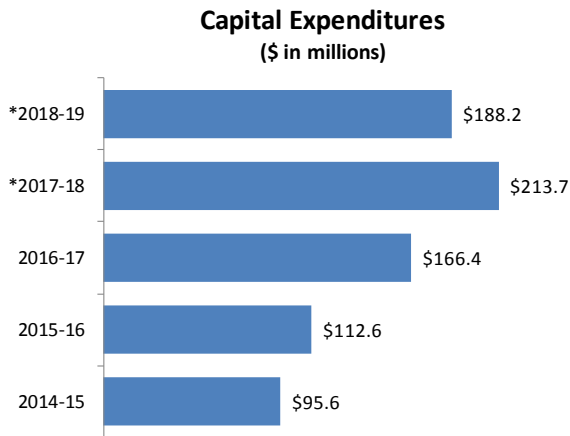
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operation and maintenance costs, including increased conservation efforts and an organizational shift to more “cloud-based” software solutions.

Capital Expenditures.

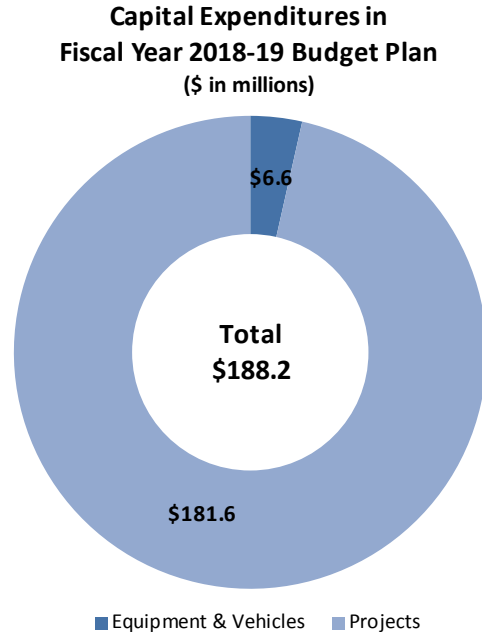
Capital expenditures are projected to decrease \$25.5 million (12 percent), compared to the fiscal year 2017-18 Adopted Budget Plan. The decrease is largely due to weir construction in the upper Las Vegas Wash nearing completion, which is expected at the end of 2018.

Capital expenditures are different from operating expenses in that they are generally related to assets and those assets have useful lives extending beyond three years and surpass an internally established dollar threshold. Typically, capital expenditures of the SNWA are related to infrastructure assets, but can be related to water rights. Examples include, but are not limited to, construction of water treatment and distribution infrastructure, water resource acquisitions, vehicles, and some computer equipment.



* = Budgeted

The majority of the SNWA’s capital expenditures project related.



The capital projects are generally accounted for in the SNWA’s two approved capital improvement plans (CIP):

- Major Construction and Capital Plan (MCCP). The projects of this CIP are mainly for the water treatment and delivery infrastructure or the acquisition and retention of water resources. It is funded primarily with publicly issued municipal debt.
- Las Vegas Wash Capital Plan. The projects of this CIP are related to the improvement of the Las Vegas Wash. It is funded primarily with sales tax proceeds.

The following is a brief description of the most significant MCCP project:

- Intake No.3 Project – Low Lake Level Pumping Station (L3PS). The construction

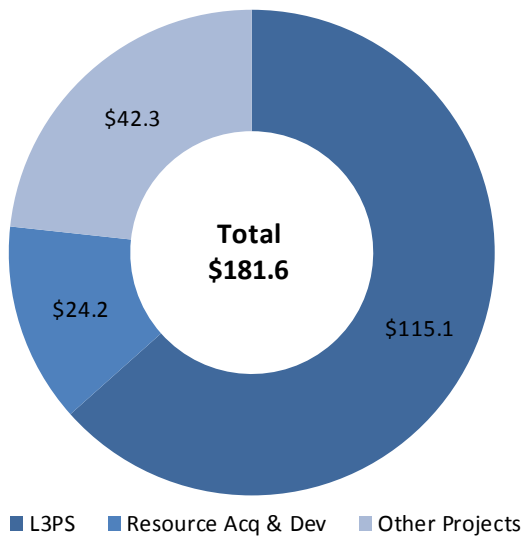
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of a 900 million gallons per day L3PS continues in order to eventually convey water from the new Intake No. 3 tunnel to the existing treatment facilities, 600 million gallons per day (MGD) to the Alfred Merritt Smith Water Treatment Facility and 300 MGD to the River Mountains Water Treatment Facility. The L3PS will function to replace the lost capacities of the existing Intake Pumping Stations No. 1 and No. 2 in the event of extremely low lake levels. The design and construction costs for this project are estimated to be approximately \$650 million and is scheduled to be in 2020. The fiscal year 2018-19 Budget Plan includes \$115.1 million to be spent on this project.

the ones described above, is tenuous at best. Capital projects are typically instituted for two major reasons – 1) to ensure end users have a reliable, consistent source of water and 2) to deliver that water in the most economical manner possible.

The construction of major capital items fits into an overall goal of system reliability and efficiency. Unlike other government agencies that can highlight a park, school, or street, for example, and immediately determine possible maintenance and operating costs, the capital items for a water utility affect the coordination of the entire water system. An increase in costs for one section of the project may cause a reduction in another connected portion. The SNWA’s capital projects utilize state of the art diagnostic equipment and testing procedures which significantly reduce the risk of catastrophic failures and help to minimize routine operating costs. Additionally, the SNWA utilizes internal cost controls to ensure funds are spent in the most conscientious manner. However, even with comprehensive controls such as these, estimating long range costs, especially in current financial conditions, can be a challenge.

**Capital Projects in
 Fiscal Year 2018-19 Budget Plan
 (\$ in millions)**



Periodically, the SNWA pays for capital costs on a pay-as-you-go basis, attempting to minimize financing costs for these capital expenditures, while maintaining financial stability. Projecting long term additional expenses of future capital projects, including

Debt Service.

This reflects all outstanding debt of the SNWA. For more detail on the SNWA’s outstanding debt, see the Debt Management Policy, which is section seven of this budget document.

The Las Vegas area has experienced extraordinary population growth since the SNWA’s inception in 1991. The vast majority of the SNWA’s outstanding debt was necessary to fund the infrastructure growth to support such extraordinary population

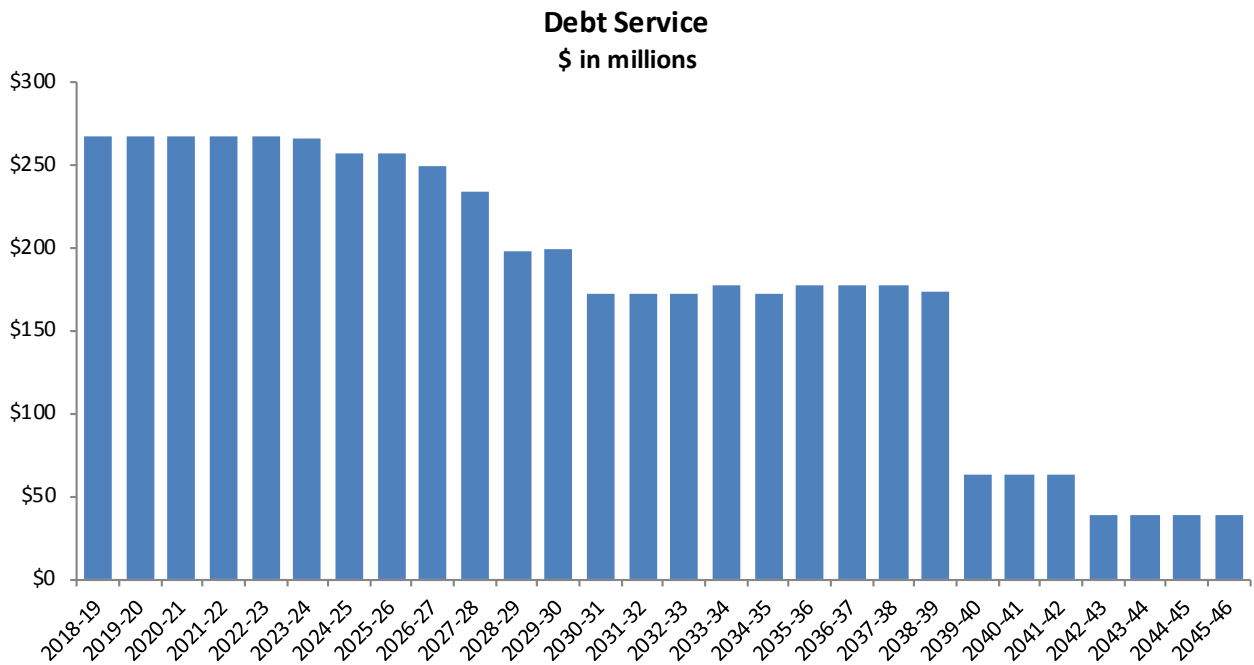
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growth. During the recession of the late 2000's, population growth slowed and the SNWA took actions to provide cash flow relief. For example, the SNWA postponed various capital projects and took advantage of historically low borrowing costs to refinance debt.

Debt service payments are anticipated to increase \$2.7 million (1 percent) compared to

the 2017-18 Adopted Budget Plan. This increase is primarily due to a projected rise in interest rates which affects the cost of the SNWA's commercial paper.

As the following chart illustrates, the existing debt service is projected to be relatively stable for approximately the next 6 years, then decline over subsequent years.



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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 SNWA accounts for its Net Assets in accordance with GASB Statement 33. The following table summarizes the estimated sources and uses of funds and changes in net assets for the fiscal year 2018-19 Budget Plan.

Estimated Net Assets Detail Fiscal Year 2018-19 Budget

	Invested in Capital Assets Net of <u>Related Debt</u>	<u>Restricted</u>	<u>Unrestricted</u>	Total Net Assets
Estimated Net Position on June 30, 2018	\$ 940,943,812	\$ 488,103,266	\$ 554,122,595	\$ 1,983,169,673
<i>From Revenues, Expenses, and Net Income Schedule (RENI), Page 4-5</i>				
Operating Revenue	\$ -	\$ -	\$ 148,622,486	\$ 148,622,486
Capital Contributions		65,926,569	296,246,867	362,173,436
Interest Earned	(2,922,750)		5,880,785	2,958,035
Payroll and Related Energy	20,176,291		(83,096,589)	(62,920,299)
Operating Expenses			(35,727,002)	(35,727,002)
Depreciation Expense	(130,000,000)		(69,263,847)	(69,263,847)
Interest Expense (Debt Service)	116,524,074		(266,611,625)	(150,087,551)
<i>Subtotal from RENI</i>	<u>\$ 3,777,615</u>	<u>\$ 65,926,569</u>	<u>\$ (3,948,925)</u>	<u>\$ 65,755,259</u>
<i>Items not on RENI</i>				
Capitalized Expenditures	\$ 188,228,615	\$ (188,228,615)	\$ -	\$ -
Debt Issuance Proceeds		-		-
<i>Subtotal Items not on RENI</i>	<u>\$ 188,228,615</u>	<u>\$ (188,228,615)</u>	<u>\$ -</u>	<u>\$ -</u>
Estimated Net Position on June 30, 2019	<u><u>\$ 1,132,950,041</u></u>	<u><u>\$ 365,801,221</u></u>	<u><u>\$ 550,173,670</u></u>	<u><u>\$ 2,048,924,932</u></u>

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Fiscal Year Ending June 30, 2019

Sub Funds

According to Generally Accepted Accounting Principles (GAAP), governmental entities use fund based accounting. As a governmental entity, the SNWA accounts for its financial activities in a single enterprise fund. However, the SNWA utilizes sub funds for internal tracking purposes.

and Las Vegas Wash Operating sub fund are small in terms of activity and dollars, they are typically combined into one sub fund for budgeting purposes. Therefore, the SNWA budget presents only five sub funds. Three are classified as capital sub funds while two are operating sub funds. The following table presents the five sub funds, which are described after the table.

The SNWA maintains six sub funds. Since both the Las Vegas Wash Capital sub fund

Budget Summary by Sub Fund
Fiscal Year 2018-19

	Operating Sub Funds		Capital Sub Funds			Total
	Wholesale Delivery Operations	Groundwater Management Plan	New Expansion Debt Service	Major Capital & Construction Plan	Las Vegas Wash	
Sources						
Wholesale Delivery Charge	\$ 141,151,263					\$ 141,151,263
Infrastructure Charge			158,564,232			158,564,232
Commodity Charge			69,814,797			69,814,797
Connection Charge			62,298,684			62,298,684
Reliability Surcharge			5,569,153			5,569,153
Sales Tax			61,248,488		4,257,916	65,506,404
Investment Income	117,616	-	2,822,777	2,922,750	17,642	5,880,785
Groundwater Management Fees		896,494				896,494
LV Wash Program Fees	(620,652)	-	-	-	1,046,691	426,040
Grant Proceeds	136,495	-	9,012	-	274,658	420,165
Other Revenues	712,323	-	4,652,043	72,000	-	5,436,366
Subtotal	\$ 141,497,044	\$ 896,494	\$ 364,979,187	\$ 2,994,750	\$ 5,596,908	\$ 515,964,384
Debt Issuance Proceeds	-	-	-	-	-	-
Total Sources	\$ 141,497,044	\$ 896,494	\$ 364,979,187	\$ 2,994,750	\$ 5,596,908	\$ 515,964,384
Uses						
Water Resource Investments			\$ 19,016,798			19,016,798
Energy	35,727,002					35,727,002
Payroll & Related	57,189,888	518,327	13,249,231	11,071,775	1,067,367	83,096,589
Operating Expenses	47,919,883	793,500	19,888,764		661,700	69,263,847
Capital Expenditures			8,442,900	179,688,515	97,200	188,228,615
Debt Service			266,611,625			266,611,625
Total Uses	\$ 140,836,773	\$ 1,311,827	\$ 327,209,318	\$ 190,760,290	\$ 1,826,267	\$ 661,944,475
Total Net Surplus/(Deficit)	\$ 660,271	\$ (415,333)	\$ 37,769,869	\$ (187,765,540)	\$ 3,770,641	\$ (145,980,091)

Southern Nevada Water Authority
Operating and Capital Budget
Operating and Capital Budget Plan
Fiscal Year Ending June 30, 2019

Operating Sub Funds.

Wholesale Delivery Operations sub fund. This sub fund accounts for the sources and uses of funds related to the SNWA's primary operations, which is the treatment and delivery of potable water to its members. Other activities include the research and study of water quality issues in support of the overall water industry.

Groundwater Management Program sub fund. This sub fund accounts for the sources and uses of funds related to the SNWA's groundwater management program. In 1997, the Nevada Legislature directed the SNWA to develop a Groundwater Management Program to protect and manage the Las Vegas area's primary groundwater supply. The program protects the local groundwater basin from over-drafting and potential sources of contamination.

Capital Sub Funds.

New Expansion Debt Service sub fund. The primary purpose of this sub fund is to account for the majority of the SNWA's debt service and funds received to support those debt service payments. Other expenses include non-turf rebate conservation costs, northern resources costs, non-engineering capitalized labor in support of the MCCP, and some pay-as-you-go capital expenditures.

Major Construction and Capital Plan sub fund. This sub fund accounts for proceeds of debt issued to support the MCCP and capital expenditures related to the MCCP.

Las Vegas Wash sub fund. Although this is a hybrid sub fund paying both capital and operating expenses, the major function of this sub fund is to pay construction costs of the Las Vegas Wash. This sub fund tracks capital and operational revenues and expenses pertaining to the Las Vegas Wash. As stated previously, this sub fund is actually two small sub funds combined into one for budget presentation purposes. They are the Las Vegas Wash Capital sub fund and the Las Vegas Wash Operating sub fund.

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SECTION 4

STATE OF NEVADA

BUDGET DOCUMENTS

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SOUTHERN NEVADA WATER AUTHORITY®

FISCAL YEAR 2018-19

OPERATING AND CAPITAL BUDGET



SOUTHERN NEVADA WATER AUTHORITY®

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

Southern Nevada Water Authority _____ herewith submits the (TENTATIVE) --- (FINAL) budget for the fiscal year ending June 30, 2019

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 \$ 446,307,271

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 Brian Thomas
(Print Name)
Chief Financial Officer
(Title)

certify that all applicable funds and financial operations of this Local Government are listed herein

Signed Brian Thomas

Dated: 5-31-18

APPROVED BY THE GOVERNING BOARD

Marilyn K. Kirkpatrick, Chair *Marilyn K. Kirkpatrick*

Bob Coffin, Vice Chair *Bob Coffin*

James B. Gibson *James B. Gibson*

Peggy Leavitt *Peggy Leavitt*

John J. Lee *John J. Lee*

John F. Marz *John F. Marz*

Steve Sisolak *Steve Sisolak*

SCHEDULED PUBLIC HEARING:

Date and Time Thursday, May 31, 2018 11:00AM

Publication Date May 24, 2018

Place: Molasky Corporate Center, 100 City Parkway, Suite 700, Las Vegas, NV

**SOUTHERN NEVADA WATER AUTHORITY
BUDGET DOCUMENT INDEX**

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FULL TIME EQUIVALENT EMPLOYEES BY FUNCTION

	ACTUAL PRIOR YEAR ENDING 06/30/17	ESTIMATED CURRENT YEAR ENDING 06/30/18	BUDGET YEAR ENDING 06/30/19
General Government			
Judicial			
Public Safety			
Public Works			
Sanitation			
Health			
Welfare			
Culture and Recreation			
Community Support			
TOTAL GENERAL GOVERNMENT			
Utilities	400.9	453.1	460.8
Hospitals			
Transit Systems			
Airports			
Other			
TOTAL			

POPULATION (AS OF JULY 1)	2,205,207	2,248,000	2,291,000
SOURCE OF POPULATION ESTIMATE*	Center for Business & Economic Res. UNLV	Center for Business & Economic Res. UNLV	Center for Business & Economic Res. UNLV
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.

Southern Nevada Water Authority
(Local Government)

SCHEDULE S-2 - STATISTICAL DATA

PROPRIETARY FUND	(1)	(2)	(3) (4) BUDGET YEAR ENDING 06/30/19	
	ACTUAL PRIOR YEAR ENDING 6/30/2017	ESTIMATED CURRENT YEAR ENDING 6/30/2018	TENTATIVE APPROVED	FINAL APPROVED
OPERATING REVENUE				
Wholesale Delivery Charge	\$ 130,115,594	\$ 130,773,096	\$ 141,151,263	\$ 141,151,263
Groundwater Management Fees	886,929	906,481	896,494	896,494
Administration Costs Recoveries	625,349	612,600	712,323	712,323
Las Vegas Wash Program Fees	356,365	429,845	426,040	426,040
Other Revenues	5,389,896	4,076,681	4,724,043	4,724,043
Total Operating Revenue	\$ 137,374,133	\$ 136,798,703	\$ 147,910,163	\$ 147,910,163
OPERATING EXPENSE				
Energy	\$ 36,631,385	\$ 36,987,491	\$ 35,727,002	\$ 35,727,002
Payroll and Related	55,987,034	52,657,549	62,920,299	62,920,299
Operating Expenses	73,839,764	54,711,097	88,280,645	88,280,645
		-		
Depreciation/Amortization	97,423,714	115,000,000	130,000,000	130,000,000
Total Operating Expense	\$ 263,881,897	\$ 259,356,136	\$ 316,927,946	\$ 316,927,946
Operating Income or (Loss)	\$ (126,507,764)	\$ (122,557,433)	\$ (169,017,783)	\$ (169,017,783)
NONOPERATING REVENUES				
Investment Income	\$ 955,013	\$ 1,936,085	\$ 2,958,035	\$ 2,958,035
Capital Contributions	332,146,883	353,214,317	362,173,436	362,173,436
Amortization of Bond Premiums & Discounts	18,002,315	-		
Other	18,935,983	-		
Total Nonoperating Revenues	\$ 370,040,194	\$ 355,150,402	\$ 365,131,471	\$ 365,131,471
NONOPERATING EXPENSES				
Interest Expense	\$ 124,651,755	\$ 125,361,559	\$ 129,379,325	\$ 129,379,325
Amortization of Refunding Costs	3,737,630	-		
Bond Issue & Commercial Paper Costs	5,569,998	-		
Total Nonoperating Expenses	\$ 133,959,383	\$ 125,361,559	\$ 129,379,325	\$ 129,379,325
Net Income before Operating Transfers	\$ 109,573,047	\$ 107,231,410	\$ 66,734,364	\$ 66,734,364
Transfers (Schedule T)				
In				
Out				
Net Operating Transfers				
CHANGE IN NET POSITION	\$ 109,573,047	\$ 107,231,410	\$ 66,734,364	\$ 66,734,364

Southern Nevada Water Authority
(Local Government)

SCHEDULE F-1 REVENUES, EXPENSES AND NET POSITION

FUND _____ ENTERPRISE _____

PROPRIETARY FUND	(1)	(2)	(3) BUDGET YEAR ENDING 06/30/19	
	ACTUAL PRIOR YEAR ENDING 6/30/2017	ESTIMATED CURRENT YEAR ENDING 6/30/2018	TENTATIVE APPROVED	FINAL APPROVED
A. CASH FLOWS FROM OPERATING ACTIVITIES:				
Administrative Costs Recoveries	\$ 3,577,279	\$ 612,600	\$ 712,323	\$ 712,323
Groundwater Management Fees	886,929	906,481	896,494	896,494
Las Vegas Wash Program Fees	356,365	429,845	426,040	426,040
Wholesale Delivery Charge	129,436,759	130,773,096	141,151,263	141,151,263
Other Revenues	2,426,532	4,076,681	4,724,043	4,724,043
Cash Payments to Suppliers of Goods and Services	(137,374,766)	(144,356,136)	(186,927,946)	(186,927,946)
a. Net cash provided by (or used for) operating activities	\$ (690,902)	\$ (7,557,433)	\$ (39,017,783)	\$ (39,017,783)
B. CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:				
b. Net cash provided by (or used for) noncapital financing activities	\$ -	\$ -	\$ -	\$ -
C. CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:				
Purchase or Construction of Capital Assets	\$ (169,046,968)	\$ (250,087,284)	\$ (208,404,905)	\$ (208,404,905)
Proceeds from Disposal of Property and Equipment	76,939,276	-	-	-
Proceeds of Debt Issuance	-	400,000,000	-	-
Principal Paid on Debt	(106,181,517)	(512,089,439)	(116,524,074)	(116,524,074)
Interest Paid on Debt	(158,775,231)	(151,861,559)	(150,087,551)	(150,087,551)
Interest Rebate	2,082,181	-	-	-
Capital Contributions	313,381,711	353,214,317	362,173,436	362,173,436
c. Net cash provided by (or used for) capital and related financing activities	\$ (41,600,548)	\$ (160,823,966)	\$ (112,843,094)	\$ (112,843,094)
D. CASH FLOWS FROM INVESTING ACTIVITIES:				
Purchases of Investment Securities	\$ (950,359,687)	\$ (1,134,762,479)	\$ (1,286,905,059)	\$ (1,286,905,059)
Proceeds from Sales or Maturities of Investment Securities	982,141,170	1,327,923,040	1,399,376,082	1,399,376,082
Investment Income	7,464,863	1,936,085	5,880,785	5,880,785
d. Net cash provided by (or used in) investing activities	\$ 39,246,346	\$ 195,096,647	\$ 118,351,807	\$ 118,351,807
NET INCREASE (DECREASE) in cash and cash equivalents (a+b+c+d)	\$ (3,045,104)	\$ 26,715,248	\$ (33,509,069)	\$ (33,509,069)
CASH AND CASH EQUIVALENTS AT JULY 1, 20xx	\$ 29,380,229	\$ 26,335,125	\$ 53,050,373	\$ 53,050,373
CASH AND CASH EQUIVALENTS AT JUNE 30, 20xx	\$ 26,335,125	\$ 53,050,373	\$ 19,541,304	\$ 19,541,304

Southern Nevada Water Authority
(Local Government)

SCHEDULE F-2 STATEMENT OF CASH FLOWS

FUND ENTERPRISE

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

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

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		(10)	(11)
NAME OF BOND OR LOAN List and Subtotal By Fund	*	TERM	ORIGINAL AMOUNT OF ISSUE	ISSUE DATE	FINAL PAYMENT DATE	INTEREST RATE	BEGINNING OUTSTANDING BALANCE 7/1/2018	REQUIREMENTS FOR FISCAL YEAR ENDING 06/30/19		(9)+(10)	(9)+(10) TOTAL
								INTEREST PAYABLE	PRINCIPAL PAYABLE		
ENTERPRISE FUND											
Nevada Drinking Water State Revolving Fund Loan 1	2	20 Years	\$ 12,269,695	12/30/1999	2/1/2020	3.61%	\$ 1,657,846	\$ 52,567	\$ 814,096	\$ 866,663	
Nevada Drinking Water State Revolving Fund Loan 2	2	20 Years	10,000,000	6/29/2001	8/1/2021	3.46%	2,278,891	73,503	623,438	696,941	
LVVWD Commercial Paper	2	N/A	400,000,000	3/10/2004	N/A	Variable	400,000,000	8,580,000	-	8,580,000	
Clark County 1106 Refunding Bonds	2	30 Years	604,140,000	11/2/2006	11/1/2036	2.5% - 5.00%	69,545,000	1,965,425	-	1,965,425	
SNWA Renewable Energy 2008 Bonds	2	14 Years	6,900,000	7/30/2008	12/15/2022	1.17%	2,300,000	24,219	460,000	484,219	
LVVWD 2009A Bonds	2	30 Years	90,000,000	8/5/2009	6/1/2039	7.10%	90,000,000	6,390,000	-	6,390,000	
LVVWD 2009B Bonds	2	23 Years	10,000,000	8/5/2009	6/1/2019	4.0% - 5.25%	425,000	17,000	425,000	442,000	
Clark County 2009 Refunding Bonds	2	20 Years	50,000,000	10/22/2009	6/1/2030	5.00%	37,905,000	1,895,250	2,380,000	4,275,250	
State of Nevada 2009 Bonds	2	21 Years	2,214,457	10/22/2009	7/1/2029	0.00%	1,455,215	-	126,540	126,540	
LVVWD 2009D Bonds	2	21 Years	71,965,000	12/23/2009	6/1/2030	4.25% - 5.25%	37,440,000	1,868,238	3,730,000	5,598,238	
State of Nevada 2010B Refunding Bonds	2	10 Years	7,405,000	6/24/2010	6/1/2020	3.70%	2,310,000	85,355	1,135,000	1,220,355	
LVVWD 2011A Refunding Bonds	2	15 Years	58,110,000	5/24/2011	6/1/2026	3.05% - 5.43%	44,795,000	2,212,867	4,745,000	6,957,867	
LVVWD 2011B Refunding Bonds	2	16 Years	129,650,000	10/19/2011	6/1/2027	2.79% - 4.96%	101,180,000	4,384,115	10,000,000	14,384,115	
LVVWD 2011C Refunding Bonds	2	26 Years	267,815,000	10/19/2011	6/1/2038	2.0% - 5.0%	210,205,000	10,525,963	11,260,000	21,785,963	
Clark County 2012 Refunding Bonds	2	20 Years	85,015,000	6/20/2012	6/1/2032	4.0% - 5.0%	79,515,000	3,180,600	-	3,180,600	
LVVWD 2012B Bonds	2	30 Years	360,000,000	7/31/2012	6/1/2042	3.0% - 5.0%	332,210,000	15,915,950	7,690,000	23,605,950	
State of Nevada 2013 Refunding Bonds	2	15 Years	21,720,000	2/20/2013	8/1/2027	3.00%	21,720,000	651,600	-	651,600	
LVVWD 2015 Refunding Bonds	2	24 Years	332,405,000	1/13/2015	6/1/2039	4.0% - 5.0%	332,405,000	16,370,250	-	16,370,250	
LVVWD 2015B Refunding Bonds	2	12 Years	177,635,000	6/1/2015	6/1/2028	4.0% - 5.0%	155,795,000	7,439,350	11,680,000	19,119,350	
LVVWD 2015C Refunding Bonds	2	14 Years	42,125,000	6/18/2015	9/15/2029	3.0% - 5.0%	36,755,000	1,725,575	2,835,000	4,560,575	
Clark County 2016A Refunding Bonds	2	14 Years	263,955,000	3/3/2016	11/1/2029	4.5% - 5.0%	226,905,000	10,732,625	24,505,000	35,237,625	
LVVWD 2016A Bonds	2	30 Years	497,785,000	4/6/2016	6/1/2046	3.0% - 5.0%	481,210,000	23,783,650	11,995,000	35,778,650	
Clark County 2016B Refunding Bonds	2	18 Years	271,670,000	8/3/2016	11/1/2034	4.0% - 5.0%	267,885,000	12,789,475	3,965,000	16,754,475	
LVVWD 2017B Refunding Bonds	2	15 Years	22,115,000	3/14/2017	6/1/2032	4.0% - 5.0%	22,115,000	1,027,125	-	1,027,125	
Clark County 2017 Refunding Bonds	2	21 Years	321,640,000	3/22/2017	6/1/2038	4.0% - 5.0%	321,640,000	14,442,600	9,910,000	24,352,600	
LVVWD 2018B Bonds	2	8 Years	79,085,000	3/6/2018	6/1/2026	4.25% - 5.0%	79,085,000	3,954,250	8,245,000	12,199,250	
TOTAL ALL DEBT SERVICE							\$ 3,358,736,951	\$ 150,087,551	\$ 116,524,074	\$ 266,611,625	

Southern Nevada Water Authority
(Local Government)

Budget Fiscal Year 2018-2019

SCHEDULE C-1 - INDEBTEDNESS

LOBBYING EXPENSE ESTIMATE

Pursuant to NRS 354.600 (3), **each** (emphasis added) local government budget must obtain a separate statement of anticipated expenses relating to activities designed to influence the passage or defeat of legislation in an upcoming legislative session.

Nevada Legislature: 80th Session; February 4, 2019 to June 3, 2019

1. Activity:	<u>Legislature 2019 - Southern Nevada Water Authority</u>	
2. Funding Source:	<u>Operating Revenues</u>	
3. Transportation		\$ <u>22,205</u>
4. Lodging and meals		\$ <u>23,995</u>
5. Salaries and Wages		\$ <u>38,041</u>
6. Compensation to lobbyists		\$ <u>10,000</u>
7. Entertainment		\$ <u>-</u>
8. Supplies, equipment & facilities; other personnel and services spent in Carson City		\$ <u>1,302</u>
Total		\$ <u><u>95,543</u></u>

Entity: Southern Nevada Water Authority

Budget Year 2018-2019

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Schedule 30

SCHEDULE OF EXISTING CONTRACTS

Budget Year 2018 - 2019

Local Government: Southern Nevada Water Authority
Contact: Brian Thomas
E-mail Address: brian.thomas@lvvwd.com
Daytime Telephone: (702) 822-8810

Total Number of Existing Contracts: 153

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2018-19	Proposed Expenditure FY 2019-20	Reason or need for contract:
1	A Trak Out Solution	08/15/15	07/31/21	\$ 14,000	\$ 14,000	Vegetation removal
2	A Trak Out Solution	10/02/15	06/30/20	14,000	14,000	WSNA Dumpster Service
3	Ab Sciex	03/11/14	03/10/19	183,627	183,627	Service agreement for lab equipment
4	Abyss Solutions Pty Ltd	01/23/18	01/22/19	42,000	42,000	Imaging services & analytical reporting
5	Aerotech Mapping	04/07/15	04/06/20	40,000	40,000	Ad hoc aerial imagery services
6	Agilent Technologies, Inc.	04/01/14	03/31/19	148,050	148,050	Laboratory equipment repair services
7	All Star Fence Co.	09/01/16	08/31/22	16,333	4,083	Fence Repairs at WSNA
8	Alliance For Water Efficiency	06/22/17	04/30/20	100,000	100,000	PSA to Study Water Demand for Use in Cooling
9	American Fence	09/01/16	08/31/22	16,334	4,084	Fence Repairs at WSNA
10	Anzalone Pumps, Inc.	05/01/13	04/30/18	250,000	-	Irrigation Well Maintenance Services
11	Argus Engineering	05/16/15	05/16/20	70,000	70,000	PSA for work related to the SCADA system
12	Argus Engineering	05/21/15	05/20/20	130,000	130,000	Engineering services
13	Arizona Water Banking Authority	08/17/17	-	3,400,000	-	Payment for Colorado River Water Banking in Arizona
14	Aspen Environmental Group	10/13/10	upon notice	100,000	100,000	Legal services for reporting and expert testimony
15	Association Of Metropolitan Water Agencies	01/01/18	12/31/21	59,912	59,912	PSA - AMWA Administrative Support
16	Avisight, LLC	08/22/16	08/21/20	40,000	40,000	Ad hoc aerial imagery services
17	B&W Trucking	01/01/16	12/31/23	24,000	24,000	Transportation Services for Livestock
18	Ballard Spahr LLP	11/26/13	11/27/21	20,000	20,000	Legal services regarding the Glen Canyon Dam
19	Beckman Coulter, Inc.	01/01/18	12/31/18	19,422	19,422	Lab equip. main. Agreement
20	Bio-West Inc	04/29/16	04/28/19	58,000	14,500	PSA for Biological consulting services on the Muddy River
21	Bio-West Inc	04/29/15	04/28/19	52,000	52,000	Biological Consulting Services on Virgin River
22	Black & Veatch	10/01/14	upon notice	45,740	45,740	Mixing zone modeling services
23	Black & Veatch Corporation	11/16/17	On Completion	1,429,415	-	Eng Svcs for AMSWTF Filter Improvements, Phase III
24	Booky Oren Global Water Technologies Ltd.	10/16/14	upon notice	100,000	100,000	Organizational development assistance
25	Bracken'S Valley Tire Repair LLC	03/30/15	04/01/21	20,000	20,000	Pivot Tire Purchases and Repairs
26	BSA Environmental Services	07/01/09	06/30/19	35,000	35,000	Zooplankton analysis for Water Quality Div.
27	C&E Fence LLC	07/01/17	06/30/22	49,000	49,000	Fencing Services for Northern Resources
28	C. Joseph Guild III	01/01/12	upon notice	64,000	64,000	Ranch and Agricultural Consulting
29	C. Joseph Guild III	01/09/12	upon notice	92,000	92,000	Natural Resource and Water Issues Consulting
30	Capital Project Law Group, PLLC	03/16/15	03/16/23	50,000	50,000	Legal advisory services
31	Cathy Leece	01/30/18	01/29/23	44,000	44,000	Graphic Designer Services
32	CDW Government	12/22/17	01/17/18	47,214	47,214	Annual Riverbend Gold Support Service Extension
33	CH2M Hill Engineers, Inc.	05/18/17	06/29/22	300,000	300,000	Eng. services for misc civil, electrical, mechanical & control sys projects
34	Coastline Equipment	12/19/17	01/16/18	22,100	-	Equipment repairs
35	Colorado Water Conservation Board	11/28/17	09/30/18	85,000	-	Weather Modification Program
36	Community Strategies Inc	01/23/18	01/24/18	24,000	-	Legal Services
37	Creel Printing Company	11/28/16	11/27/21	80,678	88,746	SNWA Water Smart Living Newsletter - Printing Services
38	Digital Mapping, Inc.	02/17/16	02/16/20	75,000	-	Aerial imagery to support off-site work for the Faraday Future electric vehicle mfg facility.
39	Dotson Law Group	10/12/16	10/11/23	100,000	100,000	Legal Services for SNWA
40	Ecosynthesis Scientific & Regulatory Services, Inc.	07/10/17	07/09/21	75,000	75,000	Geologic & Biologic Consulting Services
41	Engineering System Solutions	12/12/17	12/11/18	11,700	5,600	PSA Hacienda ROFCS
42	Environmental Resource Associates	02/16/17	01/31/19	46,500	52,000	Lab proficiency testing
43	Eurofins Eaton Analytical	11/01/16	10/31/21	110,185	110,185	Water sample analysis services
44	Faiss Foley Warren	08/01/13	07/31/19	900,000	900,000	Integrated communications and support services for SNWA
45	Fei Company	12/05/17	12/04/18	28,656	28,656	Lab equip. main. Agreement
46	Finlinson & Finlinson	01/21/06	upon notice	30,000	30,000	Natural resource consulting services
47	Frazier & Deeter LLC	01/04/18	01/03/19	70,000	-	Accounting & Budget Operations Advisory Services
48	Geohydros, LLC	01/19/17	01/18/19	108,633	-	Geologic Model Construction
49	Geophex Surveys, Ltd	09/17/15	12/31/18	88,774	-	Aerial imagery services
50	Geophex Surveys, Ltd	08/22/16	08/21/19	40,000	5,700	Ad hoc aerial imagery services
51	George T. Hall Company, Inc.	05/18/17	06/29/22	300,000	300,000	Technical services for ControlLogix controllers.
52	Glass Box Technology Inc.	11/30/15	11/29/20	60,000	60,000	Professional services for EMC data storage operating system software training

SCHEDULE OF EXISTING CONTRACTS

Budget Year 2018 - 2019

Local Government: Southern Nevada Water Authority
Contact: Brian Thomas
E-mail Address: brian.thomas@lvvwd.com
Daytime Telephone: (702) 822-8810

Total Number of Existing Contracts: 153

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2018-19	Proposed Expenditure FY 2019-20	Reason or need for contract:
53	Global Water Technologies Ltd	07/25/13	upon notice	70,000	70,000	Innovation development assistance
54	Great Basin Bird Observatory	08/28/14	08/27/20	71,498	75,073	Avian and Vegetation Monitoring in LV Wash
55	Great Basin Bird Observatro	10/01/15	06/30/20	43,160	43,160	WSNA Bird Surveys
56	Great Basin Institute	12/18/17	10/31/24	99,000	99,000	WSNA Vegetation Control and Docent Staffing
57	Great Basin Irrigation	01/01/16	12/31/23	40,000	40,000	Irrigation Systems Parts and Maintenance
58	Greenberg Traurig, LLP	06/19/12	upon notice	100,000	100,000	Bond counsel
59	Gunnison Bend Veterinary Services	08/09/17	06/30/22	50,000	50,000	PSA for Veterinary Services at the ranches.
60	Gust Electric, Inc.	01/01/18	12/31/22	100,000	115,000	Electrical Supplies, Materials & Related Services
61	Harris Acquisition	11/14/17	03/31/18	33,699	-	Chlorine Bldg. HVAC upgrades
62	Henderson Electric Motors, Inc.	05/21/14	05/20/19	175,050	175,050	Repair of electric motors
63	High Sierra Water Laboratory	12/01/14	11/30/19	40,000	40,000	Water sample analysis services
64	Hispana Comunicacion Integral	03/01/17	02/28/22	98,000	98,000	Spanish Language Support Services
65	Hitachi ID Systems Inc	01/16/18	02/12/18	16,250	16,250	Software Support Services
66	Hobbs, Ong & Associates Inc	07/21/16	07/20/21	150,000	150,000	Financial Advice and Debt Management Services
67	Hobbs, Ong & Associates Inc	03/20/14	upon notice	400,000	400,000	IRPAC Financial advisory services
68	Holland & Hart	05/22/12	05/22/19	100,000	100,000	Litigation related services
69	Holland & Hart	08/23/12	08/23/20	100,000	100,000	Nevada Power integrated resource plan litigation
70	Holland & Hart	07/01/13	06/30/20	1,500,000	1,500,000	Legal services for environmental compliance
71	Holland & Hart	08/26/13	08/22/19	100,000	100,000	Legal Services
72	HRA Inc	09/16/13	09/30/18	22,500	-	Archaeological Investigations in LV Wash
73	Imagine Exhibitions Inc.	09/03/15	03/20/19	125,000	125,000	Traveling Exhibit "Science Fiction: Science Future"
74	Institute For Executive Development	08/29/13	08/28/20	90,000	90,000	Development of organizational initiatives
75	James C Davis	01/20/16	07/19/18	96,000	96,000	SNWA Public Relations Assitance for PI
76	Jh Davenport	12/24/08	upon notice	10,150	10,150	Water resource and administrative consulting services
77	John Deere Repair Parts And Service	01/01/16	12/31/23	30,000	30,000	John Deere Repair Parts and Service for GB Ranches
78	Koffler Electrical Mechanical	01/13/14	01/12/19	1,150,000	1,150,000	Service Contract for Large Motor Refurbishment
79	Laguna Productions	02/21/13	02/20/19	145,000	145,000	Production assistance
80	Las Vegas Color Graphics	11/28/16	06/30/21	48,762	56,077	SNWA Water Smart Living Newsletter - Mailing Services
81	Law Office Of Joseph Guild	02/01/18	01/31/19	59,500	-	Professional Services Agreement - Ranch and Agricultural Consulting Services
82	Leavitt Enterprises LLC	07/01/16	06/30/20	27,000	27,000	SNWA Handyman Services
83	Lewis & Roca	03/22/10	upon notice	100,000	100,000	Legal Services
84	Lewis Michaelson	05/10/17	05/09/20	11,000	11,000	Professional Services for SNWA
85	Lionel, Sawyer & Collins	04/07/04	upon notice	24,999	24,999	Legal representation
86	Lj Mccormick Enterprises Inc.	10/01/15	06/30/20	49,000	49,000	WSNA Ecological Restoration
87	Logistical Solutions	10/16/17	04/30/18	24,360		Removal of ferric tank liner at AMS
88	Louis Berger U.S., Inc.	11/16/17	On Completion	618,159		Eng Svcs for the Tropicana Weir Project
89	MalitzLaw	11/16/16	upon notice	15,000	15,000	H-2A Related Matters
90	March Counsel LLC	06/20/17	On Completion	100,000		Legal Services & Representation Regarding Energy Matters
91	Marcus R Jensen	10/1/2016	8/7/2020	90,000	90,000	Professional Engineering Services
92	Merrick & Company	09/17/15	9/16/2018	260,400	260,400	Purchase & delivery of LIDAR digital elevation data services
93	Michael J Brennan	08/23/12	07/01/18	100,000	100,000	Environmental compliance consulting
94	Mountain States Nursery	09/01/16	08/31/18	14,000	3,500	Plant Propagation
95	Moyle Irrigation	01/01/16	12/31/23	50,000	50,000	Pivot Irrigation Maintenance Services
96	Muddy River Regional Environmental Impact Alleviation Committee	01/06/14	01/07/19	50,000	50,000	Tamarisk removal services for fire control
97	National Park Service	02/01/17	01/31/22	57,500	66,125	Professional weed control services
98	Navigant Consulting Inc	08/10/17	08/10/24	60,000	60,000	Transmission evaluation Services
99	Nevada Division Of Forestry	01/31/17	01/31/22	250,000	250,000	Inmate Conservation Camp Services
100	New Vista Ranch Inc	01/24/18	01/24/18	74,574		SNWA Well Conversion - New Vista Ranch
101	Nv Energy	12/29/99	12/28/19	1,000,000	1,000,000	SNWA Lease of Fiber Optic Lines
102	O'Flarety Plumbing And Heating	01/01/16	12/31/23	35,000	35,000	Plumbing Repair Services for GB Ranches
103	Omniticket Network	08/01/15	07/31/21	20,000	20,000	Services related to internet ticket sales for the Springs Preserve
104	Par 3 Landscape & Maint. Inc.	10/01/15	06/01/21	47,000	47,000	WSNA Landscaping
105	Patricia Emery	05/18/15	05/17/19	24,900	24,900	Editorial services with finalizing documents & reports on an as-needed basis.
106	Patty A. Emery	05/18/17	05/17/19	24,900	24,900	Editorial Services

SCHEDULE OF EXISTING CONTRACTS

Budget Year 2018 - 2019

Local Government: Southern Nevada Water Authority
Contact: Brian Thomas
E-mail Address: brian.thomas@lvvwd.com
Daytime Telephone: (702) 822-8810

Total Number of Existing Contracts: 153

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2018-19	Proposed Expenditure FY 2019-20	Reason or need for contract:
107	Performix Nutrition Systems	10/26/15	10/25/19	95,000	95,000	Custom Cattle Nutrition Supplements
108	Perkin Elmer	08/01/17	07/31/18	23,808	23,808	Lab equip. main. Agreement
109	Pfm Asset Management, LLC	08/24/17	08/23/22	75,000	75,000	Debt Arbitrage Compliance Services
110	Phycotech, Inc.	08/01/14	07/31/19	70,000	70,000	Phytoplankton analysis in Lake Mead
111	Piercy Bowler Taylor & Kern	3/30/2017	3/29/2022	47,500	47,500	Authority Auditor Services
112	Power Plus Engineering	02/15/17	02/14/18	24,000	24,950	Eaton/Powerware Plus main. Agree.
113	Process Applications Inc	11/06/14	until complete	20,000	10,000	Ozone dissolution methods
114	R&R Partners	07/16/15	06/30/21	3,350,000	3,350,000	Marketing & Media Support SNWA
115	R&R Partners, Inc	02/01/18	01/30/24	75,000	75,000	SNWA Government Affairs
116	R&R Public Affairs	01/22/12	01/21/18	75,000	37,500	Consulting services for state and federal natural resource issues
117	R2H Engineering Inc	01/24/18	01/23/19	23,760		Sloan Station Settlement Repairs
118	Rafael Construction, Inc.	02/12/18	12/31/18	96,255		AMS tank liner replacements
119	Ram Proline LLC	12/29/15	12/28/21	156,783	156,783	ARC Strip and Recoat Pump Parts
120	Ranch Advisory Partners	08/01/16	07/31/19	75,000	75,000	PSA Biological Consulting Services on Grazing Land
121	Raysco Inc	12/19/17	01/31/18	19,684		Floor Cleaning
122	Rogich Communications Group	06/15/17	06/14/21	96,000	96,000	Professional Services Agreement
123	Ronald E. Zegers	03/03/14	upon notice	100,000	100,000	Water quality issue consulting
124	Shimadzu Scientific	10/03/17	10/02/18	13,223	13,223	Lab equip. main. Agreement
125	Simplot Growing Solutions	10/01/13	09/30/19	50,000	50,000	Soil Testing for SNWA Ranches
126	Snell & Wilmer, LLP	04/11/12	04/11/20	100,000	100,000	Glen Canyon Dam environmental compliance
127	Soil Tech, Inc	08/02/16	08/01/21	496,800	496,800	Wash Revegetation
128	Southern Nevada Environmental	08/09/17	08/08/21	25,000	25,000	Environmental Consulting Services for Monitoring, Surveying and Compliance Inspections
129	Spring Valley Associates	01/01/15	12/31/20	1,200,000	1,200,000	Ranch Management
130	Stanka Consulting	08/21/08	upon notice	210,000	210,000	Water Rights Surveyor
131	Steve Reagan	01/01/16	12/31/23	35,000	35,000	Veterinary Services for GB Ranches
132	Steve Robinson	11/28/17	11/25/24	58,000	58,000	Consulting Services for Public Services
133	Stinson Leonard Street	01/02/14	06/30/21	100,000	100,000	Legal Services
134	Stotz Equipment	01/01/16	12/31/23	15,000	30,000	Ranches John Deere Repair Parts and Service
135	Stradling Yocca Carlson & Rauth, A Professional Corporation	12/05/17	12/05/24	50,000	50,000	Bond Disclosure Counsel Services
136	Sunbelt Controls	08/01/17	07/31/18	206,315		Energy Management System Services
137	Swendseid And Stern	04/03/12	upon notice	200,000	200,000	Bond Counsel
138	Taggart & Taggart	01/18/07	upon notice	286,000	286,000	Legal services for environmental compliance
139	The Tiberti Fence Company	09/01/16	08/31/22	49,000	49,000	Fence Repairs at WSNA
140	Tri-County Weed Control	09/01/16	08/31/20	30,000	30,000	Weed control in Warm Springs Nat Area
141	Tri-County Weed Control	06/25/17	06/24/21	35,000	35,000	Noxious and Invasive Weed Control
142	U S Captioning Company	08/01/16	07/31/21	12,000	3,000	Closed Captioning services for SNWA & LVVWD Board of Directors meetings
143	United Soil Science	02/22/17	02/21/22	215,124	236,636	Fertilizer Services for the Ranches
144	USGS Nevada Water Science Center	10/01/17	09/30/18	117,833	-	Joint Funding Agreement SNWA-USGA-USDOJ
145	Utah Division Of Water Resources	11/27/17	09/30/18	66,084	-	Weather Modification Program
146	Utility Resources, Inc.	03/17/05	upon notice	530,000	530,000	Public utility commission regulatory hearings
147	Wag Services	06/01/15	06/30/20	49,500	49,500	Hay Tarping Services for GB Ranches
148	Warren Turkett	06/25/12	upon notice	81,680	81,680	Lower Colorado River water quality database
149	Water Research Foundation	10/01/17	09/30/18	277,764		Annual Subscription Services
150	Weck Analytical Enviro. Svcs Inc	06/10/15	06/10/20	300,000	300,000	Water sample analysis
151	Wilmer Cutler Pickering Hale & Dorr LLP	12/14/17	06/30/18	100,000		Colorado River Issues
152	Wunderlich-Malec	07/01/17	06/30/22	300,000	300,000	Programming technical services
153	Wyoming Water Development Office	11/28/17	12/31/18	100,000	-	Weather Modification Program
Total Proposed Expenditures				\$ 27,253,748	\$ 19,670,484	

SCHEDULE OF PRIVATIZATION CONTRACTS

Budget Year 2018 - 2019

Local Government: Southern Nevada Water Authority

Contact: Brian Thomas

E-mail Address: brian.thomas@lvvwd.com

Daytime Telephone: (702) 822-8810

Total Number of Privatization Contracts: NONE

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Duration (Months/ Years)	Proposed Expenditure FY 2018-19	Proposed Expenditure FY 2019-20	Position Class or Grade	Number of FTEs employed by Position Class or Grade	Equivalent hourly wage of FTEs by Position Class or Grade	Reason or need for contract:
1	NONE									
2										
3										
4										
5										
6										
7										
8	Total									

AFFIDAVIT OF PUBLICATION

STATE OF NEVADA)
COUNTY OF CLARK) SS:

**LV WATER DISTRICT
1001 S VALLEY VIEW BLVD
LAS VEGAS NV 89153-0001**

**Account # 22455
Ad Number 0000986475**

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 05/24/2018 to 05/24/2018, on the following days:

05 / 24 / 18

NOTICE IS HEREBY GIVEN

that the Board of Directors of the Southern Nevada Water Authority (SNWA) will hold a Public Hearing on Thursday, May 31, 2018, at the hour of 11:00 a.m. at the SNWA Board Chambers at the Molasky Corporate Center, 100 City Parkway, Suite 700, Las Vegas, NV 89106, on the Tentative Budget and possible adoption of the Final Budget for the fiscal year 2018-19.

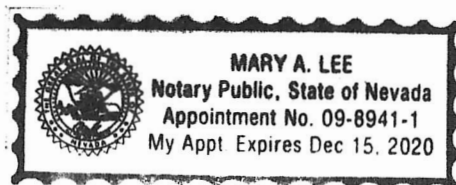
Copies of the Budget, which have been prepared on forms and in such detail as is prescribed by the Nevada Department of Taxation, are on file for public inspection at the Las Vegas Valley Water District, 1001 South Valley View Boulevard, Las Vegas, Nevada 89153.

Southern Nevada
Water Authority
PUB: May 24, 2018
LV Review-Journal

Leslie McCormick
/s/ _____
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 24th day of May, 2018

Notary *Mary Lee*





STATE OF NEVADA
DEPARTMENT OF TAXATION

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

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

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

BRIAN SANDOVAL
Governor

JAMES DEVOLLD
Chair, Nevada Tax Commission
WILLIAM D. ANDERSON
Executive Director

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

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

June 27, 2018

Mr. Matt Chorpening, Asst. Chief Financial Officer
Las Vegas Valley Water District
1001 South Valley View Blvd.
Las Vegas, NV 89153

Re: Final Budget – Fiscal Year 2018-2019 –Southern Nevada Water Authority

Dear Mr. Chorpening:

The Department of Taxation has examined the Fiscal Year 2018-2019 final budget for the above named entity in accordance with NRS 354.598. We find it to be in compliance with applicable statutes and regulations.

Based upon the review of the Final Budget, the following tax rates were presented to the Nevada Tax Commission on June 25, 2018 for certification:

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

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

Sincerely,

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

SECTION 5

DEPARTMENT BUDGETS

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SOUTHERN NEVADA WATER AUTHORITY®

FISCAL YEAR 2018-19

OPERATING AND CAPITAL BUDGET

Southern Nevada Water Authority
Operating and Capital Budget
Department Budgets
Fiscal Year Ending June 30, 2019

Department Budgets

This section contains summaries of budgets for each of the Southern Nevada Water Authority's (SNWA) departments. Each department's budget narrative contains detailed budget information and other

highlights of the 2018-19 Budget Plan. The following table presents the 2016-17 actual, 2017-18 Adopted Budget and 2018-19 Budget Plan for each of the departments.

SNWA
Summary of Department Expenditures

Departments	2016-17 Actual	2017-18 Budget	2018-19 Budget	Budget-to-Budget Variance
Executive Management	\$ 1,868,200	\$ 1,602,828	\$ 1,719,356	\$ 116,528
Legal Services	2,920,137	3,959,668	4,716,733	757,065
Finance	15,923,270	12,705,963	13,397,280	691,317
Information Technology	9,208,827	17,865,264	16,861,649	(1,003,615)
Human Resources	772,442	625,138	798,881	173,743
Public Services	11,096,659	13,288,025	15,336,156	2,048,131
Environmental Health Safety & Corporate Security	2,442,922	2,951,566	3,492,274	540,708
Customer Care & Field Services	792,225	420,863	440,638	19,775
Engineering	158,500,911	141,669,054	132,013,674	(9,655,380)
Resources & Facilities	20,552,897	32,736,399	32,984,568	248,169
Infrastructure Management	5,344,064	13,546,215	16,976,779	3,430,564
Water Resources	14,311,867	49,888,482	57,590,653	7,702,171
Energy Management	37,935,699	46,064,068	43,096,095	(2,967,973)
Operations	12,940,713	17,520,581	15,283,433	(2,237,148)
Water Quality & Treatment	23,156,379	39,599,308	40,624,682	1,025,374
Total Department Expenditures	\$ 317,767,212	\$ 394,443,421	\$ 395,332,851	\$ 889,430
Debt Service	\$ 264,956,748	\$ 263,950,998	\$ 266,611,625	\$ 2,660,627
Total Uses of Funds	\$ 582,723,960	\$ 658,394,419	\$ 661,944,476	\$ 3,550,056

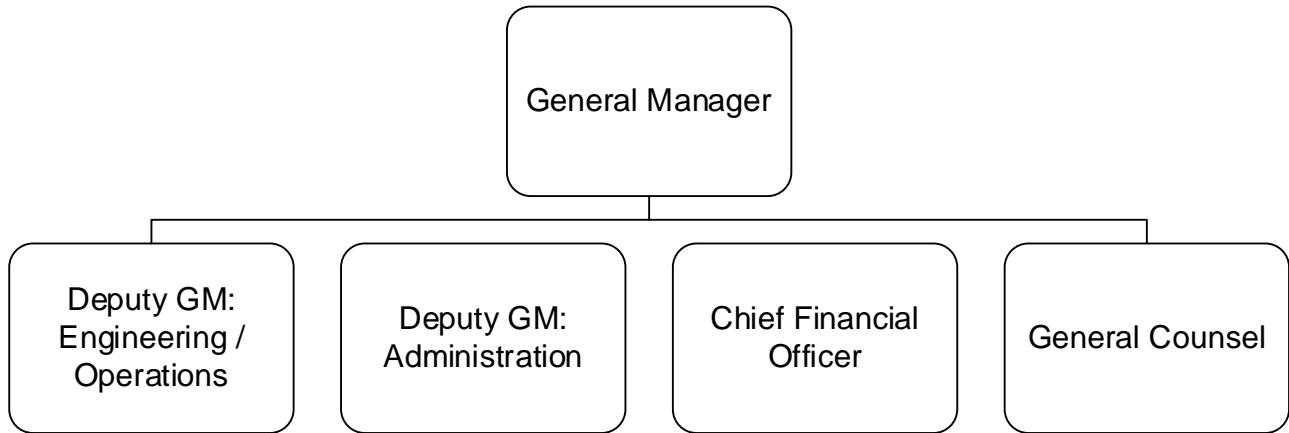
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SOUTHERN NEVADA WATER AUTHORITY®

EXECUTIVE MANAGEMENT

Level: 1000



Mission Statement

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

The Executive Management Team

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

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

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

Southern Nevada Water Authority
 Operating and Capital Budget
 Department Budgets
 Executive Management
 Fiscal Year Ending June 30, 2019

Expenditures

SNWA Uses	Actual 2016-17	Budget 2017-18	Budget 2018-19
Materials & Supplies	\$ 12,661	\$ 28,600	\$ 30,100
Maintenance & Repairs	1	-	100
Other Employee Expenses	61,688	183,750	190,700
Other Expenses	206,444	255,980	253,740
Total Operating Expenses	\$ 280,794	\$ 468,330	\$ 474,640
Capital Costs	\$ 41,050	\$ -	\$ -
Payroll Costs	\$ 1,546,356	\$ 1,134,498	\$ 1,244,716
Total Department Expenditures	\$ 1,868,200	\$ 1,602,828	\$ 1,719,356
FTE Positions	7.0	5.0	5.5

Major Activities

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

- Continued progress in constructing a new Low Lake Level Pumping Station (L3PS), which is expected to be complete by 2020

- Continued implementation of LVVWD’s 10-year Capital Improvement Plan
- Participation in the WaterStart partnership
- Completion of a Citizens Advisory Committee process for Big Bend Water District water rates, and implementation of the resulting recommendations
- Collaboration with Colorado River partners on conservation programs to help protect Lake Mead water elevations
- Leadership and involvement in Colorado River issues and initiatives
- Continuation of the Nevada State Engineer’s public hearing process to review water rights associated with the Clark, Lincoln and White Pine Counties Groundwater Development Project

Southern Nevada Water Authority
Operating and Capital Budget
Department Budgets
Executive Management
Fiscal Year Ending June 30, 2019

- The 10-year anniversary of the Springs Preserve, which experienced record-breaking attendance, membership and community involvement in 2017

Minute 323

On August 17, 2017, the SNWA Board of Directors approved six “Minute 323” related agreements between Colorado River water users and the country of Mexico.

Under Minute 323, Mexico will be able to defer delivery of a portion of its Colorado River water, which will remain in Lake Mead. This will help maintain elevation levels and avoid shortage declarations. Mexico has also agreed to absorb a share of the mandatory shortages should they be declared.

As part of the agreement, the SNWA Board authorized up to \$7.5 million in contributions for conservation projects in Mexico, which could potentially yield up to 35 billion gallons of water. A portion of this water would then be designated for Nevada’s use.

The Minute 323 agreement between the U.S and Mexico was officially executed and became effective September 21, 2017.

Low Lake Level Pumping Station

In 2015, SNWA began design and construction on L3PS at Lake Mead. To date, construction on all 34 of the project’s well shafts has been completed. These shafts will accommodate submersible pumps that are each capable of pumping 30 million gallons of water per day.

More than 500 feet beneath the well shafts, crews continue to excavate a 377-foot-long,

36-foot-high, 33-foot-wide underground forebay, which will be used to store water for pumping.

Crews have also completed the two 144-inch discharge pipelines that will connect the new pumping station to the transmission systems that deliver raw lake water to the River Mountains and Alfred Merritt Smith treatment plants.

L3PS construction remains on-schedule and is expected to be operational by 2020. Once complete, L3PS will allow SNWA to pump water from an elevation as low as 875 feet and work with Intake No. 3 to provide the community continued access to Colorado River supplies.

LVVWD Capital Improvement Plan

In January 2017, the LVVWD Board of Directors approved a 10-year Capital Improvement Plan to guide decisions related to asset management, necessary water system expansion and water quality compliance. Since then, significant progress has been made on various projects provided for within the Capital Plan; including the backflow retrofit program, beginning a 10 million-gallon storage reservoir in Summerlin and rehabilitation of major distribution lines. Once complete, these and other projects will increase water system reliability, enhance protection against water contamination and provide additional capacity for current and future water demands.

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WaterStart

In 2013, the Nevada Governor's Office of Economic Development partnered with the Desert Research Institute, LVVWD, SNWA and other organizations to create a joint water technology venture called WaterStart. The goal of WaterStart is to leverage expertise and leadership in identifying practical, innovative solutions to water-related issues. Ultimately, the community's economy is strengthened and jobs are created as these issues are taken on by companies that are uniquely qualified to address them.

For example, companies such as Syrinix and RedEye are headquartered overseas, but have recently opened offices in Nevada as part of the WaterStart initiative. Each company offers its own specific, innovative product that is currently being used to increase efficiency and bolster the reliability of the community water system.

Big Bend Water District Rates Process

In 2017, more than \$9 million in capital improvements were identified as being necessary to maintain system reliability and avoid costly service interruptions to Big Bend Water District (BBWD) customers.

In response, the BBWD Board of Trustees appointed a Citizens Advisory Committee (CAC) in June 2017 to offer community perspective on how best to fund necessary capital expenditures for the water system. Nine individuals representing a broad spectrum of community interests served on the committee and met with LVVWD staff five times between July and September 2017. The group provided six recommendations to help

guide the Board of Trustees' decisions on how to meet revenue deficiencies and support a reliable water system.

System Conservation Pilot Program

The SNWA continues to partner with the U.S. Bureau of Reclamation and water users in the Upper and Lower Colorado River Basins to jointly fund voluntary water conservation projects that benefit the Colorado River. Under the funding agreement, participating partners have the authority to provide more than \$30 million to support projects in both basins.

By the end of 2017, the program had supported 10 projects in the Lower Basin and 45 projects in the Upper Basin, with more expected to be complete in 2018.

State Engineer Groundwater Hearings

In September of 2017, the Nevada State Engineer held a continuation of the public-hearing process to review water rights associated with the SNWA's Clark, Lincoln and White Pine Counties Groundwater Development Project. The hearings focused on monitoring, management and mitigation plans for protection of existing water rights and the environment, as well as verification that specified quantities of groundwater can be sustainably developed. A decision from the State Engineer is expected in 2018.

Springs Preserve 10-Year Anniversary

The Springs Preserve celebrated its 10-year anniversary in 2017. The Preserve also had its most successful year to date in terms of

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attendance, membership and community involvement.

A record 300,000 people visited the Springs Preserve in 2017. The increased attendance can largely be attributed the opening of several new and highly-anticipated exhibits and features, including the WaterWorks Exhibit, Boomtown 1905, a new children's playground and the Teaching Garden.

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.

2018-19 Performance Objectives

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

research, conservation and water quality efforts.

- Implement the LVVWD and SNWA Capital Plans.

2017-18 Major Accomplishments

- The SNWA Board approved multiple Minute 323-related agreements among Colorado River water users and the country of Mexico to boost reservoir levels by adding billions of gallons of water to Lake Mead. The agreements will also support water conservation projects, expand wildlife habitat and provide for environmental restoration.
- The SNWA Board approved an updated Water Resource Plan in 2017 that extends water supply and demand planning scenarios through the year 2068.
- L3PS construction remains on-schedule with forebay construction in progress and the completion of pump well shafts and discharge pipelines.
- Continued progress on asset management, necessary system expansion and water quality compliance projects provided within LVVWD's 10-year Capital Improvement Plan.
- Supported a total of 55 Colorado River System Conservation Pilot Program projects throughout the Basin.
- Implementation of the Syrinix Pipeline Monitoring System, which monitors water pressure throughout the service area and provides staff data that can be used to minimize leaks, avert costly emergency repairs and enhance the

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- longevity of the community’s water infrastructure.
- Implementation of the RedEye Digital Management System, a cloud-based engineering and drawing management platform, by which employees can more efficiently store, find, share, manage and update engineering drawings and data using computers or mobile devices.
- The LVVWD’s average monthly water use for residential single services was approximately 10,800 gallons in 2017, representing a 39 percent decrease from calendar year 2000 consumption.

Strategic Plan Goal - Deliver an outstanding customer service experience.

2018-19 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.

2017-18 Major Accomplishments

- In 2017, LVVWD delivered approximately 108 billion gallons of water to customers throughout its service area.
- Fully installed and implemented Itron Analytics software, yielding significant benefits in workflow efficiency, water conservation and customer service and education.

- Installation of all-new electrical and data infrastructure in LVVWD Customer Service center, which will support software that will enhance customer service engagement efforts and provide additional avenues of customer-staff interaction.
- Launched a re-designed and mobile-friendly LVVWD website, with improved bill paying and customer self-service options.
- Launched a re-designed and mobile-friendly Springs Preserve website, which features an improved events calendar and easier access to ticketing, membership and visitor information.
- Opened the WaterWorks Exhibit at the Springs Preserve, which offers visitors an in-depth look at the treatment and delivery process that takes place before water comes out of the tap.
- Introduced the Springs Preserve’s “Silver State Pass,” a premier family membership that includes free family admission to signature events, unlimited seasonal access to the Butterfly Habitat, two annual guest admissions and general-admission train rides.

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

2018-19 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

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change, including active membership in the Water Utility Climate Alliance.

- Continue effective management of the Spring Valley ranching properties.
- Continue conservation education and incentive programs to maximize available water supplies.

2017-18 Major Accomplishments

- SNWA continues to serve as a member of the Water Utility Climate Alliance, and recently participated in the completion and approval of a Strategic Plan that will serve as the primary guidance document for the alliance's long-term efforts.
- Ranked 1st place in the 100 Best Fleets ratings for environmental practices, an award for which applicants were graded on a comprehensive set of criteria including use of renewable and alternative sources of fuel. More than 90 percent of the organization's fleet is now powered by alternative fuels.
- Attained 20 percent overall project completion on the Tropicana Weir – the last of the 21 weirs planned and constructed at the Las Vegas Wash. The Wash remains an important component to Southern Nevada's watershed by carrying the valley's excess water through wetlands, which serves as critical habitats to birds and plants, and a crucial cleansing point for the runoff.
- Continued monitoring of the Moapa dace population, which has been stable since 2014 at approximately 1,800 fish.

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

2018-19 Performance Objectives

- Continued implementation of IRPAC recommendations, including the construction of L3PS.
- Continue to lead the implementation of the Las Vegas Wash Comprehensive Adaptive Management Plan.

2017-18 Major Accomplishments

- Continued participation in the WaterStart partnership. Implementation of the aforementioned Redeye and Syrinx systems are a direct result of the WaterStart initiative and are yielding significant benefits.
- Continued to support environmental management efforts at SNWA Northern Resource Properties by putting primary groundwater rights to beneficial use. Ranch staff maintains critical assets and provides services to technical staff conducting research and monitoring activities.
- Participated with Israel-based company, WellToDo, to investigate technology that removes nitrate from LVVWD groundwater supplies. Future testing will continue to optimize performance and begin to evaluate other water contaminants.
- Participated with Japan-based company, Metawater, to investigate bromate-monitoring technology that

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monitors the formation of bromate in our treatment plants. Bromate is a byproduct of ozone disinfection process and currently regulated by USEPA. The analyzer would be first of its kind to monitor bromate to help ensure regulatory compliance.

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

2018-19 Performance Objectives

- Plan and develop opportunities to increase LVVWD and SNWA investments in alternative and renewable energy supplies.
- Continue to implement recommendations made by the LVVWD Rates and Service Rules Citizens Advisory Committee process and monitor results.

2017-18 Major Accomplishments

- Implementation of 6 recommendations made by a citizen's advisory committee, including annual 9.4 percent rate increases in years 2017-2020, to support long-term water system reliability in Laughlin, NV.
- Continued implementation of 11 recommendations, including a modest rate increase in 2017 and 2018, from a citizen's advisory committee to support long-term LVVWD water system reliability.

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

2018-19 Performance Objectives

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

2017-18 Major Accomplishments

- 2017 was the Springs Preserve's most successful year to date in terms of attendance, membership and community involvement.
- Provided free admission to the Springs Preserve from November 20-24 for first responders, and other critical personnel for their service to the community on October 1.
- The Public Relations Society of America recognized LVVWD, SNWA and the Springs Preserve with 5 Pinnacle Awards.
- The Springs Preserve was named as one of "The Seven Best Places to Keep Kids Entertained" by vegasseven.com.
- The Springs Preserve earns the TripExpert Experts' Choice Award which reflects the views of journalists and professional travel writers and is bestowed on the best attractions around the world. The Preserve also received the TripExperts Best of Las Vegas award.

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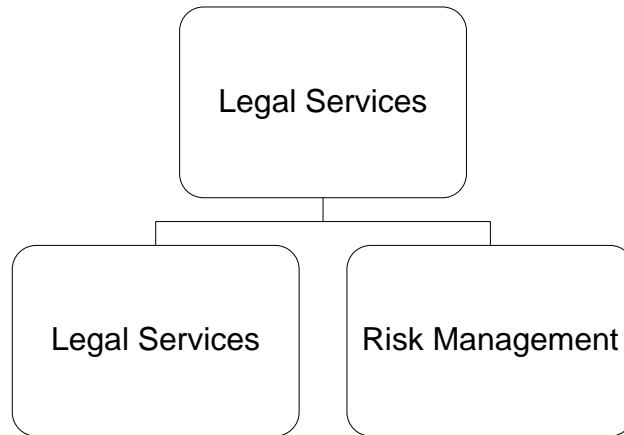
- In 2017, SNWA assisted 17 well users to connect to the municipal water supply, in compliance with the SNWA's financial assistance guidelines for the Groundwater Management Program as established by the Nevada Legislature. Through the Sub-Meter Assistance Program, eight sub-meters have been distributed to well owners, seven rebates have been issued for the installation of those sub-meters, and seven wells have been plugged and abandoned.
- Hosted a federally-funded disaster management training for emergency response partners to prepare for, respond to and mitigate incidents affecting water and wastewater facilities.

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Legal Services
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LEGAL SERVICES
Level: 1200



Mission

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

Department Description

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

and continues to advise on electrical power issues.

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

Budget Objectives and Highlights

Attorneys in the department are performing a steadily increasing practice before Nevada courts, federal courts, and state and federal administrative agencies. The 2018-19 budget contains continuing funding to support these efforts and for outside counsel who perform a variety of other legal services for the organization.

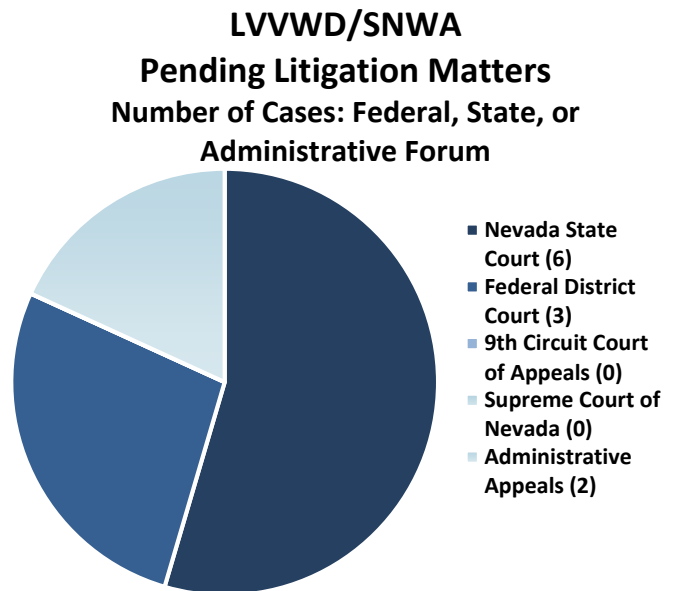
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Legal Services
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Expenditures

SNWA Uses	Actual 2016-17	Budget 2017-18	Budget 2018-19
Materials & Supplies	\$ 150	\$ 500	\$ 50,500
Maintenance & Repairs	-	-	-
Rental & Leases	-	-	-
Other Employee Expenses	49,703	61,500	83,500
Other Expenses	1,467,559	2,206,824	2,742,050
Total Operating Expenses	\$ 1,517,412	\$ 2,268,824	\$ 2,876,050
Capital Costs	\$ 19,734	\$ -	\$ -
Payroll Costs	\$ 1,382,991	\$ 1,690,844	\$ 1,840,683
Total Department Expenditures	\$ 2,920,137	\$ 3,959,668	\$ 4,716,733
FTE Positions	6.1	8.0	8.5

Department Performance

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



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Strategic Plan Objectives and Accomplishments

Deliver an Outstanding Customer Service Experience

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

Strengthen and Uphold a Culture of Service, Excellence and Accountability

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

2017-18 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.
- Began implementation of the District/SNWA Contract Management Software

2018-19 Performance Objectives

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

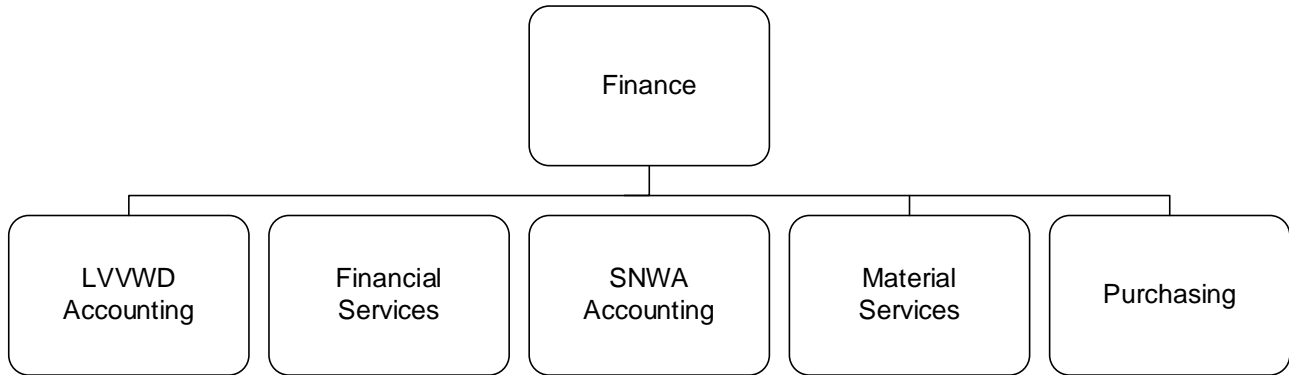
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SOUTHERN NEVADA WATER AUTHORITY®

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FINANCE
Level: 2100



Mission

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

Department Description

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

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

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

Budget Objectives and Highlights

The 2018-19 Finance department budget contains funding to maintain the necessary functions the LVVWD and the SNWA require to provide quality services to both internal and external customers.

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Expenditures

SNWA Uses	Actual 2016-17	Budget 2017-18	Budget 2018-19
Materials & Supplies	\$ 2,874,234	\$ 105,400	\$ 438,400
Maintenance & Repairs	300	38,750	48,550
Rental & Leases	985	1,550	1,450
Other Employee Expenses	40,819	101,005	88,655
Other Expenses	8,977,414	8,931,905	8,881,305
Total Operating Expenses	\$ 12,635,495	\$ 9,178,610	\$ 9,458,360
Capital Costs	\$ -	\$ -	\$ -
Payroll Costs	\$ 3,287,775	\$ 3,527,353	\$ 3,938,920
Total Department Expenditures	\$ 15,923,270	\$ 12,705,963	\$ 13,397,280
FTE Positions	21.1	23.0	24.2

Department Performance

LVVWD Accounting. The LVVWD Accounting division is responsible for accounting, financial reporting, treasury and debt management, accounts payable and payroll activities, as well as supporting cashiering activities at the Springs Preserve. The division ensures adequate controls over all revenues, expenditures, assets and liabilities, and prepares the LVVWD Comprehensive Annual Financial Report (CAFR), which has received the Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association (GFOA) for the last thirty-nine (39) consecutive years. The division provides accounting and payroll services for the LVVWD, the SNWA, Big Bend

Water District (BBWD), Kyle Canyon, Coyote Springs, and three rural systems that are part of the LVVWD. The division also provides accounting services for the Las Vegas Valley Water District Retirement Plan.

Accounting functions include: ensuring financial statements and reports are accurate, complete and consistent; maintaining the general ledger, inventory, fixed asset and other system records; cash management and the accounting and reporting of investments of the LVVWD's funds; debt management; reconciling bank statements with thousands of disbursements; processing payroll for approximately 1,250 employees; processing accounts payable for approximately 42,000 payments annually, earning more than

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\$256,000 discounts in fiscal year 2016-17 including an annual credit card rebate of \$99,000; accounting for the Springs Preserve; and accounts receivable, which includes federal and state agency grant accounting that require preparing and submitting reports to obtain reimbursements.

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

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

Financial Services. A broad range of financial services are provided by this division, including preparing and monitoring the annual operating and capital budgets of the LVVWD and the SNWA; designing, analyzing, and recommending water rates; providing short and long-term financial plans.

Financial Services is responsible for preparing the annual operating and capital budgets for the LVVWD, SNWA, BBWD and Coyote Springs. This includes budget development,

implementation and monitoring for the LVVWD, SNWA, and BBWD. Financial Services prepares variance reports by department, and directors are accountable for expenditures over and under budget. The division also performs a variety of strategic and long-range financial forecasting, financial and water rate scenario analyses and develops water rate, connection and other fee recommendations for the organization. On an annual basis, the 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 Annual Statistical Reports.

SNWA Accounting. The SNWA Accounting division is responsible for the SNWA's financial reporting, treasury and debt management, revenue billing, and various financial analyses.

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

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

Purchasing. The Purchasing division is responsible for the centralized purchasing

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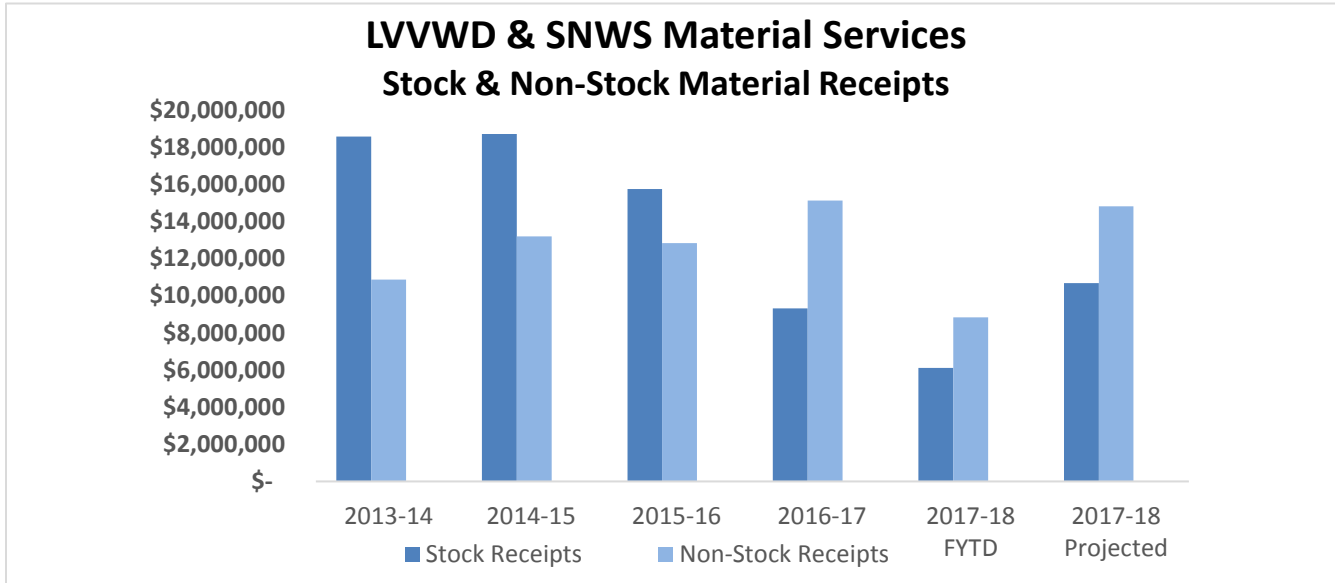
activities of the LVVWD, the SNWA and the Springs Preserve. These activities include: market analysis, developing new, expanded or alternative suppliers, systems contracting, formal and informal bidding processes, sustainable purchasing, disposal of company property, and the support of a diversified 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.

Material Services. Material Services' primary role is to deliver reliable customer service by providing quality operating and maintenance products, material requirements planning, inventory management, storage and retrieval services. To ensure customers' material needs are met, Material Services administers \$13.5 million in blanket agreements to replenish inventory. Material Services partners with their internal customers to identify, forecast, and schedule various Capital and operations and maintenance project material requirement deliveries.

These non-stock material items are received, inspected, and processed at both the LVVWD and SNWS Main distribution warehouses for delivery to internal customers at the LVVWD, SNWS, and eleven satellite facilities.

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In February 2018, average inventory assets were valued at \$16 million consisting of approximately 16,452 inventory items. Material Services also received, inspected, and processed stock replenishment deliveries. In fiscal year 2017-18, Material Services is projected to receive and process \$25.5 million or 23,890 lines combined for stock and non-stock receipts and projected to issue \$10.7 million or 76,078 lines of operating and maintenance inventory to internal users.

Material Services supports sustainability through inactive and obsolete inventory reduction, repurposed shipping materials, and administers, coordinates, and manages the investment recovery efforts for various recyclable and repurposed equipment and material through the auction program and bid sales. Additional services include emergency response planning, system emergency readiness, job site deliveries, safety garment administration, first-aid kit replenishments, Safety Data Sheet administration, and courier services for organizational business needs. Terrorism training certification is required annually by all Material Services personnel.

Mail Services. Mail Services processes incoming and outgoing intercompany and United States Postal Service (USPS) mail and processes office supply deliveries. Mail Services has two locations, one at the LVVWD Valley View office and the other at the Molasky Corporate Center. Mail Services delivers between the LVVWD, Molasky Corporate Center, SNWA, SNWS and Springs Preserve offices and to all remote facilities throughout the LVVWD service territory. Mail Services also performs the delivery and posting of agenda public notices, administers LVVWD’s postage budget, desktop delivery of office supplies, and processes special communication campaign projects for Public Services. Terrorism training certification is required annually for all Mail Services personnel.

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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 all the various activities and services provided by the LVVWD and the SNWA.

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

2018-19 Performance Objectives

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

2017-18 Major Accomplishments

- Standard & Poor's (S&P) raised its long-term credit rating for the LVVWD to AA+ from AA. The ratings upgrade reflects S&P's view of the LVVWD's strong financial management practices and policies, maintenance of robust cash reserves, and continued economic growth in the Las Vegas area.
- Board approved a long-term rate plan for the Big Bend Water District.

Strategic Plan Goal - Deliver an outstanding customer service experience.

2018-19 Performance Objectives

- Begin implementation of a new procure-to-pay and inventory management system that streamlines the procurement process, creating efficiencies that will allow staff the time to manage their assigned commodities and services more effectively.
- Streamline the warehousing processes to provide better functionality for inventory planning and forecasting.
- Continue to improve and streamline day-to-day accounting practices, specialized processes, improved financial analyses, reporting, and information sharing to departments.
- Provide the best possible equipment choices to departments to assist them in meeting their goals efficiently and effectively.
- Provide material services support to the internal customer's strategic goals and projects by planning, forecasting, scheduling, and coordinating their specific material requirements while maintaining optimal inventory availability.
- Complete financial month end close within 30 days of the end of the month.

2017-18 Major Accomplishments

- Provided Maintenance Engineering division forecasting and material

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- management services for the wellsite communications upgrade program.
- Explored cost savings and service improvements by changing supply source providers for Material Services' Vendor Managed Inventory (VMI). This change resulted in a 55 percent O&M cost savings, improved service, and supply reliability for their internal customers.
- Provided internal customers with forecasting and material management services for their capital and/or maintenance projects. For example, Backflow Device Retrofit Program; PLC5 Remote Rack Replacement at well sites; Service Line and Pipeline Rehab/Replacement Program; Vault Rehabilitation Program.
- Provided Customer Care and Field Services (CC&FS) with material management and forecasting services and utilized just-in-time delivery methods to support their commercial and residential meter maintenance program.
- The combined metals recycling sales netted \$388,194 and \$46,615 for obsolete equipment and material auctions.
- Expanded use of electronic systems for the submission and analysis of bids for goods, services, construction, and evaluation of complex Request for Proposals. The ability to submit bids and proposals electronically helped increase competition, and exposure of the LVVWD's contracting activity to a larger supply base, including diverse suppliers.

- Began testing and implementation of a program to replace a manual user purchase order process for small dollar purchases. This program will increase transparency and accountability for small dollar purchases, and decrease the transactional costs for such items.
- Streamlined the internal approval process for contracts allowing a shorter turnaround time for contract implementation.

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

2018-19 Performance Objectives

- Increase purchases of recycled and environmentally friendly products.
- Provide weights and categories for all inventory items required for the computation of the LVVWD's carbon footprint.
- Administer the LVVWD's investment recovery program for the sale or repurposing of obsolete material and equipment.

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

2018-19 Performance Objectives

- Continue implementing improved report and automation technology for the upgraded general ledger and accounting system for more timely

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and useful reports, increased employee efficiency, better control of the approval/authorization process and to maximize vendor discounts.

- Actively participate in CC&B and Workday software.
- Encourage the purchase of sustainable products by facilitating meetings with suppliers and interested departments.
- Utilize mobile technologies for mail and warehousing processes and activities.

2017-18 Major Accomplishments

- Identified vendors for accounts payable automation software and began implementation.
- Implemented Workday payroll.
- Implemented a P-Card Program.
- Actively participated in vendor selection for new purchasing software.
- Actively participated in Avantis and Altru ticketing software upgrades and implementations.
- Implemented the Pitney Bowes Tracking Online System for mail and material deliveries. This system provides real time status, chain of custody tracking, and final delivery recording to the requestor and requires scanning the employee's ID badge and obtaining their signature.
- Upgraded two-way radios from analog to digital technology to improve communications and enhance interoperability.
- Automated several manual payment processes to improve accuracy and efficiency.

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

2018-19 Performance Objectives

- Continue the Finance department's long-standing record of excellence in budgeting and financial reporting.
- Continue to enroll vendors and develop payment opportunities for credit card program to increase the credit card rebate.
- Reduce the volume of manually processed payments through customer outreach efforts.
- Replace decades old purchasing and inventory management system.

2017-18 Major Accomplishments

- Upgraded bond ratings from AA and AA- Standard and Poor's (S&P) to AA+ and AA for the LVVWD and SNWA respectively.
- Issued the Las Vegas Valley Water District General Obligation Bonds (additionally secured by SNWA Revenues) Series 2018B Refunding Bonds generating net present value savings of \$10.2 million.
- Issued Las Vegas Valley Water District General Obligation Bonds Series 2018A to provide \$100 million of proceeds to fund the CIP.
- Renegotiated terms for the 2016D Bonds with a savings of \$270,000.
- Provided comprehensive financial planning and analytical support for the BBWD Citizens Advisory Committee, resulting in the BBWD rate plan.

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- Completed an Accounts Payable audit of overpayments/missed credits with minimal findings.
- Participated in implementation of new unclaimed property system.
- Participated in implementation of new job order ledger system.
- Implemented Pitney Bowes Tracking Online System for mail and material deliveries with real time status, chain of custody tracking, and final delivery recording to the requestor and requires scanning the employee's ID badge and obtaining their signature.
- Implemented remote mobile laptop and printer equipment and technology enabling paperless receipting by the warehouse staff, decreased processing time from 45 minutes per package to 3 minutes on average.
- Increased the AMS Material Services' Warehouse storage space by 37 percent to accommodate the L3PS's Andritz, Ebara and Indar pump's critical spare parts managed as an inventory asset.
- Reorganized the LVVWD Main Warehouse in-bound receiving and inventory storage sections to maximize space, improve safety and reduce physical movement of material handling staff and equipment by 26.2 miles over a year timeframe.
- Initiated RFP for a new Procure-to-Pay and Inventory Management System to replace a decade's old system.

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

2018-19 Performance Objectives

- Submit the LVVWD and SNWA CAFR for the year ending June 30, 2018, to the GFOA and receive the Certificate of Excellence in Financial Reporting.
- Receive unmodified opinions from external auditors for the LVVWD, SNWA and BBWD fiscal year 2018 audits.
- Receive the Distinguished Budget Presentation Award from the GFOA for the LVVWD and SNWA Operating and Capital Budgets for the year ending June 30, 2019.
- Enforce regulatory and accounting requirements of inventory asset reporting and accountability.
- Update strategic goal tactics, which align with Strategic Goals 2, 5 and 6.

2017-18 Major Accomplishments

- Received the Certificate of Excellence in Financial Reporting from the GFOA of the United States and Canada for the thirty-ninth (39th) consecutive year for the LVVWD CAFR for the ended June 30, 2017.
- Received the Certificate of Excellence in Financial Reporting from the GFOA for the twenty-second (22nd) consecutive year for the SNWA CAFR for the year ended June 30, 2017.
- Received an unmodified opinion from external auditors for the LVVWD, SNWA and BBWD fiscal year 2017 audits.
- Received the Distinguished Budget Presentation Award from the GFOA for the LVVWD and SNWA Operating and

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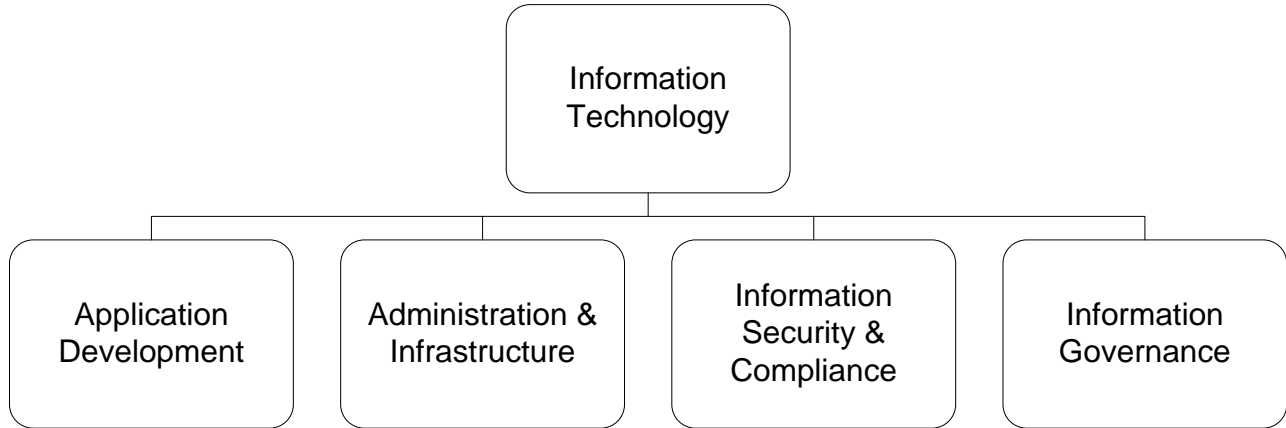
Fiscal Year Ending June 30, 2019

Capital Budgets for the year ending June 30, 2018.

- LVVWD Material Services achieved 23 years, SNWS Material Services 16 years, and Mail Services 5 years without a lost-time accident.
- Received an unmodified opinion for a near-perfect inventory accuracy audit from external auditors for the LVVWD and SNWS Material Services warehouses.

INFORMATION TECHNOLOGY

Level: 2300



Mission

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

Department Description

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

the Clark County Imagery Project. Specific support activities are noted for each division herein.

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

Budget Objectives and Highlights

The 2018-19 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.

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Expenditures

SNWA Uses	Actual 2016-17	Budget 2017-18	Budget 2018-19
Materials & Supplies	\$ 578,278	\$ 767,120	\$ 646,868
Maintenance & Repairs	2,714,934	2,748,028	3,345,984
Rental & Leases	345,257	425,200	462,000
Other Employee Expenses	14,050	106,407	170,010
Other Expenses	888,779	2,558,755	3,314,276
Total Operating Expenses	\$ 4,541,298	\$ 6,605,510	\$ 7,939,138
 Capital Costs	 \$ 151,751	 \$ 4,074,999	 \$ 1,243,200
 Payroll Costs	 \$ 4,515,778	 \$ 7,184,755	 \$ 7,679,311
 Total Department Expenditures	 \$ 9,208,827	 \$17,865,264	 \$16,861,649
 FTE Positions	 24.8	 39.6	 40.1

Department Performance

Information Technology completed a number of projects to improve business processes, functionality, system operations, and security, while reducing expenses and risk to the organization. Major projects during the year included completion of the first phase of the Workday Human Capital Management System, upgrade of network storage, initiated the Call Center upgrade, continuation of PC/monitor refresh program, development of new Conservation system to manage Water Smart Landscapes program, deployment of business intelligence system, and completion of the Las Vegas Valley Light Detection and

Ranging (LiDAR) Project and the 2017 Clark County Imagery Project.

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

Application Development is continuing to upgrade core enterprise systems including Avantix Asset Management Software, Itron Meter Field Collection System and Primavera Capital Project Management software. Efforts to stream-line the organization's purchasing

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systems will continue and include a new procure-to-pay system with inventory management capabilities to streamline the procure-to-pay functions, centralize purchasing and improve inventory management.

A system will be implemented to automate financial accounting month-end reconciliation processes. Significant efficiencies will be gained through elimination of manual reconciliation processes and use of a centralized on-line portal for reviewing and approving reconciled accounts.

DocStar ECM will be implemented to automate financial accounts payable functions. System features include automated invoice processing through workflow, automated data capture, auto-matching invoices with requisitions, facilitating vendors to electronically submit invoices, archiving documents and real-time reporting.

BBWD Customer Information System (CIS) will be integrated into LVVWD 's Customer Care & Billing System to eliminate redundant computer systems, provide consistency of CIS management, streamline accounting and meter reading processes and improve customer service for BBWD.

Flairdocs is a cloud-based software solution that will be implemented to replace four existing legacy applications. The Right-of-Way and Land Management teams will realize significant improved efficiencies in performing their work and interacting with property owners.

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

Application Development will be supporting other key IT initiatives including major platform and operating system upgrades, bill payment and design services, systems supporting conservation, water resources, SCADA and engineering design, construction and capital projects.

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

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

The Technical Services division is responsible for application administration of business systems utilized throughout the organization. It is also responsible for the architecture and administrative support for the corporate infrastructure to include server, storage, and database administration, e-mail, web services, network infrastructure, and the telecom group. Additionally, this division is responsible for the maintenance of the SCADA

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systems for LVVWD, SNWA, and BBWD and the Laboratory Information Management System (LIMS).

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

Major on-going initiatives include the implementation of the Genesys call center upgrade project with phase one go-live in second quarter of 2018-19, the upgrade of the corporate wide area network backbone to support 10GB between campuses and to the Internet, upgrades to the enterprise storage infrastructure, and the implementation of a new multimedia and imagery storage appliance.

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

Ongoing initiatives include acquisition of very-high resolution imagery for the multi-agency Clark County Imagery Project, acquiring imagery of the Muddy and Virgin Rivers in concert with the Intentionally Created Surplus (ICS) project for the Bureau of Reclamation, continued upgrades for GIS infrastructure,

upgrading existing GIS applications and mapping support for a wide range of projects important to the organization.

Security and Compliance. This team was formed in July of 2016 to ensure strong and continued focus on cybersecurity and Payment Card Industry (PCI) compliance. Major emphasis will continue to be on cybersecurity as world-wide security breaches increase at an alarming rate. Significant effort will continue to be directed toward providing an operationally stable and secure computer system and infrastructure, developing strategies with Legal and Risk Management to reduce and manage cyber risk, as well as educating employees on cybersecurity topics.

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

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establishing audited/controlled system and data access for Data Loss Prevention (DLP). In addition, the division focuses on ensuring software technologies and business processes meet the continuously evolving PCI-DSS requirements.

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

A significant project that is currently being undertaken and will be implemented 2018-19, is the simplifying of our records retention schedule into Big Buckets. The new schedule will follow State and Federal regulations and IG will work with subject matter experts in all departments to successfully train and implement the new schedule. Another key project will involve identifying and curating historical records in conjunction with University of Nevada Las Vegas School of Library Sciences. This effort will lead to a sustainable approach to identifying and preserving historic records.

Additional projects include conducting an IG audit and outreach efforts, supporting and extending the document imaging program, such as the RedEye initiative and other engineering efforts, working with various departments on records-related issues and coordinating with Legal and Public Information on the responsive delivery of public records requests.

During 2018-19, focus will be placed on convening the IG Strategic Planning Committee, whose members will help guide and inform future IG initiatives. The implementation of an Enterprise Content Management System (ECMS) will be one of the key deliverables for the committee. This system will be comprised of strategies, methods and tools used to manage information throughout its useful life cycle within the organization. The ECMS will also facilitate the tracking of information and data contained in disparate silos and provide a platform for achieving compliance and improved governance of this data.

Strategic Plan Objectives and Accomplishments

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

Strategic Plan Goal – Deliver an outstanding customer service experience.

2018-19 Performance Objectives

- LVVWD bill design will be outsourced to a professional services company providing customers with better messaging, advanced bill forwarding and more modern bill design capabilities.
- BBWD billing and customer service functions will be integrated within the LVVWD Customer Care & Billing

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System providing customers with access to 24x7 customer service.

- LVVWD will replace its current resource reservation system with a new modern digital application that will be used within Office 365 and use state-of-the-art digital signage for greater security, resource efficiency, and improved visibility to the various resources used throughout the organization.

2017-18 Major Accomplishments

- The organization's major customer facing web sites were reengineered to meet modern design and functionality standards and allow for seamless access to information and self-service features regardless of device, including a full range of mobile platforms.
- Completion of the first full 3-year cycle of the desktop and monitor refresh project, which has increased staff efficiency and reduced downtime and labor/maintenance cost.

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

2018-19 Performance Objectives

- Work will continue to re-engineer the organization's purchasing system to consolidate purchasing activities and provide additional capabilities and controls within the organization's financial system.

- A system will be implemented to automate and help assist Accounts Payable's business processes with automated data capture, auto-match, workflow and analytics.
- Accounting will be provided a service to help automate and standardize their month-end reconciliation processes. The system will create workflows to standardize the reconciliation tasks, enable auditing and approvals to track the status of the closing process and provide analytics to identify issues and concerns.
- Project HUB, a system currently being developed to support engineering plan acceptance, construction and approval of service connections will be fully implemented in 2018-19. This effort will replace Hansen, a legacy system that has reached end-of-life and enhance corporate data security with emerging technology to identify threats and mitigate risk.
- Replace Customer Care Communications and Contact Management infrastructure to provide a stable and reliable work environment, introduce current and next generation multi-media technology, and improve the overall customer experience by providing additional automation and contact options.
- Complete the 2018 Las Vegas Valley LiDAR Digital Elevation Data Project which will upgrade the existing elevation models used within the organization and by our partner agencies.

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- Replace the existing facilities mapping application with a streamlined application which will improve the organization's ability to meet long-term management of water infrastructure assets and mapping needs.
- Upgrade the current LIMS software to the latest release to support the Water Quality and Research Lab to allow better automation, data reporting, workflows, and instrument integration.
- Upgrades to the Corporate Business Storage platform to allow for future application data growth and replacement of end of life storage arrays/platforms.

2017-18 Major Accomplishments

- The Workday Human Capital Management System was implemented on time and under budget. Workday eliminated several disparate systems, reducing operations costs, and provides improved customer self-service and analytics.
- RedEyeDMS, a cloud-based system for managing engineering drawings was implemented. This system will facilitate drawing access and collaboration needed by engineering and asset management.
- A new risk management information system was implemented that centralizes claims, Occupational Safety and Health Administration (OSHA) reporting, incident processing, inspections and audits, insurance

management, training and certifications. The system eliminated a variety of custom and legacy software and addresses key needs of Risk Management and Environmental, Health, Safety & Corporate Security.

- An upgrade of Customer Care and Field Service's mobile workforce management system was completed. The upgrade improved dispatch services, enhanced route optimization and standardized map services.
- Continued development of CiCADA, the new Conservation System, adding support for incentive programs for Water Smart Homes, Water Efficient Technologies, Pool Covers and Smart Irrigation Coupons. Consolidation of Conservation programs in this new system improves efficiency and reduces costs incurred with maintenance of aging technology of legacy systems.
- AssetWorks, Fleet's Management and Maintenance System, was upgraded to maintain version and vendor support. The latest version includes store-and-forward functionality through its mobile application which addressed data latency issues encountered by users at remote sites.
- Completed the upgrade of our enterprise print and fax capabilities to the next generation of newer printer features and integration of fax capabilities, which advanced the organization from analog to digital fax, reducing overall print costs and increased staff efficiency.
- Completed the replacement of the corporate backup infrastructure to

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streamline backup policies, remove obsolete data stores, and provide enhanced disaster recovery options.

- Review of all projects and development of prioritization ranking of Information Technology initiatives and projects by the Information Technology Steering Committee.
- Completed the upgrade of the Corporate Oracle Database to support the future upgrades to critical business applications and position the organization for DevOps.
- Combined the various GIS application development, data management, and mapping efforts into a single workgroup for maximum efficiency.

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

2018-19 Performance Objectives

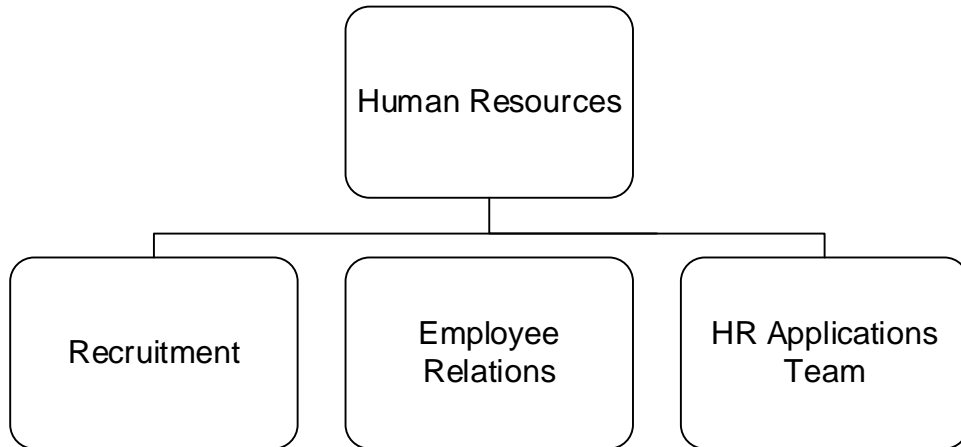
- Make numerous enhancements to cybersecurity which include the implementation of additional threat monitoring tools and further data separation to achieve PCI compliance 3.2.

2017-18 Major Accomplishments

- Continued implementation of Agile methodology throughout Information Technology utilizing both Scrum and Kanban principles to enhance interdepartmental collaboration and improve bidirectional customer communications.

HUMAN RESOURCES

Level: 2400



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

Budget Objectives and Highlights

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

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Human Resources
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Expenditures

SNWA Uses	Actual 2016-17	Budget 2017-18	Budget 2018-19
Materials & Supplies	\$ -	\$ -	\$ -
Maintenance & Repairs	-	-	-
Rental & Leases	-	-	-
Other Employee Expenses	-	-	-
Other Expenses	7,450	100,000	100,000
Total Operating Expenses	\$ 7,450	\$ 100,000	\$ 100,000
Capital Costs	\$ -	\$ -	\$ -
Payroll Costs	\$ 764,991	\$ 525,138	\$ 698,881
Total Department Expenditures	\$ 772,442	\$ 625,138	\$ 798,881
FTE Positions	4.6	3.5	4.6

Department Performance

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

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

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

HR Applications Team. Responsible for the administration and support of the Human Resources Information System (HRIS) for the organization. This team prepares data in response to requests for employee information; implements organizational changes; provides employee application training.

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Performance Indicators
Human Resources Department
(Fiscal Year Ending June 30)

Activity	2013	2014	2015	2016	2017
Total Hires	83	82	239	249	226
Job Notices	59	84	243	453	620
Written Exams	457	149	237	0	0
Interviews	527	420	107	1,029	870
Job Applications					
Accepted/Processed	3,021	2,373	5,981	6,947	9,879
Job Interest Forms	8,871	10,467	17,179	13,531	14,278
Recruitment			not	not	not
Letters Sent	8,513	5,577	available	available	available
Training Hours	9,705	8,288	2,070	5,107	10,674

Strategic Plan Objectives and Accomplishments

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

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

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

2018-19 Performance Objectives

- Continue to coordinate implementation of Workday modules, including recruitment, with a communication plan and training for employees in cooperation with Management Services.
- Centralize training and development within Human Resources. Work with the departments to track all training and education.

2017-18 Major Accomplishments

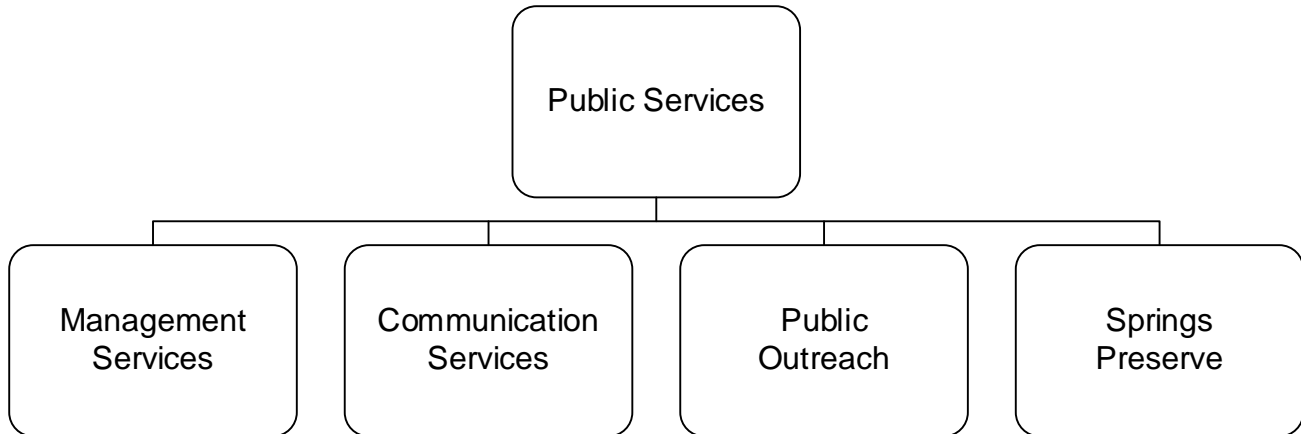
- Coordinated the successful implementation of Workday with a communication plan and training for employees in cooperation with Management Services.
- Implemented Workday for Benefits, Compensation, Time Tracking, Payroll, and Absence Management.

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PUBLIC SERVICES
Level: 2500



Mission

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

Department Description

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

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

The Management Services division oversees the organization’s government affairs, agenda processes, public participation efforts and provides expert analysis and support to senior management.

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

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

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

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Budget Objectives and Highlights

The 2018-19 budget remains consistent with the organization's efforts to enhance efficiency and service to internal and external customers.

Expenditures

SNWA Uses	Actual 2016-17	Budget 2017-18	Budget 2018-19
Materials & Supplies	\$ 165,638	\$ 307,400	\$ 365,400
Maintenance & Repairs	331,131	237,730	240,280
Rental & Leases	3,264	26,000	26,000
Other Employee Expenses	129,145	166,089	222,444
Other Expenses	5,831,889	6,603,265	7,224,115
Total Operating Expenses	\$ 6,461,066	\$ 7,340,484	\$ 8,078,239
Capital Costs	\$ -	\$ -	\$ 720,000
Payroll Costs	\$ 4,635,593	\$ 5,947,541	\$ 6,537,917
Total Department Expenditures	\$11,096,659	\$13,288,025	\$15,336,156
FTE Positions	31.3	40.3	39.8

Department Performance

In fiscal year 2017-18, the Public Services Department continued efforts to provide outstanding service and support of organizational initiatives and priorities:

Management Services. Management Services is responsible for board administration, special events, tours, meeting monitoring, presentations, coordination of special

processes and offering support to organizational initiatives through a wide variety of activities.

Over the past fiscal year, the division concluded the Big Bend Water District's advisory committee process, which represented a major community inclusive process in the Laughlin service area. The division was also responsible for securing millions of dollars of funding for projects through grants, including \$4.4 million for Las

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Vegas Wash weir construction. The division supported the rehearing process for the SNWA's groundwater rights in eastern Nevada through material and exhibit development.

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

The division, in collaboration with Information Technologies, launched a mobile-friendly LVVWD.com website which features improved bill paying and customer self-service options. Communication Services and IT also launched a new SpringsPreserve.org website, featuring a mobile-first design and improved events calendar. The division also manages the social media accounts for LVVWD, SNWA and the Springs Preserve, which continue to add followers and earn accolades. The Communication Services team won first place for the LVVWD.com website redesign, Springs Preserve mobile app and Boomtown streetscape opening campaign from the Public Relations Society of America (PRSA) Las Vegas Valley Chapter's Pinnacle Awards.

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

Recent outreach efforts include the development of an integrated communications campaign for the Springs Preserve, the launch of a public education campaign highlighting community investment

in water infrastructure, and updates to awareness and education campaigns supporting SNWA's water conservation initiatives. Additionally, the division managed more than 100 inquiries and records requests from a variety of local, national and international news organizations throughout the past year.

Springs Preserve. Calendar Year 2017 marked the Springs Preserve's 10-year anniversary. It was also the Preserve's most successful year to date in terms of attendance, membership and community involvement. Also, there was an increase in volunteer interest, with 526 volunteers providing more than 30,000 hours of service. The Springs Preserve also opened two new permanent exhibits, which drew many new and repeat visitors to the site. New exhibits include Boomtown 1905, which features a recreated historical streetscape and preserved railroad cottages. WaterWorks provides visitors a one-of-kind inside view of water-resource treatment and delivery system. Other new features include the grant-funded Teaching Garden that opened in September 2017 and the Children's Playground that reopened with new equipment and concepts designed with the help from architecture UNLV students.

Strategic Plan Objectives and Accomplishments

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

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

2018-19 Performance Objectives

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

2017-18 Major Accomplishments

- Secured over \$4 million in grant funding to support water-related initiatives.
- Assisted 9 well users who connected to the municipal water supply and responded to approximately 188 phone inquiries on the Groundwater Information Line.
- Supported the Groundwater Hearings, as the SNWA continues to maintain the Clark, Lincoln and White Pine Counties Groundwater Development Project as part of its water resource portfolio.

Strategic Plan Goal – Deliver an outstanding customer service experience.

2018-19 Performance Objectives

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

2017-18 Major Accomplishments

- The Water District launched its new mobile-friendly website in August with improved bill paying and customer self-service options. Surveys show an increase in customer satisfaction with the responsive website.
- In November, the Springs Preserve launched its new mobile-friendly website, which featured a modern design and improved events and activities calendar.
- The Springs Preserve social media program won a first place and “Best in Show” Award from the Public Relations Society of America (PRSA) Las Vegas Valley Chapter.
- Responded to more than 100 media requests.
- Completed an inclusive community rate setting process in Laughlin.

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- Conducted surveys that show increased customer satisfaction with LVVWD.com, which receives more than 2 million visits and 15 million-page views annually.
- The SpringsPreserve.org website receives nearly 900,000 visits and 2.4 million-page views annually. Almost 12,000 people have downloaded the Springs Preserve mobile app, which features an interactive map to help guests find their way around the Preserve. Between 175 and 250 visitors actively use this app each week.
- In 2017, the Springs Preserve had 300,055 visitors. This represents approximately a 15 percent increase in attendance from 2016.
- Distributed approximately 170 letters per day during mid-April through early-July to manage the notification process and possible inquiries to Customer Care on the new requirement regarding the installation of backflow retrofits. A special phone line was established for customers to directly contact Customer Care regarding these notices. Customers were made aware of the importance of the program, how it affected their water bills and how backflow protects water quality.

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

2018-19 Performance Objectives

- Enhance understanding of climate change impacts among ourselves and our stakeholders.
- Conduct long-term water resources and facilities planning to ensure adequate resources are available when needed.
- Champion innovative water efficiency initiatives to maximize beneficial use of resources.
- Incorporate sustainable best practices into organizational initiatives and inspire positive change.

2017-18 Major Accomplishments

- Continued support of the Sustainability Cross-Departmental Team (CDT) to examine internal processes and develop sustainable practices within the organization.
- Worked with Resources to update the Water Resource Plan to include a scenario-based approach that looked at a wide range of conditions that may be experienced over the 50-year planning horizon.

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

2018-19 Performance Objectives

- Increase customer communication so there is a better understanding of the organization’s products and services.

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Public Services

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- Ensure predictable rates that are aligned with community expectations.
- Establish and utilize benchmarks to explore new opportunities for improved efficiencies.
- Formulate risk assessments and develop alternatives for expenditure decisions.

Hops, Haunted Harvest, Día de Muertos, and Holiday Express.

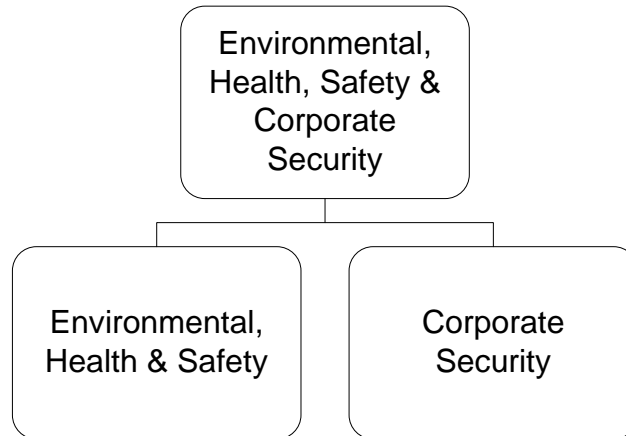
2017-18 Major Accomplishments

- Supported the LVVWD's Citizens Advisory Committees' recommendations including modest annual rate increases.
- Opened the Warm Springs Natural Area to the public on December 9, 2017. The facility includes public access walking trails and interpretive signage to educate and inform the public about its environmental resources.
- Successfully assisted the Big Bend Water District's Citizen's Advisory Committee. The committee reviewed 17 different scenarios, and ultimately recommended small rate increases beginning in January 2018.
- Community outreach efforts continue to raise awareness and provide education supporting the SNWA's water conservation initiatives. Also, communications campaign for the Springs Preserve and the launch of a public education campaign highlighting community investment in water infrastructure.
- Successfully coordinated several Springs Preserve special events to sell-out crowds, including Ice Cream Festival, Brews & Blues, Grapes &

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ENVIRONMENTAL, HEALTH, SAFETY & CORPORATE SECURITY

Level: 2700



Mission Statement

To excel in providing a safe and secure environment for our employees, customers and the community.

Department Description

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

Budget Objectives and Highlights

The 2018-19 EHSCS budget contains the funding necessary to support the safety and security of our organization's workforce, customers and facilities. Our departmental strategic planning efforts have allowed us to streamline processes to reduce costs.

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Expenditures

SNWA Uses	Actual 2016-17	Budget 2017-18	Budget 2018-19
Materials & Supplies	\$ 2,033	\$ -	\$ -
Maintenance & Repairs	-	-	150,000
Other Employee Expenses	183	-	-
Other Expenses	308,989	320,000	320,000
Total Operating Expenses	\$ 311,204	\$ 320,000	\$ 470,000
Capital Costs	\$ -	\$ -	\$ -
Payroll Costs	\$ 2,131,718	\$ 2,631,566	\$ 3,022,274
Total Department Expenditures	\$ 2,442,922	\$ 2,951,566	\$ 3,492,274
FTE Positions	15.4	18.6	19.7

Department Performance

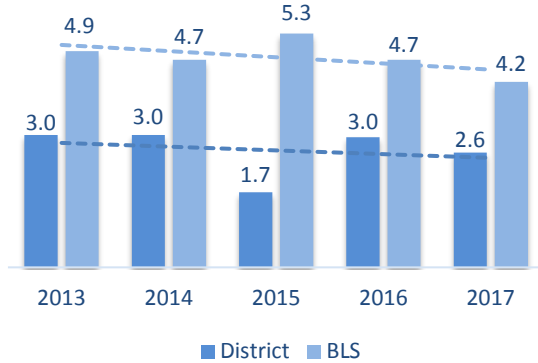
Environmental, Health and Safety Division. The EHS division is responsible for overall management of the District’s Environmental, Health and Safety program to guarantee a safe workplace for all employees. EHS tracks negative trends in the program, making necessary adjustments to ensure a positive safety culture is maintained, and provides ongoing environmental, health and safety training for employees. The division is responsible for permitting and compliance with the federal, state and local agency environmental regulations regarding pollution control (including air pollution, water pollution, land disturbances, implementation of chemical control and waste management) and manages environmental permitting and compliance reporting for operations and maintenance. Additionally, the division is responsible for proper upkeep and care of the

District’s Process Safety Management program for a highly hazardous chemical (chlorine) at Alfred Merritt Smith Water Treatment Facility (AMSWTF), and develops and publishes safety procedures ensuring compliance with Occupational Safety and Health Administration (OSHA) and state regulations. EHS employs an aggressive accident prevention program, investigates on-the-job accidents, and manages a comprehensive Fleet Safety program that encompasses vehicle and heavy equipment training and defensive driving education. The division conducts monthly meetings with the EHS Steering Committee, comprised of employees from various departments and labor management representatives. The health discipline manages the Radiation Safety, Asbestos, Lead Awareness, and Hearing Conservation programs for the organization.

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EHS tracks recordable injuries and illnesses annually and compares them to the Bureau of Labor Statistics (BLS) annual averages for similar industries.

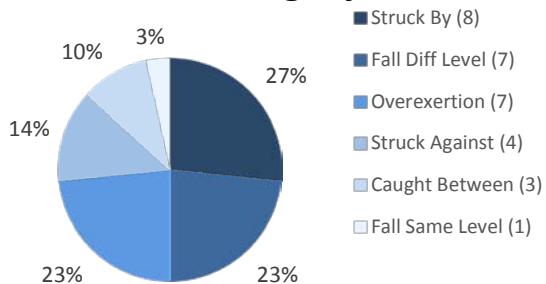
Recordable Injury Rates



The injuries sustained in 2017 were less severe than in 2016. There were 134 lost-work days in 2017 versus 423 in 2016. As a result, the severity rate in 2017 was reduced by 68 percent.

There were eight “struck by” injuries where employees were hit by equipment and other objects while on the job. Both the “overexertion” and “fall from different level” categories had seven injuries each.

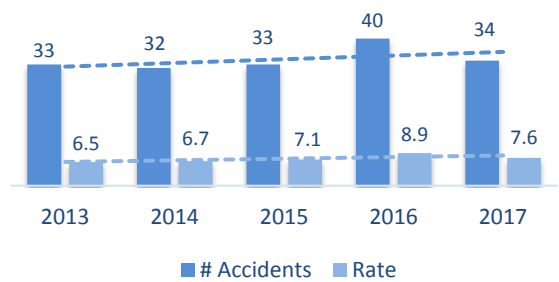
Recordable Injuries by Category



Overexertion injuries resulted from employees lifting objects, and fall related injuries were caused by employees slipping on walking surfaces.

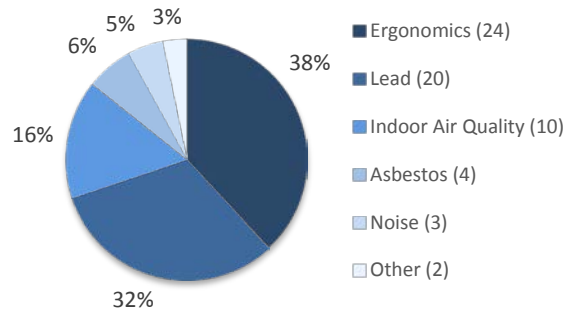
Overall, the District experienced 34 at-fault vehicle accidents in 2017, a decrease of six from 2016. The District’s vehicle accident frequency rate decreased from 8.9 in 2016 to 7.6 in 2017.

Vehicle Accidents & Rates



In 2017, all 178 employees enrolled in the Hearing Conservation program were audiometrically tested and the 260 employees enrolled in the Respiratory Protection program were respiratory fit tested. There were 63 health assessments conducted in 2017 (vs. 44 in 2016); the 43 percent increase is primarily due to construction and maintenance projects.

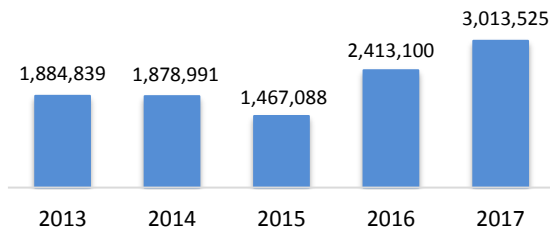
2017 Health Assessments



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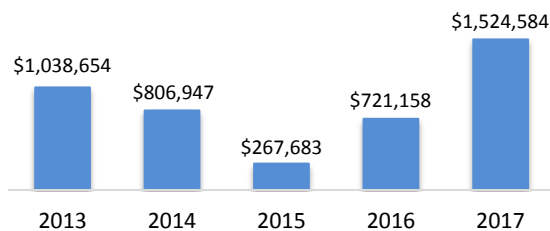
LVVWD and SNWA recycled a combined total of 3,013,525 pounds of materials in 2017. The increase in recycled material can be attributed to an increase in the amount of miscellaneous metals recycled and vehicles sent to auction.

Total Pounds Recycled



Total revenue increased for 2017 to \$1,524,584 (scrap \$440,928, auctions \$46,616, vehicles \$1,037,040) from the auction of scrap metal and fleet vehicles.

Total Revenue Generated



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

Corporate Security staff and officers provide fire protection equipment inspections, assist with customer parking, escort customers and visitors to areas where they can conduct their

business, provide information assistance, monitor access to restricted areas, and provide access to facilities and monitoring of vendors’ visits during and after business hours. Security officers patrol and protect all LVVWD/SNWA properties by responding to intrusion alarms at outlying properties and patrolling reservoir and pumping station sites. Physical security networks and systems (e.g., electronic access control systems, security camera systems, alarms and locking systems) are in place and monitored 24 hours daily by security officers.

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

Strategic Plan Objectives and Accomplishments

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

2018-19 Performance Objectives

- Operate the Security Center, monitoring organizational security systems, and continue to implement automated security systems to

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improve the protection of facilities.

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

2017-18 Major Accomplishments

- Continued supporting and promoting the Department of Homeland Security's national "If You See Something, Say Something™" campaign.
- Installed access control card readers at the Fulton gate entrance and in the LVVWD Warehouse.
- Installed anti-climb mesh on the executive parking garage.
- Tested Bosch thermal imaging camera at Fayle Reservoir to enhance surveillance methods.
- Converted Spring Mountain Durango site to Bosch Starlight closed-circuit television cameras and converted card readers to P2000 system for access improvement and control.
- Completed over 130 documented spot audits and two comprehensive audits that included a program management review.
- Reviewed and updated the EHS Manual and Administrative Policies 3 and 17 during the 2017 off-site meeting.
- Conducted 274 investigations related to recordable injuries, at-fault vehicle accidents, at-fault property damage incidents, near-misses, chemical spills and first-aid events. Recommended corrective actions were included as appropriate to reduce the chance of recurrence.
- Conducted 34 instructor-led EHS training courses, which included 2,457 participants and 4,836 training hours.
- Achieved a District incidence rate of 2.6, compared to the BLS rate of 4.2, extending the District's yearslong

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- history of falling below BLS rates.
- Terminated four environmental permits (Big Bend Water District air permit; Springs Preserve dust control permit; and AMSWTF and River Mountains Water Treatment Facility drying bed permits) and negotiated an annual stormwater pollution prevention permit rather than individual permits that resulted in a cost savings of \$3,500.00.

Strategic Plan Goal – Deliver an outstanding customer service experience.

2018-19 Performance Objectives

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

opportunities to augment EHS skills and knowledge.

2017-18 Major Accomplishments

- Collected student evaluation forms after each EHS instructor-led course to improve future course curriculums.
- Participated in local and national professional organizational meetings, seminars and conferences specific to water treatment and delivery, with EHS staff conducting presentations at several events.
- Represented EHS in all department safety action teams, the EHS Steering Committee and several CDTs - including the northern ranches and sustainability.
- Updated electronic materials on the Hydroweb to ensure that LVVWD employees have access to useful safety and health literature, information and videos for training.
- Participated in continuing EHS education, including webinars, local training opportunities and online training to assist in professional development and maintenance of professional certifications.
- Installed indoor motion detectors tied to the card reader system in Boomtown at the Springs Preserve to increase security in the area.
- Improved situational awareness in the Customer Care lobby by converting standard cameras to 360-degree capable cameras.

Strategic Plan Goal – Anticipate and adapt to changing climatic conditions while

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demonstrating stewardship of our environment.

2018-19 Performance Objectives

- Identify non-compliance items through organization-wide collaboration.
- Prepare environmental reports and submit to regulatory agencies.
- Review current recycling and waste streams at manned facilities to identify new recycling opportunities.

2017-18 Major Accomplishments

- Enhanced security at remote locations by installing a solar powered motion activated security camera at the Searchlight site and Warm Springs Natural Area.
- Tracked and submitted operational environmental permits in a timely fashion with zero negative impact to the District.
- Recorded significant increase in recycling numbers for 2017 compared to 2016: 3,013,525 lbs. vs. 2,413,100 lbs., resulting in \$1,524,584 in revenue in 2017.
- Contained and cleaned six unintentional releases of regulated materials, with minimal environmental impact, at various District facilities.
- Registered a 5 percent decrease in hazardous waste generation and corresponding 47 percent decrease in costs.

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

2018-19 Performance Objectives

- Improve security and reliability of gate function by installing Wallace gates at AMSWTF.
- Enhance security blotter system to track theft, vandalism and suspicious activity accurately.
- Support IT and Risk Management divisions in the design and implementation of Phase II of the new risk management information system (Origami).
- Evaluate mobile technologies to improve EHS efficiency.

2017-18 Major Accomplishments

- Improved Security Center capability to monitor over 700 cameras by using video analytics in the current camera system.
- Acquired and implemented an EHS database system that automates management of the audiometric test program, resulting in a more efficient and effective Hearing Conservation program.
- Participated in the development and implementation of the new risk management information system (Origami) for the District, contributing to the increased technological and operational capabilities of the EHSCS department and reducing our overall carbon footprint.

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

2018-19 Performance Objectives

- Identify new regulations and policy changes and collaborate with other pertinent agencies.
- Assess all security processes, priorities and resource utilization to improve efficiency.
- Monitor progress of International Organization for Standardization (ISO) 45001 and evaluate the program for possible implementation at the District.

2017-18 Major Accomplishments

- Established a five-year professional services agreement for contract security to supplement in-house security staff.
- Adjusted instructor-led EHS training schedule to ensure critical safety training is offered more frequently.
- Actively monitored progress of ISO 45001 program via ISO committee membership and professional training seminars.

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

2018-19 Performance Objectives

- Engage in future construction and maintenance contracts to ensure security issues and concerns are addressed at the earliest stages.

- Conduct a monthly division staff meeting to update EHS employees on all major projects and communicate status changes and challenges.
- Conduct instructor-led EHS training for District employees.
- Provide EHS information updates to the District through electronic Management Advisory and Safety Alert messages, Pipeline articles, Hydroweb postings, etc.
- Provide diverse learning opportunities in all department disciplines.
- Conduct EHS annual off-site meeting to discuss future initiatives and to evaluate and update EHS programs, policies and procedures.
- Recognize employees/teams for their unique talents and accomplishments.
- Disseminate an annual EHS trend report.

2017-18 Major Accomplishments

- Participated in several professional development courses while continually searching for and participating in relevant low- or no-cost training opportunities.
- Achieved a 2017 Safety Stand Down Day participation rate of over 280 employees.
- Completed the annual EHS trend report which highlights major EHS accomplishments throughout 2017.
- Received zero OSHA citations in 2017.
- Received 21 Safety Action Requests, each of which were tracked and monitored to ensure corrective actions were implemented.
- Developed and implemented the 101 Critical Days of Summer safety

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campaign.

- Developed the Corporate Security Manual to define and explain the organization's security strategy, systems, procedures and practices.
- Applied Origami software risk accident/incident tracking and reporting process through the Security Center.
- Continued 100 percent ID badge checks at all entrance points to facilities, maintaining tighter control of access points.
- Assisted with the move of Customer Care from the Molasky Corporate Center to the Valley View campus.

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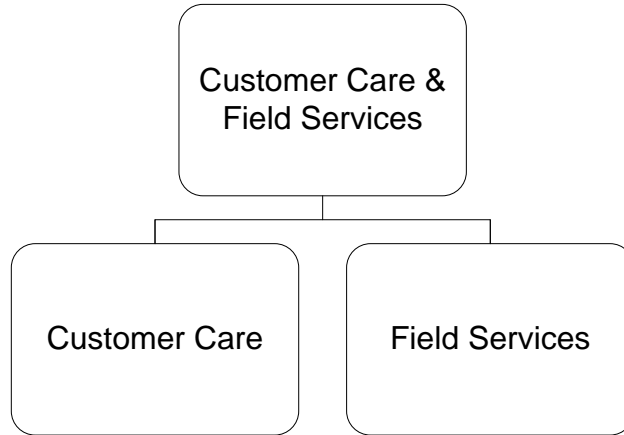


SOUTHERN NEVADA WATER AUTHORITY®

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CUSTOMER CARE AND FIELD SERVICES

Level: 2800



Mission

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

Department Description

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

Budget Objectives and Highlights

The 2018-19 budget for the Customer Care and Field Services department is consistent with the organization's efforts to reduce costs where possible while continuing to improve departmental efficiencies through both technological and performance based enhancements to provide the optimum customer experience.

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

Field Services. The 2018-19 Budget Plan contains funding for large meter maintenance, advanced metering infrastructure, and operational costs.

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Expenditures

SNWA Uses	Actual 2016-17	Budget 2017-18	Budget 2018-19
Materials & Supplies	\$ 2,581	\$ 6,000	\$ 2,000
Maintenance & Repairs	3,264	3,500	3,500
Total Operating Expenses	\$ 5,845	\$ 9,500	\$ 5,500
Capital Costs	\$ 385	\$ -	\$ -
Payroll Costs	\$ 785,995	\$ 411,363	\$ 435,138
Total Department Expenditures	\$ 792,225	\$ 420,863	\$ 440,638
FTE Positions	4.7	2.9	2.9

Department Performance

In 2017-18, the Customer Care and Field Services department continued to refine business processes and advance technology in service to the Las Vegas Valley Water District’s (LVVWD) customers. The department focused efforts on maximizing the customer experience through four strategic goals: Delivering an Outstanding Customer Experience; Anticipate and Adapt to Changing Climatic Conditions while Demonstrating Stewardship for our Environment; Develop Innovative and Sustainable Solutions through Research and Technology; Strengthen and Uphold a Culture of Service, Excellence, and Accountability.

supporting approximately 391,000 active services. The division manages the customer care phones, web requests, correspondence and walk-in requests. Customer Care handles payments, pay arrangements, collection courtesy calls, delinquent account processing, high consumption requests, water-waste complaints, 24/7 emergency phone coverage, along with providing monthly billing to the LVVWD’s customers.

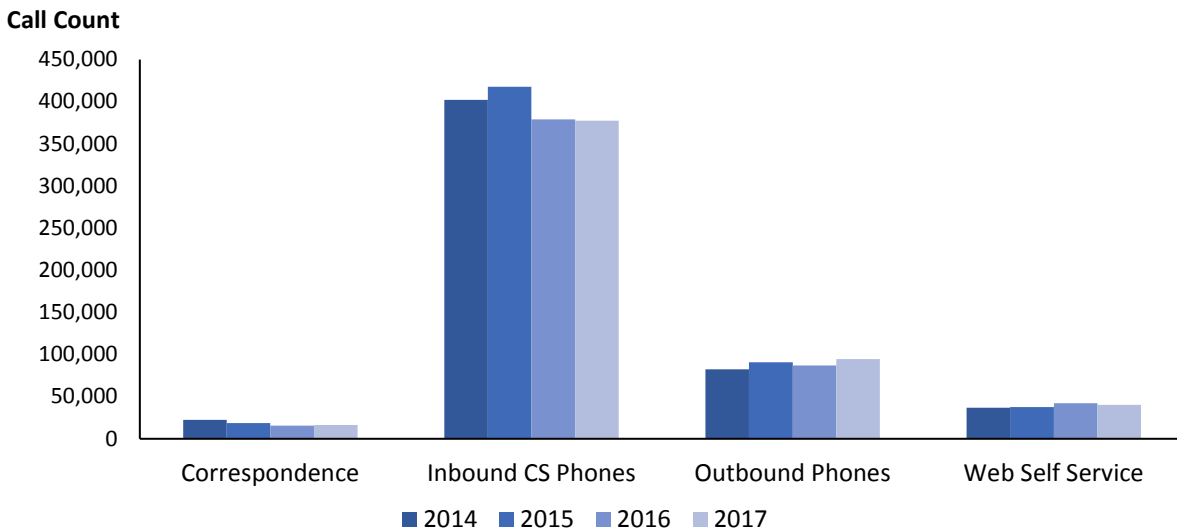
Customer care continues its proactive approach to customer education and service through outbound customer service calls and customer notifications.

Customer Care. The Customer Care division serves as the primary point of contact for internal and external service inquiries—

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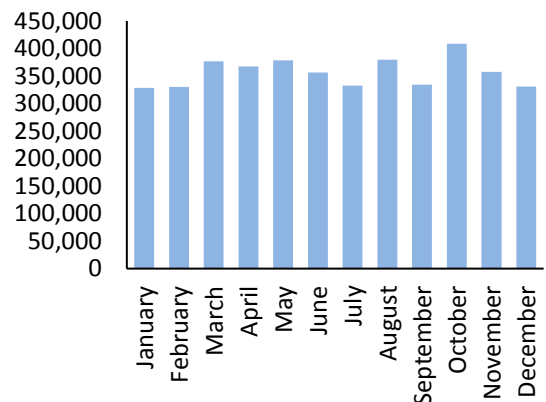
The following graph illustrates the shift in volume distribution over the past four years as process and technical innovations advance the meter to cash philosophy.

Customer Care Phone and Correspondence Volume



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

Bills Generated 2017



The following chart depicts the total number of bills generated monthly in 2017.

Field Services: The Field Services division is responsible for reading and maintaining meters for approximately 391,000 services in Las Vegas, Searchlight, Blue Diamond, Kyle

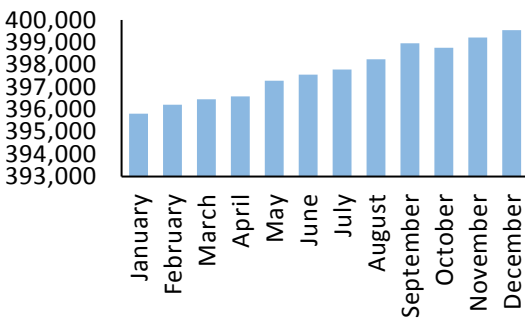
Canyon, Laughlin and Jean. The division also responds to leak investigations, low pressure, high consumption, water waste

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inquiries, billing requests, and turn ons/shut offs.

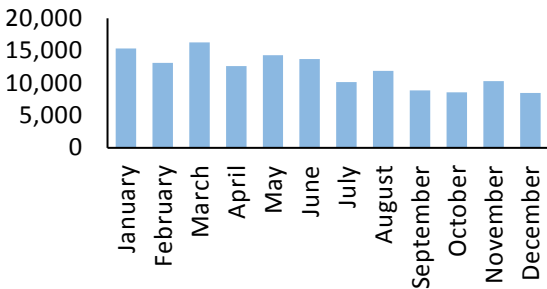
The 2017 Meter Reads chart illustrates the number of meter reads processed by Field Services in 2017 (Over 4.6 million total).

Meter Reads 2017



The following chart illustrates the number of work orders processed by Field Services in 2017 (Over 200,000 processed).

Field Activities Completed 2017



Strategic Plan Objectives and Accomplishments

Strategic Plan Goal – Deliver on Outstanding Customer Service Experience.

2018-19 Performance Objectives

- Continued assessment of customer satisfaction, establish benchmarks and identify all avenues for enhancement.
- Convert BBWD to Oracle CC&B and new bill print vendor and support call center operations.
- Redesign bill to updated format to improve communications to our customers.
- Outsource letter print to a local vendor to streamline process and eliminate internal support.
- Establish culture of continuous improvement of processes and practices using feedback from our customers, customer care stakeholders as well as affiliated departments throughout the LVVWD.
- Work with IT for continued integration of state of the art technologies to enhance the customer experience, increase efficiencies, create multi-channel platform capabilities as well as eliminate external vendor dependencies.
- Identify and assess the viability of additional technologies aimed at the promotion of efficiencies, reduction of appurtenant expenses as well as informational integration.
- Provide continuous training and development to ensure a quality customer service experience.
- Communicate with and receive continuous feedback from employees on organizational policy

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changes and procedural/process improvements.

- Monitor and collaborate with other organizations/industries to identify innovations, best practices and ways to improve the customer experience.
- Enhance our quality program for Field Services.
- Enhancement of the Quality Assurance initiatives to improve call assessment, incorporate more feedback and interactional based development.
- Assess customer satisfaction results against overall quality outcomes for actionable improvement.
- Continue to improve customer care technologies, tools, training and implementation.

2017-18 Major Accomplishments

- Dedicated 1900 hours of training throughout 2017 to consistently provide optimum customer experience.
- Deployed business processes and training critical to annual PCI compliance standards.
- Continue to refine safety measures for securing employees in the event of an evacuation emergency.
- Assisted over 680 customers in the field with consumption related questions.
- Performed 55 customer escalation field meets 2017
- Continued additional training to staff for water waste compliance to assist in educating our customers.

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

2018-19 Performance Objectives

- Reduce and dispose of waste responsibly.
- Maintain proper disposal of scrap and waste products, especially lithium batteries.
- Continue to support organizational water conservation efforts through improved technology, customer and interdepartmental communication.

2017-18 Major Accomplishments

- Disposed of toxic waste material in compliance with OSHA regulations.
- Recycled tons of cardboard boxes through Opportunity Village, a not-for-profit organization.
- Mailed 4,015 water waste letters in 2017.
- Completed 3,875 Water Waste investigations resulting in \$36,080 in fees assessed.
- Large Services completed over 3,700 Field Activities.
- Dedicated staff handled over 9486 Springs Preserve related inquiries in 2017.

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

2018-19 Performance Objectives

- Develop and strengthen global partnerships to leverage resources and advance innovations in Customer Service.
- Continued identification, assessment and implementation of customer care technologies, tools and resources.
- Upgrade and enhance various call center technologies including but not limited to: IVR with increased self-service options and flexible design, a streamlined and integrated agent interface and more robust reporting tools.
- Adding infrastructure to support additional customer communication channels including chat, sms and email.
- Improve technology solutions for revenue protection and greater collection gains.
- Continue to educate customers using advanced meter reading data. Evaluating current meter population to create and implement an appropriate preventative maintenance plan and schedule.
- Enhancing and expanding current field and dispatch Quality Monitoring program.

2017-18 Major Accomplishments

- Lobby payments and transactions continue to decline with successful expanded payment and self-service options, reducing lobby traffic and carbon footprint.
- Collected event and more refined interval data from the meter reading system to reduce truck rolls and increase customer service.
- Successfully supported the District's backflow retrofit program with both inbound and outbound customer calls.
- Integrated hourly interval data into business processes.
- Implementation and training of the Itron Analytic software.
- Host and participate in education and technical venues for business advancement throughout 2017.

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

2018-19 Performance Objectives

- Provide and seek timely feedback on individual, team and departmental performance to enhance collaboration, accountability and excellence.
- Ensure timely and consistent communication with team to provide feedback and solicit recommendations.
- Maintain weekly communications to keep the team informed of business impacts and process improvements.

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

2017-18 Major Accomplishments

- Increased Quality Monitoring to enhance the functional capabilities of the individual, team and departmental performance.
- Utilized various subject matter experts throughout the department to support training initiatives.
- Upgraded Oracle CC&B to ensure future upgrade capabilities and implemented new payment vendor to ensure PCI compliance.
- Successful relocation of contact center from Molasky Corporate Center to Valley View campus without significant impacts on the operation.
- Reclassified and uptrained Field Services staff to better support organizational and customer service related efficiencies
- Transitioned from a Read Verification quality control program, to incorporating an enhanced verification and maintenance process to all Field Activity types.
- Moved our Curbing Water Waste test to an on-line version.
- Completed AMI deployment in Blue Diamond, Searchlight, and Kyle Canyon

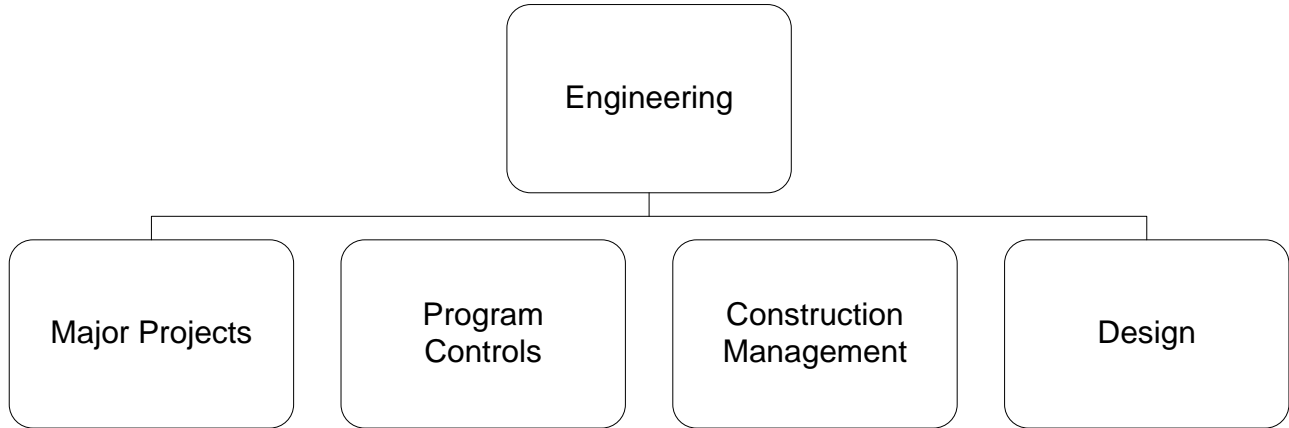
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ENGINEERING
Level: 3400



Mission

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

Improvements Plan (LVVWD CIP). In coordination with the Operations, Resources and Facilities, and Infrastructure Management departments, Engineering provides the design and construction services for many of the larger LVVWD CIP projects.

Department Description

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

The LVVWD’s capital projects are currently focused on the repair, rehabilitation, and replacement of aging pipelines, reservoirs, pumping stations, and related components within the large water distribution system spread across the Las Vegas Valley and in nearby rural areas. These projects are described in the LVVWD Capital

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 the SNWA’s purveyor members in the Las Vegas Valley. Improvement projects for the SNWS are identified in the Major Construction and Capital Plan (MCCP). The MCCP is the vehicle for authorizing ongoing projects and initiatives related to establishing and maintaining reliable system capacity, providing necessary support facilities, and developing access to new water resources. In coordination with the Operations, Resources and Facilities, and Infrastructure Management departments, Engineering provides the design and construction services for many of the larger MCCP 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.

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

Expenditures

SNWA Uses	Actual 2016-17	Budget 2017-18	Budget 2018-19
Materials & Supplies	\$ -	\$ 40,554	\$ 4,750
Maintenance & Repairs	74,885	713,000	703,000
Other Employee Expenses	1,614	55,950	23,250
Other Expenses	-	218,750	3,130,900
Total Operating Expenses	\$ 76,499	\$ 1,028,254	\$ 3,861,900
 Capital Costs	 \$ 153,550,062	 \$ 135,783,762	 \$ 123,452,909
 Payroll Costs	 \$ 4,874,350	 \$ 4,857,037	 \$ 4,698,865
 Total Department Expenditures	 \$ 158,500,911	 \$ 141,669,054	 \$ 132,013,674
 FTE Positions	 23.7	 24.8	 23.3

Budget Objectives and Highlights

The 2018-19 Engineering department budget demonstrates significant ongoing commitment for the major projects associated with Lake Mead Intake No. 3 and the Wash CIP. In addition, a major portion of the department staff will continue to be focused on many projects directly supporting the Operations, Resources and Facilities, and Infrastructure Management departments in preserving the facilities needed to assure a

reliable, quality water supply.

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

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(L3PS) that would function at levels as deep as possible for the new intake tunnel and preserve system capacity well below the operational levels of the existing intakes. Capital expenditures for the new pumping station will continue through project completion in 2020.

Work continued on the AMSWTF filter media replacement with two filters completed and three in progress. The remaining 15 filters to be upgraded will be under contract in the Fall of 2018 with completion scheduled for 2021.

Construction of the Historic Lateral Weir Expansion and Sunrise Mountain Weir began the Fall of 2017 and will be completed the Winter of 2019.

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

Department Performance

The Engineering department is organized around five functional areas.

Major Projects. Teams are organized, as needed, to successfully manage completion of major capital projects of the LVVWD and the SNWA capital plans. Currently, the L3PS is the one active major project effort. Staff are dedicated to that project activity.

Design. The design team is comprised of

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

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

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

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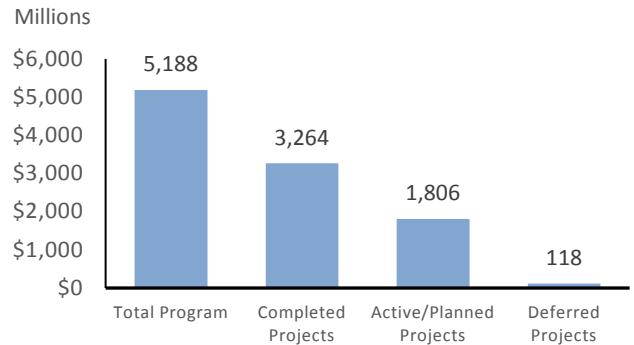
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schedule reports and analysis of capital projects. This team makes use of computer-based tools which compile relevant project data from various departments. This team also performs a vital function in collecting projected capital expenditures as a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

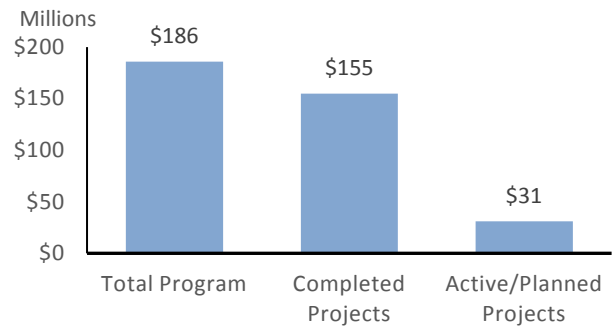
Survey, Property Management and Infrastructure Mapping Services. Professional staff within the department support design and construction of infrastructure by providing land surveying, water rights surveying, line location, right of way acquisition and property management and as-built record drawings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

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

**Major Construction & Capital
Plan Status
As of March 2018**



**Las Vegas Wash Capital
Improvements
As of March 2018**



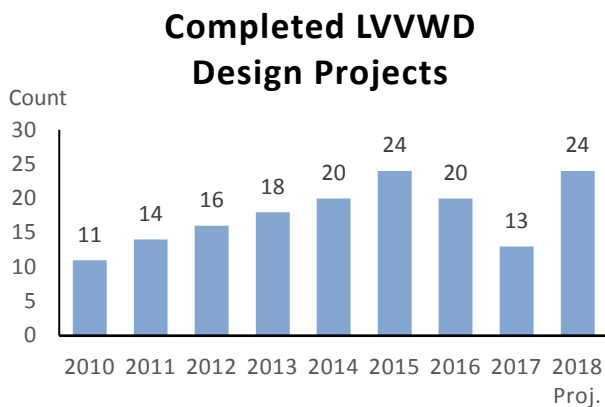
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The chart below (Completed LVVWD Construction Projects) represents the number of the LVVWD construction projects completed by Engineering since 2010 and the number expected to be completed in 2018.



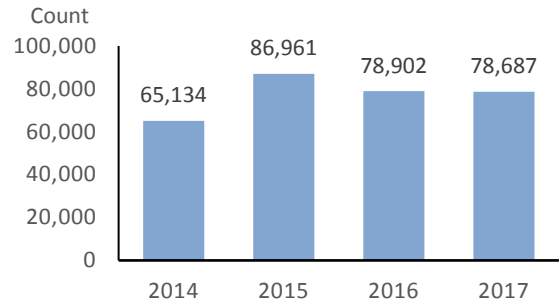
The following chart (Completed LVVWD Design Projects) illustrates the number of projects Engineering has designed since 2010 to support the infrastructure management requirements of the LVVWD.



The chart below shows how many thousands of features related to water facility assets constructed under capital projects for both the LVVWD and SNWA that have been edited (added or updated) within the geographic

information system facility database over the past three years. The chart mirrors the increase in development activities experienced in the service area over this time.

Number of GIS Project-Related Feature Edits



Strategic Plan Objectives and Accomplishments

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

2018-19 Performance Objectives

- Complete design and construction of projects in accordance with forecasted capital budgets, the cost estimates and schedules identified in the capital plans.
- Complete the underground excavation work and discharge aqueducts construction contract for the L3PS.
- Complete the design and award the electrical substation contract for the L3PS.
- Provide the Infrastructure Management, Resources and Facilities, and Operations departments with a high level of technical services and capital project support.

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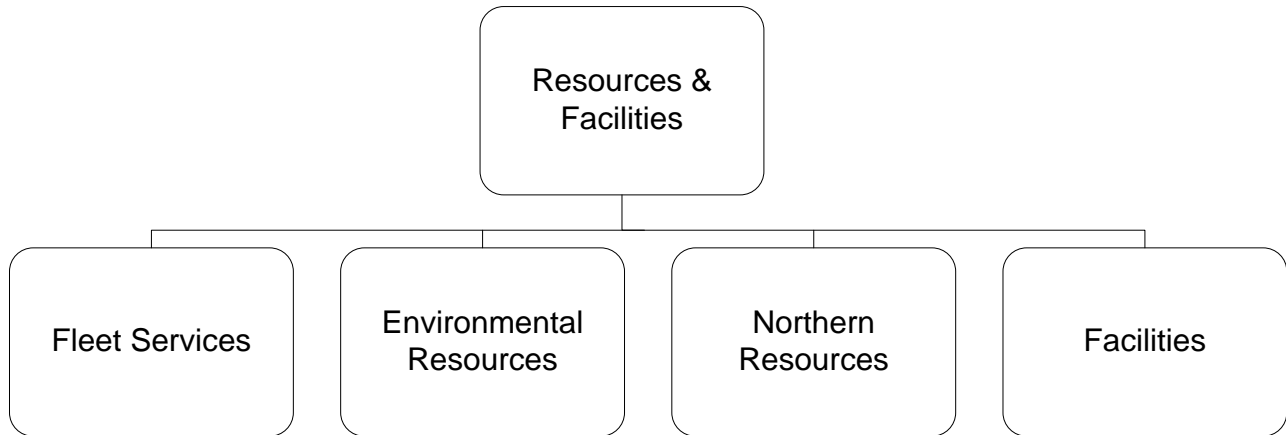
- Consolidate project tracking applications and align work processes to improve staff efficiency.
- Improve methods for direct electronic capture in the field of attributes of constructed water facilities.
- Complete combination of SNWA Facility Engineering Guides and LVVWD Guidance Documents into a single Engineering Design Guides document.
- construction cost of approximately \$16.3 million.
- Performed inspections on approximately 540 different projects, involving over 41,800 individual inspection actions.
- Created the System Reliability Team to oversee the \$100 million LVVWD Backflow Retrofit Program.

2017-18 Major Accomplishments

- Made significant progress on the underground portion and completed the design for the above-ground construction for the L3PS.
- Completed the discharge aqueducts connection work within the critical treatment plant outages.
- Completed construction of 8 LVVWD projects valued at \$9.5 million related to improvement of the LVVWD's facilities.
- Awarded 13 LVVWD construction contracts valued at \$19.2 million related to improvement of the LVVWD's facilities.
- Awarded one weir construction contract valued at \$14.3 million related to the Las Vegas Wash Capital Improvements Plan.
- Awarded five SNWA construction contract valued at \$6.9 million related to the Filter Demonstration Project at AMSWTF and tortoise fence improvements at numerous facilities.
- Completed construction on seven SNWA contracts for a total

RESOURCES & FACILITIES

Level: 3600



Mission

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

Department Description

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

Budget Objectives and Highlights

The 2018-19 Resources & Facilities department budget contains funding for a wide-range of initiatives discussed below.

Facilities. The Facilities division budget contains \$5.6 million in operational funding for the repair, maintenance, cleaning and servicing of all the LVVWD and the SNWA buildings and facilities, including landscape and roadways.

Fleet Services. The Fleet Services division budget contains approximately \$8.26 million for new & replacement vehicles and related equipment having reached their end of life cycle. An additional \$95,000 is for new telematics equipment for all fleet vehicles. This equipment will be used to better manage the fleet as well as reduce fuel usage and enhance safety. Fleet Services is also requesting \$240,000 for replacement of two-way radios that are becoming obsolete and will soon be inoperable on the Southern

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Nevada Area Communications Council (SNACC) radio system.

Environmental Resources. The Environmental Resources division budget contains \$3.4 million to continue environmental planning, compliance and resource management activities for the SNWA. The division will continue to provide environmental support and ensure regulatory compliance for the Las Vegas Wash, Northern Resources, Water Resources, Engineering, Energy Management, and other departments. The division will also continue to manage the Warm Springs Natural Area property to meet agreements and further the SNWA resource management objectives. In fiscal year 2018-19, the division anticipates receiving \$483,800 in revenue from Federal and State grants and local contributions.

Northern Resources. The Northern Resources division gross budget totals \$4.25 million, of which, \$2.93 million allocated to operations, \$455,000 is for livestock inventory purchase and \$1.3 million capital improvements to

develop, utilize and maintain primary groundwater rights. Total gross revenues are projected to exceed \$2.9 million for commodity sales. The Northern Resources division consists of seven individual properties that have been consolidated into one coordinated operating entity. The consolidation and management of these ranch properties has created operational efficiency and increased productivity. Program enhancements including water development, nutrient management, cropping structure, and propagation of systematically bred livestock have created sustainable revenue centers supporting operations. The primary goal for this division is to integrate the management of water, land and agricultural resources such that environmental and social conflicts are minimized and the Groundwater Development (GWD) Project is maintained as a viable and sustainable alternative future source of supply.

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Expenditures

SNWA Uses	Actual 2016-17	Budget 2017-18	Budget 2018-19
Water	\$ -	\$ -	\$ -
Energy	25	-	-
Materials & Supplies	1,542,160	1,797,950	2,014,650
Maintenance & Repairs	1,679,197	2,096,750	2,904,500
Rental & Leases	1,977,936	2,143,000	2,221,000
Other Employee Expenses	71,687	157,625	195,250
Other Expenses	1,450,342	2,458,800	4,177,350
Total Operating Expenses	\$ 6,721,346	\$ 8,654,125	\$ 11,512,750
Capital Costs	\$ 4,230,949	\$ 13,015,496	\$ 9,290,805
Payroll Costs	\$ 9,600,602	\$ 11,066,779	\$ 12,181,012
Total Department Expenditures	\$ 20,552,897	\$ 32,736,399	\$ 32,984,568
FTE Positions	63.5	75.8	78.9

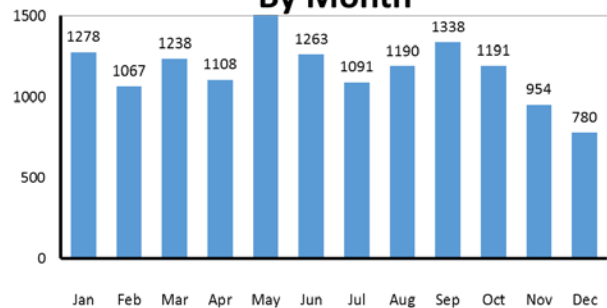
Department Performance

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

construction of new facilities, as well as, site remodeling and/or retro-fit support for existing structures.

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

**2017 Completed Work Tasks
By Month**



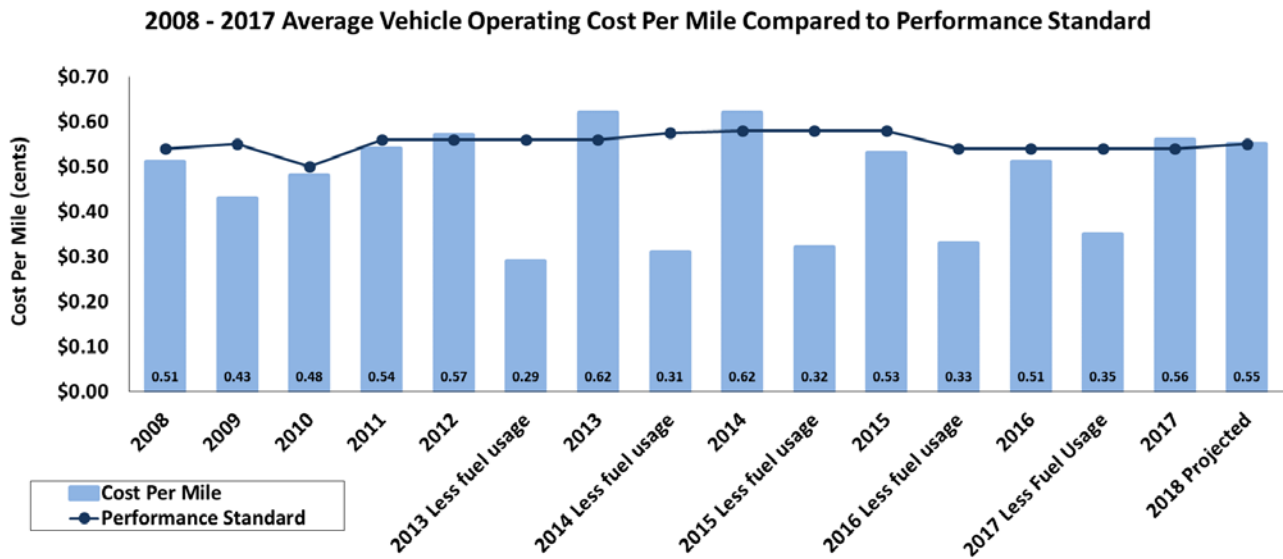
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Fleet Services. The mission of the Fleet Services division is to provide safe, reliable and functional vehicles, equipment, tools, fuel, and communications equipment to the LVVWD, SNWA, LVSP, and BBWD operations. Currently the division maintains more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

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

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



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

completing environmental compliance monitoring and reporting, in accordance with Federal environmental regulations, state water right rulings, and interagency environmental agreements. The division is also responsible for fulfilling organizational responsibilities related to management and restoration of the Las Vegas Wash, and the Warm Springs Natural Area.

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Northern Resources. The Northern Resources division has developed and sustained global markets for sales of internally produced agricultural products, including beef calves, lambs, wool and alfalfa. These commodities represent approximately \$2.9 million in projected ranch revenue for fiscal year 2018-19. Improvements in agricultural practices, livestock genetics, program diversity and husbandry have resulted in increased efficiency and effectiveness in utilizing Federal rangeland and private forage, and added alfalfa acreage to increase overall production. The strategic plan for Ranch Operations is to produce and deliver quality products and service, exhibit scientific based stewardship and, demonstrate financial and organizational efficiency. Ranch operations also support cross-departmental initiatives concerning the collection of environmental and hydrologic monitoring data and various other aspects of the GWD Project.

Strategic Plan Objectives and Accomplishments

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

2018-19 Performance Objectives

- Maintain critical equipment and building systems to ensure a safe and comfortable work environment; measure equipment uptime percentage.
- Develop and implement 10 year rolling asset management plan.

- Comply with environmental permit requirements for construction and operation of weirs in Las Vegas Wash.
- Conduct research and public outreach for the Las Vegas Wash in accordance with agreements and the Las Vegas Wash Comprehensive Adaptive Management Plan.

2017-18 Major Accomplishments

- Conducted threatened and endangered bird, fish, vegetation, and invertebrate surveys along the Las Vegas Wash; an endangered Yuma Ridgway's rail and a threatened yellow-billed cuckoo were identified in 2017.
- Conducted compliance monitoring and reporting in support of weir construction on the Las Vegas Wash without a single incident of non-compliance.
- Re-vegetated approximately 30 acres along the Las Vegas Wash, removed nearly 12 acres of tamarisk, and conducted vegetation monitoring on approximately 530 acres.
- Conducted two Wash Green-Up events, where more than 800 volunteers planted approximately 17 acres.
- Coordinated and hosted a two-day science symposium for approximately 150 high school students as part of World Wetlands Day.
- Educated about 100 fifth grade students from Mabel Hoggard Elementary School about the Las Vegas Wash and Lake Mead.

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- Provided eight tours of the Las Vegas Wash for elected officials, agency regulators, conference attendees, organizations, and other interested stakeholders.
- Provided public outreach promoting the Las Vegas Wash and the Las Vegas Wash Coordination Committee at eight local events.

Strategic Plan Goal – Deliver an Outstanding Customer Service Experience.

2018-19 Performance Objectives

- Achieve an 80 percent or greater satisfaction rating for facilities-related customer interactions.
- Continue to include customers in the specification process of new and/or replacement vehicles and equipment.
- Partner with all departments to better assess vehicle/equipment needs and improve end products provided.
- Minimize equipment down time through the use of technology, technician training and good parts availability.
- Continue to provide the best possible equipment choices to the departments to assist them in meeting their goals efficiently and effectively.
- Respond to changing customer needs and implement and/or change services to better support the mission.

2017-18 Major Accomplishments

- Enhanced customer service in outlying areas through the use of technology,

improved parts availability, and scheduling of technicians.

- Added a fueling facility at our Tropical Satellite facility to better support customers and reduce travel time.
- Maintained Automotive Service Excellence (ASE) “Blue Seal of Service Award”.
- Maintained Automotive Service Excellence (ASE) “World Class Technician Status”.
- Managed and facilitated the move of 110 Customer Care employees to the Molasky or Field Services Building in a prompt and efficient manner, significantly reducing anticipated downtime.
- Project 7S9016 – completed the installation of insulation in the north soffit of the AMSWTF Administration Building to eliminate all cold complaints.
- Facilitated major internal events including: all Divisional holiday parties, Safety Stand-Down Day, Celebrating You week.
- Implemented successful proactive disinfection program to minimize employee impact during the flu season.

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

2018-19 Performance Objectives

- Continue to lead and develop the alternative fuel vehicle program in

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- support of clean air in the Las Vegas Valley.
- Recondition and reuse service bodies for light duty vehicles.
 - Expand the Districts plug-in electric vehicles fleet.
 - Expand the use of compressed natural gas as an automotive fuel.
 - Sustain the SNWA's central-eastern Nevada groundwater rights and right-of-way grant for the future.
 - Sustainably manage the Great Basin Ranches such that annual gross revenue covers at least 100 percent of direct costs, measured as a five-year running average.
 - Develop and certificate 100 percent of ranch water rights.
 - Maintain Great Basin Ranch assets, including property, facilities, water rights, and grazing allotments in accordance with annual work plans and permits.
 - Inspect 100 percent of ranch irrigation, stock, and domestic wells at least annually, and maintain at least 90 percent of the wells at full operational capacity.
 - Complete environmental compliance and monitoring for existing infrastructure and future projects initiated by other departments.
 - Collaborate on all major local and regional climate change initiatives relevant to the SNWA.
 - Make progress towards achieving the goals of the Recovery Plan for rare aquatic species on the Muddy River (Moapa dace).
 - Support continued public access at the Warm Springs Natural Area in

accordance with the Southern Nevada Public Land Management Act funding agreement.

- Mow fields, trim palms, and maintain fire breaks annually at the Warm Springs Natural Area in accordance with the property Fire Management Plan.
- Communicate sustainability goals and progress to the organization.

2017-18 Major Accomplishments

- Maintained ranch assets through roof repair or replacement on Harbecke office, Home Ranch main house, Bransford house, Phillips shop and sheep barn, Shoshone cow barn roof completed both for asset maintenance and historical preservation.
- Removed failing building at Meadow Creek.
- Installed truck fill station at Bastain well for hauling water, which will reduce total travel with water trucks.
- Drilled new domestic well at Bransford, installed new electrical, replaced plumbing, pressure tank and controls, which provides safe drinking water for field staff.
- Replaced windows and painted interior at McCoy, extending life of structure.
- Installed power to Huntsman feedlot, hospital, wash down pump, scale and commodity barn.
- Constructed a concrete commodity barn for feed storage at Huntsman.
- Constructed hospital pens and installed troughs for sick cattle.

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- Purchased and installed a livestock scale at Huntsman feedlot to be used for marketing and test weighing performance.
- Built clean water diversion and make-up waste water containment at Huntsman feedlot with compliance to CAFO permitting.
- Installed pivot 6 along with electrical service and plumbing at Huntsman which improves water efficiency and reduces manpower input for irrigation.
- Constructed new intake and screen system on the Williams Creek pipe line. Additionally, installed 1600 feet on steel pipeline on the Williams Creek to tie the screen to the 894-road crossing.
- Abandoned and concrete plugged four old wells, 2 at Huntsman, 1 at Bransford, and 1 at Harbecke, following state regulation for well abandonment.
- Replaced water troughs for cattle at Tippet Pass Mike springs and Majors North Twin tanks.
- Completed rehabilitation of old Harbecke North livestock well, installed solar panels and pump for cow watering on Osceola use are.
- Rehabilitated two irrigation wells at Harbecke, replaced old pump systems, will improve output and pump efficiency.
- Remodeled small Harbecke House completely from roof to basement, completely new structure, including HVAC, electrical, plumbing, lightening, lawn, etc.
- Constructed storage building for Fleet Services.
- Installed law sprinkler system at Goff.
- Sourced used WACO field house for seasonal labor, located at Wahoo.
- Constructed new horse corrals at Wahoo.
- Constructed hay barn at Wahoo.
- Added 780 head of replacement cows to the herd. Converted old population to 100% black Angus animals.
- Added 1100 head of replacement ewes to the herd.
- Met or exceeded the projected Ranch Revenue budget.
- Replaced older diesel and gasoline powered vehicles with flex fuel vehicles, lowering capital cost and reducing the Districts carbon foot print.
- Recycled and reused several service bodies and mounted equipment on light and medium duty utility vehicles, reducing the Districts use of raw materials.
- Selected as one of the 100 Best Fleets “Top 100 Fleets in North America” and “Top Green Fleets in North America”.
- Supported preparation of legal briefs and oral arguments in defense of the federal right-of-way for the future development of SNWA’s central-eastern Nevada groundwater rights.
- Prepared expert reports and provided testimony for water rights hearing remand for SNWA’s central-eastern Nevada groundwater rights.
- Monitored more than 300 ground photography fixed monitoring locations across the SNWA’s grazing allotments to document SNWA’s use

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- of the rangeland, drought conditions, and general health.
- Coordinated extensively with local ranchers in central-eastern Nevada and the BLM regarding management of shared grazing allotments.
 - Conducted desert tortoise, migratory bird, dark kangaroo mouse, pygmy rabbit, sage grouse, and other sensitive species surveys, and responded to calls for dangerous animals at SNWA/LVVWD facilities.
 - Conducted bi-annual Moapa dace counts, and validated the results with a mark-recapture study; the winter 2018 dace count is statistically flat from the previous winter.
 - Completed construction of the second phase of public access trails and kiosks at the Warm Springs Natural Area, and held an official public opening.
 - Conducted threatened and endangered bird species and marsh bird surveys at the Warm Springs Natural Area; nesting southwestern willow flycatchers (with successful nestlings) and a migrant yellow-billed cuckoo were identified in 2017.
 - Hosted the Audubon Society Christmas Bird count that counted over 7,400 birds of about 92 different species in the Upper Moapa Valley.
 - Grew over 5,000 native plants at the Warm Springs greenhouse for restoration areas on both Warm Springs and the Las Vegas Wash.
 - Trimmed 150 palm trees and mowed and maintained 9,000 feet of fire breaks to protect infrastructure and Moapa dace streams at the Warm Springs Natural Area.
 - Monitored 20 ecological restoration sites at Warm Springs Natural Area for restoration success.
 - Provided public outreach to 80 students from Moapa Valley Future Farmers of America who assisted in planting and property cleanup, 112 local fifth-graders for repotting event and World Wetlands Day information, and Boy Scouts of America who installed over 2,000 native plants and a foot bridge.
 - Monitored climate change science and potential impacts to the SNWA through coordinated activities with the Water Utilities Climate Alliance and Association of Metropolitan Water Agencies.
 - Participated in the annual holiday drive, recycling over 2,500 Christmas trees.
 - Continued to employ energy efficient upgrades in the lighting and climate control applications.
 - Facilitated the Sustainability CDT, which met more than six times to coordinate the organization's sustainability goals.

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

2018-19 Performance Objectives

- Without compromising safety and/or service level, reduce operating costs through standardization opportunities, inactive inventory

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- reduction, and continuous process improvements.
- Reduce the overall cost per mile/hour of operation for the LVVWD's vehicles and equipment.
- Annual department expenditures remain within budget.
- Continue to seek grant funding, and provide support to other departments who are applying for grant funding, for SNWA, LVVWD, and Small Systems projects.
- Facilitate renovation projects utilizing in-house labor whenever possible.

2017-18 Major Accomplishments

- Produced 19,182 bales of forage or 11,974 tons of marketable products with a value of \$1,975,738, presently sold \$624,102, balance is in inventory.
- The ranch produced 1472 beef calves, sold 920 head at 504,931 pounds of beef with a value of \$803,159 and added 530 beef replacement females to the inventory with a value of \$795,000.
- The ranch produced 283,944 pounds of lambs with a value of \$537,719. Additionally, produced 44,061 pounds of wool with a value of \$100,228.
- Replace older diesel and gasoline powered vehicles with flex fuel vehicles, saving an estimated \$300,000 in capital replacement costs.
- Reconditioned and reused several service bodies and mounted equipment on light and medium duty utility vehicles saving over \$50,000.

- Replaced 104 vehicles and equipment pieces that were no longer cost effective to operate and maintain.
- Recovered over \$1,043,401 in vehicle resale at auction.
- Recovered over \$89,354 in vehicle warranty repairs through our in-house warranty programs.
- Recovered over \$20,000 from insurance companies for the in-house repair of not at fault vehicle accident damage.
- Obtained \$436,500 in Federal and State grant funding to support water quality monitoring, archaeological resources, program management, revegetation, and public outreach for the Las Vegas Wash.
- Continued to provide proper care and operation of fire protection and life safety systems, climate control for personnel and mission-critical areas, repair and maintenance of plumbing systems, and integrity of facility components including: lighting, building facades, sidewalks, roofs, roads, and perimeter walls.

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

2018-19 Performance Objectives

- Department average annual incident rate exhibits a downward trend, based on a five-year average.
- Ensure 90 percent of Facilities preventive maintenance work is completed by the due date.

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- Ensure 98 percent or greater, fire and life safety inspections or tests are completed by the due date.
- Partner with other departments to create vehicle/equipment committees to better assess needs and improve end products provided.
- Provide comprehensive preventive and predictive maintenance.
- Team safety. Zero lost-time accidents.
- Train and certify maintenance and service personnel in new technology and repair techniques.
- Maintain Automotive Service Excellence (ASE) “World Class Technician Status.”
- Maintain I-CAR Platinum Class Certification for Fleet Services paint and body operations.
- Maintained I-CAR Platinum Class Certification for Fleet Services paint and body operation.
- Completed 34,337 repair tasks on vehicles and equipment over the past 12 months.
- No lost-time accidents occurred.

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

2018-19 Performance Objectives

- Continue to equip fleet facilities with state of the art testing and diagnostic equipment in order to properly diagnose and repair vehicle and equipment failures in a timely cost-effective manner.
- Implement GPS/telematics technology throughout the fleet in order to enhance fleet management capabilities, save fuel and improve fleet utilization.

2017-18 Major Accomplishments

- Renovations for safer operation of El Tejon Ranch irrigation lift station; replacement of hazardous irrigation electrical CT stand at Shoshone.
- The Facilities division comprised of a team of custodians reliably maintains an orderly, clean and compliant environment at all sites.
- Created vehicle/equipment committees with key customers in order to better assess needs and improve end products provided.
- Maintained Automotive Service Excellence (ASE) “Blue Seal of Service Award.”
- Maintained Automotive Service Excellence (ASE) “World Class Technician Status.”

2017-18 Major Accomplishments

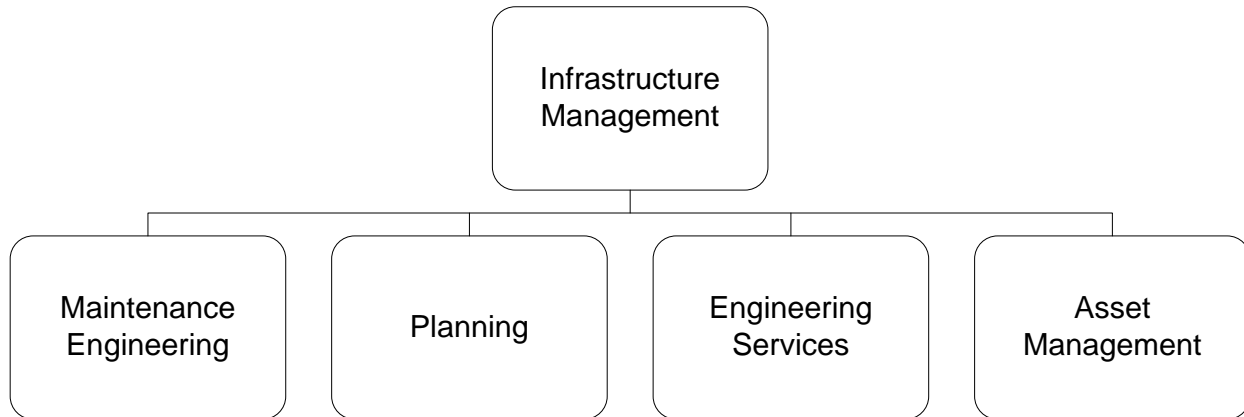
- Equipped all fleet repair facilities with state of the art manufacture specific diagnostic equipment, reducing vehicle down time and repair costs.
- Provided online technical training and diagnostic information to technicians at all repair locations.

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INFRASTRUCTURE MANAGEMENT

Level: 3700



Mission

To provide world-class stewardship of the existing water system infrastructure through comprehensive asset assessment, protection, and renewal in the most fiscally responsible manner possible.

Department Description

The primary responsibility of the Infrastructure Management department is to manage the Las Vegas Valley Water District (LVVWD) and the Southern Nevada Water Authority (SNWA) assets by developing and maintaining the asset management program. To accomplish this, the Engineering Services division reviews water plan submittals for proposed development to ensure they meet the LVVWD's construction standards. The Planning division ensures new developments have adequate water pressure and fire flow, and evaluates future system requirements and develops future capital cost projections. The Maintenance Engineering division

conducts pumping unit efficiency tests, provides technical support, and develops capital projects for the Operations, Resources and Facilities, and Water Quality and Treatment (WQ&T) departments. The Asset Management division tests for leaks on large diameter pipelines, provides inspection support, and maintains the LVVWD and the SNWA cathodic protection systems. These efforts are all directly in support of the department's mission.

Budget Objectives and Highlights

The 2018-19 Infrastructure Management department budget contains a comprehensive view of ongoing efforts to maintain existing service levels, provides funding to continue the development and maintenance of the asset management program, and demonstrates a commitment to providing daily operational support for the LVVWD's and SNWA's projects.

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Infrastructure Management’s total operating expense budget between the LVVWD and the SNWA increased \$1,152,050 from budget year 2017-18 to 2018-19. Contributing factors to the increased operating expense budget include SNWA and LVVWD emergency and

maintenance work, joint replacements, and reservoir improvements. The department will continue to focus efforts on maintaining cathodic protection, SCADA, and the 4-1-1 developer review process.

Expenditures

SNWA Uses	Actual 2016-17	Budget 2017-18	Budget 2018-19
Materials & Supplies	\$ 181,313	\$ 177,000	\$ 180,500
Maintenance & Repairs	430,219	2,460,000	2,230,000
Rental & Leases	143,401	200,000	225,000
Other Employee Expenses	7,429	39,500	39,600
Other Expenses	303,723	100,825	111,550
Total Operating Expenses	\$ 1,066,085	\$ 2,977,325	\$ 2,786,650
Capital Costs	\$ 731,255	\$ 5,877,000	\$ 9,306,000
Payroll Costs	\$ 3,546,724	\$ 4,691,890	\$ 4,884,129
Total Department Expenditures	\$ 5,344,064	\$ 13,546,215	\$ 16,976,779
FTE Positions	17.0	24.6	23.6

Department Performance

Maintenance Engineering. The Maintenance Engineering division is responsible for the engineering design enhancements and modifications needed to operate and maintain pumping stations, rate-of-flow-control stations, reservoirs, water treatment facilities, the distribution and transmission pipelines, and wells in a safe and efficient manner. Specific responsibilities of Maintenance Engineering include PLC/HMI/SCADA programming and 24x7

support, SNWA communications infrastructure and 24x7 support, water quality projects, electrical coordination study analysis, motor control center and switchgear upgrades, administration of on-call vault repair and distribution service contracts, administration of pump and motor repair contracts, design and implementation of cathodic protection projects, tank re-coating projects, as-built documentation, and facilities improvements. The division also provides day-to-day engineering support for the LVVWD and SNWA, Big Bend Water

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District (BBWD), Alfred Merritt Smith Water Treatment Facility (AMSWTF), River Mountains Water Treatment Facility (RMWTF), and rural systems.

The division is currently managing over 250 projects between the LVVWD and the SNWA, with a capital budget of more than \$20 million. Major projects include the Emerson SCADA upgrade; Hacienda ROFC renovations; multi-site ROFC valve and venturi replacements; south valley lateral actuator replacements; RMWTF lab floor replacement; AMSWTF VPSA blower replacement; medium voltage transformer replacements; the AMSWTF electrical distribution upgrade; electrical distribution and engine controls upgrade at Campbell Pump Station; VFD replacements at the Rampart Pump Station; reservoir joint replacements at Campbell and Luce Pump Stations; emergency power system upgrade at Stewart Pump Station; and the build out of the fiber optic communications network.

Planning. The Planning division provides research, analytics, statistical analytics, modeling, and forecasting to support several activities at both the LVVWD and the SNWA. The division provides long-term forecasts, estimates of customer demand curves, analysis of changing demand patterns, and conservation model results to the SNWA as inputs into regional water resource planning. The division provides economic analysis, water demand projections, population distributions, statistical support and water demand distributions to the LVVWD as inputs into financial planning and rate setting, infrastructure planning, operations planning, and small system analysis. This data is utilized for the evaluation of system

additions initiated by the LVVWD and large system additions initiated by developers. The data is also used for hydraulic criticality assessment of distribution system components to ensure system reliability. The division maintains an industry leading hydraulic model of the distribution system, with cutting edge modeling capabilities, which is utilized for engineering analysis and decision support. The division locates, sizes, and schedules new pumping stations, reservoirs, wells, and major pipelines. The division also maintains the District's Asset Management model which is used to prioritize asset renewal projects and provide capital cost projections. The division reviews pressure and fire flow availability for new developments and writes cost sharing agreements for the design and construction of major water facilities. The division collaborates with the WQ&T and Operations departments to address water quality compliance issues, to research and develop alternative technologies applicable to the LVVWD water distribution system, and to plan for capital improvements and required monitoring for regulatory compliance. The division conducts distribution system pressure and flow investigations in support of Customer Care and Field Services, Operations and Public Information. The division also performs planning for artificial recharge, small systems, recycled water distribution systems, and out-of-valley transmission systems.

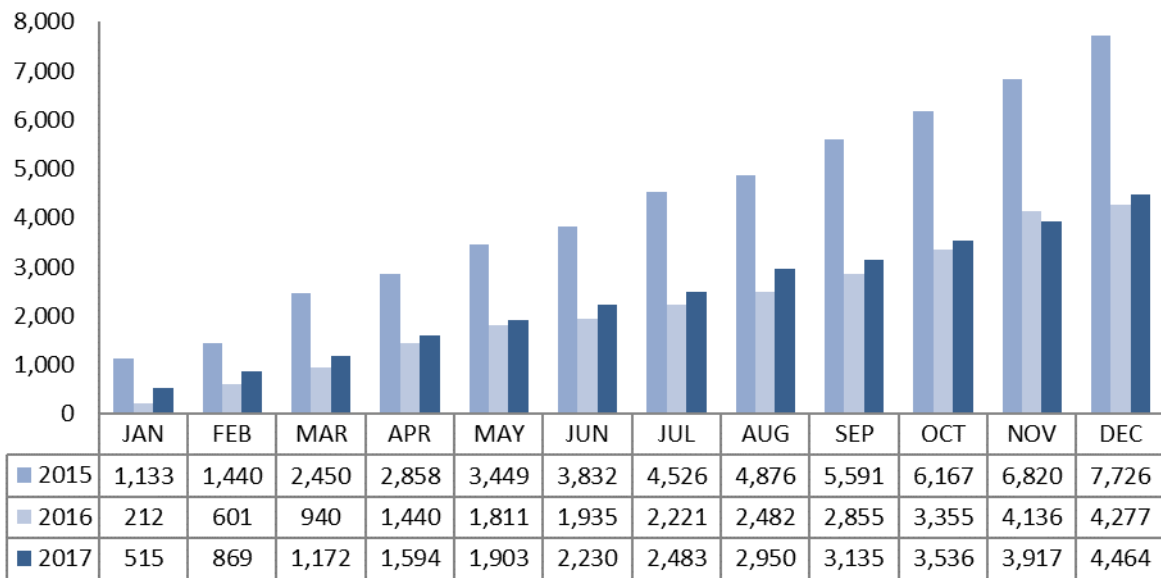
Engineering Services. The Engineering Services division is responsible for reviewing plans for additions and modifications to the systems of the LVVWD and the SNWA, initiated by developers, utilities, and public entities. The division approves the water plans for these system additions, and ensures

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system additions meet the LVVWD’s and the SNWA’s requirements for reliability and maintainability, calculates fees, processes agreements, commits water resources to new developments, and ensures water facility construction is per the LVVWD’s standards. The division coordinates with other public works construction to minimize both the

LVVWD costs and inconvenience to the public. The division is responsible for the evaluation and testing of products for use in the water distribution system and oversees the LVVWD Approved Products List. The following chart represents the LVVWD’s cumulative data representing new service points.

New Service Points
2015-2017 Cumulative New Service Points Received



Asset Management. The Asset Management division assesses infrastructure conditions and forecasts short and long-term capital renewal needs to meet service level expectations. Asset Management performs condition assessments on LVVWD pipelines with the latest technology such as acoustic leak detection, pipe wall measurements, and CCTV internal inspections to determine the remaining useful life of the pipelines and identify pipelines in need of rehabilitation. Reservoirs are inspected while in service with

potable divers or the District owned Remote Operated Vehicle (ROV), or are inspected while out of service with Magnaflux Leakage Technology (MFL) and a visual assessment. Pump performance evaluations are conducted utilizing SCADA data without the need for field testing to determine the current pump efficiency. The division is responsible for managing the corrosion control program for the LVVWD, SNWA, and associated small systems. The goal of the corrosion control program is to extend the life of steel pipe and

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other steel structures by applying and maintaining cathodic protection (CP). Corrosion Control Systems Technicians collect annual corrosion data on over 2,762 CP test stations and 17 impressed current rectifiers for the LVVWD, as well as 1,025 CP test stations and 73 impressed current rectifiers for the SNWA. The division also maintains CP system components, installs new anodes and test stations, and performs corrosion assessments.

Strategic Plan Objectives and Accomplishments

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

2018-19 Performance Objectives

- Replace obsolete site automation equipment with current technology utilizing industry standard protocol. This includes the Phase 3 SCADA system upgrade at LVVWD and the Emerson SCADA system upgrade at SNWA.
- Continue to build out fiber optic communications network over the next five years.
- Maintain a capital improvements program for the LVVWD, SNWA, and small systems, and review development submittals in a timely manner.
- Monitor and evaluate water quality in the distribution system, and recommend improvements in response to changing water quality and regulatory conditions.

2017-18 Major Accomplishments

- Completed SNWA and LVVWD PLC automation system upgrade projects at various sites.
- Completed site selection for a pilot test of the Blue Smart LEA, an advanced real-time water quality analyzer, in water distribution systems.
- Coordinated the trial installation of Primus liners to rehabilitate two pipelines to reduce construction costs.
- Installed new cathodic protection systems are protecting an additional 30 miles of steel pipelines.
- Worked with Clark County and SNWA in-house staff to coordinate the review and approval of the installation of 1,000 linear feet of 84-inch steel pipe.

Strategic Plan Goal – Deliver an outstanding customer service experience.

2018-19 Performance Objectives

- Maintain efficiency in reviewing water plan submittals, network analyses, and hydraulic grade line requests.
- Continue the 4-1-1 review process for developer projects; four-week first review, one-week resubmittal review, and one-week for final Mylar review/approval; with a target success rate of 90 percent.
- Encourage pre-submittal meetings with developers, the agency, and their engineers to identify potential issues and/or special conditions resulting in one less plan review required per project.

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- Launch the SNWA digital plan submittal portal as part of the LVVWD DPS Website.
- Continue to work with other agencies to include water facility upgrades and replacements in road improvement projects.

2017-18 Major Accomplishments

- Approved 4,464 new water service connections, 441 hydraulic grade line requests, 753 water network analyses, 566 sets of development plans, and 267 fire flow information requests.
- Reviewed 4,142 sets of developer, utility, and public works plans for the LVVWD and the SNWA, including brand new submittals, re-submittals, and revisions.
- Hosted 408 project review meetings with developers and engineers.

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

2018-19 Performance Objectives

- Update master planning areas and associated facilities needed to serve developed and vacant acreages based on new development trends.
- Continue to utilize the latest condition assessment technologies to determine the true condition and expected remaining life of the infrastructure.
- Maintain an industry leading hydraulic model, with state-of-the-art modeling tools, of the distribution system for effective decision support and further

automate the hydraulic model and tools for maintenance, calibration, asset rehabilitation, emergency response, shutdown analysis, and water quality applications.

- Coordinate with the City of Las Vegas to finalize a new master agreement between the City and the LVVWD.

2017-18 Major Accomplishments

- Acquired and implemented a sophisticated new software platform and generated a risk of failure score for all pipelines within the LVVWD water distribution system to facilitate prioritization of pipeline replacement.
- Updated the District’s Table 1 demand factors used by developers to size pipelines and facilities to reflect current water demand usage patterns.
- Completed 140 projects, with another 131 projects scheduled to be completed by the end of the fiscal year.
- Created a dataset that linked all customer water demand and county employment to locations and land use codes. This table was utilized by UNR as the foundation of a Computable General Equilibrium (CGE) Model which is useful for regional economic impact analysis. This is the first CGE model ever to include a water sector.
- Utilized remote submarine to inspect critical infrastructure, such as the low-level intake structure and several reservoirs to reduce costs with diver services and used Magnaflux Leakage (MFL) technology to scan steel tank

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floors to measure wall thickness and identified holes.

- Completed maintenance engineering projects with an approximate capital value of \$5.7M.

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

2018-19 Performance Objectives

- Merge the individual division capital plans into one comprehensive cost loaded capital plan.
- Provide updated cost curves and risk assessments for the LVVWD and the SNWA pipelines.
- Continue to conduct Uniform Design and Construction Standards (UDACS) training sessions for engineering firms; addressing each firm's needs and assisting them in submitting more accurate plans.
- Support the Nevada Department of Environmental Protection (NDEP) and the water utilities in Nevada by providing engineering expertise in a state-wide working group and suggested edits to the Nevada Administrative Code.

2017-18 Major Accomplishments

- Processed 1,386 record drawing requests for developer and public works projects.
- Completed three UDACS' training seminars (two engineering firms and Southwest Gas).
- Participated in the Southern Nevada Code Council's Industry Review of the 2018 International Fire Code.

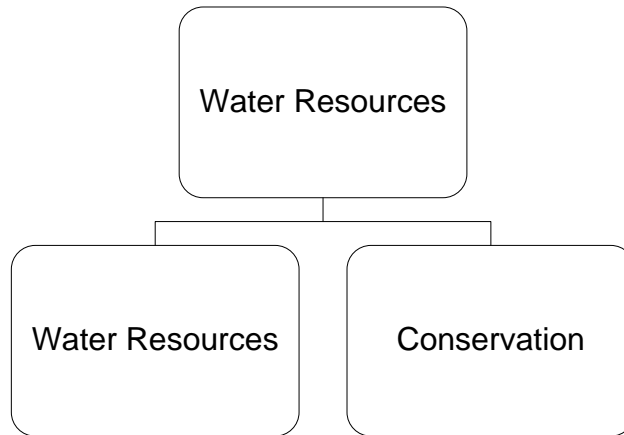
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SOUTHERN NEVADA WATER AUTHORITY®

WATER RESOURCES

Level: 3800



Mission

The mission of the Water Resources Department is to ensure adequate water resources are available to meet the community's current and future water needs in the face of climate uncertainty.

Department Description

The Water Resources Department manages SNWA's water resource portfolio to ensure a reliable water supply for the community. Primary responsibilities include the management of existing water supplies, the acquisition of new water supplies, water demand management, and monitoring of regional hydrologic and water-quality conditions. The department supports policy initiatives on the Colorado River, conducts forward planning for water resource needs, assesses future water supply risks, provides technical support for the operations of LVVWD and SNWA production, artificial-

recharge, and irrigation wells, and administers regional water conservation programs.

Budget Objectives and Highlights

The department's budget is \$61,685,027 which represents an increase compared to the division and team budgets from the previous organizational structure for fiscal year 2017-18. Increases are primarily attributed to anticipated partnerships with Colorado River Basin States and Mexico to undertake system conservation projects designed to protect critical elevations in Lake Powell and Lake Mead and developing and expanding Tributary Conservation Intentionally Created Surplus (ICS) supplies through the lease and purchase of Muddy River and Virgin River water. Budgets for other ongoing Colorado River activities, and environmental compliance costs remain similar to previous years' budgets. The budget for conservation activities reflects SNWA's long-term commitment to increased water conservation.

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Expenditures

SNWA Uses	Actual 2016-17	Budget 2017-18	Budget 2018-19
Water	\$ 398,417	\$ -	\$18,766,798
Materials & Supplies	637,394	1,428,200	5,206,700
Maintenance & Repairs	628	31,300	535,300
Other Employee Expenses	96,492	186,775	250,645
Other Expenses	3,205,662	4,366,300	5,118,800
Total Operating Expenses	\$ 4,338,593	\$ 6,012,575	\$29,878,243
Capital Costs	\$ 2,469,719	\$36,156,339	\$19,724,400
Payroll Costs	\$ 7,503,554	\$ 7,719,568	\$ 7,988,010
Total Department Expenditures	<u>\$14,311,867</u>	<u>\$49,888,482</u>	<u>\$57,590,653</u>
FTE Positions	40.3	41.5	40.5

Department Performance

Water Resources. The Water Resources Division is responsible for securing and managing regional and local groundwater and surface water resources to ensure a reliable water supply for Southern Nevada. This responsibility involves managing existing Colorado River allocations and agreements including those for river-related environmental compliance; conducting regional water resource planning, including integrated water resource planning, population forecasting, regional water demand forecasts and analyses, and water

use accounting and reporting; identifying, evaluating, and developing sources of additional groundwater and surface water supplies; managing banked resources; establishing hydrologic and climatological monitoring networks; securing water rights from the Nevada State Engineer's (NSE) Office; and ensuring all water-resource assets remain in good standing.

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SNWA Permanent and Temporary Resources		
	Supply	Consumptive Use
Permanent	Colorado River (SNWA)	272,205 AFY
	Nevada Unused Colorado River (Non-SNWA)	0-21,151 AFY
	Tributary Conservation/ Imported Intentionally Created Surplus	39,000 AFY
	Las Vegas Valley Groundwater Rights	46,961 AFY
	Direct-Reuse	21,800 AFY
Temporary	Southern Nevada Groundwater Bank	335,410 AF
	Interstate Banks (California and Arizona)	931,266 AF
	Intentionally Created Surplus (storage in Lake Mead)	531,562 AF

Conservation. The Conservation division develops and implements demand reduction programs and strategies with emphasis on consumptive uses. The SNWA monitors water use in terms of Net Gallons Per Capita per Day (GPCD), since SNWA agencies recycle nearly all indoor water use, either through return-flow credits or direct reuse. Net GPCD more

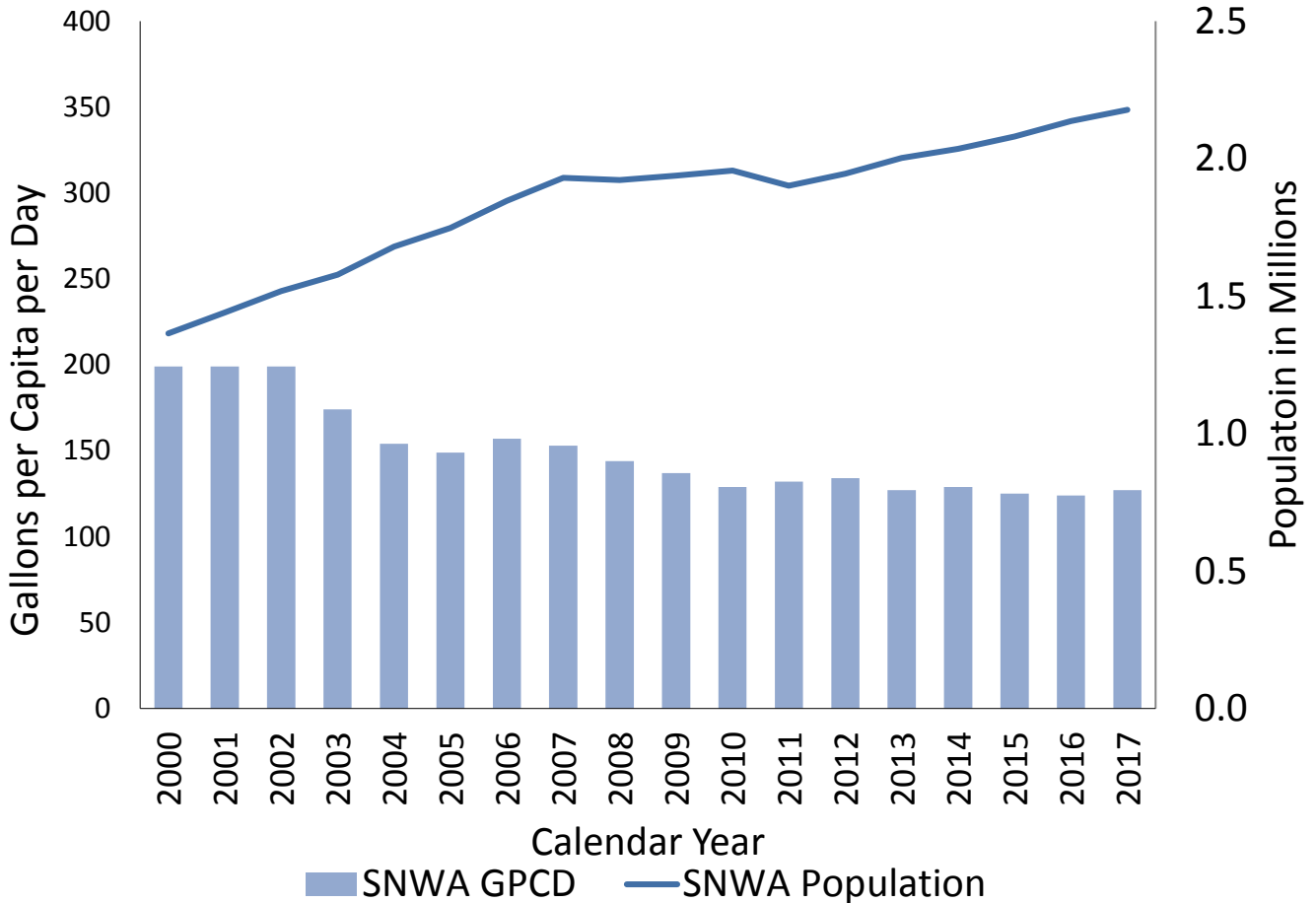
accurately reflects the community’s use of water resources and improves comparability with other communities. The SNWA’s net GPCD was 127 in 2017. This is a reduction of 36 percent, since onset of drought policies in 2002.

In 2017, the SNWA supported 2,016 projects comprising 3.5 million square feet of landscape conversion. These conversions will produce perpetual annual savings of more than 196 million gallons. The cumulative benefit of landscape conversions completed since 2000 reduced the SNWA’s 2017 consumptive water use by more than 10.3 billion gallons.

The Conservation division employs three water-efficiency strategies: education, incentives, and regulation. Education strategies include multi-media (managed through the Public Information division), customer contacts, publications, videos, special events, demonstration projects, and a comprehensive website. The incentive strategy utilizes rebates to promote landscape conversions and use of water-efficient technology and accounts for the largest share of conservation funding. The regulatory strategy relies on coordination with other jurisdictions to implement efficient development standards, time-of-day watering requirements, water waste penalties and tiered water rate structures.

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SNWA GPCD and Population



Strategic Plan Objectives and Accomplishments

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

2018-19 Performance Objectives

- Cooperate with other Colorado River water users on programs that protect critical elevations in Lake Powell and Lake Mead.

- Ensure reliability of Colorado River supplies through active participation in environmental compliance and management programs.
- Inspect the SNWA and the LVVWD wells annually to ensure appropriate operational capacity for each service area. Manage, develop, and certificate water rights, as appropriate.

2017-18 Major Accomplishments

- Continued implementation of the Colorado River Pilot System

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Conservation Program. Lake Mead contains nearly 20 feet of additional water from the program and other storage initiatives.

- Prepared numerous scientific reports and provided expert testimony to the NSE in support of SNWA’s water-right applications in Spring, Cave, Dry Lake, and Delamar valleys.
- Completed all compliance monitoring and reporting for the LVVWD’s and SNWA’s groundwater rights, and permits to recharge, store, and recover water from the Southern Nevada Water Bank.
- Maintain and perfect the LVVWD and SNWA groundwater and surface water rights while optimizing operation flexibility.
- Implemented a maintenance and repair plan to optimize efficiencies of irrigation wells and the development of water rights associated with the NR Ranch properties.
- Continued funding and/or participation in the Lower Colorado River Multi-Species Conservation Program and the Glen Canyon Dam Adaptive Management Program.

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

2018-19 Performance Objectives

- Maintain 90 percent or greater client satisfaction rating for delivery of the Water Smart Landscapes program.

2017-18 Major Accomplishments

- Conservation customer satisfaction rating increased 2.8 percent to 94.4 percent (4.72/5-point scale).
- Revised the Water Smart Home program to afford greater flexibility to homebuilders and recruited two additional builders.
- Improved the Water Smart Contractor program for consumers and subscribing contractors.

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

2018-19 Performance Objectives

- Cooperate with other Colorado River water users on programs that protect critical elevations in Lake Powell and Lake Mead.
- Complete actions as required under the SNWA / Department of Interior Stipulated Agreements.
- Publish annual updates to SNWA’s Water Resource Plan and Water Budget.
- Ensure compliance with terms of the SNWA Cooperative Agreement and Section 5 contracts with the Secretary of the Interior to fully utilize Nevada’s 300,000 acre-feet of Colorado River apportionment.
- Communicate conservation goals and progress to the organization.
- Develop and submit the 2019-2023 5-Year Conservation Plan.

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- Support conservation plans that benefit endangered and threatened species to ensure access to current and future water supplies.
- Monitor, and when appropriate participate in, external activities that might interfere with SNWA’s access to current and future water supplies.
- Partnered with NV Energy, Southwest Gas, and the Desert Research Institute to supply 1,000 Water and Energy home retrofit kits to schools through a school sustainability curriculum.
- Implemented a uniform conservation policy for water features among all municipalities.

2017-18 Major Accomplishments

- Issued more than 5,000 conservation rebates saving the community nearly 260 million gallons per year.
- Contributed approximately 57,000 acre-feet of unused Nevada water for the protection of Lake Mead elevations.
- Participated in the ongoing implementation of the Pilot System Conservation Program.
- Conducted Colorado River modeling in support of ongoing negotiations and resource management activities.
- Partnered with Colorado River stakeholders to identify and prioritize research initiatives that would improve the accuracy of hydrological forecasts, enhance the performance of predictive and decision support tools, and to reduce uncertainty related to future supply and demand conditions in the CRB.
- Maintained a regional monitoring network in east central and southern Nevada to collect long-term hydrologic and climatological data.
- Designed and oversee construction of replacement wells within the Las Vegas Valley and for the ranches.
- Achieved 2017 Net GPCD of 127.
- Published the SNWA 2017 Water Budget and the SNWA 2017 Water Resource Plan.
- Completed an impact assessment of potential out-of-valley water use on water resources.
- Created approximately 32,000 acre-feet of Tributary Conservation ICS and over 740 acre-feet of System Conservation water from the Muddy and Virgin Rivers to Lake Mead.
- Negotiated and entered an additional agreement to develop recovery capacity for water banked in Arizona.
- Initiated interstate banking of 13,000 acre-feet in Arizona.
- Purchased 24.64 acre-feet of Virgin River water.

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

2018-2019 Performance Objectives

- Increase participation in SNWA conservation incentive programs such as Water Smart Landscapes Program and Water Efficient Technologies Program
- Host 11th Annual WaterSmart Innovations Conference.

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- Continue to collaborate with water efficiency technology incubators and accelerators, including WaterStart, ImagineH2O, the Metropolitan Water District of Southern California's Innovative Conservation Program, the Alliance for Water Efficiency and others.
- Participate in a multi-agency, national research initiative on cooling technology and water demand.
- Collaborate with WaterStart on a study of water efficiency technology for resort and large facility management.
- Implement a pilot program to provide residential water use audits to clients with extraordinary use characteristics.
- Develop a 3-hour Conservation continuing education course for Homeowner Association Managers.
- Participate in the implementation of Minute No. 323, "Extension of Cooperative Measures and Adoption of a Binational Water Scarcity Contingency Plan in the Colorado River Basin".
- "smart" irrigation controllers to develop and improve features.
- Continued a research program to quantify potential water savings from residential audits conducted for clients with extraordinary water use characteristics.
- Partnered with the Alliance for Water Efficiency and major utilities to fund and develop a research venture to explore water conserving approaches to cooling.
- Increased participation in SNWA Smart Irrigation Controller Rebate by 13 percent from 2016.
- Hosted approximately 1,000 attendees at the 10th Annual WaterSmart Innovations Conference and Expo, the nation's largest event for exhibiting and presenting water efficiency technologies.
- Partnered with the Metropolitan Water District of Southern California and Central Arizona Project to implement the Innovative Conservation Program.
- Participated in the development of a scope of work for the study of water desalination opportunities in the Sea of Cortez.

2017-18 Major Accomplishments

- Ongoing collaboration with the State of Nevada's WaterStart program and ImagineH2O to review water efficiency technology and select award recipients.
- Ongoing collaboration with the RESNET network to develop a national water efficiency rating system for new homes.
- Ongoing collaboration with the nation's major manufacturers of

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

2018-19 Performance Objectives

- Implement hydrologic monitoring efficiencies with remote data collection.

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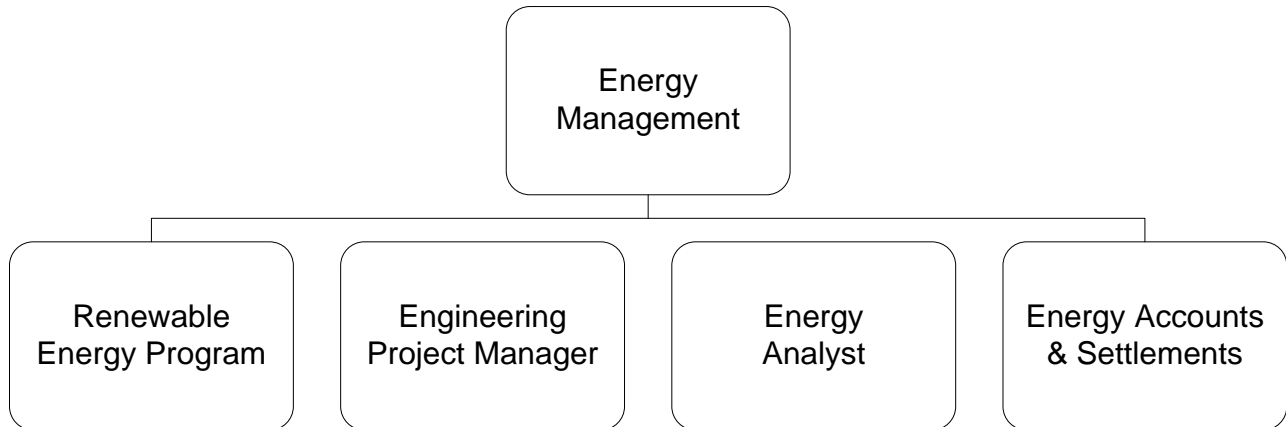
- Leverage conservation research dollars through regional/national projects that attract funding and participation from peer utilities.
- Implement a new business system to streamline workflows, maintain accountability, reduce labor intensity through automation and expand use of electronic documents.

2017-18 Major Accomplishments

- Continued installation of Geostationary Operational Environmental Satellite telemetry systems to monitor and provide real-time access to important hydrologic sites in remote locations and reduce travel-related expenses.
- Collected \$342,518 in grant funding to support conservation programs.

ENERGY MANAGEMENT

Level: 3900



Mission

The mission of the Energy Management department is to manage an energy resources portfolio for the members of the Silver State Energy Association (SSEA), including the Southern Nevada Water Authority (SNWA) and its member agencies, which yields predictable prices; considering the overall value of sustainability and cost minimization.

Department Description

The Energy Management department was established in fiscal year 2005-06 to manage the procurement and utilization of energy resources necessary to pump, treat, and deliver water to the member agencies. The SNWA, in collaboration with the Colorado River Commission of Nevada (CRC), initially purchased energy supplies for its own water pumping needs and later began supplying power for the water pumping and wastewater needs of the SNWA member agencies, including the Las Vegas Valley Water District

(LVVWD), the City of Las Vegas, the City of Henderson, the Clark County Water Reclamation District and the City of North Las Vegas.

In 2007, the SNWA, along with the CRC, Lincoln County Power District No. 1, Overton Power District No. 5 and the City of Boulder City, formed the SSEA, a joint action agency charged with procuring and managing power resources for its members. Today, Energy Management personnel and CRC personnel, acting as the staff of the SSEA, manage the procurement and utilization of energy resources for the SNWA and its member agencies needs and the needs of the other SSEA members.

Key functions performed by Energy Management personnel on behalf of the SSEA include energy trading and procurement, accounting and settlements, energy risk management, forecasting, analytical support, and project planning and development. In addition to the functions performed on behalf of the SSEA, Energy Management personnel

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also support the renewable energy initiatives of the SNWA and the LVVWD.

Budget Objectives and Highlights

The fiscal year 2018-19 Energy Management department budget contains funding for all expenses associated with the procurement and management of energy resources for the SNWA’s electrical loads. Expenses for the LVVWD, other SNWA member agencies, and

other SSEA members, are not included in this budget. The majority of budget funding is for energy commodities and services purchased by the SSEA from the energy and financial marketplace to meet the SNWA’s needs. Other expenditures include transmission, distribution and ancillary services; operation and maintenance expenses associated with transmission and generating assets; and administrative and general expenses for CRC and the personnel of the SNWA.

Expenditures

SNWA Uses	Actual 2016-17	Budget 2017-18	Budget 2018-19
Energy	\$36,477,845	\$36,687,491	\$35,462,002
Materials & Supplies	570	2,500	2,500
Maintenance & Repairs	17,516	-	-
Rental & Leases	-	-	-
Other Employee Expenses	3,710	8,250	8,250
Other Expenses	35	1,250	1,250
Total Operating Expenses	\$36,499,676	\$36,699,491	\$35,474,002
Capital Costs	\$ -	\$ 7,920,000	\$ 6,120,000
Payroll Costs	\$ 1,436,023	\$ 1,444,577	\$ 1,502,093
Total Department Expenditures	\$37,935,699	\$46,064,068	\$43,096,095
FTE Positions	6.0	6.0	6.0

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

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Energy Services group have met this need for many years now.

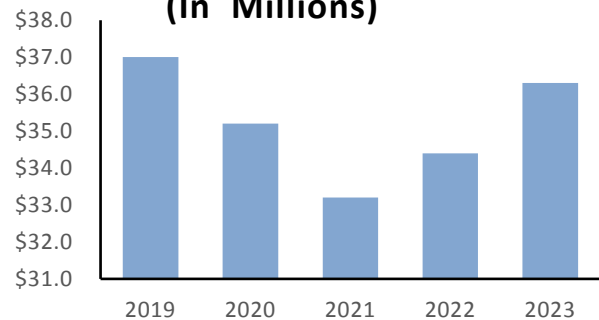
Expanding the energy portfolio managed by this group to include the SNWA member agencies and the members of the SSEA has brought significant economies of scale and portfolio synergies to each of the participants, including the SNWA. Furthermore, the energy portfolio has been able to be expanded in this way with only a minimal increase in the size of the labor and overhead required to properly manage it. Over \$1 million per year of general overhead and operating costs are now being paid for by non-SNWA entities, costs that otherwise would be paid for by the SNWA.

Some of the benefits the SNWA realizes by participating in the SSEA include 1) economies of scale when purchasing energy; 2) lower overhead costs; 3) lower balancing, imbalance and ancillary services costs due to the synergies of serving a single larger portfolio vs. serving the different load shapes of each individual entity; 4) federal hydropower optimization, which can only be realized by serving the combined portfolio; 5) economies of scale, shared resources, and shared costs of project development work; and 6) additional opportunities to work cooperatively with the other public entities in the overall energy portfolio.

Energy Price Stability. Energy Management measures its success on the basis of how well it is meeting its objective to provide energy to the SSEA members yielding stable, low and predictable prices. Consistent with the SSEA's Energy Risk Procedures the price exposure of the SNWA's energy portfolio has largely been

eliminated through calendar year 2022. The SSEA locks in its energy portfolio costs by securing a combination of physical market resources (generation assets or contracts for the delivery of electricity) as well as electric and gas financial products to meet the needs of its members. Physical contracts for electricity are secured whenever there are sufficient buyers and sellers to create liquid markets. Financial products are secured when physical contracts are unavailable or market liquidity is unacceptably low. Financial products protect against price movements in the market and can be converted to physical supplies at a later time when physical power markets are more liquid. Because the SNWA portfolio cost is substantially fixed through calendar year 2022, changes in the market price of energy are expected to have little effect on the SNWA's expected costs during this period. The chart below shows the SNWA's actual and projected energy costs through fiscal year 2023 as of the end of January 2018.

SNWA 2019-2023
Fiscal Year Ending
Projected Energy Costs
(In Millions)



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Energy Management has met its objective of providing energy at stable and predictable prices. This long-term management approach has allowed the SNWA and its members to budget for energy costs with a high degree of confidence years in advance. To ensure the commitment to long-term price stability is met, a Risk Control Committee comprised of the SNWA and its member agencies meets quarterly to review standardized reports produced by the SSEA, and to monitor the SSEA's adherence to its Risk Control Procedures.

The SNWA's energy costs are expected to be approximately \$37 million, excluding the estimated cost of capital associated with the SNWA's energy assets for the fiscal year 2018-19. This amount is recovered through the SNWA wholesale water delivery charge

SSEA Eastern Nevada 230 kV Transmission Project. For the past several years, the SSEA members have been working cooperatively to develop the Eastern Nevada Transmission Project (ENTP), a 230 kV transmission system that would allow for the interconnection of SSEA members' electrical systems with each other and with the Mead Substation. Mead is the major regional wholesale market access point in Southern Nevada. The SSEA has completed an Environmental Assessment and received full project right-of-way grant and permits from the Bureau of Land Management. Management is presently evaluating various opportunities to move this project forward into the design phase.

SNWA and LVVWD Sustainability Initiatives. The SNWA continues to pursue economical energy contributing to the SNWA's and the LVVWD's goal of providing 25 percent of the

supply portfolio with renewable energy by 2025 and currently stands at 18%.

Strategic Plan Objectives and Accomplishments

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

2018-19 Performance Objectives

- Install 2 MW of solar covered carports at the LVVWD campus by the end of the first quarter of 2019. Installations will cover four employee parking areas at the main campus and the Springs Preserve.
- Evaluate Microgrid applications for the water delivery system. Identify possible pilot projects and assess performance if implemented.
- Develop a structure and business case for the Eastern Nevada Transmission and Solar Project that enables this strategic project to move into the design phase.

2017-18 Major Accomplishments

- Increased the value of existing renewable energy facilities through the application of strategic maintenance activities.
- Obtained management approval for moving forward on additional solar facilities.
- Completed evaluation of options for moving the ENTP forward into the design phase.

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- Completed integration of budget and accounting records into common system to produce timely and informative budget variance reports.

Strategic Plan Goal – Deliver an outstanding customer service experience.

2018-19 Performance Objectives

- Reach out to new customer representatives with a customized training program to meet their needs.
- Produce training videos to enhance customer understanding of our operations and resulting impacts on their costs.
- Offer our energy expertise in support of our customers' energy goals and objectives.

2017-18 Major Accomplishments

- Initiated the timely production and distribution of monthly energy budget to actual financial reports to all SSEA customers.
- Collaborated with the SNWA Finance department to provide an accurate and timely final accounting of all costs, deposits and refunds associated with the sale of the Silverhawk Power Plant and the administrative termination of the SNWA energy contract trading account.
- Implemented quarterly Energy Accounting Review meetings with SNWA Finance personnel.
- Implemented new customer agency federal hydropower allocations from Hoover Dam.

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

2018-19 Performance Objectives

- Reduce or eliminate unexpected changes to the cost of energy provided to customers.
- Develop internal tools and/or streamline internal processes, allowing for production of energy information that is more understandable and easily accessible to our internal and external customers.
- Enhance accounting system actual transaction detail to provide more robust cost versus actual comparison reports.
- Determine optimal balance of operating funds and short-term investments and identify available vehicles to achieve optimal fund balances.
- Investigate alternative methods for collateral posting.

2017-18 Major Accomplishments

- Developed a transmission wheeling rate for the Power Delivery Project.
- Implemented a new system for the accurate and timely tracking performance of renewable energy systems and portfolio energy credits.
- Created a timely and accurate PEC/REC report management tool.

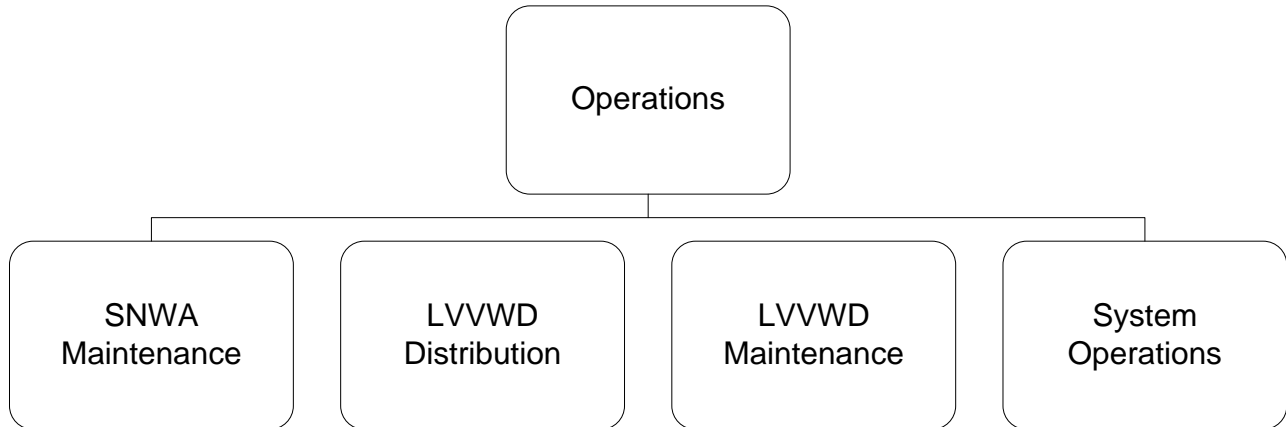
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- Created a schedule and procedures to facilitate the timely data upload, certification and invoicing of PECs.
- Prepared comprehensive documentation for all revenue and cost allocations.
- Maintained a fixed cost energy portfolio for our customers within compliance requirements.
- Executed and began administering new 50 year Hoover Dam federal hydropower contracts for the SNWA and LVVWD.
- Tested and evaluated a model for estimating the creditworthiness of energy suppliers that do not have an established credit rating.
- Completed a Pioneer Solutions trade capture system upgrade.
- Migrated member agency book budget records to Quickbooks and commenced producing monthly budget variance reports for all customers.
- Completed another clean external audit, without any significant audit findings, of the SSEA's financial records after converting to QuickBooks, allowing for the regular production of improved financial reports.
- Completed a clean SNWA Energy Management Department operational audit.
- Provided input and justification for rent expense allocation methodology.

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OPERATIONS

Level: 4100



Mission

To serve the Southern Nevada Water Authority (SNWA) customers by delivering high quality drinking water to the greater Las Vegas area through efficient, reliable, state-of-the-art delivery systems. To support the Las Vegas Valley Water District's (LVVWD) mission by delivering water to customers that is adequate to meet their needs and proven safe through a system that is effectively operated and maintained.

Department Description

The LVVWD system is comprised of a wide variety of facilities which include various pumping stations ranging in size from 7,500 gallon per minute (GPM) to 93,000 GPM and various reservoirs ranging in size from 10 million gallon (MG) to 50 MG, for a total storage of just over 900 MG. The LVVWD has 64 potable wells capable of producing 200 MGD, 31 specially constructed wells dedicated to recharging the groundwater

basin with treated Colorado River water during the winter months, and two recycled water distribution systems that include two reservoirs, five pumping stations and four wells.

The SNWA system consists of 31 pumping plants, 36 ROFCS also referred to as metering sites, 163 miles of large diameter pipeline, and over 60 regulating tanks, reservoirs and surge towers.

Operations also serves customers located not only in the metropolitan Las Vegas area, but also the small service areas of Blue Diamond, Jean, Kyle Canyon, Searchlight, Eldorado Valley, Coyote Springs/Moapa, Sloan and Laughlin.

Budget Objectives and Highlights

In October 2014, the SNWA/Southern Nevada Water System (SNWS) and the LVVWD Operations department's divisions and functions were merged into a single department. Building on this action, the

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department was further reorganized in October 2015 to create a combined Systems Operation division with separate maintenance divisions for the LVVWD and the SNWA.

Operations' divisions are responsible for the day-to-day and long term operations of a complex network of pumping stations, reservoirs, rate of flow control stations (ROFCS), sodium hypochlorite facilities, and ground water wells necessary to meet water delivery demands. Wholesale customers of the SNWA include the LVVWD, City of Henderson, City of North Las Vegas, Boulder City, Nellis Air Force Base, and the Park Service. Retail customers of the LVVWD receiving water from Lake Mead include residents of unincorporated Clark County and the City of Las Vegas. The department also operates small ground water systems for the communities of Blue Diamond, Jean, Mt. Charleston, Searchlight, the Sloan Army Reserve Center, and the Moapa Water

Treatment Plant.

Equipment and Project Budget. The Operations department combined equipment and project budget reflects the new items to establish improved maintenance practices, replacement of existing equipment items no longer supportable by the manufacturer, and capital projects the divisions manage. The total request is \$3,467,484 for the fiscal year 2018-19 Budget Plan between the LVVWD and the SNWA.

Operating Expense Budget. The department's Operating Expenses budget continues to focus on Reliability Centered Maintenance (RCM) aspects of keeping the overall water delivery system fully operational and reliable. The Operating Expenses for fiscal year 2018-19 Budget Plan are shown on the following table.

Operations' fiscal year 2018-19 overall budget totals \$65,270,389 between the LVVWD and the SNWA.

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Expenditures

SNWA Uses	Actual 2016-17	Budget 2017-18	Budget 2018-19
Water	\$ 218,753	\$ 250,000	\$ 250,000
Energy	153,347	220,000	205,000
Materials & Supplies	1,117,062	2,232,500	2,542,500
Maintenance & Repairs	233,197	430,000	430,000
Rental & Leases	-	-	-
Other Employee Expenses	32,752	85,400	73,100
Other Expenses	2,225	221,100	221,100
Total Operating Expenses	\$ 1,757,336	\$ 3,439,000	\$ 3,721,950
Capital Costs	\$ 2,528,965	\$ 5,328,000	\$ 2,016,500
Payroll Costs	\$ 8,654,413	\$ 8,753,581	\$ 9,544,983
Total Department Expenditures	<u>\$12,940,713</u>	<u>\$17,520,581</u>	<u>\$15,283,433</u>
FTE Positions	52.6	54.0	57.3

Department Performance

SNWA Maintenance. The division is responsible for the repair and maintenance of the production facilities and distribution system. The division ensures the system, facilities and equipment are maintained at a level to fulfill the SNWA’s contracted water delivery commitments. This is a large, complex system consisting of 31 pumping plants, 36 metering sites called rate-of-flow control stations (ROFCS), 163 miles of large diameter pipeline, and over 60 regulating tanks, reservoirs and surge towers.

The Electrical/Electronics section consists of two teams of technicians responsible for all levels of reactive, preventive and predictive maintenance, emergency repair, new construction, retrofitting and installation, and upgrading of all equipment and process control systems belonging to the SNWS. All the SNWS pump 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).

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The Mechanical section, consisting of two teams, is responsible for the maintenance and repair of the large pumping units, pneumatic/hydraulic valve actuating systems for the pump discharge control valves, the rate of flow valves and operators at the system pumping stations delivery points. These sections are also responsible for the heavy support maintenance and repair of all the in-valley and out-valley SNWS mechanical equipment consisting of motors and gear reduction units, valves and valve actuators, canal gates, air compressors and chemical feed systems utilized by treatment. A full capacity machine shop provides for in-house repair and fabrication of equipment needed to support the mission.

LVVWD Distribution. The Distribution division (Distribution) is responsible for maintaining 6,706 miles of pipeline and laterals, 125,124 valves, 399,836 service laterals, 39,027 fire hydrants, and appurtenances comprising the LVVWD's distribution system. In fiscal year 2016-17, Distribution crews completed 8,131 work orders consisting of repairs to pipelines, and repairing and replacing valves and fire hydrants; additionally, replaced 2,111 leaking service laterals. 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 60,628 of these services have been replaced, leaving 19,472 in unreliable service. Distribution also assists other departments, such as Asset Management, by installing cathodic test stations, and Inspections with valve corrections and water quality.

Distribution continues the preventative maintenance valve program which locates, operates, and maintains valves within the distribution system. Distribution located and exercised 10,092 valves in fiscal year 2016-17, 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 backsiphonage condition exists. The backflow technicians are certified by the California/Nevada section of the American Water Works Association (AWWA). They are currently managing approximately 29,000 backflow prevention devices.

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

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

The Field Booster Pump/Valve Repair section maintains, repairs, and installs mechanical equipment found at major pumping stations,

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select small system sites, and recycled water valve vaults.

The Pump System Repair section expedites repair of major pumps and motors. This is accomplished through the use of machinists, mechanical, and coating and painting skills of the section members. The section also implements the predictive maintenance tool of vibration analysis on the LVVWD 300+ motors. Another major responsibility is to maintain the natural gas industrial engines at the Campbell Pumping Station and field deployed emergency generators.

The Electrical section maintains, repairs, and installs electrical equipment typically used as a control voltage for starting electrical motors. This involves providing preventive maintenance as determined by the RCM process and implementing the infrared predictive maintenance technology, knowing and understanding the controls, power and mechanics of the water system, and having a working knowledge of the LVVWD's pumping strategies.

The Telemetry section maintains and repairs all instrumentation pertaining to water system operation and security, including monitoring water pressure, flow, level, drawdown, and chlorination instrumentation and systems, field computer systems, and associated devices for the SCADA system, multiple address radios and repeater system, spread spectrum radios and repeater system, microwave radio communications equipment, and security equipment in support of field sites.

The Well Crew section performs predictive, preventive, and corrective maintenance on all

well pumps, artificial injection wells, and control valves. This section further plays a significant role in the evaluation of pump efficiencies and works in concert with Maintenance Engineering within Infrastructure Management to recommend well rehabilitation schedules for the well bore and pumping equipment.

System Operations. The System Operations division is comprised of the management team, LVVWD System Operations, SNWS System Operations, the Disinfection Reservoir shop, and a Small Systems section.

The management team is responsible for ensuring the sections have the necessary resources to accomplish their specific functions. Along with the section supervisors, the team consists of a manager, administrative staff, and an energy analyst. The energy analyst is integral in compiling the monthly water usage for which the SNWA bills its customers.

The LVVWD SCADA Operations section provides around-the-clock monitoring and control of the all retail water distribution systems using the SCADA computer system. Daily tasks include coordinating water deliveries from the SNWS and operating pumps and wells to maintain reservoir levels and water system pressure. This section remains instrumental in the continuing development of an Energy Water Quality Management System (EWQMS) module designed to further improve pumping efficiencies and distribution system water quality.

The SNWS SCADA Operations section provides around-the-clock monitoring and

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control of wholesale water transmission and distribution system equipment using the SCADA computer system. Daily tasks include coordinating water and power orders from the LVVWD. They also operate pumps and valves at all pump 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 rate-of-flow control stations, 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 performs maintenance on equipment associated with the disinfection systems used to maintain a safe residual in the system. They are also responsible for reservoir structure maintenance and provide extensive support to the maintenance groups for valve and mixer maintenance.

The Small Systems section is staffed with two rural systems operators (RSO) and a superintendent. The RSOs are responsible for maintenance on the water system equipment at five locations throughout Clark County. The superintendent is aligning the Cross Departmental Teams (CDT) under his chairmanship to ensure operational, community growth, and system finances remain transparent to all work groups supporting the small systems.

Strategic Plan Objectives and Accomplishments

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

2018-19 Performance Objectives

- Replace/upgrade critical infrastructure components that have reached the end of their useful lives and retire assets that are no longer needed.
- Continue to collaborate with Infrastructure Management to complete SNWS PAC and LVVWD DNP3 programmable logic controller upgrades.
- Work with Infrastructure Management to upgrade SCADA communication system from radio to fiber optics.
- Continue to identify best operational and maintenance practices of various divisions and implement them as the standard practice.
- Continue to collaborate with Infrastructure Management to complete an upgrade to the LVVWD SCADA system.
- Partner with Information Technology to renew the Energy Water Quality Management System software so it is supportable and useable with advanced software and current server systems.
- Remain active and involved in major contracts involving new pump stations, reservoirs, wells, and other system additions or rehabilitations. After several years of no major projects, implementing advances in technology will need to be a team effort.

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- Continue to work in partnership with various departments to identify and correct causes of water losses. These could be SCADA related, maintenance related, or leak related. The goal is to return to 1 percent or less total losses.
- Continue to work in partnership with various departments to identify and correct causes of water losses. These could be SCADA related, maintenance related, or leak related. The goal is to return to 1 percent or less total losses.
- Install new actuators and control valves at Hacienda ROFC, Fayle ROFC and Oakey ROFC.
- Continue motor refurbishments on the A Lateral, C Lateral and PS06.
- Establish temporary generator power Emergency Preparedness program for all In Valley ROFCs.
- RF6A/RF6B/RF6C – Install new venturis, control valves and actuators in ROFC6A, 6B, 6C and Flamingo ROFC.
- Begin valve actuator replacement project in the South Valley Lateral.
- Replace the failing variable frequency drive at BPS1A for Unit No.1.
- Install fail safes (R6 relays) on all motor protection relays at Production facilities.
- Repair/replace all inoperable valves at River Mountains' reservoirs.
- Searchlight's water system suffered damage when a flash flood roared through a low area and washed out about 40 feet of transmission piping. Responding staff isolated the line within 15 minutes of arrival on site. Distribution staff made repairs the next business day and the Small Systems CDT collaborated to obtain Army Corp of Engineering funding support for a permanent repair.
- Identified the steps and equipment needed to convert the Boulder City Raw Water line to deliver treated water to Boulder City. The process had become lost due to retirements over the years and now the written plan is in place for all to refer to and use, if or when it is necessary.
- Teamed with Maintenance Engineering and Asset Management to install weko seals at Hacienda Rate of Flow and Forebay. Repairs fixed an estimated 500,000 gallons per day water leak from five piping joints.
- Use of groundwater wells to meet system demands is limited by the 40,760 af allocation. This year's pumping came in at 40,756 af.
- Joined forces with Human Resources to develop an Operator Trainee job description. This allowed for training of Limited Term Employees in preparation for future retirements.

2017-18 Major Accomplishments

- Averted a potential disaster in the Jean water system by assisting Letica Corporation in isolating their on-site piping. A piping failure was causing a leak approaching 1,000 gpm and this prompt isolation support prevent the small storage tank from draining.
- The LVVWD system grew by one pumping station, one storage tank, one recycled water system customer, and one intertie with the City of Henderson. Operational methods were converted to programming by Maintenance Engineering and all systems were successfully started up with no major issues.
- Executed 44 major SNWS outages in

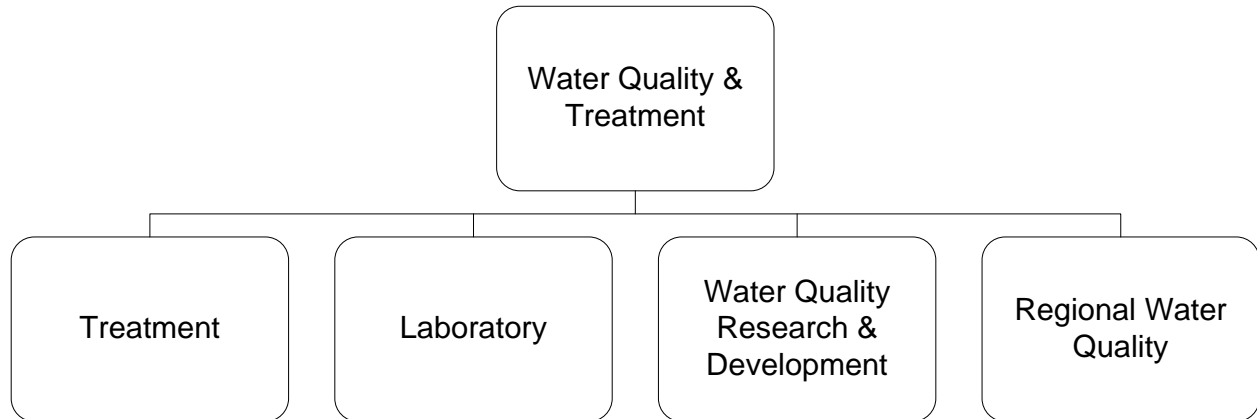
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- support of maintenance, engineering, or construction projects. One outage was a 10-day shutdown of the Pittman Lateral to allow relocation of the piping in support of a Clark County construction project for an overpass at Valley View and Harmon. Additionally, there was an unplanned shutdown of the South Valley Lateral to for a repair to a blown out plug. This required both LVVWD and City of Henderson to use alternative delivery plans to meet November demands. were to tie in the L3PS discharge lines.
- Conducted both a table-top and practical field exercise of Loss of SCADA scenario within the LVVWD system. Staff responded to start and/or stop pumping equipment as needed, field level measurements were taken, and after 48 hours of exercising the lessons learned list was prepared and shared.
 - Removed the old variable frequency drive and installed a new reduced voltage soft starter on Unit No. 10 at Sloan Pump Station.
 - Installed the RIVENTA Pump Monitoring System at Hacienda Pump Station.
 - System wide installation of the new FOXBORO flow transmitters at all rate-of-flow-control stations.
 - Installed new manual and electric guard/isolation valves and actuators at Oakey ROFC and Fayle ROFC.
 - Installed new station power distribution equipment and motor control centers at Twin Lakes Pump Station.
 - Isolated, drained and rewatered the South Valley Lateral at Gibson and Horizon for a leak repair.
 - Isolated, drained and rewatered the Pittman lateral in support of the 84" pipeline relocation.
 - PS06 Unit No. 1 – Remove for repair/refurbish by KOFFLER Electric.
 - Installation of level transmitters at Foothills Pumping Station surge tanks to replace Warrick level probes.
 - Installed infrared survey windows on switchgear at Production facilities.
 - Installed a new variable frequency drive to replace the failed Unit No. 3 at IPS2.
 - Completed North and Foothills ROF control valve installations.
 - Executed 29 major SNWS outages in support of maintenance, engineering, or construction projects. Three outages were to tie in the L3PS discharge lines. Additionally, there was an unplanned outage for the repair of a four-million- gallons per day water leak on an AVAR line at Butterfly Valve Vault 5.
 - Worked with Infrastructure Management to complete the multi-year LVVWD DNP3 programable logic controller upgrades.
 - Replaced the two-remaining variable frequency drive units at WRC main pump station.
 - Replaced 23-year-old Ronzone pump station valve actuators.
 - Replaced the Blue Diamond well pumping equipment and upgraded well site to meet State requirements and provide for a more reliable source of water for the community.
 - Refurbished the Jean Midway well to provide backup well capacity.
 - Replaced Carlton Square 3000 kVa electrical transformer based on age and oil condition.

WATER QUALITY & TREATMENT

Level: 4500



Mission

To provide world-class water service through innovative and effective water quality stewardship and reliable and efficient treatment operations.

Department Description

Presently, the functions under the Water Quality and Treatment (WQ&T) department include: Treatment, Laboratory, Water Quality Research and Development (R&D), and Regional Water Quality. The primary responsibility of the WQ&T department is to ensure the water quality provided to the Southern Nevada Water Authority (SNWA) purveyor members meets or surpasses all Safe Drinking Water Act (SDWA) standards. In order to do this, all of the divisions in the WQ&T department have specific roles. The Treatment division is responsible for the operation and maintenance of the treatment process to supply high quality drinking water to the Las Vegas Valley. The Laboratory

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

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), with a combined design treatment capacity of 1 billion gallons per day. The division, through a Supervisory Control and Data Acquisition System (SCADA),

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Expenditures

SNWA Uses	Actual 2016-17	Budget 2017-18	Budget 2018-19
Energy	\$ 49,656	\$ 80,000	\$ 60,000
Materials & Supplies	4,012,335	4,318,100	4,524,100
Maintenance & Repairs	797,719	1,115,000	1,025,000
Other Employee Expenses	563,015	679,950	678,125
Other Expenses	(76,903)	854,010	1,083,000
Total Operating Expenses	\$ 5,345,824	\$ 7,047,060	\$ 7,370,225
Capital Costs	\$ 2,718,272	\$16,965,000	\$16,354,800
Payroll Costs	\$15,092,283	\$15,587,248	\$16,899,657
Total Department Expenditures	\$23,156,379	\$39,599,308	\$40,624,682
FTE Positions	82.8	85.8	86.4

controls all water treatment, chemical dosages, filter backwashing, and water quality. Treatment plant operators have direct responsibility for the operation of the water treatment facilities. The operator must comply with the SDWA, the Surface Water Treatment Rule and optimize treatment while minimizing cost.

Each operator must be certified for water treatment by the Nevada Division of Environmental Protection (NDEP) to the appropriate level for their responsibilities. The American Water Works Association (AWWA) certifies operators at journeyman level and above as laboratory analysts. The water treatment process consists of ozonation for disinfection, followed by flocculation and

filtration, as well as corrosion control, fluoridation and chlorination.

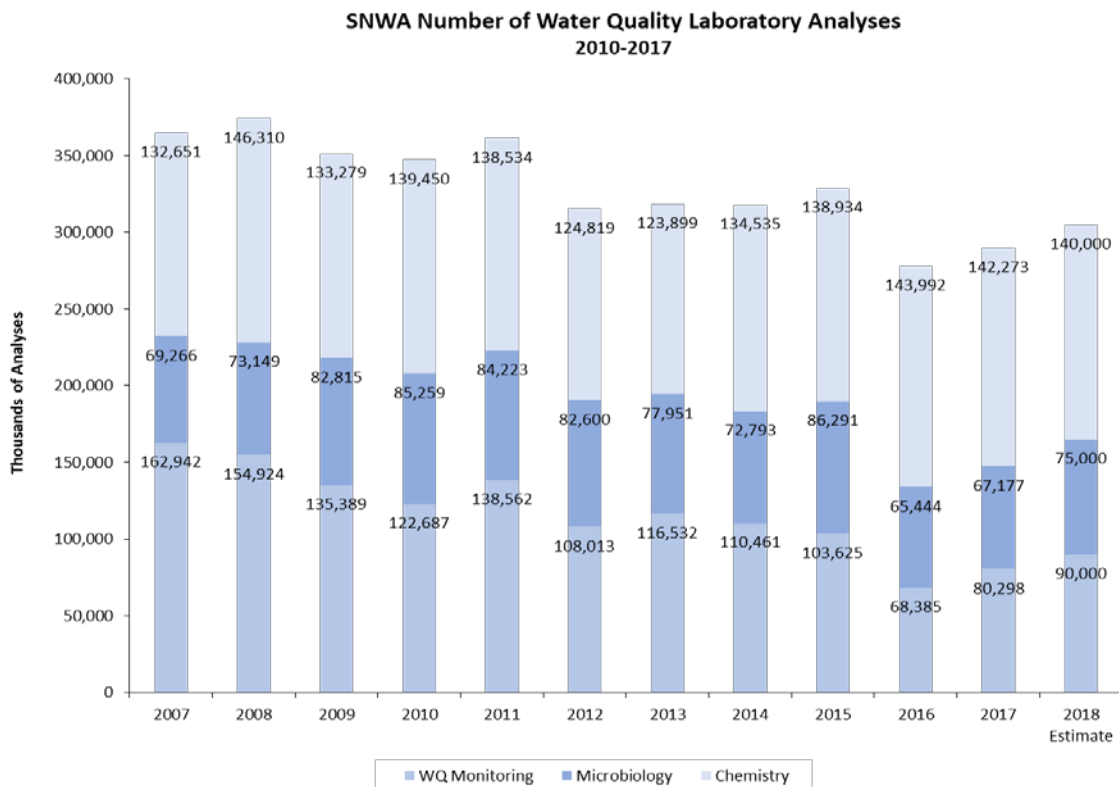
Laboratory. The Laboratory division is responsible for routine water quality monitoring, testing, and reporting. The sections within the Laboratory include Chemistry, Microbiology, Monitoring, and Laboratory Services. The analytical capabilities of the Laboratory cover a broad spectrum including: trace organic, trace inorganic, macro constituent, physical, wet-chemical, bacteriological, virological, protozoan, amoebas, and limnological analyses.

Analyses associated with the SDWA compliance testing are the highest priority in

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the Laboratory. The SDWA requires each public water system to perform or have performed a comprehensive set of analyses on its delivered water. The Laboratory Services section is responsible for scheduling all the routine and non-routine sampling events and receiving these samples into the laboratory. In addition, staff in this section serve as the primary point of contact for all Laboratory customers, including the private laboratories contracted for analytical services. The Monitoring section is responsible for collecting samples in the distribution systems of the SNWA purveyors. The Monitoring, Chemistry and Microbiology sections subsequently perform a variety of analyses on these samples. In addition, the Laboratory completed all the 2017 SDWA monitoring requirements for the 14 Clark County public water systems it serves.

The Laboratory conducts numerous analyses on samples from Lake Mead and its sources. Results of this work provide a general indication of the quality of water that will be received by the regional water treatment plants. The Laboratory also provides analytical support to the R&D division pilot plant and grant-funded research projects. With 38 employees, approximately 41,400 samples were collected and 289,748 analyses performed in 2017. The chart below presents the total number of laboratory analyses through calendar years 2007-2017 (2018 estimate). The number of analyses can fluctuate year-to-year depending on the year's monitoring requirements. A significant increase in sampling and analyses performed this year was because all LVVWD wells required full SDWA analyses including inorganics, synthetic organics, volatile organics, and radiological testing. (See chart below).



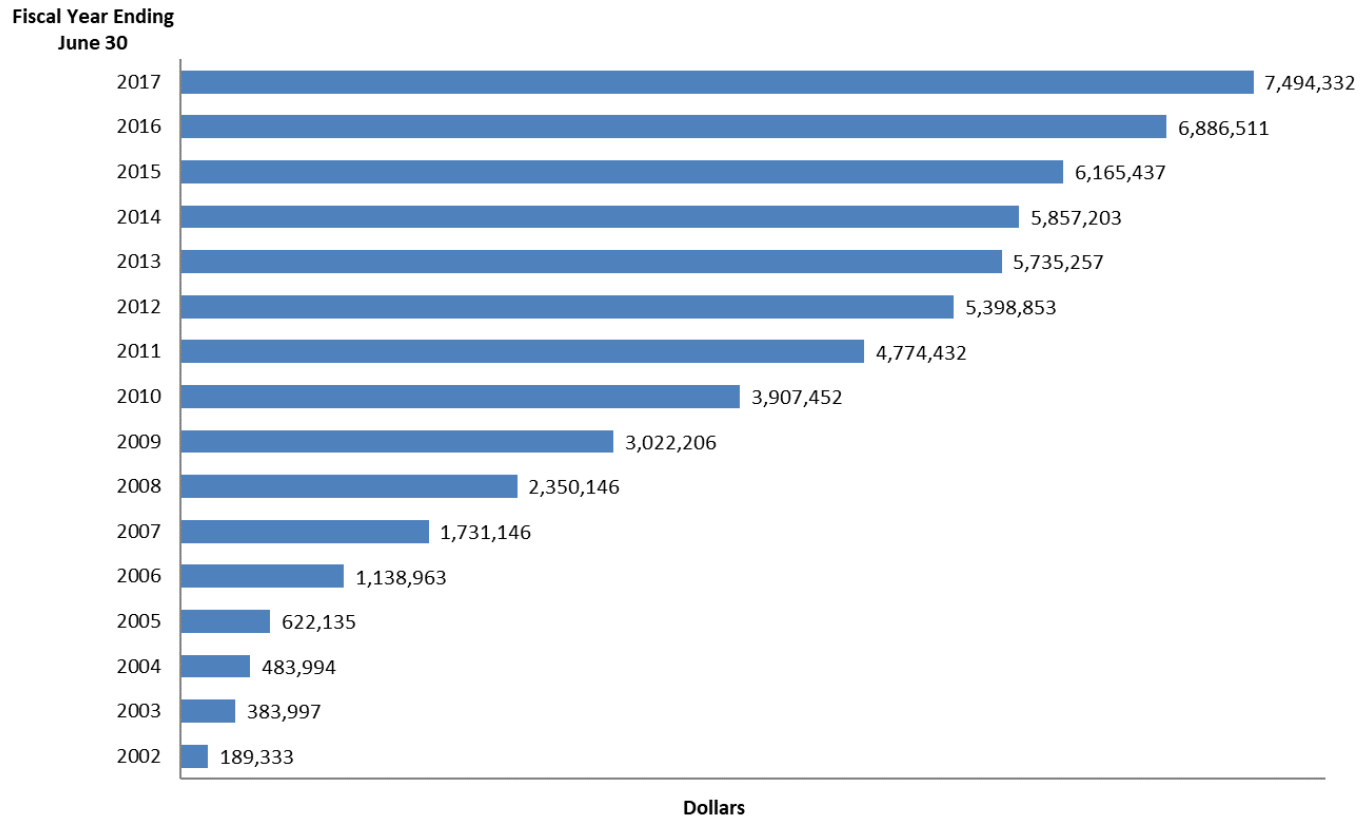
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Water Quality Research and Development.

The R&D division is involved in cutting-edge investigations of low-level environmental contaminants and water treatment plant processes. The low-level environmental contaminant research is generally in support of existing or future compliance monitoring requirements mandated by the U.S. Environmental Protection Agency (EPA) under the SDWA. The water treatment plant process research involves bench or pilot plant investigations to optimize existing treatment

or evaluate alternative treatment technologies to meet future regulatory requirements. The R&D division is comprised of Research and Development, Analytical Research and Development, and Applied Water Quality Research sections. The chart below represents the cumulative amount of water quality research funding received from outside sources through calendar years 2002 - 2017.

SNWA Water Quality Research & Development
2002-2017 Cumulative External Funding Received



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Regional Water Quality. The Regional Water Quality division is responsible for coordination of regional water quality issues within the SNWA and other local, state, and federal agencies. Another essential function is to collect data in the Muddy and Virgin Rivers and the Las Vegas Wash, and to compile, validate, and analyze all water quality data collected in these water bodies, as well as the data collected from Lake Mead and Lake Mohave by other agencies and the SNWA. All data collected is uploaded into the Lower Colorado River Regional Water Quality Database (Database) available at: www.snwawatershed.org/members.

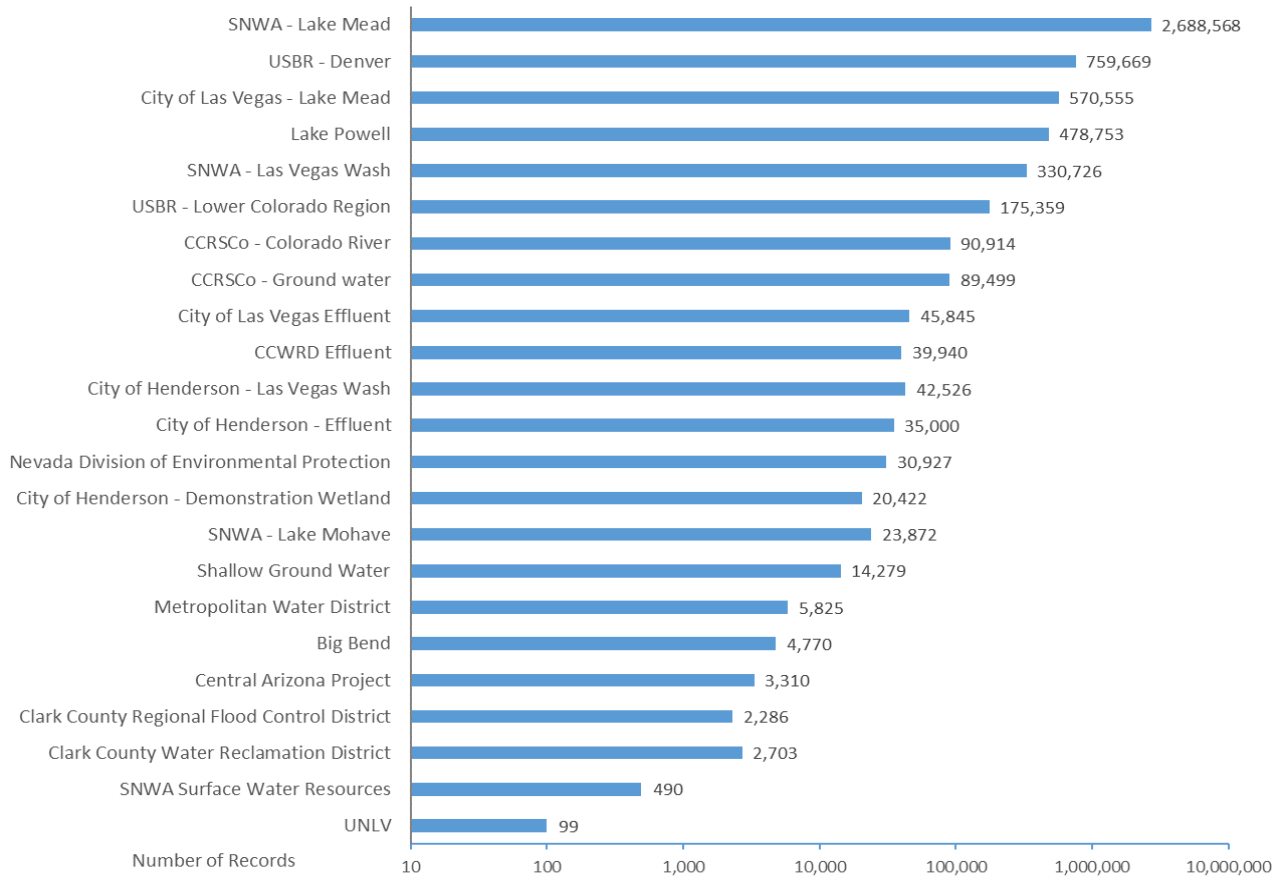
Data is also analyzed to assess impacts of nutrients, quagga mussels, perchlorate, total dissolved solids, selenium, Microcystis, and other contaminants on the water quality in Lake Mead and the drinking water supply. The division continued its efforts to integrate data and understanding of Colorado River dynamics upstream of Lake Mead including Lake Powell, the Colorado River through Grand Canyon, and releases during High Flow Experiments.

In 2017-18, the Regional Water Quality division updated the 3-dimensional Lake Mead Water Quality Model, including a transfer to a new modeling package. The model transfer included updating model code, verifying the performance of the new model software to ensure compatibility and use of the updated model. The division continued to coordinate the Lake Mead Monitoring and Ecosystem and the Interagency Monitoring Workgroups and hosted the Lower Colorado River Water Quality Symposium.

The division actively seeks out new sources of data for the Database. Water quality information can be found in the Colorado River from Lake Powell to the international border with Mexico, which makes the Database a truly regional database. There are currently over 4.5 million records in the Database. The following chart is a summary of the data that has been uploaded by each agency into the Database.

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**SNWA Number of Records in Lower Colorado River
Water Quality Database (Logrithmeic Scale - December 2017)**



Strategic Plan Objectives and Accomplishments

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

2018-19 Performance Objectives

- Pending completion of contacting and funds availability, proceed to develop a linked model to describe water quality in Lake Mead and the

treatment of this water through the drinking water treatment process. This work will be done in conjunction with UNLV utilizing grant funding from the USBR WaterSMART program. This work will allow for the exploration of potential future conditions and changes to the water treatment system that may be required.

- To work closely with Information Technology (IT) to complete the upgrade of ChemWare Laboratory

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Information Management System (LIMS) software and become proficient in use of the new upgrade.

- Continue to work with Fleet Services to ensure the SNWA sampling vessel is safe and reliable by compiling information regarding the necessary requirements needed for a new SNWA sampling boat by collaborating with stakeholders including the Water Quality Monitoring team, SNWA Fleet Services, and/or customers.
- Continue Operator-in-training.
- Complete update of 100 percent of Standard Operating Procedures (SOP).
- Refurbish AMSWTF filters 3, 4 and 5, and conduct performance study.
- Refurbish AMSWTF Fluorosilicic Acid (fluoride) storage system.
- Refurbish RMWTF Sodium Hypochlorite manufacturing system and reconfigure with several dilution options.
- Replacement of online instrumentation with the latest technology available.
- Evaluate full-scale filter performance following the renovation of Filters 1 and 2 at AMSWTF.

2017-18 Major Accomplishments

- Migrated the existing ELCOM/CAEDYM 3-dimensional water quality model to the AEM3D modeling platform. Including model revisions, performance verification and implementation of the new platform.
- Continued to analyze Lake Mead and Mohave water quality data and to advise Water Quality and Treatment

staff on possible impacts to the treatment system.

- Evaluated the laboratory's requirements for an Inductively Coupled Plasma Mass Spectrometer (ICP-MS) to replace a current instrument that had reached obsolescence. Worked with Purchasing to formulate a "Request for Proposal" based on those requirements. After staff identified an opportunity for a significant discount, the laboratory was able to purchase a second identical ICP-MS to replace an instrument nearing obsolescence with a minor increase in funding.
- Implemented the use of automated total coliform and *Escherichia coli* instrument for evening and weekend work.
- Completed re-write of approximately 80 percent of all SOPs.
- Refurbished AMSWTF filters 1 and 2 and conducted filter performance study.
- Completed update of 100 percent of chlorine SOPs and implemented annual training program.
- Programmable Area Controller (PAC) replacements at RMWTF.
- Completed removal of Granular Activated Carbon (GAC) in filters 19 and 20 at RMWTF.
- Evaluated performance of the old and new filter media design to remove high turbidity at pilot-scale.
- Completed research study leading to the replacement of Granulated Activated Carbon (GAC) media with anthracite in filters 19 and 20 at RMWTF.

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- Completed research study recommending the use of zinc orthophosphate to mitigate lead corrosion at Kyle Canyon.
- Developed strategy to use chloramines to eliminate biological activity in the filters at Big Bend Water District(BBWD).

Strategic Plan Goal – Deliver an outstanding customer service experience

2018-19 Performance Objectives

- Complete all Unregulated Contaminant Monitoring Rule 4 (UCMR4) monitoring required in 2018 for Henderson and LVVWD.
- Continue support of various ongoing research projects by providing quality data in a timely manner, including extensive lake and sources monitoring, complex storage/distribution system trihalomethane (TTHM) monitoring, as well as ad-hoc water quality monitoring requests.
- Refurbish AMSWTF Ozone Generator 3.
- Upgrade breaker/contactors on ozone generators at RMWTF.
- Continue with PAC replacements at BBWD.
- Refurbish BBWD filter 2.
- Obtain UV Disinfection Credit for BBWD.
- Continue serving the International Ozone Association – Pan American Group (IOA-PAG) as President and Administrative Communications Officer.
- Continue to interact with internal and

external customers of Lake Mead, Lake Mohave, Lower Colorado River and Las Vegas Wash water quality data to ensure a leadership role for SNWA in environmental issues.

- Implement updated water quality monitoring equipment and real-time data transfer capabilities for the Las Vegas Wash to support the activities of the Las Vegas Valley Watershed Advisory Committee.

2017-18 Major Accomplishments

- The Water Quality Monitoring and Microbiology sections worked together to implement a new instrument, Endetec TECTA detection system, allowing for early detection of total coliform (TC) and *E. coli* (EC) in a sample. This new procedure allows the laboratory to provide customers with quicker results than current TC and EC procedures.
- Supported R&D division, LVVWD Operations, and Rainbow Canyon residents with quick-turn analysis for various analytical parameters related to corrosion control and lead and copper issues.
- Chloramination system for bromate mitigation installed at BBWD.
- Provided support service and guidance to the IOA-PAG resulting in a surplus of \$57,000 from the 2017 IOA World Congress in Washington, DC.
- Reconstructed the IOA-PAG website on the platform Wild Apricot that is designed for member associations.
- Developed a predictive, model-based relationship between Lake Mead

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elevations and the dilution of Las Vegas Wash waters upon traveling through the lake for the benefit of Las Vegas Valley wastewater dischargers. This relationship will help the dischargers plan to meet water quality requirements of their NPDES permits.

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

2018-19 Performance Objectives

- Use the AEM3D Lake Mead water quality model to evaluate changes in the quality of water leaving Lake Mead and entering Lake Mohave at various lake surface elevations.
- Continue rehabilitation of filters at AMSWTF.
- Water quality conversion to input data into Avantis for RMWTF.
- Rehab RMWTF Sodium Hypochlorite system and install new style generator.
- Operate, maintain and perform challenge testing for water quality instrumentation at the AMSWTF Star Lab and buoys in Lake Mead. Develop standard operation procedures for the online instrumentation.
- Supply data and attend the project meeting to discuss the final report for Water Research Foundation (WRF) Project 4636 titled “An Integrated Modeling and Decision Framework to Evaluate Adaptation Strategies for Sustainable Drinking Water Utility Management Under Drought and Climate Change.”

2017-18 Major Accomplishments

- Completed rehabilitation of filters 3, 4 and 5 at AMSWTF.
- Coordinated several plant shutdowns in support of SCADA hardware upgrades.
- Implemented paperless work order process at BBWD.
- Awarded a US Bureau of Reclamation (USBOR) grant through WaterSMART Drought Response Program: “Building long-term resiliency to drought by employing riverbank filtration to improve water quality”.
- Completed the USBOR grant through their WaterSMART Drought Response Program: “Lake Mead water quality monitoring to mitigate impacts caused by the drought”.
- Regional Water Quality has continued to analyze Lake Mead water quality data in the context of changing climactic conditions. In 2017 – 2018 this analysis has focused on the impact of the ongoing drought in the Colorado River Basin.

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

2018-19 Performance Objectives

- Pending completion of contacting and funds availability, proceed to develop a linked model to describe water quality in Lake Mead and the treatment of this water through the drinking water treatment process. This work will be done in conjunction

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with UNLV utilizing grant funding from the USBR WaterSMART program.

- Expand the collection of Lake Mead water quality data through the use of automated data collection and analysis.
- Coordinate high-turbidity filter study with R&D division.
- Investigate use of Next Generation Sequencing of Deoxyribonucleic acid (DNA) to differentiate between the types of microorganism present in our source waters.
- Continue support of R&D division projects involving algal toxin monitoring, Polymerase chain reaction (PCR) analysis, and other microbial methods.
- Continue work on externally-funded projects by WRF (Projects 4692, 4719, 4716, 4711, Reuse 16-02) and US Department of Agriculture (USDA).

2017-18 Major Accomplishments

- Install copper sulfate injection system for biological control of pilot plant and raw water sampling pipe.
- Fully implemented the electronic tablet-based Horizon Logbook Manager (HLM) for Water Quality Monitoring in 2017.
- Completed the R&D division studies involving Assimilable Organic Carbon (AOC) removal
- Evaluated the use of ATP and flow cytometry for early detection of harmful algal blooms.
- Completed WaterStart research project with Metawater.
- Completed WaterStart research

project with WellToDo.

- Completed externally-funded projects with WRF (Projects 4555, 4559, 4560, 4536, Reuse-14-16, TIRR2R15), City of Altamonte Springs, FL, and USBOR.

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

2018-19 Performance Objectives

- Revise and update preventive maintenance program.
- Enhance cross-training efforts of staff at RMWTF and AMSWTF.
- Pursue solicited and unsolicited externally-funded research grants from the WRF (e.g., Tailored Collaboration Project on disinfection framework for biofilters), US EPA, National Science Foundation, Water Environment & Reuse Foundation, and the USBOR.
- Pursued new position for microbiology, and started renovations on the microfiltration plant at the RMWTF.

2017-18 Major Accomplishments

- Began training Electrical/Electronic Systems Technician II at the RMWTF in anticipation of staff retirements.
- Operator-in-training completed training and advanced to Operator II position.
- The laboratory collaborated with procurement to negotiate a significant five-year discount for quality control

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- standard and samples from its proficiency testing vendor.
- Received over \$315,000 from external grants.
- Relocated the pilot plant into the ozone utilidor at the AMSWTF.
- Began publishing articles open access so research is readily available.

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

2018-19 Performance Objectives

- Investigate AWWA performance awards at the BBWD.
- Continue presenting scientific research at conferences and publishing on research projects.

2017-18 Major Accomplishments

- Applied to the AWWA Partnership for Safe Drinking Water for both the AMSWTF and the RMWTF for the “Excellence in Water Treatment” award.
- NDEP completed annual sanitary survey and found no deficiencies in the treatment process.
- A member of the Water Quality & Treatment Department’s Chemistry team won the General Manager’s (GM’s) Distinguished Award of Excellence.
- Published twelve articles in scientific journals.
- Presented twelve papers at the 2017 American Water Works Association (AWWA) Water Quality Technology

Conference.

- Presented seven papers at the 2017 IOA World Congress.
- Presented six papers at 11th International Water Association Reclamation and Reuse Conference.
- Presented five papers to the AWWA International Symposiums on Potable Reuse and Biological Treatment.
- Presented 3 posters at the Disinfection By-Products Gordon Research Conference.
- Presented a paper at the Tri-State Seminar.
- Presented a Water Research Foundation Webcast (Project WRF 4588).
- Submitted five papers at the 2018 AWWA Annual Conference and Exposition.
- Submitted a paper for the spring 2018 American Chemical Society Conference.
- Submitted a paper for the 2018 Water Research Foundation Conference.

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SECTION 6

CAPITAL PLANS

Capital Budget..... 6-1



SOUTHERN NEVADA WATER AUTHORITY®

FISCAL YEAR 2018-19

OPERATING AND CAPITAL BUDGET

Capital Budget

The Southern Nevada Water Authority (SNWA) maintains a long-range facility planning process to determine the type, size and location of water distribution and treatment facilities needed to meet the water service demands of the areas in Clark County served by the member agencies – Las Vegas Valley Water District, City of Henderson, City of North Las Vegas, City of Boulder City and the Big Bend Water District (Member Agencies). As water system facilities are defined they are incorporated into the SNWA’s overall construction program. The program is dynamic, with projects added, changed, or deleted as necessary to meet the changing conditions of the Member Agencies.

The overall capital project-related expenditures for 2018-19, totaling \$181.6 million, consist of continuing construction of the Low Lake Level Pumping Station at Lake Mead, groundwater development, weir improvements and expansion, pumping stations, water resources acquisition and development, reservoirs and wells, new water pipelines, and other distribution facilities. The capital equipment budget of over \$6.6 million consists of vehicles, information technology equipment, water works and diverse industrial equipment.

Impact of Construction Program on Operation and Maintenance Expenses

For the SNWA water distribution facilities, in the near term, the SNWA does not anticipate any impact on maintenance expenses and only minimal expenses associated with the operation of the new facilities added to the

SNWA’s water distribution system through its overall construction program. This is due to the following three factors:

- First, the facilities being added to the SNWA’s system are new and require little or no maintenance.
- Second, the facilities are designed and constructed with the latest available technology, and are not accepted by the SNWA until they are fully inspected and tested and ready for operation.
- Third, over the past several years the SNWA 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 SNWA anticipates incurring maintenance expenses for the rehabilitation of facilities such as reservoirs, pump stations, and pipelines. However, these costs are minimized through the SNWA’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 member agencies 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 expense.

Projecting long-term additional operating expenses driven by the addition of capital

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assets to the SNWA's water system is not easily quantified.

The tables on the following pages contain a listing of all the capital equipment and capital projects included in the SNWA's capital expenditures for the next fiscal year.

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SNWA: CAPITAL BUDGET 2018-19

CAPITAL EQUIPMENT

2300 - Information Technology

Plotter Replacements	\$ 10,000
Bridgewave 10Gig	12,000
Large Format Scanners for IG	14,000
Struxware Appliance	30,000
Corporate Intrusion Prevention System (IPS)	50,000
Virtual Infrastructure Additions	60,000
Network Edge Switch Replace	80,000
PC Monitor Refresh	90,000
FireEye NX Replacement	98,000
General Infrastructure	100,000
Mobile Device Refresh	116,000
Multimedia Storage Appliance	157,200
Data Storage Growth	196,000
PC Refresh	230,000
Subtotal	\$ 1,243,200

3600 - Resources & Facilities

Honda Pioneer 1000 CC. 4X4 UTV.	\$ 16,500
3810 Brush Hog	19,000
Mid-Size SUV 4X2	33,000
1/2 Ton Crew Cab, Short bed pickup 4X4	35,000
1/2 Ton Extended cab Pick-up 4X4	35,000
1/2 Ton Pickup, Crew Cab 4X4	35,000
Mid size Pickup Crew Cab 4X4	35,000
GPS Equipment for SNWA Fleet	45,000
43' Side Dump semi Trailer	50,000
Regular Cab Stake Bed Dump Groundskeeper Truck	70,000
Regular Cab Stake Bed Dump Groundskeeper Truck	70,000
2 Each Replacement Vehicles	104,000
Used Gravel Screening System	120,000
500 CFM High Pressure Air Compressor	123,000
5 Ton Telehandler	145,000

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Used Motor Grader with 14' Moldboard		145,000
1 Lot of 3 Replacement Vehicles For the SNWA Ranch		148,000
Extended Cab Utility W/Crane 4X4		165,000
Regular Cab Utility W/Crane and Welder		165,000
SNWA HVAC Unit Replacement		200,000
Regular Cab Utility W/Crane & Welder 33,000 lb. Truck.		225,000
John Deere 644 Wheel Loader or Equal		260,000
2 Each 19,500 lb trucks with Cranes & Welders.		310,000
Water Sampling Vessel/Boat.		380,000
Livestock - replacement of rams, ewes, heifers and bulls		455,000
1 Lot of 6 Ranch Equipment Pieces		475,500
1 Lot of 12 Replacement Vehicles		988,000
Subtotal		\$ 4,852,000
<u>4100 - Operations</u>		
Storage Cabinets For Eight Pump Stations	\$	12,000
Cutler Hammer VCP Breaker Lift		20,000
Motor Analyzer		45,000
Subtotal		\$ 77,000
<u>4500 - Water Quality & Treatment</u>		
Seal AA3 Segmented Flow Spectrophotometer Upgrade	\$	22,800
Total Organic Carbon and Total Nitrogen Analyzer		55,000
Safe Drinking Water Act (SDWA) Compliance Monitoring and Tracking Software		100,000
QIASymphony SP (DNA/RNA Purification System)		120,000
AB3500 Genetic Analyzer (Next Generation Sequencing)		172,000
Subtotal		\$ 469,800
TOTAL CAPITAL EQUIPMENT		\$ 6,642,000

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CAPITAL PROJECTS

2500 - Public Services

Colorado River Traveling Exhibit	\$	720,000
Subtotal	\$	720,000

3400 - Engineering

Archery Weir Revegetation	\$	79,421
Three Kids Replacement Revegetation		83,274
Flood Repair Allocation		90,000
Lower Las Vegas Wash Program		97,200
Warm Springs Building Project (Restrooms and Shower Facilities)		123,570
Silver Bowl Revegetation		141,286
AMS Asphalt Repair and Resurface - Phase II		180,000
Wahoo Hay Barn (Barn #4)		216,000
Housing Replacement		234,000
880S - Tropicana Outfall Revegetation		239,070
Pump Station Roof Replacements		256,500
Warm Springs Office Replacement		270,000
Tropicana Outfall Weir		270,000
BOR Materials & Equipment		270,000
SNWA Roof Replacements		360,000
Sunrise Mountain Weir & Historic Lateral Weir Expansion		5,400,000
Low Lake Level Pumping Station (L3PS)		115,142,588
Subtotal	\$	123,452,909

3600 - Resources & Facilities

AMS Exterior Renovation	\$	22,500
Harbecke water cleaning Screens and Truck Fill Station		27,000
Ranch Fleet Storage Area Upgrades. Doors, Floor and Lighting.		27,000
Domestic Well Repair		49,500
Ridge/Pine, Shingle and Bastian Concrete intake and Screen Replacement		49,500
Huntsman Feedlot Processing Building, laboratory and bathroom		54,000
Phillips Sheep Corrals		67,500
RM Warehouse Storage Upgrade		72,000
Harbecke House Renovation		81,000
RM Replace Ruptured Coils for PS-14B		81,000

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AMS PS-1a Coolers - Drain Pipe	81,000
SNWA Door Replacement	90,000
AMS Entry Gate Upgrade	108,000
Entry Gate for Foothill Complex	108,000
Clark, Lincoln, and White Pine Counties Groundwater Development - Land/Resources Acquisition	131,038
AMS Warehouse Office Reconfiguration	135,000
AMSWTF Miscellaneous Facilities Improvements	153,000
SNWA Water Treatment Facility Roadway Lighting	270,000
Multi Sites - Install LED Lighting in all ROFC	450,000
Williams Creek Pipeline Replacement	540,000
Clark, Lincoln, and White Pine Counties Groundwater Development - Environmental	1,841,767

Subtotal	\$ 4,438,805
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3700 - Infrastructure Management

Multi-site -PP1A/2A Crane Upgrade Project	\$ 27,000
AMSWTF Site - Back-up VPSA Blower Project	63,000
Multi-site - Redundant Power to Comms Battery Charger and PLC	81,000
AMSWTF Site - Complete change-out of valve actuators in filters 21-26	90,000
Sloan Pumping Station Foundation Repairs	90,000
Simmons ROFCS Pipeline Repairs	90,000
RMWTF Drain Installations	90,000
AMS SCADA Room Halon System	90,000
Multi-site - Bilco Hatch Upgrade Project for SNWS Fore bays and Reservoirs	90,000
R-8 Equestrian Pump Replacement	135,000
Stage I and II Facilities PLC Upgrades	180,000
Foothills Site Valve Vaults for BFV5, 6, 7, 10 ladder access project	180,000
SNWS - Multi-site - Emerson Evergreen - Server Hardware upgrade	180,000
SNWS - Ovation SCADA Server Virtualization	180,000
Sleeve Valve Installation at Galleria, Simmons, Carlton, and Gibson ROFC Stations	225,000
AMSWTF Site - Drying Bed Influent Valve Access Vaults	225,000
RMWTF Site - Lab Flooring Replacement	225,000
SNWS - Replace PLC 5 Processors and Remote Racks from Production Sites	225,000
AMSWTF Replace Switchboard PDS 7, 8 & 7/8	270,000
AMSWTF Site - Treatment Chemical Storage Tank Repairs	270,000
AMS Utility Building Replace Unit 1C MCC and Unit 2B MCC	360,000
RMWTF - SCADA UPS	360,000

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RMWTF Site - 15-T-1 Transformer Replacement Project	450,000
South Valley Lateral Actuator Replacement Project	450,000
Stage 2 ROFC Valve & Venturi Flow Control Unit Replacements	1,350,000
Pumping Station Electrical Transformer Repairs	1,530,000
PS 1C, 2C, BPS1A, and BPS2 Variable Frequency Drive Enhancements	1,800,000
Subtotal	\$ 9,306,000

3800 - Water Resources

Clark, Lincoln, and White Pine Counties Groundwater Development - Planning Hydrologic and Water-Quality Monitoring and Assessment of Las Vegas Valley Groundwater	\$ 90,000
Interim Colorado River Supplies - Water Banking	733,500
NR Kerr Ranch Irrigation Well Replacement	900,000
Clark, Lincoln, and White Pine Counties Groundwater Development - Water Resources	1,080,000
Virgin and Muddy Rivers Water Resource Acquisition	1,170,900
Interim Colorado River Supplies - Project Management	1,800,000
Conservation - Water Smart Landscape Program	1,800,000
	12,150,000
Subtotal	\$ 19,724,400

3900 - Energy Management

Eastern Nevada Transmission Project	\$ 6,120,000
Subtotal	\$ 6,120,000

4100 - Operations

Hacienda Pump Station Vibration System	\$ 45,000
Recoat Pump Casings at BPS1A and BPS2	72,000
PS 1A, 2A, 1B and 2B Pump Repairs and Flow Meter Installation	90,000
Motor Refurbishment (originally 6S027)	180,000
Sleeve and Miscellaneous Valve Repairs	270,000
"A" Lateral Motor Refurbishment	270,000
Machine Shop Equipment	337,500
Modifications to Hacienda Pump Station	675,000
Subtotal	\$ 1,939,500

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4500 - Water Quality & Treatment

Microfiltration Plant Renovation	\$ 180,000
R&D Necessary Unforeseen Projects	180,000
Ozone System Related Needs	225,000
SNWA Necessary Unforeseen Projects	450,000
Innovation Projects	450,000
Sodium Hypochlorite System Upgrades at RMWTF	4,500,000
AMSWTF Filter Improvements	9,900,000
Subtotal	\$ 15,885,000

TOTAL CAPITAL PROJECTS	\$ 181,586,615
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TOTAL CAPITAL BUDGET	\$ 188,228,615
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SECTION 7

DEBT MANAGEMENT POLICY

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Debt Management Policy

In Accordance With
NRS 350.013



SOUTHERN NEVADA
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June 30, 2018

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Debt Management Policy

NRS 350.013 Subsection 1(c)

Introduction

The Southern Nevada Water Authority (SNWA) is charged with: 1) operating the Southern Nevada Water System (SNWS) to deliver wholesale treated Colorado River water to its purveyor members, 2) expanding the SNWS as needed to meet the growing demand for water by its purveyor members, and 3) securing additional supplies of water for Southern Nevada, and effectively manage existing water supplies through the cooperative action of its member agencies.

The SNWS was originally a joint effort of the State of Nevada (State) acting through its Colorado River Commission (CRC) and the United States of America acting through the U.S. Bureau of Reclamation. Prior to 1995, the debt associated with the SNWS was either repayment contracts with the federal government, or general obligations of the State. Assembly Bill No. 542, approved by the Nevada Legislature in June 1995, transferred all assets and liabilities associated with the SNWS from the CRC to the SNWA effective January 1, 1996.

The SNWA's current debt structure is presented in the appendix. The SNWA has four options to sell debt –

- The SNWA can request the Las Vegas Valley Water District (LVVWD) to sell debt on its behalf. Standard & Poor's

rates the LVVWD bonds "AA+", and Moody's Investors Service rates them at "Aa1". This rating makes the LVVWD's bonds "high investment grade". This option has generally been used to sell most debt.

- The SNWA can sell its bonds to the State of Nevada's (State) Bond Bank, which then sells the State general obligation bonds. The 1997 Nevada Legislature made this option available. Standard & Poor's rates State bonds "AA", and Moody's Investors Service rates them at "Aa2". This rating classifies the State's bonds as "high investment grade". This option has generally been used to sell long term fixed rate debt.
- The SNWA can sell its bonds to the Clark County (County) Bond Bank, which can then sell County general obligation bonds. The 1999 Nevada Legislature made this option available. Standard & Poor's rates County bonds "AA+", and Moody's Investors Service rates them at "Aa1". This rating classifies the County bonds as "high investment grade". This option has generally been used to sell long term fixed rate debt.
- The SNWA can issue debt in its own name. However, the SNWA is unable to make a general obligation (property tax) pledge, therefore interest rates would tend to be higher. This debt has not been rated but is likely to be below the rating of the LVVWD, the State, and the County, which would result in higher interest rates. Therefore, it is expected that the SNWA will continue

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to use the options listed above to issue debt.

The SNWA Major Construction and Capital Plan (MCCP) outlines the phased construction plan developed to meet the growing demands for water in the Las Vegas Valley. Originally the MCCP was provided in two documents. The first was the Capital Improvements Plan (CIP), first produced in December 1995 and updated sixteen times hence. This plan detailed treatment facilities and intake systems needed to expand the SNWS capacity to 900 million gallons per day (MGD). The second was called the MCCP and covered other construction and capital projects not included in the CIP. The original MCCP was first published in June 2002. In February 2010, the SNWA's Board of Directors (the Board) approved the merger of the two capital plans into a new MCCP. The MCCP is reviewed semi-annually and is presented to the Board as determined appropriate by the SNWS work group. The most recent update was adopted by the Board in May 2015. The SNWA anticipates using debt to fund the projects in the MCCP.

The Las Vegas Wash Capital Improvements Plan (LVWCIP) covers projects the SNWA is building in the Las Vegas Wash. The LVWCIP is updated annually with the most recent update occurring in May 2016. The SNWA intends to use an inter account loan from the New Expansion Debt Service sub fund, as well as grant proceeds, to pay for these projects. Four percent of the SNWA's overall sales tax proceeds received are dedicated to the Las Vegas Wash and will be used to make debt service payments on this inter account loan.

This document is not intended to review the SNWA's total financial position. Analysis of the SNWA's debt position is important, as growth in the County has resulted in an increased need for capital financing. Resources, as well as needs, drive the SNWA's debt issuance program. The MCCP and LVWCIP were developed to identify clearly, and in detail, the specific facilities which are to be built, the year in which they are proposed to be completed, and an estimate of how much each will cost. As projects are completed, these plans will also document actual costs of those facilities.

Below are excerpts from Nevada Law, which require local governments to submit this debt management policy and a five-year capital improvement plan:

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:

(a) A complete statement of current general obligation debt and special elective taxes, and a report of current debt and special assessments and retirement schedules, in the

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detail and form established by the Committee on Local Government Finance.

(b) A complete statement, in the detail and form established by the Committee on Local Government Finance, of general obligation debt and special elective taxes contemplated to be submitted to the commission during the fiscal year.

(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 this 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 property tax rate.

(d) Either:

(1) Its plan for capital improvement for the ensuing 5 fiscal years, which must include any contemplated issuance of general obligation debt during this period and the sources of money projected to be available to pay the debt; or

(2) A statement indicating that no changes are contemplated in its plan for capital improvement for the ensuing 5 fiscal years.

(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.

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Affordability of Debt

Response to NRS 350.013 1(c):

(1) A discussion of its ability to afford existing general obligation debt, authorized future general obligation debt and proposed future general obligation debt; and

(6) A discussion of its sources of money projected to be available to pay existing general obligation debt, authorized future general obligation debt and proposed future general obligation debt

Existing, Authorized and Proposed General Obligation/Revenue Supported Bond Indebtedness Issued by the Las Vegas Valley Water District (“LVVWD Bonds”).

The SNWA’s Bonds issued in the name of the LVVWD 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, subject to Nevada constitutional and statutory limitations on the aggregate amount of ad valorem taxes. The LVVWD Bonds are payable from general ad-valorem taxes on all taxable property in the LVVWD service area, and are additionally secured by certain pledged revenues as set forth in Section 4, Chapter 631, Statutes of Nevada 1993. The pledged revenues currently consist of connection, commodity, infrastructure and reliability charges, which were approved by the SNWA, the LVVWD, and the cities of Henderson and North Las Vegas. Beginning in 1999, proceeds received by the SNWA from the County ¼ cent sales tax for water and wastewater infrastructure are also pledged revenues.

In any year in which the total property taxes levied within the LVVWD’s service area by all applicable taxing units (e.g. the State, 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 Bonds or their security may be repealed, amended, or modified in such a manner as to adversely impair 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 Bonds is not secured by an encumbrance, mortgage or other pledge of property of the LVVWD or the SNWA, and no property shall be liable to be forfeited or taken in payment of the LVVWD Bonds; provided the payment of the Bonds is secured by the proceeds of general (ad valorem) taxes and the LVVWD’s and the SNWA’s 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 LVVWD 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 or the SNWA, past, present or future, either directly or indirectly by virtue of any statute or rule of

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law. The LVVWD Bonds will be repaid with revenues of the SNWA and/or revenues made available to the LVVWD by certain members of the SNWA.

LVVWD has never levied an ad valorem tax because theirs and the SNWA’s revenues have been sufficient to pay debt service on all of LVVWD’s bonds and obligations secured by such revenues.

Proposed Future SNWA Water Bonds. The SNWA does not intend to issue new money debt in fiscal year 2018-19. However, the bond market is constantly monitored for savings opportunities via refunding or restructuring existing debt issues.

Bonded Indebtedness. The first table on General Obligation Indebtedness shows the SNWA’s outstanding LVVWD Bonds as of June 30, 2018.

Debt Service Requirements. See the appendix for the table illustrating the debt service to maturity on the LVVWD Bonds.

Property Tax Rate Impact. Principal and interest on the LVVWD Bonds are payable from the SNWA’s pledged revenues. There will be no direct impact on the ad valorem tax rate as long as pledged revenues are sufficient to pay debt service on the outstanding bonds. Appendix 4 illustrates the SNWA’s pledged revenues and debt service coverage.

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Debt Issued By The Las Vegas Valley Water District
As of June 30, 2018

	Issue Date	Original Amount Issued	Outstanding Principal
LVVWD Commercial Paper	Mar-04	\$ 400,000,000	\$ 400,000,000
LVVWD 2009A Bonds	Aug-09	90,000,000	90,000,000
LVVWD 2009B Bonds	Aug-09	10,000,000	425,000
LVVWD 2009D Bonds	Dec-09	71,965,000	37,440,000
LVVWD 2011A Refunding Bonds	May-11	58,110,000	44,795,000
LVVWD 2011B Refunding Bonds	Oct-11	129,650,000	101,180,000
LVVWD 2011C Refunding Bonds	Oct-11	267,815,000	210,205,000
LVVWD 2012B Bonds	Jul-12	360,000,000	332,210,000
LVVWD 2015 Refunding Bonds	Jan-15	332,405,000	332,405,000
LVVWD 2015B Refunding Bonds	Jun-15	177,635,000	155,795,000
LVVWD 2015C Refunding Bonds	Jun-15	42,125,000	36,755,000
LVVWD 2016A Bonds	Apr-16	497,785,000	481,210,000
LVVWD 2017B Refunding Bonds	Mar-17	22,115,000	22,115,000
LVVWD 2018B Bonds	Mar-18	79,085,000	79,085,000
Total		\$ 2,538,690,000	\$ 2,323,620,000

SOURCE: Southern Nevada Water Authority

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Existing, Authorized and Proposed General Obligation/Revenue Supported Bond Indebtedness Issued by the Clark County, Nevada Bond Bank (“County Bonds”).

The County Bonds will be repaid with revenues of the SNWA and/or revenues made available to the SNWA by certain members of the SNWA. AB 201, approved by the 1997 State Legislature, provides that members of the SNWA must contract with the SNWA to make payments from the revenues of the members’ water systems that, in the aggregate, are fully sufficient to pay those bonds as they become due. If the water revenues of any such member are insufficient to pay the member’s share of the amount due on the bonds, the member shall pay the deficiency out of money available for that purpose in the general fund of the member. If the money in the general fund of the member is insufficient to pay fully any such deficiency promptly, the member shall levy a general ad valorem tax on all taxable property within the member’s boundaries at a rate necessary to produce revenue in an amount sufficient to pay that member’s share of the payments due on the bonds. The obligations of the members of the SNWA to the SNWA and the State as a result of the acquisition of bonds of the SNWA pursuant to AB 201 do not constitute indebtedness of the members within the meaning of any constitutional, charter, or statutory limitation or other provision restricting the ability to incur debt. Nevada statutes provide that no act concerning the County 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.

Payment of the County Bonds is not secured by an encumbrance, mortgage or other pledge of property of the SNWA, and no property shall be liable to be forfeited or taken in payment of the County Bonds; provided payment of the Bonds is secured by the SNWA revenues, which are pledged for payment of the Bonds. Furthermore, Section 350.606 of the Bond Act provides that 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 County 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 SNWA, past, present or future, either directly or indirectly by virtue of any statute or rule of law.

Bonded Indebtedness. The following Revenue Supported Indebtedness table sets forth the SNWA’s proposed County Bonds as of June 30, 2018.

Debt Service Requirements. See the appendix for the table illustrating the debt service to maturity for the existing and proposed County Bonds.

Property Tax Rate Impact. There is no impact on tax rates as principal and interest on the County Bonds is payable from the SNWA’s pledged revenues only. See the appendix for the table illustrating the SNWA’s pledged revenues and debt service coverage.

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Debt Issued By Clark County, Nevada Bond Bank
As of June 30, 2018

	Issue Date	Original Amount Issued	Outstanding Principal
Clark County 2006 Refunding Bonds	Nov-06	\$ 604,140,000	\$ 69,545,000
Clean Renewable Energy 2008 Bonds	Jul-08	6,900,000	2,300,000
Clark County 2009 Refunding Bonds	Nov-09	50,000,000	37,905,000
Clark County 2012 Refunding Bonds	Jun-12	85,015,000	79,515,000
Clark County 2016A Refunding Bonds	Mar-16	263,955,000	226,905,000
Clark County 2016B Refunding Bonds	Aug-17	271,670,000	267,885,000
Clark County 2017 Refunding Bonds	Mar-17	321,640,000	321,640,000
Total		<u>\$ 1,603,320,000</u>	<u>\$ 1,005,695,000</u>

SOURCE: Southern Nevada Water Authority

Existing, Authorized and Proposed General Obligation/Water Revenue Bonds Issued by the State of Nevada Bond Bank (“State Bonds”).

The SNWS was originally financed by a combination of State of Nevada, CRC General Obligation Bonds and Federal Repayment Contracts entered into between the State and the United States Bureau of Reclamation (the Repayment Contracts). These debt obligations were transferred to SNWA effective January 1, 1996, according to the Transfer Act (Assembly bill No. 542, NRS Chapter 393).

The State Bonds are general obligations of the State, and the payment of principal and interest due thereon are secured by general taxes levied against all taxable property within the State, subject to limitations imposed by the constitution and statutes of

the State. The full faith and credit of the State is pledged for the payment of the principal, redemption premium, if any, and interest on the State Bonds. For the purpose of paying the principal and interest on the Bonds, there shall be levied, until all the Bonds shall have been fully paid, a general tax on all property, both real and personal, subject to taxation within the boundaries of the State, including the net proceeds of mines, fully sufficient to pay and retire the State Bonds, without regard to any statutory tax limitations now or hereafter existing (other than the limitation of \$3.64 on each \$100 of assessed valuation in the State statutes, and after there are made due allowances for probable delinquencies).

The payment of the State Bonds is further secured by a lien on the net pledged revenues derived from the operation of the SNWA facilities.

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In any year in which the total property taxes levied within the State by all overlapping units (e.g. the State, any county, the school district, any city, or any special district) exceed such property tax limitations, the reduction to be made by those units (including the State) must be in taxes levied for purposes other than the payment of their bonded indebtedness, including interest on such indebtedness, subject to any implied police power exception.

Nevada statutes provide that the faith of the State be pledged and any law supplemental or otherwise appertaining thereto, and any act concerning the Bonds, or other municipal securities, taxes or pledged revenues, shall not 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 State Bonds is not secured by an encumbrance, mortgage or other pledge of property of the State, except the proceeds of general taxes, net pledged revenues, and other money pledged for the payment of the Bonds shall be liable or forfeited for, or taken in payment of, the Bonds.

The Federal Repayment Contracts were general obligations of the State. To secure reimbursement by the State, the Repayment Contract grants the United States a prior claim to part of the CRC's net revenues derived through the Federal Facilities from

the Water User Contracts with the LVVWD, the City of Boulder City, the City of Henderson, the City of North Las Vegas and the USAF at Nellis Air Force Base.

In July 2000, the U.S. Congress passed, and President Clinton signed, into law the Griffith Project Prepayment and Conveyance Act (Public Law 106-249) which directed the Secretary of Interior to transfer title to the Robert E. Griffith Project to the SNWA, subject to prepayment of the project's federal repayment obligation. On July 3, 2001, the SNWA transferred \$116.2 million to the U.S. Bureau of Reclamation to prepay the federal repayment contracts. This amounted to a discount of approximately \$48 million. As a result, the SNWA now holds title to the Robert E. Griffith Project and the federal repayment contracts are no longer shown as outstanding debt.

Bonded Indebtedness. The following State Bonds table sets forth the SNWA's outstanding State Bonds as of June 30, 2018.

Debt Service Requirements. See the appendix for the table illustrating the debt service to maturity on the State Bonds.

Property Tax Rate Impact. Principal and interest on the State bonds are payable from the SNWA's net pledged revenues. There will be no direct impact on the State's ad valorem tax rate as long as pledged revenues are sufficient to pay debt service on the outstanding bonds. See the appendix for the table illustrating the SNWA's pledged revenues and debt service coverage.

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Debt Issued By The State of Nevada Bond Bank
As of June 30, 2018

	Issue Date	Original Amount Issued	Outstanding Principal
Nevada Drinking Water State Revolving Fund Loan 1	Dec-99	\$ 12,269,695	\$ 1,657,846
Nevada Drinking Water State Revolving Fund Loan 2	Jun-01	10,000,000	2,278,891
State of Nevada 2009 Bonds	Oct-09	2,214,457	1,455,215
State of Nevada 2010B Refunding Bonds	Jun-10	7,405,000	2,310,000
State of Nevada 2013A Refunding Bonds	Feb-13	21,720,000	21,720,000
Total		\$ 53,609,152	\$ 29,421,951

SOURCE: Southern Nevada Water Authority

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 SNWA does not have a specific debt limit dollar amount threshold. The SNWA's ability to issue and pay its debt is a function of its capital needs and revenues generated from the SNWA 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 this state; and (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;

The SNWA currently has no outstanding bonds payable directly from property taxes. The existing and proposed 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

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government may sell its bonds at a competitive or negotiated sale. The SNWA will follow these 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 governed by the requirements of the Nevada Open Meeting Law.

Competitive Sale.

In a competitive sale, all underwriter(s) are invited to submit a proposal to purchase an issue of bonds. The bonds are awarded to the underwriter(s) presenting the best bid according to stipulated criteria set forth in the notice of sale. The best bid is determined based on the lowest overall interest rate.

Negotiated Sale.

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

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

- Extremely large issue size.
- Complex financing structure (i.e. new security feature, variable rate financings, new derivatives, and certain revenue issues, etc.) which provides a desirable benefit to the SNWA.
- 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 SNWA to conclude a competitive sale would not be effective, including market conditions.

It is the policy of the SNWA to provide minority owned business enterprises, women owned business enterprises and all other business enterprises an equal opportunity to participate in the performance of the SNWA contracts. At competitive sale, bidders are requested to assist the SNWA 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 SNWA 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 the SNWA's competitive bond issues over the prior five years. In addition, the list

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may contain firms that have participated in other financings in Nevada (in competitive bids or negotiated sales), demonstrated ability and interest in SNWA financings, or have submitted financing ideas and concepts for SNWA's consideration over the past five years.

- The CFO may distribute, or request that the SNWA's Financial Advisors distribute on behalf of the SNWA, a Request for Proposal (RFP) to underwriting firms on the list. The RFP may include, at a minimum, information regarding the firm's qualifications, staffing and personnel assigned to the SNWA, 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) may be based on the overall quality of the response, qualifications of the firm, demonstrated success in pricing bonds, understanding of the SNWA's objectives, qualifications of the banking and underwriting team to be assigned to the SNWA, 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 SNWA. 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 a single firm (typically 60 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 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.

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- 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).

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 SNWA’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 the Capital Improvement Plans

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 (d), 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 SNWA's intent to finance future operational costs with water revenues and will therefore have no effect on ad valorem taxes. New capital improvement projects will allow the SNWA 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:

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- **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 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 the SNWA'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 the SNWA's reserves or debt service fund.
- (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, net present value savings of at least 3 percent or 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 SNWA 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 three years or less.

Debt Structure.

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

The SNWA 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

Maturity Structures. The term of the debt issues will not extend beyond the useful life of the project or equipment financed. As appropriate, debt 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 SNWA are sufficient to pay debt service, or where the deferral of principal allows the SNWA to achieve combined level debt service on all outstanding bonds.

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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 to purchase bond insurance from bond proceeds

Bond insurance can be purchased directly by the issuer 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 issuer, 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.

Fixed rate debt or variable rate debt may be issued, 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 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 is reset typically either daily, weekly or monthly. This rate may be based on remarketing or on an 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 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, it shall not constitute more than 25 percent of the SNWA's overall debt portfolio. The CFO, in consultation with the SNWA's Financial Advisors, will determine the appropriate form of variable rate debt, subject to the approval of the Board.

Financing Sources. The SNWA will evaluate available State and County bond financing programs before choosing the financing source. The SNWA will consider utilizing a State or County program if bonds can be sold by the State or County in a manner meeting the SNWA'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: Brian Thomas

TITLE: Chief Financial Officer

ADDRESS: 1001 South Valley View Boulevard
Las Vegas, Nevada 89153

TELEPHONE: (702) 822-8810

Southern Nevada Water Authority
Operating and Capital Budget
Debt Management Policy
Fiscal Year Ending June 30, 2019

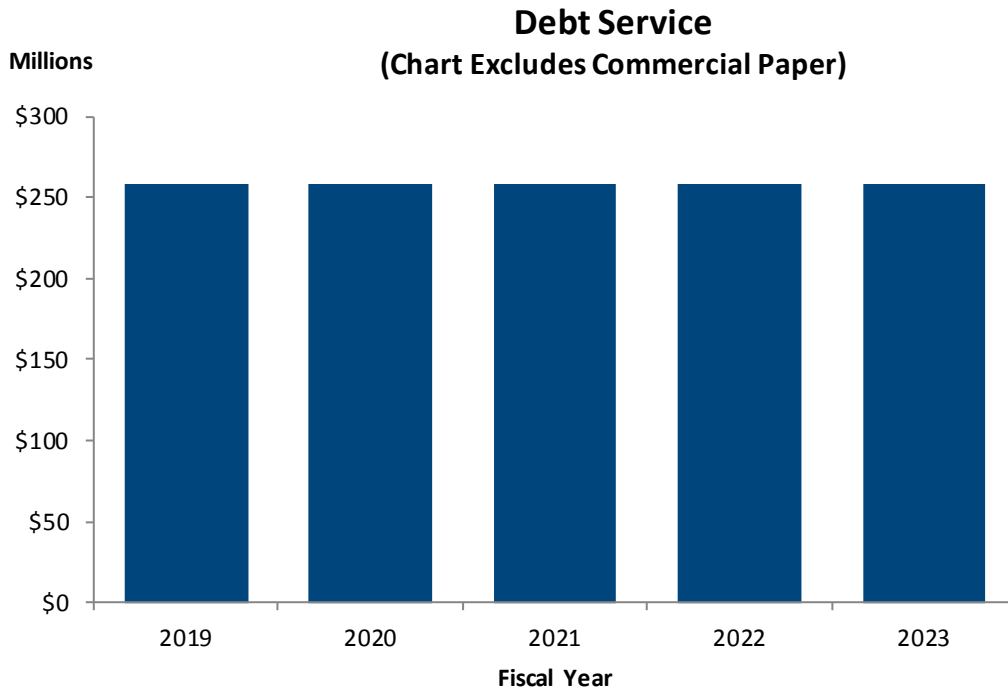
Appendix
Debt Service and Pledged Revenue Tables

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

Southern Nevada Water Authority
Operating and Capital Budget
Debt Management Policy
 Fiscal Year Ending June 30, 2019

Five Year Schedule of Debt Service Requirements
 As of June 30, 2018

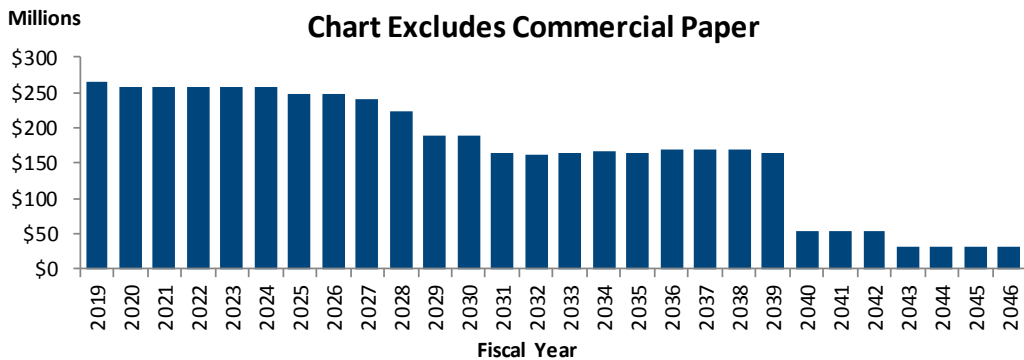
#	Fiscal Year	Commercial Paper	Bonds	Total Debt
1	2019	\$ 408,580,000	\$ 258,031,625	\$ 666,611,625
2	2020	-	257,931,006	257,931,006
3	2021	-	257,950,603	257,950,603
4	2022	-	258,016,247	258,016,247
5	2023	-	257,957,216	257,957,216



Southern Nevada Water Authority
Operating and Capital Budget
Debt Management Policy
Fiscal Year Ending June 30, 2019

Combined Schedule of Debt Service Requirements
As of June 30, 2018

Fiscal Year	Principal	Interest	Total
2019	\$ 516,524,074	\$ 150,087,551	\$ 666,611,625
2020	121,865,486	136,065,520	257,931,006
2021	127,684,253	130,266,350	257,950,603
2022	133,864,085	124,152,162	258,016,247
2023	140,416,540	117,540,676	257,957,216
2024	146,946,540	110,569,682	257,516,222
2025	144,796,540	103,234,935	248,031,475
2026	152,236,540	95,738,893	247,975,434
2027	152,756,540	88,002,809	240,759,349
2028	144,286,540	80,407,738	224,694,278
2029	115,036,540	74,505,038	189,541,578
2030	120,923,270	69,235,913	190,159,183
2031	99,595,000	63,761,525	163,356,525
2032	103,735,000	59,327,875	163,062,875
2033	109,035,000	54,610,775	163,645,775
2034	118,655,000	49,488,755	168,143,755
2035	119,390,000	44,164,005	163,554,005
2036	129,730,000	38,637,630	168,367,630
2037	135,375,000	32,940,213	168,315,213
2038	140,910,000	27,357,510	168,267,510
2039	144,500,000	20,095,840	164,595,840
2040	42,160,000	11,836,350	53,996,350
2041	44,205,000	9,788,000	53,993,000
2042	46,355,000	7,640,150	53,995,150
2043	25,000,000	5,387,750	30,387,750
2044	26,250,000	4,137,750	30,387,750
2045	27,565,000	2,825,250	30,390,250
2046	28,940,000	1,447,000	30,387,000
Total	\$ 3,358,736,951	\$ 1,713,253,642	\$ 5,071,990,593



**Southern Nevada Water Authority
Operating and Capital Budget
Debt Management Policy
Fiscal Year Ending June 30, 2019**

**Combined Schedule of Existing and Proposed Debt Service Requirements
as of June 30, 2018**

Fiscal Year	Existing Debt			Proposed (New Money)		
	Principal	Interest	Total	Principal	Interest	Total
2019	\$ 516,524,074	\$ 150,087,551	\$ 666,611,625	-	-	-
2020	121,865,486	136,065,520	257,931,006	-	-	-
2021	127,684,253	130,266,350	257,950,603	-	-	-
2022	133,864,085	124,152,162	258,016,247	-	-	-
2023	140,416,540	117,540,676	257,957,216	-	-	-
2024	146,946,540	110,569,682	257,516,222	-	-	-
2025	144,796,540	103,234,935	248,031,475	-	-	-
2026	152,236,540	95,738,893	247,975,434	-	-	-
2027	152,756,540	88,002,809	240,759,349	-	-	-
2028	144,286,540	80,407,738	224,694,278	-	-	-
2029	115,036,540	74,505,038	189,541,578	-	-	-
2030	120,923,270	69,235,913	190,159,183	-	-	-
2031	99,595,000	63,761,525	163,356,525	-	-	-
2032	103,735,000	59,327,875	163,062,875	-	-	-
2033	109,035,000	54,610,775	163,645,775	-	-	-
2034	118,655,000	49,488,755	168,143,755	-	-	-
2035	119,390,000	44,164,005	163,554,005	-	-	-
2036	129,730,000	38,637,630	168,367,630	-	-	-
2037	135,375,000	32,940,213	168,315,213	-	-	-
2038	140,910,000	27,357,510	168,267,510	-	-	-
2039	144,500,000	20,095,840	164,595,840	-	-	-
2040	42,160,000	11,836,350	53,996,350	-	-	-
2041	44,205,000	9,788,000	53,993,000	-	-	-
2042	46,355,000	7,640,150	53,995,150	-	-	-
2043	25,000,000	5,387,750	30,387,750	-	-	-
2044	26,250,000	4,137,750	30,387,750	-	-	-
2045	27,565,000	2,825,250	30,390,250	-	-	-
2046	28,940,000	1,447,000	30,387,000	-	-	-
Totals	\$ 3,358,736,951	\$ 1,713,253,642	\$ 5,071,990,593	\$ -	\$ -	\$ -

Fiscal Year	Total Existing & Proposed Debt		
	Principal	Interest	Total
2019	\$ 516,524,074	\$ 150,087,551	\$ 666,611,625
2020	121,865,486	136,065,520	257,931,006
2021	127,684,253	130,266,350	257,950,603
2022	133,864,085	124,152,162	258,016,247
2023	140,416,540	117,540,676	257,957,216
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2044	26,250,000	4,137,750	30,387,750
2045	27,565,000	2,825,250	30,390,250
2046	28,940,000	1,447,000	30,387,000
Totals	\$ 3,358,736,951	\$ 1,713,253,642	\$ 5,071,990,593

Southern Nevada Water Authority
Operating and Capital Budget
Debt Management Policy
Fiscal Year Ending June 30, 2019

Net Pledged Revenues
as of June 30, 2018

Fiscal Year End	2015 Actual	2016 Actual	2017 Actual	2018 Budget	2019 Budget
REVENUES					
Wholesale Delivery Charges	\$ 121,100,263	\$ 125,054,059	\$ 130,115,594	\$ 130,773,096	\$ 141,151,263
Regional Connection Charges	66,015,927	63,781,176	57,024,817	63,284,557	62,298,684
Regional Infrastructure Charges	53,761,657	61,704,236	132,471,445	149,098,164	158,564,232
Regional Water Charges	87,046,856	106,459,684	70,650,728	73,852,236	75,383,950
Sales Tax	55,933,316	58,152,408	60,856,934	62,294,313	65,506,404
Groundwater Management Fees	882,331	928,893	886,929	906,481	896,494
Las Vegas Wash Revenues	404,578	411,893	356,365	429,845	426,040
Investment Income (including Capitalized Portion)	2,058,437	4,803,855	4,917,264	3,849,077	5,880,785
Other Revenues ¹	15,236,337	59,447,266	95,847,684	9,375,141	5,856,531
Total Revenues	402,439,702	480,743,470	553,127,761	493,862,910	515,964,384
OPERATING EXPENSES					
Energy	35,071,725	39,333,766	36,631,385	36,987,491	36,481,790
Payroll	49,951,688	56,252,596	55,987,034	52,657,549	62,920,299
Operating Expenses	42,471,373	39,349,790	41,443,135	54,461,097	42,447,106
Pay-as-you-go Capital Expenditures				4,925,400	6,642,000
Total Operating Expenses	127,494,786	134,936,152	134,061,554	149,031,536	148,491,194
NET PLEDGED REVENUES	274,944,916	345,807,318	419,066,207	344,831,373	367,473,190
Add Beginning Unrestricted Funds ²	322,928,812	382,138,848	422,711,617	432,240,362	506,046,272
Net Available for Debt Service	597,873,728	727,946,166	841,777,824	777,071,735	873,519,462
ANNUAL DEBT SERVICE³	167,810,691	216,455,955	264,956,748	271,025,463	263,950,998
DEBT SERVICE COVERAGE RATIO	3.56	3.36	3.18	2.87	3.31
SNWA REVENUE AND FUNDS AVAILABLE AFTER DEBT SERVICE	\$ 430,063,037	\$ 511,490,211	\$ 576,821,076	\$ 506,046,272	\$ 609,568,464

1 Includes receipts from the Southern Nevada Public Lands Management Act (SNPLMA), raw water facilities charge and minor billings of purveyor members (Big Bend, City of Las Vegas, and Clark County Water Reclamation District).

2 Unrestricted funds include unrestricted cash and unrestricted investments as shown on the Comprehensive Annual Financial Report and sales tax proceeds on hand regardless of classification.

3 Includes the interest amounts paid on the 2004 Commercial Paper Notes. Gross of credits from the Build America Bonds (BABs).

**Southern Nevada Water Authority
Operating and Capital Budget
Debt Management Policy
Fiscal Year Ending June 30, 2019**

Schedule of Debt Service By Issuer

As of Fiscal Year Ending June 30, 2018

Fiscal Year	Southern Nevada Water Authority Through the Las Vegas Valley Water District			Southern Nevada Water Authority Through the Clark County Bond Bank		
	Principal	Interest	Total	Principal	Interest	Total
2019	\$ 472,605,000	\$ 104,194,332	\$ 576,799,332	\$ 41,220,000	\$ 45,030,194	\$ 86,250,194
2020	75,795,000	92,345,159	168,140,159	43,280,000	42,950,687	86,230,687
2021	81,440,000	88,819,467	170,259,467	45,450,000	40,766,055	86,216,055
2022	85,660,000	85,023,588	170,683,588	47,735,000	38,471,048	86,206,048
2023	90,125,000	80,830,035	170,955,035	50,165,000	36,059,041	86,224,041
2024	94,565,000	76,392,107	170,957,107	52,255,000	33,525,975	85,780,975
2025	89,740,000	71,717,485	161,457,485	54,930,000	30,865,850	85,795,850
2026	94,350,000	67,018,068	161,368,068	57,760,000	28,069,225	85,829,225
2027	89,600,000	62,280,109	151,880,109	63,030,000	25,071,100	88,101,100
2028	56,170,000	58,220,588	114,390,588	66,270,000	21,861,350	88,131,350
2029	45,670,000	55,732,563	101,402,563	69,240,000	18,772,475	88,012,475
2030	46,965,000	53,497,563	100,462,563	73,895,000	15,738,350	89,633,350
2031	38,140,000	51,188,350	89,328,350	61,455,000	12,573,175	74,028,175
2032	56,510,000	49,303,250	105,813,250	47,225,000	10,024,625	57,249,625
2033	73,165,000	46,488,250	119,653,250	35,870,000	8,122,525	43,992,525
2034	76,815,000	42,795,980	119,610,980	41,840,000	6,692,775	48,532,775
2035	80,605,000	38,958,480	119,563,480	38,785,000	5,205,525	43,990,525
2036	84,550,000	34,977,055	119,527,055	45,180,000	3,660,575	48,840,575
2037	88,675,000	30,800,900	119,475,900	46,700,000	2,139,313	48,839,313
2038	117,500,000	26,421,110	143,921,110	23,410,000	936,400	24,346,400
2039	144,500,000	20,095,840	164,595,840			
2040	42,160,000	11,836,350	53,996,350			
2041	44,205,000	9,788,000	53,993,000			
2042	46,355,000	7,640,150	53,995,150			
2043	25,000,000	5,387,750	30,387,750			
2044	26,250,000	4,137,750	30,387,750			
2045	27,565,000	2,825,250	30,390,250			
2046	28,940,000	1,447,000	30,387,000			
Totals	\$ 2,323,620,000	\$ 1,280,162,526	\$ 3,603,782,526	\$ 1,005,695,000	\$ 426,536,263	\$ 1,432,231,263

**Southern Nevada Water Authority
Operating and Capital Budget
Debt Management Policy
Fiscal Year Ending June 30, 2019**

Schedule of Debt Service By Issuer

As of Fiscal Year Ending June 30, 2018

Page 2 of 2

Fiscal Year	Southern Nevada Water Authority Through the State of Nevada Bond Bank			Total Debt Service		
	Principal	Interest	Total	Principal	Interest	Total
2019	\$ 2,699,074	\$ 863,024	\$ 3,562,099	\$ 516,524,074	\$ 150,087,551	\$ 666,611,625
2020	2,790,486	769,674	3,560,160	121,865,486	136,065,520	257,931,006
2021	794,253	680,829	1,475,082	127,684,253	130,266,350	257,950,603
2022	469,085	657,526	1,126,611	133,864,085	124,152,162	258,016,247
2023	126,540	651,600	778,140	140,416,540	117,540,676	257,957,216
2024	126,540	651,600	778,140	146,946,540	110,569,682	257,516,222
2025	126,540	651,600	778,140	144,796,540	103,234,935	248,031,475
2026	126,540	651,600	778,140	152,236,540	95,738,893	247,975,434
2027	126,540	651,600	778,140	152,756,540	88,002,809	240,759,349
2028	21,846,540	325,800	22,172,340	144,286,540	80,407,738	224,694,278
2029	126,540	-	126,540	115,036,540	74,505,038	189,541,578
2030	63,270	-	63,270	120,923,270	69,235,913	190,159,183
2031				99,595,000	63,761,525	163,356,525
2032				103,735,000	59,327,875	163,062,875
2033				109,035,000	54,610,775	163,645,775
2034				118,655,000	49,488,755	168,143,755
2035				119,390,000	44,164,005	163,554,005
2036				129,730,000	38,637,630	168,367,630
2037				135,375,000	32,940,213	168,315,213
2038				140,910,000	27,357,510	168,267,510
2039				144,500,000	20,095,840	164,595,840
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2043				25,000,000	5,387,750	30,387,750
2044				26,250,000	4,137,750	30,387,750
2045				27,565,000	2,825,250	30,390,250
2046				28,940,000	1,447,000	30,387,000
	<u>\$ 29,421,951</u>	<u>\$ 6,554,854</u>	<u>\$ 35,976,805</u>	<u>\$ 3,358,736,951</u>	<u>\$ 1,713,253,642</u>	<u>\$ 5,071,990,593</u>

SECTION 8

STATISTICAL INFORMATION

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SOUTHERN NEVADA WATER AUTHORITY®

FISCAL YEAR 2018-19

OPERATING AND CAPITAL BUDGET

Southern Nevada Water Authority
Operating and Capital Budget
Statistical Information
Fiscal Year Ending June 30, 2019

Southern Nevada Water Authority
Statistical Summary

<u>Page</u>	<u>Description</u>
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8-2	Demographic Statistics
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8-4	Clark County New Home Sales, Median Home Price
8-5	Secured Tax Roll
8-6	Temperature & Rainfall
8-7	Charts: Average Rainfall and Comparison of Lake Elevations

Southern Nevada Water Authority
Operating and Capital Budget
Statistical Information
Fiscal Year Ending June 30, 2019

Demographic Statistics
Clark County, Nevada
Five Calendar Years

Calendar Year	Clark County Population ⁽¹⁾	Per Capita Income ⁽²⁾	Clark County Personal Income (In Million \$) ⁽²⁾	Median Household Income ⁽³⁾
2017	2,248,390	N/A	N/A	N/A
2016	2,205,207	42,284	91,150.4	52,629
2015	2,147,641	41,915	88,411.5	51,575
2014	2,102,238	39,860	82,306.0	52,070
2013	2,062,253	38,028	77,011.2	52,873

Calendar Year	School Enrollment ⁽⁴⁾	Total Labor Force ⁽⁵⁾	Unemployment Rate ⁽⁶⁾
2017	322,436	N/A	N/A
2016	322,122	1,048,043	5.8%
2015	320,339	1,039,435	6.9%
2014	318,592	1,019,945	8.0%
2013	314,643	1,005,025	9.6%

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.

(4) Clark County School District, Average Daily Membership.

(5) The Department of Employment, Training & Rehabilitation.

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

Southern Nevada Water Authority
Operating and Capital Budget
Statistical Information
 Fiscal Year Ending June 30, 2019

Top Ten Employers⁽¹⁾⁽²⁾
Clark County, Nevada
Calendar Year 2017

<u>Employer Trade name</u>	<u>Employees</u>	<u>Ranking</u>	<u>% of Total Labor Force⁽⁴⁾</u>
Clark County School District	30,000 to 39,999	1	3.5%
Clark County	8,000 to 8,499	2	0.8%
Wynn Las Vegas	8,000 to 8,500	3	0.8%
Bellagio LLC	8,000 to 8,500	4	0.8%
MGM Grand Hotel & Casino	8,000 to 8,500	5	0.8%
Aria Resort & Casino LLC	7,000 to 7,499	6	0.7%
Mandalay Bay Resort & Casino	7,000 to 7,499	7	0.6%
Caesars Palace	5,000 to 5,499	8	0.6%
University of Nevada Las Vegas	5,000 to 5,499	9	0.5%
Las Vegas Metropolitan Police	4,500 to 4,999	10	0.5%

Total Labor Force 1,043,127

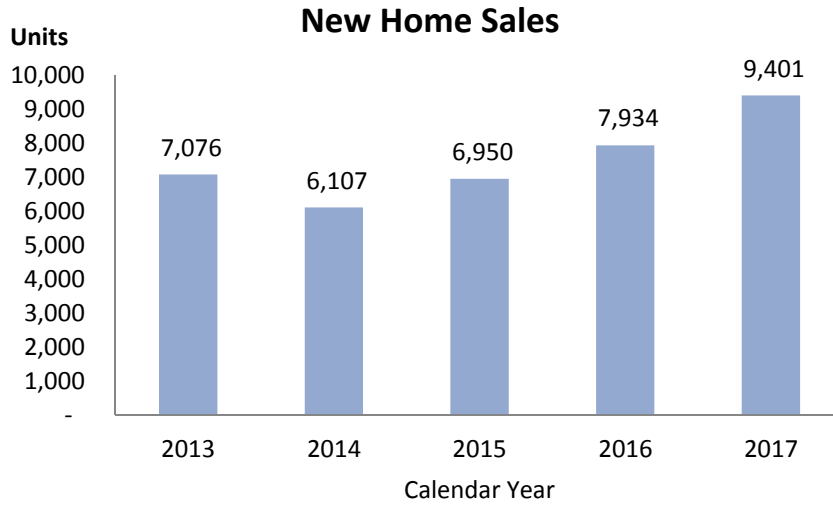
Sources:

(1) Nevada Workforce Informer, Nevada Employer Directory, GASB 44 report as of June, 2013. Most recent figures available. Trade names are as described in the source document. No attempt has been made to trace corporate name changes if any.

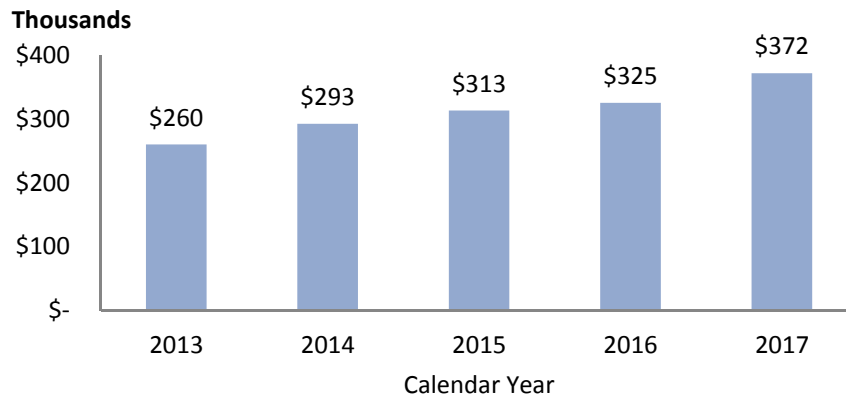
(2) Nevada law prohibits the disclosure of exact employee counts. All employee counts are shown in ranges. Calculations of total labor force per employer (column (4)) are estimates.

Southern Nevada Water Authority
Operating and Capital Budget
Statistical Information
Fiscal Year Ending June 30, 2019

Residential Real Estate
Clark County, Nevada



New Home Median Price



Southern Nevada Water Authority
Operating and Capital Budget
Statistical Information
Fiscal Year Ending June 30, 2019

Secured Tax Roll
Clark County, Nevada
2017 - 18

<u>Taxpayer</u>	<u>Taxable Assessed</u>	<u>Taxable Appraised</u>
1. MGM Resorts International	\$ 3,102,542,941	\$ 8,864,408,403
2. NV Energy	1,767,589,380	5,050,255,371
3. Caesar's Entertainment Corp.	1,462,469,206	4,178,483,446
4. Wynn Resorts Limited	779,066,017	2,225,902,906
5. Las Vegas Sands Corporation	739,466,396	2,112,761,131
6. Station Casinos Incorporated	553,650,967	1,581,859,906
7. Howard Hughes Corporation	438,926,452	1,254,075,577
8. Boyd Gaming Corporation	431,579,097	1,233,083,134
9. Nevada Property 1 LLC	253,324,527	723,784,363
10. Picerne Real Estate Group	244,734,848	699,242,423
	<u>\$ 9,773,349,831</u>	<u>\$ 27,923,856,660</u>

SOURCE: Clark County Assessor's Report Dated April 1, 2017

Southern Nevada Water Authority
 Operating and Capital Budget
 Statistical Information
 Fiscal Year Ending June 30, 2019

2012 - 2017 Temperature and Rainfall

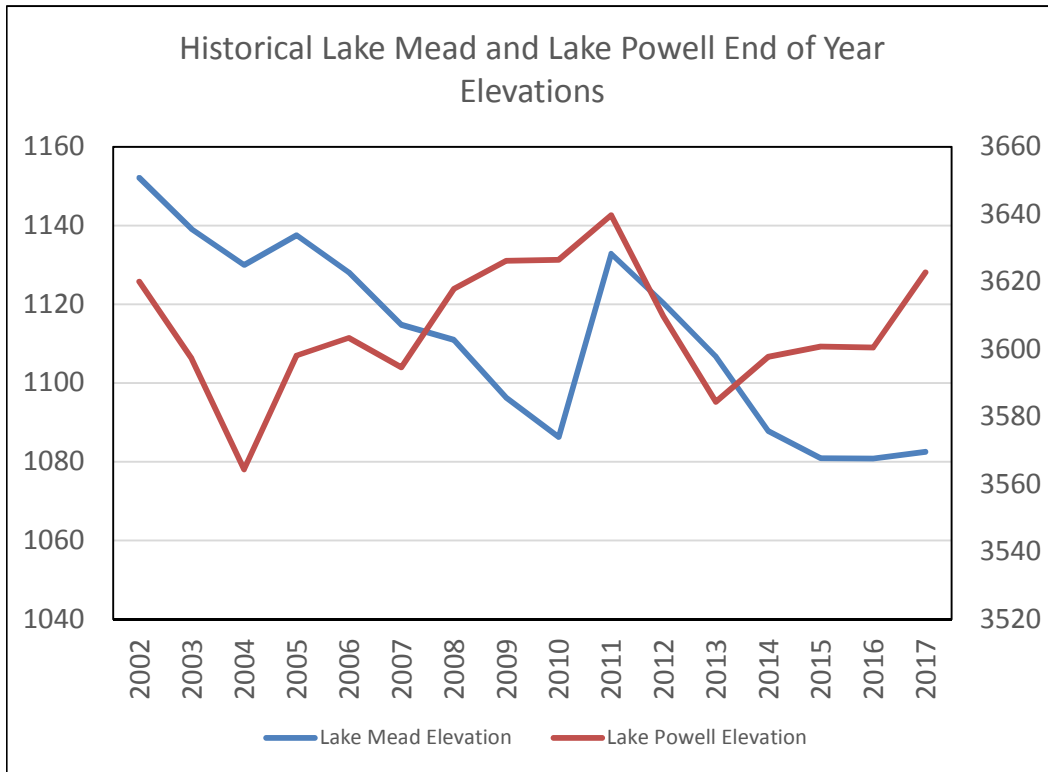
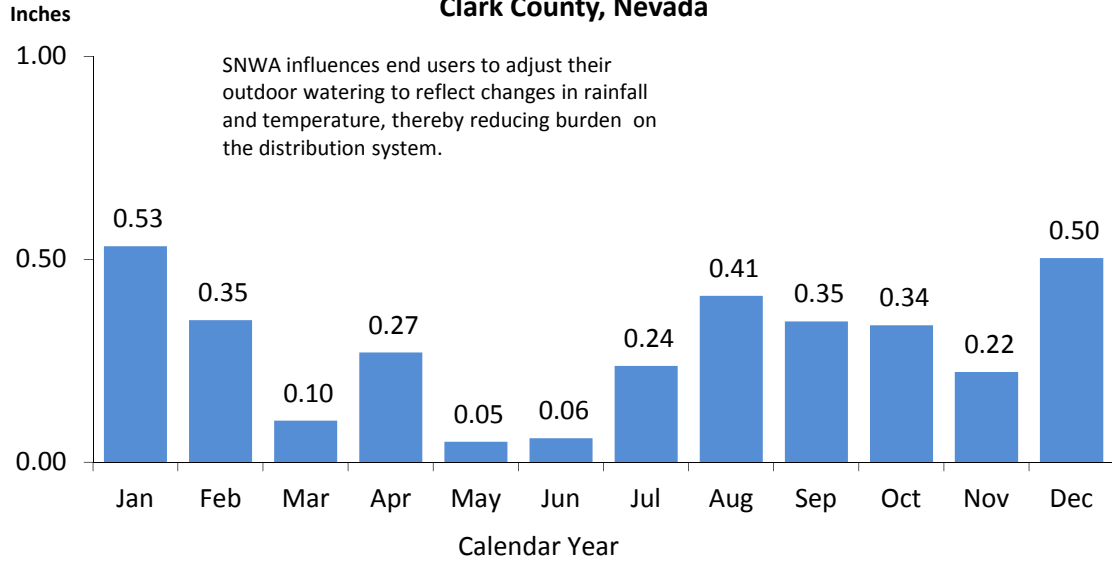
Average Maximum and Minimum Daily Temperature
 in Degrees Fahrenheit and Monthly Rainfall in Inches

Month	2012			2013			2014		
	Temperature			Temperature			Temperature		
	Max.	Min.	Rainfall	Max.	Min.	Rainfall	Max.	Min.	Rainfall
January	61	40	0.0	56	36	0.4	64	42	0.0
February	63	44	0.1	62	41	0.0	68	46	0.3
March	72	49	0.2	75	54	0.2	74	52	0.0
April	81	58	0.0	82	58	0.0	81	59	0.0
May	92	69	0.0	89	67	0.0	90	67	0.0
June	101	77	0.0	104	79	0.0	101	77	0.0
July	103	80	0.2	105	84	0.3	105	83	0.2
August	103	82	2.3	100	79	0.3	99	78	0.4
September	97	74	1.2	91	71	0.4	96	74	0.6
October	83	61	0.9	78	56	0.0	86	63	0.0
November	71	50	0.0	67	48	1.4	70	49	0.0
December	57	41	0.5	57	38	0.1	58	44	0.3
Average Annual Temperature/ Total Rainfall	81.9	60.5	5.3	80.5	59.1	3.0	82.6	61.3	1.8

Month	2015			2016			2017		
	Temperature			Temperature			Temperature		
	Max.	Min.	Rainfall	Max.	Min.	Rainfall	Max.	Min.	Rainfall
January	62	44	0.9	57	40	0.5	57	42	0.9
February	71	49	0.5	70	46	0.1	65	49	0.6
March	78	56	0.3	75	53	0.0	77	54	0.0
April	80	58	0.3	79	58	2.3	81	59	0.0
May	85	64	0.2	86	65	0.0	89	66	0.1
June	104	80	0.0	105	81	0.5	105	79	0.0
July	101	80	0.2	107	84	0.2	107	85	0.1
August	104	82	0.7	102	80	0.2	103	81	0.2
September	98	76	0.0	93	71	0.0	92	72	0.5
October	84	65	1.2	84	64	0.2	84	60	0.0
November	64	45	0.2	71	51	0.0	73	53	0.0
December	56	38	0.0	57	40	0.8	63	42	0.0
Average Annual Temperature/ Total Rainfall	82.2	61.3	4.5	82.1	61.0	4.77	82.9	61.7	2.4

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Average Rainfall Per Month
Ten Year Span (2008 to 2017)
Clark County, Nevada



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SECTION 9

FINANCIAL POLICIES

Financial Policy.....	9-2
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SOUTHERN NEVADA WATER AUTHORITY®

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OPERATING AND CAPITAL BUDGET

Financial Policy

As operating agent for the Southern Nevada Water Authority, 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.

SOUTHERN NEVADA WATER AUTHORITY	SUBJECT: SOUTHERN NEVADA WATER AUTHORITY RESERVE POLICY	NUMBER: 11
		ISSUE: 1
BOARD POLICY	APPROVED BY: BOARD OF DIRECTORS January 21, 2016	PAGE: 1 OF 2
ISSUING DEPARTMENT: FINANCE		

Purpose

The purpose is to establish 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 Southern Nevada Water Authority (SNWA).

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 SNWA's reserve policy:

1. Volatility in Sources of Funds – Some of the SNWA's sources of funds have experienced significant volatility; for example, connection charges and sales tax, in periods where the local economy suffers.
2. Customer Concentration – The SNWA receives the majority of its unrestricted funds from its member agencies. Although none have ever defaulted, such a default or a significant delay could have a substantial impact on the SNWA's operations.
3. Likelihood of Successful Rate Increases – Although the SNWA has enjoyed tremendous support from its member agencies and the community, it is possible that these conditions could change in the future, thus impacting the SNWA's ability to increase rates to meet increasing costs.
4. Asset Age and Condition – As the infrastructure ages, maintenance and replacements costs will increase. Also, there is always the possibility of unexpected failures that can be quite expensive. Such failures could result from age-related causes or natural disasters.

5. Control Over Expenses – Although most of the SNWA's expenses are predictable, there remains the possibility of large, unexpected expenditures; for example, litigation, natural disasters, increases in energy and chemical costs.

Reserve Components

The following are the four components identified for the SNWA'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 SNWA 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 SNWA 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 the SNWA operations, and provide assurances to investors that the SNWA 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, the capital improvement plan may be used. This reserve will fluctuate over time as projects change. This level of capital reserve will enable the SNWA 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 SNWA 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.

SECTION 10

GLOSSARY

Glossary.....10-1



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Accrual Basis Accounting. An accounting method that measures the performance and position of a company by recognizing revenue or expense events regardless of when cash transactions occur.

Acre-Foot (AF). A water measurement equating to 325,851 gallons or 43,560 cubic feet. An acre foot will supply the annual water needs of approximately 2 single family homes in the SNWA's service area.

Alfred Merritt Smith Water Treatment Facility (AMSWTF). Built in 1971, the Alfred Merritt Smith Water Treatment Facility currently treats most of the Las Vegas Valley's drinking water. The facility can treat up to 600 million gallons a day (MGD).

Amortization. Amortization is paying off a debt with a fixed repayment schedule in incremental installments over a given period.

Arizona Groundwater Banking Program. A program between SNWA and the Arizona Water Banking Authority (AWBA). In exchange for financial consideration, the AWBA will bank recharged water in Arizona for future use by Clark County, Nevada.

Balanced Budget. A budget where revenues are equal to or exceed expenses. SNWA is not required to issue a balanced budget.

Beginning Balance. Cash and cash equivalent balances at the beginning of an accounting period. For budget years this amount is an estimate. For actual years this amount is the actual amount of cash either in demand deposits or investments.

Bond. A certificate of debt issued by a government or corporation guaranteeing payment of the original investment plus interest by a specified future date.

Bond Funds. Monies raised through debt issuance that are used for the acquisition or construction of major capital projects.

Budget. Proposed financial plan over a given period, usually one year.

Budget Calendar. The schedule of key dates or milestones the SNWA 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 statement prepared by the SNWA and approved by the SNWA's Board of Directors.

U.S Bureau of Reclamation (BOR). A federal agency under the U.S. Department of the Interior, which oversees water resource management, specifically as it applies to the oversight and operation of the diversion, delivery, and storage projects that it has built throughout the western United States for irrigation, water supply, and attendant hydroelectric power generation.

Capital Contributions. For net position purposes, defined as regional connection, commodity, reliability and infrastructure surcharge revenues as well as grant receipts.

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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 useful life of three or more years.

Capitalized Expenses. An accounting method used to delay the recognition of expenses by recording the expense as a long-term asset. This classification contains expenses such as professional services, rental expenses, research and studies, etc. that are projected to be spent in the acquisition and improvement of capital items. These costs are identical to Operating Expenses in form but are paid for with capital revenues and bond proceeds. On a GAAP prepared financial statement, these costs can appear on the Statement of Revenues, Expenses and Changes in Net Position if they are paid by the New Expansion Debt Service sub fund -- otherwise they would merely appear as a cash expenditure for a capital asset.

Capital Revenue. A revenue source that is used solely to either retire debt or pay for construction of capital assets. Examples include Regional Connection Charges, Regional Commodity Charges, Reliability Surcharges, Infrastructure Surcharges, sales tax revenues and contributions from the Southern Nevada Public Lands Fund.

Colorado River Commission (CRC). An agency of the of the State of Nevada created to acquire and hold in trust Nevada's right to water and power resources from Colorado River water apportioned among the seven Colorado River Basin states and Mexico.

Commercial Paper. Short-term, unsecured, discounted, and negotiable notes sold through the open market. In most cases commercial paper provides immediate cash needs at lower rates than standard debt issues.

Comprehensive Annual Financial Report (CAFR). 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).

Connection. Generic term for a retail customer. Currently a connection is estimated to increase the annual load on the water delivery system by 0.45 acre-foot per year. A customer whose annual load is estimated at more than 0.45 acre-foot per year is said to have multiple connections.

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 SNWA achieves the benefits of conservation through education of the end user, promoting water efficient hardware, and pricing signals.

Construction Expenditures. Generally, expenses that are spent on third party vendors who build, supervise, or provide materials used in the construction of capital assets.

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Debt Issuance Proceeds. Principal amount or face value of debt issues. These proceeds are used to pay for major construction expenditures incurred by the SNWA.

Debt Service Payments. Funds used for the repayment of annual principal and interest charges on debt the SNWA has issued.

Department. A basic organizational unit of the SNWA that is functionally unique in its delivery of services.

Depreciation. A reduction in the value of a physical asset with the passage of time.

Disbursements. Funds actually expended.

Division. Organizational component of a department.

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 use to treat and distribute water throughout the valley as well as power office buildings and other ancillary locations.

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 Protection Agency (EPA). An agency of the U.S. federal government which was created for the purpose of protecting human health and the environment by writing and enforcing regulations based on laws passed by Congress.

Expenditure. The payment of cash on the transfer of property or services for the purpose of acquiring an asset, service or settling a loss.

Fiscal Year (FY). For the Southern Nevada Water Authority, the 12-month period begins with July 1, and ends with June 30 of the designated fiscal year; e.g. FY 2018-19 ends on June 30, 2019.

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 workweek for 52 weeks, or one full year. For example, two part-time positions, each working 20 hours per week, equals one FTE.

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

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the estimated cash balance in a specific sub-fund at the beginning or ending of an accounting period.

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.

Government Finance Officers Association (GFOA). A professional association of approximately 17,500 state, provincial, and local government finance officers in the United States and Canada. In 1984, the GFOA signed an agreement with the Financial Accounting Foundation that gave them a voice and appointments in the creation of the Governmental Accounting Standards Board (GASB).

Grant. A contribution by a government or other organization to support a particular function. Grants may be classified as categorical or block, depending upon the amount of discretion allowed the grantee.

Great Recession. A global economic decline which began in the late-2000's and lasted roughly through the end of that decade.

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.

Intake No. 3. One of the largest municipal water projects in the United States designed 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.

Inter-fund Loan. An internal financing device used by the wholesale delivery operations, capital improvements plan, and Las Vegas wash sub funds wherein money is "loaned" to the sub funds by the new expansion debt service sub fund. The WDO sub fund will repay the loan as the actual market price of power falls below the model clearing price. The MCCP sub fund will repay the loan when additional bond proceeds become available. The LVW sub fund will repay the loan with future sales tax revenues. In each case the repayments will include amounts equal to the estimated amount of interest the NEDS could have earned from the loan proceeds in addition to the principal.

Intergovernmental Revenue. Revenue received from other governments in the

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form of grants, entitlements, shared revenues or payments in lieu of taxes.

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 Authority employee salaries including overtime, longevity pay, and benefits. Labor can either be paid by operating funds or capital funds according to the project in which it was expended.

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 Groundwater Management Program Sub Fund. Sub fund that tracks revenues and expenses incurred from the SNWA program designed to protect and manage the Las Vegas valley's primary groundwater supply.

Las Vegas Wash (LVW). The primary channel through which the valley's excess water returns to Lake Mead. The water flowing through the wash comprises less than 2 percent of the water in Lake Mead and consists of urban runoff, shallow groundwater, storm water and releases

from the valley's three water reclamation facilities.

Las Vegas Wash Program Fees. Fees imposed on signatories of the Las Vegas Wash Inter local Agreement that will be used for Las Vegas Wash operating expenses. The fees are net of any anticipated grant proceeds. Participants in the Inter local Agreement are the SNWA, the City of Henderson, the City of Las Vegas, Clark County, the Clark County Regional Flood Control District, and the Clark County Water Reclamation District.

Las Vegas Wash (LVW) Sub Fund. Sub fund that tracks capital and operational revenues and expenses pertaining to the Las Vegas Wash.

Las Vegas Valley Water District (LVVWD). The major water retailer in southern Nevada. The LVVWD is the operating agent of the Southern Nevada Water Authority although the two companies are autonomous and produce financial records and statements independent of each other.

Major Construction and Capital Program (MCCP). 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.

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Model Clearing Price. A power cost calculated per MWh and established to reflect the projected cost of electrical power over a ten year period.

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.

Net Position. Financial liabilities minus cash and cash equivalents. Net position was formerly known as fund equity until the application of GASB 65.

Nevada Revised Statutes (NRS). The current codified laws of the State of Nevada.

New Expansion Debt Service (NEDS) Sub Fund. Sub fund that tracks revenues and expenses relating to debt service incurred from the expansion of the SNWA transmission and distribution system.

Northern Resources. All-inclusive term for water rights, land, and ranching operations owned by the SNWA and found in Lincoln and White Pine County, Nevada.

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 of the SNWA's treatment and distribution system and through the Las Vegas Wash and groundwater management program. These expenses are identical to Capital Expenses in form but are paid with operating revenues. On a GAAP prepared financial statement, these costs will appear on the Statement of Revenues, Expenses and Changes in Net Position.

Operating Revenue. For net position purposes, defined as wholesale delivery charge, net income from ranch operations, program fees collected from the operation of the Las Vegas Wash and groundwater management fees.

Other Revenues. Various sundry revenues from minor sources. Other revenues include, but are not limited to, reimbursement of Authority operating expenses for purveyors who do not use the SNWA's treatment facilities and income from the SNWA's Northern Resource holdings.

Payroll and Related. For net position purposes, this classification includes all non-capitalized labor costs.

Period. The date (usually a 12 month span) that expenditures, encumbrances, etc. are recorded for reporting purposes.

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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.

Positions. Authorized (created by the LVVWD Board of Directors and approved by the SNWA 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 SNWA distribution system.

Proprietary Fund. Synonym in this document for Enterprise Fund.

Purveyor. A subset of the members of SNWA consisting of City of Boulder City, City of Henderson, City of Las Vegas, City of North Las Vegas, and the Las Vegas Valley Water District. These members purchase potable water from SNWA and remit a form of capital revenue.

Recharge. Lake water injected directly into the aquifer by wells to store for future use.

Regional. Pertaining to the area of Clark County, Nevada (the jurisdiction of SNWA).

Regional Commodity Charge. Charge placed each thousand gallons of potable water sold. This charge is collected by SNWA's purveyor members (City of Henderson, City of North Las Vegas and Las Vegas Valley Water District only) and remitted monthly to SNWA.

Regional Connection Charge. Charge placed on new connections to the system. Mainly based on service size, although adjustments to certain customer classes are made. This charge is collected by SNWA's purveyor members (City of Henderson, City of North Las Vegas and Las Vegas Valley Water District only) and remitted monthly to SNWA.

Regional Infrastructure Surcharge. Surcharge placed on all retail water bills. Revenue collected by the purveyors on this charge is forwarded to SNWA monthly. The charge is based on the size of meter or meters that service a customer. Different rates apply for residential, nonresidential and nonresidential fire services. Residential fire services are not assessed this charge.

Reliability Surcharge. Surcharge placed on retail water bills. Currently the charge is 0.25% of total retail bill for residential customers, and 2.5% of total retail bill for non-residential services. This charge is collected by SNWA's purveyor members (City of Henderson, City of North Las Vegas and Las Vegas Valley Water District only) and remitted monthly to SNWA.

Restricted Revenues. For net position purposes, defined as operating capital and expenses, payroll, recharge purchases and power costs. However it excludes these

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costs if they are present in the MCCP sub-fund or if they are associated with capital costs for the Las Vegas Wash.

Revenues. Funds received from various sources and treated as income to SNWA to finance expenditures.

Revenue Bonds. Bonds where pledges are made to dedicate specific revenue sources to repay the bonds.

Risk Management. An organized attempt to protect a government'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.

Salaries & Wages. A budget category that includes employee salaries including overtime, longevity pay and benefits.

Sales Tax. One quarter of one penny addition to the Clark County sales tax rate that is remitted to SNWA on a monthly basis. The rate was added on April 1999, and is shared with wastewater agencies, rural water and wastewater systems and the Las Vegas Wash.

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.

Southern Nevada Public Lands Funds. A federal law governing the disposition of certain public lands in the Las Vegas Valley by the Bureau of Reclamation. The SNPLMA calls for SNWA to receive 10% of the purchase price of all public lands sold pursuant to the Act. These funds are restricted in use to paying for the SNWA Capital Improvement Plan.

Southern Nevada Water Authority (SNWA). Was formed in 1991 to manage Southern Nevada's water needs on a regional basis. The SNWA 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.

Sub Fund. An internal control measure used to ensure that revenues and expenses from similar operations are matched. Although SNWA is an enterprise fund under Nevada law, the sub fund philosophy assists SNWA in analyzing and controlling its costs throughout the year.

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Wholesale Delivery Charge (WDC). The per acre-foot charge that SNWA charges purveyor members for the treatment and delivery of treated, potable water.

Wholesale Delivery Operations (WDO) Sub Fund. Sub fund that tracks revenues and expenses incurred from the production of potable water.

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 SOUTHERN NEVADA WATER AUTHORITY™

OPERATING & CAPITAL BUDGET 2020

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On the cover:

Lake Mead's water levels have dropped more than 130 feet since the onset of a severe drought along the Colorado River Basin in 2000. The man-made lake serves as a reservoir that provides 90 percent of Southern Nevada's water supply. Learn more at snwa.com.

Southern Nevada Water Authority

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Board of Directors

**Marilyn K. Kirkpatrick, Chair, Clark County Commissioner
(representing Las Vegas Valley Water District)
Bob Coffin, Vice Chair, City of Las Vegas Councilman
Scott Black, City of North Las Vegas Councilman
James B. Gibson, Clark County Commissioner
(representing Big Bend Water District)
Justin Jones, Clark County Commissioner
(representing Clark County Water Reclamation District)
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**John J. Entsminger
General Manager**

**E. Kevin Bethel
Chief Financial Officer**

**Matt J. Chorpening
Assistant Chief Financial Officer**

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

Note of Appreciation

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

CERTIFICATE OF ACHIEVEMENT

The Government Finance Officers Association of the United States and Canada (GFOA) presented an award of Distinguished Presentation to the **Southern Nevada Water Authority (SNWA) for its annual budget for the fiscal year beginning July 1, 2018.**

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

The award is valid for a period of one year only. The SNWA 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

**Southern Nevada Water Authority
Nevada**

For the Fiscal Year Beginning

July 1, 2018

Christopher P. Morill

Executive Director

Southern Nevada Water Authority
Operating and Capital Budget
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Fiscal Year Ending June 30, 2020

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SECTION 1

GENERAL MANAGER'S INFORMATION REPORT

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SOUTHERN NEVADA WATER AUTHORITY™

FISCAL YEAR 2019-20
OPERATING AND CAPITAL BUDGET

SOUTHERN NEVADA WATER AUTHORITY

GENERAL MANAGER'S INFORMATION REPORT

DATE: April 17, 2019

NO. 41

SUBJECT: SOUTHERN NEVADA WATER AUTHORITY
PROPOSED OPERATING AND CAPITAL BUDGET FOR FISCAL YEAR 2019-20

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

Executive Summary

Community investment is a key component in establishing successful conservation practices and combating drought. However, community water use has experienced a slight uptick, and conservation programs have not been yielding the participation rates they once did. To address this, the SNWA has initiated new conservation programs to combat potential drought fatigue throughout the community. New and innovative strategies are underway to spark enthusiasm, compliance and collaboration from residents and businesses. The participation of the community and all stakeholders is crucial for the SNWA to meet its conservation goals and further secure a reliable water supply for Southern Nevada.

Lake Mead water levels are projected to continue to decline and future shortages on the Colorado River are probable. Therefore, fiscally-responsible planning for additional resources, infrastructure and community outreach continues to be a priority moving forward.

The fiscal year 2019-20 Budget Plan reflects the maintenance of SNWA's financial position,

continued conservation efforts, and the development and protection of water resources for Southern Nevada.

Drought and Water Resources

Southern Nevada obtains 90 percent of its water supplies from the Colorado River. Persistent drought conditions, the worst in the Colorado River Basin's history, have reduced supplies and forced stakeholders to work together to address the issues facing all users. The SNWA has worked extensively with partners throughout the Colorado River Basin to develop, implement and continue programs to mitigate drought impacts on a regional level.

In early 2019, Lake Mead's elevations hovered around 1,080 feet—a decline of 133 feet since the onset of the drought. For the past 19 years, overall snowfall and runoff into the Colorado River Basin has been well below normal, representing the worst recorded 19-year average in history. Current projections indicate there will be a declared shortage in 2021, in which case the amount of Colorado River water available to Arizona and Nevada would be reduced.

Long-standing community conservation practices have helped reduce the impact of a shortage declaration in the near term. The SNWA will continue to promote and seek innovative ways to maintain and increase community participation. Moreover, investments made in the regional water

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system will help Southern Nevada reliably deliver water even during the most severe drought conditions.

Drought Contingency Plan.

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

In December 2018, U.S. Bureau of Reclamation (BOR) Commissioner Brenda Burman gave the Basin States an original deadline of January 31, 2019, to finalize their plans, and subsequently extended the deadline to March 19, 2019. Ultimately, the completed DCP agreements will reduce the risk of reaching critical elevation levels in Lake Powell and Lake Mead accordingly.

State of the Science Report.

Colorado River Basin water resource managers recognize the need to plan for a long-term hydrologic future that could be substantially different from past plans. They also seek continued improvements to the sub-seasonal to seasonal forecasts that are relied upon for operational decision making.

Because of these identified needs, a group of state and local water management agencies including SNWA and the BOR are partnering with Western Water Assessment and Climate

Assessment for the Southwest to produce a report that will synthesize recent progress in climate and hydrology research that is applicable to water resources management in the Colorado River Basin. The goal is to lay a scientific foundation that paves the way for more accurate and actionable forecasts and projections of the Colorado River Basin water supply. The report is expected to be available in 2019.

Conservation

The SNWA and community efforts play a pivotal role in the conservation of water in Southern Nevada. As mentioned previously, community-wide conservation efforts have slowed, and water use has increased. To re-incentivize the community's role in conservation, the SNWA has increased existing incentive programs and implemented new methods to engage water users. The SNWA will continue to collaborate with the private and public sectors.

It should also be noted that community conservation efforts have cumulatively saved more than 425,000 acre feet of water (about 138 billion gallons) in the past 16 years.

Rebate Program Increases. The SNWA's most successful conservation program has been the Water Smart Landscape (WSL) Rebate Program, which provides a rebate for converting turf into less water-intensive landscaping. However, the program was experiencing a decline in participation. Because of the impact irrigation has on Southern Nevada's water resources, and to encourage program participation, the Board recently authorized an increase to the rebate of the WSL program from \$2 to \$3 per square

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foot. This increased incentive has already boosted participation.

As illustrated in the table below, projects and the amount of turf removed have each increased by nearly 30 percent. Additionally, single-family residential customers, multi-family, commercial, industrial and golf courses saw an increase of 52 percent in program participation.

SNWA Water Smart Landscape Conversions			
	Jun-Dec 2017	Jun-Dec 2018	% increase
Residential Conversions	1,165	1,502	29%
Turf Removed (square feet)	1,141,178	1,449,684	27%

Commercial Conversion Efforts. The WSL program also focuses on common area water use and streetscape irrigation. The SNWA has dedicated resources and developed a focused strategy on outreach to businesses, Homeowners Associations (HOA’s), parks and private median and streetscape owners to provide rebate information, water smart landscaping options, drought information and the benefits their collaboration would have on the entire community. The outreach process includes direct contact with property managers, individual HOA board members and business owners through letters, phone calls and meetings.

HOA’s collectively consume far more water than the entire resort industry and nearly as much as all Southern Nevada’s golf courses combined. Because of this, significant efforts have been made, and remain ongoing, for HOA’s to convert non-functional turf areas into more sustainable spaces. Areas being considered include roadway medians, roundabouts, memorials and pocket parks

that do not offer the community recreational benefits.

Efforts are underway to convert unused or underutilized turf at parks to water efficient landscapes or another hardscape that offers a more meaningful recreational opportunity such as sport courts or play structures. The SNWA is also working with high schools to convert football fields to artificial turf. The pilot program would reduce operational costs for schools while saving thousands of gallons of water each year.

Capital Projects

Low Lake Level Pumping Station.

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

Workers completed the underground work and are in the process of demobilizing this component of the project and subsequent “flooding” of the forebay. The forebay, an underground chamber which will feed 32 submersible pumps, is now ready for the pumps to be installed. Work is also underway to complete the adjacent power substation.

This year, crews will install 32 submersible pumps, specifically designed for the L3PS project, which are capable of pumping up to 900 million gallons of water a day to the SNWA’s two water treatment facilities. Once complete, the L3PS will help Southern Nevada maintain reliable access to its primary water supplies even if drought conditions worsen.

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Weir Completion.

Nearly two decades ago, the Las Vegas Wash Coordination Committee developed the Comprehensive Adaptive Management Plan to stabilize the Upper Las Vegas Wash conditions and improve water quality. The plan included the construction of weirs to aid in stabilizing head-cutting which threatened downstream water quality. In October 2018, the Sunrise Mountain Weir, the 21st and final weir, was completed.

Completion of the weirs in the Upper Las Vegas Wash is a significant step in stabilizing the watershed as a whole. Together, the 21 weirs facilitate the re-establishment of wetlands habitat, protect Southern Nevada's water supply from sedimentation, support the Clark County Wetlands Park's recreational amenities, and completes the goals established in the Las Vegas Wash's Comprehensive Adaptive Management Plan.

Lower Las Vegas Wash.

The Lower Las Vegas Wash is experiencing high erosion rates and channel degradation due to declining lake levels. If left unaddressed, threats to downstream water quality, habitat restoration efforts, recreational amenities and upstream infrastructure integrity, are increased.

The SNWA is taking the lead and has initiated collaboration with its member agencies and federal stakeholders to develop a comprehensive capital and management plan for the Lower Las Vegas Wash. Before efforts can get underway, a funding plan is needed.

When the Upper Las Vegas Wash experienced similar issues, multiple funding sources were sought and utilized to correct the erosion

problem, including grant funds and sales tax proceeds. The SNWA is evaluating a similar fundraising model.

Continual Infrastructure Assessment.

Conducting continuous maintenance of the distribution and water treatment systems is crucial to protect water quality and conserving resources. Pipeline assessments, upgrades to Cathodic Protection Systems and tank and intake inspections are in place to assess and ensure optimum results. These practices have resulted in a world-class water loss level of less than one percent within the SNWA's water treatment and distribution system.

Warm Springs Natural Area.

Last December marked the first anniversary of the Warm Springs Natural Area (WSNA) opening to the community. The WSNA serves as a significant environmental resource in Southern Nevada due to its onsite restoration habitat for the endangered Moapa dace fish. The SNWA has worked diligently in the recovery process of the dace and completed a detailed habitat map of approximately 6.2 miles of occupied and historically-occupied stream reaches.

The first year of the WSNA being open to the community was successful, busy and productive. More than 220 groups and over 600 individuals visited the WSNA in 2018. It also hosted several birding events, including a tour for Audubon members in March. Another notable highlight is an increase of Moapa dace numbers in the restored Middle Apcar Stream to 377 fish in August. This is the highest count in this reach since 1997.

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In addition, the Board approved the purchase of two additional adjacent parcels to the WSNA on November 30, 2018. Together, these parcels protect 789 linear feet of Moapa dace habitat along the North Fork of the Muddy River.

Awards and Recognition

In 2018, the River Mountains Water Treatment Facility received the prestigious Partnership for Safe Water Excellence in Water Treatment award, and in February 2019, the Alfred Merritt Smith Water Treatment Facility received the same award. This award recognizes water treatment plants that have achieved the highest possible levels of turbidity performance and have met very stringent performance goals. The SNWA became the 14th community potable water system out of more than 50,000 across the nation to earn the exclusive distinction.

The SNWA's success in responding proactively to drought conditions in Southern Nevada were acknowledged and recognized by the Leading Utilities of the World (LUOW), a global network of the world's most innovative water utilities and agencies. The SNWA and the Las Vegas Valley Water District (LVVWD) were inaugurated into the LUOW, joining only 30 other utilities worldwide. Membership to the LUOW represents the gold standard of water utility innovation and performance.

Financial Considerations/Capital Funding

Key initiatives for fiscal year 2019-20 include the continuation of the Major Construction and Capital Plan (MCCP) projects and water resource management efforts.

Funding Philosophy.

The SNWA maintains a diversified funding approach, which includes wholesale delivery charges, water bill charges, connection charges, grant funding and sales tax proceeds. Prudent management of these sources of funds, coupled with consistent long-term financial planning, has resulted in financial stability levels not reached since before the economic recession.

Improved Bond Rating.

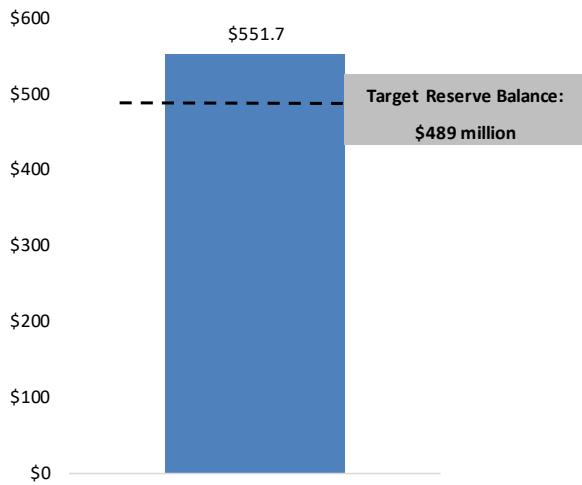
Prudent management and oversight of the SNWA's finances have been recognized by credit raters. Standard & Poor's increased the SNWA's Bond Rating to AA based on the organizations' strong financial management practices and policies, an improved local economy and its strong liquidity position supported by its reserve policy.

Reserve Policy.

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

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2017-18 Unrestricted Reserves



The SNWA's reserve policy includes the following components:

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

Financial Summary

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

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Budget Summary
(\$ Millions)

	Actual 2017-18	Budget 2018-19	Tentative Budget 2019-20	Budget-to-Budget Variance	
				\$	%
Sources					
Wholesale Delivery Charge	\$ 134.5	\$ 141.2	\$ 148.5	\$ 7.3	5%
Infrastructure Charge	151.9	158.6	163.4	4.8	3%
Commodity Charge	70.6	69.8	71.8	1.9	3%
Connection Charge	76.3	62.3	71.3	9.0	14%
Reliability Surcharge	5.6	5.6	5.9	0.3	5%
Sales Tax	63.6	65.5	67.6	2.1	3%
Investment Income	6.3	5.9	8.8	2.9	49%
Groundwater Management Fees	0.9	0.9	0.9	(0.0)	0%
LV Wash Program Fees	0.4	0.4	0.4	0.0	4%
Grant Proceeds	3.7	0.4	0.3	(0.1)	-29%
Other Sources	8.3	5.4	5.5	0.1	1%
Subtotal	\$ 522.1	\$ 516.0	\$ 544.3	\$ 28.3	5%
Debt Issuance Proceeds	-	-	-	-	
Total Sources	\$ 522.1	\$ 516.0	\$ 544.3	\$ 28.3	5%
Uses					
Water Resource Investments	\$ 5.5	\$ 19.0	\$ 13.9	\$ (5.1)	-27%
Energy	36.2	35.7	36.0	0.3	1%
Payroll & Related	77.1	83.1	88.5	5.4	7%
Operating Expenses	53.1	69.3	75.7	6.4	9%
Capital Expenditures	182.8	188.2	140.1	(48.1)	-26%
Debt Service	259.2	266.6	265.6	(1.0)	0%
Total Uses	\$ 614.0	\$ 661.9	\$ 619.8	\$ (42.2)	-6%
Total Net Surplus/(Deficit)	\$ (91.9)	\$ (146.0)	\$ (75.5)		

Sources.

The 2019-20 Budget Plan's total sources of funds are projected to be \$544.3 million, or a five percent increase compared to the 2018-19 Adopted Budget Plan. The increase is primarily attributable to growth in receipts from the Wholesale Delivery Charge, Infrastructure Charge, and the Connection Charge.

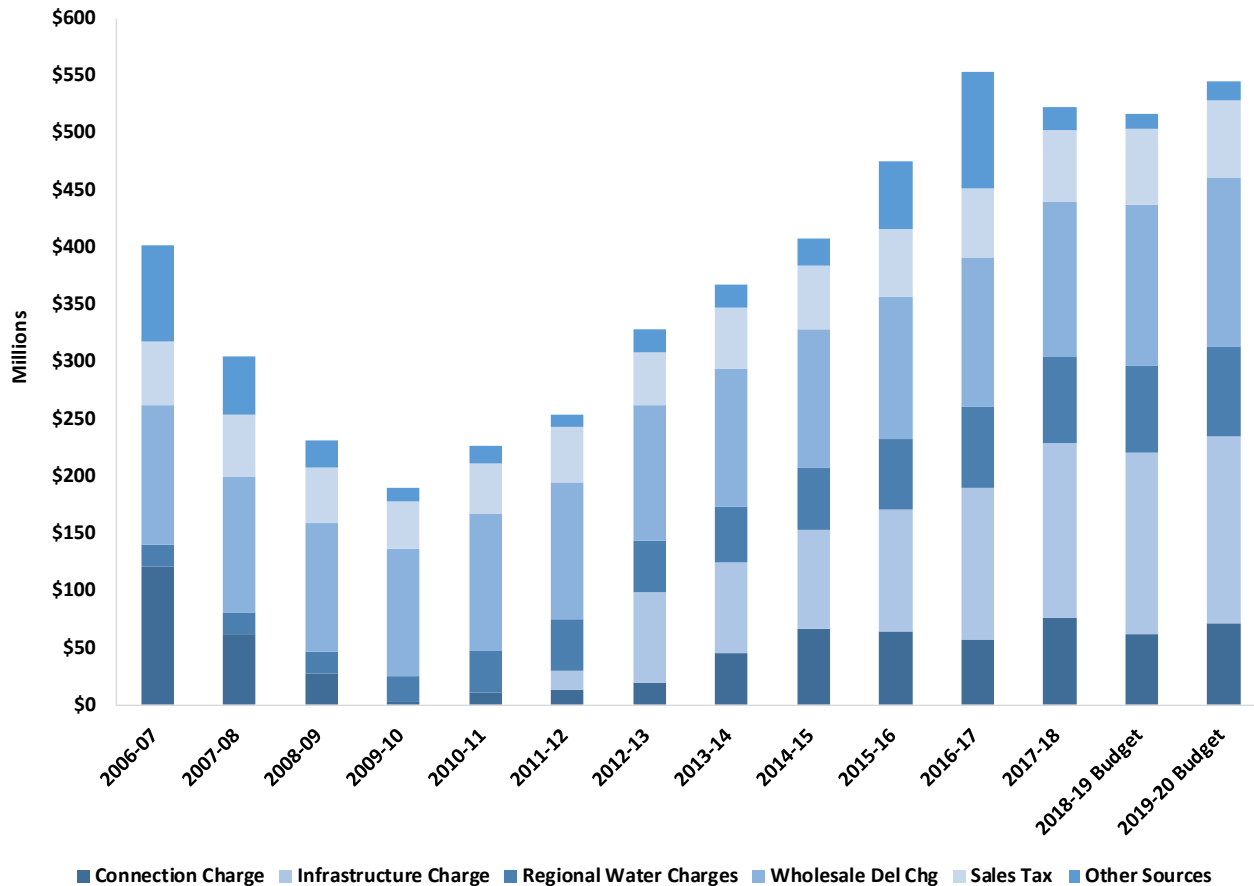
The Wholesale Delivery Charge, Infrastructure Charge, and Connection Charge are budgeted to increase \$7.3 million, \$4.8 million, and \$9.0 million respectively, as compared to the 2018-19 Adopted Budget Plan. The increase in the Wholesale Delivery Charge is due to a rise in the quantity of water sold and the projected Wholesale Delivery Charge rate increase of \$10 per acre foot. The increase in the Infrastructure Charge is primarily a result of additional account growth. With the

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Infrastructure Charge being the largest revenue component, the SNWA's sources of funds have increased stability, as shown in the chart below. This stability has reduced dependence on the more volatile Connection

Charge revenue, however it remains a prominent revenue source and is projected to increase \$9.0 million, or 14 percent, compared to the 2018-19 Adopted Budget Plan.

Sources of Funds



Uses.

The 2019-20 Budget Plan's total uses of funds are projected to be \$619.8 million, a \$42.2 million decrease compared to the 2018-19 Adopted Budget Plan.

Water Resource Investments are budgeted to decrease \$5.1 million, primarily due to retaining water in Lake Mead rather than

banking water with the State of Arizona. Energy costs are projected to increase by one percent. Payroll costs are anticipated to increase by \$5.4 million, or seven percent, compared to the 2018-19 Adopted Budget Plan. Demands to secure and protect water resources, ensure efficient use of existing resources, and provide a safe and reliable water supply under current operational

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conditions have resulted in increased staffing requirements for the SNWA.


Non-payroll operating expenses are projected to increase \$6.4 million, or nine percent. The rise in budgeted costs is due to increased operations and maintenance costs, including increased conservation efforts and an organizational shift to more "cloud-based" software solutions. Capital expenditures are budgeted to decrease \$48.1 million. The L3PS, in its fifth year of construction, remains the largest component of capital expenditures. However, the L3PS project's 2019-20 budget has significantly decreased, compared to 2018-19, due to its approaching completion date, expected in calendar year 2020. Debt service is projected to decrease \$1.0 million. Debt service costs are projected to remain relatively stable for the next ten years, then decline thereafter. In addition, there may be savings from future debt refundings, depending on market conditions.

Summary.

The SNWA's fiscal year 2019-20 Budget Plan presents a stable outlook, with total uses of funds decreasing by 6% and sources of funds expected to rise by 5%. Capital expenditures will be largely funded by existing bond proceeds.

Approval

The public hearing on the SNWA's 2019-20 Tentative Budget, and adoption of the Final Budget, is scheduled for 1:00 p.m., Thursday, May 23, 2019. The public hearing will be held in the Colorado River Conference Rooms, 100 City Parkway, Seventh Floor, Las Vegas, Nevada.



John J. Entsminger, General Manager

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SECTION 2

INTRODUCTION AND STRATEGIC PLAN

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SOUTHERN NEVADA WATER AUTHORITY™

FISCAL YEAR 2019-20
OPERATING AND CAPITAL BUDGET

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Introduction and Strategic Plan
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Introduction

Purposes and Powers.

The Southern Nevada Water Authority (SNWA) is a political subdivision of the State of Nevada created on July 25, 1991, pursuant to Nevada Revised Statutes Chapter 277.080 to 277.180, inclusive, by a cooperative agreement among the Big Bend Water District, the City of Boulder City, the City of Henderson, the City of Las Vegas, the City of North Las Vegas, the Clark County Water Reclamation District, and the Las Vegas Valley Water District (LVVWD). The Cooperative Agreement has been amended on November 17, 1994; January 1, 1996; February 18, 2010; and June 21, 2012.

The SNWA was created to secure additional supplies of water for Southern Nevada and to effectively manage existing supplies of water through the cooperative action of its member agencies. Because the SNWA is governed equally by a seven-member Board of Directors (SNWA Board) composed of one director from each member agency, and the SNWA operations are autonomous from its member agencies, its financial statements are not included in the financial statements of another entity.

The SNWA Board appoints a General Manager (GM). In January 1993, the LVVWD's GM was also appointed GM of the SNWA, and the LVVWD was named Operating Agent for the SNWA. The GM has two Deputy General Managers (DGM's), a Chief Financial Officer (CFO) and General Counsel overseeing the operations of the LVVWD and the SNWA.

Since October 1993, the LVVWD has been paying many expenses on behalf of the SNWA. The SNWA reimburses the LVVWD for those expenses, including the cost of the LVVWD employees allocated to the SNWA. The SNWA has no employees of its own.

The Board of the SNWA has the power to periodically assess the member agencies directly for operating and capital budgets and for the satisfaction of any liabilities imposed against the SNWA. Each member made an initial contribution to the SNWA for operating and administrative expenses in the amount of \$15,000. Assessments for additional funds needed by the SNWA, in accordance with operating and capital budgets, have been apportioned to member agencies on the basis of water deliveries to those agencies. Funding received by the SNWA from its member agencies for operations is recorded as operating revenue, while funding received for capital purchases is recorded as capital contributions. Member agencies who are not water purveyors, i.e., the City of Las Vegas and the Clark County Water Reclamation District, each contributes towards the SNWA operations for the fiscal year 2019-20.

Transfer Act.

Pursuant to the Transfer Act, Assembly Bill No. 542, approved June 28, 1995 by the Nevada Legislature, the assets of the Southern Nevada Water System (SNWS), as well as responsibility for operations of the system, were transferred from the Colorado River Commission (CRC) to the SNWA effective January 1, 1996. Along with the assets, the CRC transferred all books and records in its possession relating to the project and its facilities. In addition to the assets, all

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liabilities of the CRC related to the SNWS were to be transferred to the SNWA.

The transfer was a non-cash transaction. In order to affect the transfer, CRC prepared from its SNWS accounting records an unaudited trial balance as of January 1, 1996, which was given to the SNWA. To record the transfer, the SNWA posted the entire CRC trial balance to its General Ledger as of January 1, 1996. The accuracy of that trial balance was verified by the June 30, 1996, audits of both the SNWA and CRC. The CRC detail property listing was posted to the SNWA Property Ledger.

Intergovernmental Relationships.

In addition to its members, the SNWA also works with other agencies of state and federal government. The following outlines some of those intergovernmental relationships.

Major Water Purveyors. The SNWA diverts Colorado River water from Lake Mead, treats it to federal Clean Drinking Water Act standards, and delivers treated water to the facilities of water purveyors in the Las Vegas Valley and Boulder City. The major water purveyors and their percentage of total SNWA water deliveries are as follows: Boulder City (2.3 percent), Henderson (16.8 percent), North Las Vegas (12 percent), the LVVWD (68.7 percent) and others (0.3 percent).

Wastewater Treatment Agencies. Wastewater treatment agencies in the SNWA service area are the Cities of Las Vegas, Henderson, and Boulder City, and the Clark County Water Reclamation District.

Colorado River Commission. The CRC is an agency of the State of Nevada created in 1935

to acquire and hold in trust Nevada's right to water and power resources from Colorado River water apportioned among the seven Colorado River Basin states and Mexico. The seven member CRC Board is made up of four members appointed by the Governor (including the Chairperson) and three SNWA Board members.

U.S. Bureau of Reclamation (Bureau). The Bureau is a division of the U.S. Department of the Interior. It is charged with the responsibility of managing the Colorado River for the benefit of the users with rights to Colorado River water. Any changes to laws governing the Colorado River benefiting Nevada will require the cooperation and approval of the federal government via the Bureau and all seven of the Colorado River Basin states.

Southern Nevada Water System. The SNWS is the regional water system diverting raw Colorado River water from Lake Mead, treats it to federal Clean Drinking Water Act standards, pumps it through the River Mountains, and delivers potable water to the facilities of the water purveyors in the Las Vegas Valley and Boulder City. The SNWS was built in two stages (1971-first stage, and 1983-second stage) by the federal government acting through the Bureau, and the State of Nevada acting through its CRC. The Bureau built the transmission facilities, which are referred to as the Robert B. Griffith Water Project. The CRC built the treatment facility, which is known as the Alfred Merritt Smith Water Treatment Facility. The SNWS was owned by CRC and operated under contract by the LVVWD. On January 1, 1996 the assets and liabilities of the SNWS as well as responsibility for operations were transferred

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from CRC to the SNWA. The LVVWD continues to operate the SNWS under contract with the SNWA. The projects in the SNWA's Major Construction and Capital Plan (MCCP) are expansions or improvements of the SNWS.

Robert B. Griffith Water Project Title Transfer. The SNWS was built in two stages by the State of Nevada acting through the CRC and the Bureau. CRC funded its portion by issuing State of Nevada general obligation bonds. The Bureau funded its portion from federal budget appropriations. After completion of each phase, the Bureau determined total reimbursable costs for constructing its portion of the SNWS and the CRC entered into a water delivery and repayment contract with the Bureau to repay those costs plus interest. The terms of the repayment contract required 50 annual payments at 3.25 percent interest. According to the terms of the repayment contract, the federal government would retain title to the facilities it built, even after the repayment contract was fully paid.

The role of the federal government in financing improvements of the SNWS has been declining. When the first phase of the SNWS was completed in 1971 at a total cost of \$62 million, 85 percent of that cost was provided by the federal government. After completion of the second phase in 1983, the ratio provided by the federal government had dropped to 71 percent. In 1995 the SNWA began work on its \$2.1 billion Capital Improvement Plan to expand and improve the

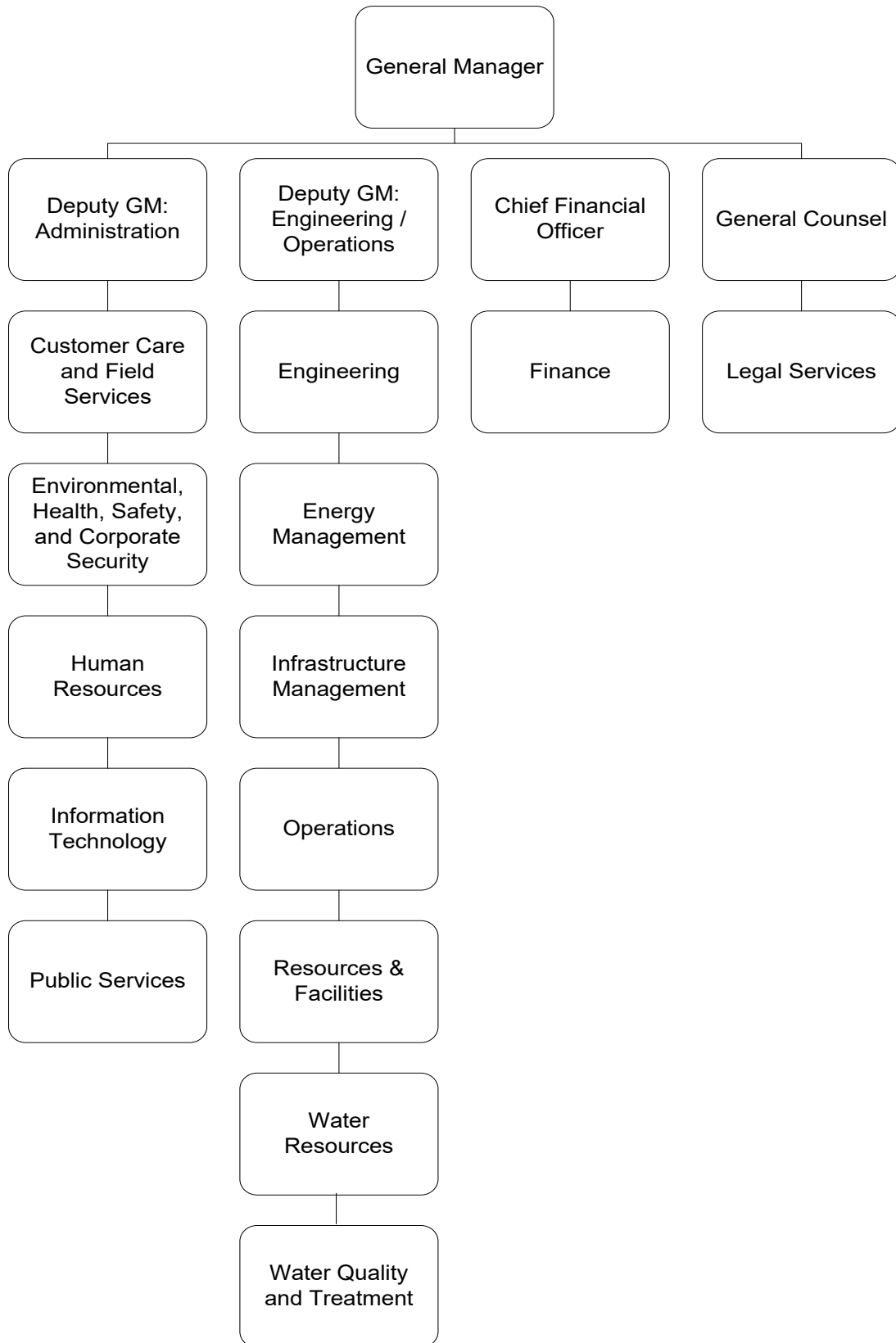
SNWS. Because the Bureau was, and always would be, the owner of the facilities built with federal funding, the SNWA would always be required to obtain Bureau approval to maintain, modify, or improve the federal facilities which are an integral, but increasingly smaller, part of the total system.

In July 2000, the U.S. Congress passed, and President Clinton signed into law, the Griffith Project Prepayment and Conveyance Act (Public Law 106-249), which directed the Secretary of the Interior to transfer title to the Robert E. Griffith Project to the SNWA, subject to prepayment of the Project's federal repayment obligation. According to guidelines published by the Office of Management and Budget, the price of the title transfer was set at \$121.2 million, plus accrued interest, less any principal payments made subsequent to September 30, 1999.

Organizational Structure.

The LVVWD operates the SNWA under contract; however, the two entities are legally separate. The LVVWD pays substantially all expenses on behalf of the SNWA, including the cost of employees allocated to the SNWA and is reimbursed monthly for these costs. SNWA has no employees of its own. The organizational chart shows the SNWA organization and how the different departments are arranged. For a further breakdown per department, please see Section 5, Department Budgets.

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Financial Structure and Controls.

Proprietary Fund Type - Enterprise Fund. The SNWA's operations are accounted for as a single Enterprise Fund. A fund is a fiscal and accounting entity with a set of self-balancing accounts comprising its assets, liabilities, fund equity, revenues, and expenses. Enterprise Fund operations are presented using the full accrual basis of accounting wherein revenues are recognized in the accounting period in which they are earned and expenses are recognized in the period incurred, regardless of when payments for such revenues or expenditures are actually made. In this regard, the SNWA operations are accounted for in a manner similar to a private business enterprise, where the intent of the governing body is that the costs of providing goods and services to the general public on a continuing basis are financed or recovered primarily through user charges, and its financial measurement focus is on determination of net income, financial position, and cash flows.

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 the balance of bond proceeds be maintained in restricted acquisition and construction accounts until they are expended. Assets restricted for specific purposes (e.g. additions to plant or repayment of bonds) and liabilities payable from such assets are accounted for separately until disposition. Earnings on these assets are also considered restricted.

Internal Controls. In developing the SNWA's accounting system, consideration focused on the adequacy of internal accounting controls. Internal accounting controls are designed to

provide reasonable, but not absolute assurance regarding the safeguarding of assets against loss from unauthorized use or disposition; and the reliability of financial records for preparing financial statements and maintaining accountability for assets. The concept of reasonable assurance recognizes the cost of a control should not exceed the benefits likely to be derived, and the evaluation of costs and benefits requires estimates and judgment by management. All internal control evaluations occur within the above framework. The SNWA's internal accounting controls safeguard assets and provide reasonable assurance of proper recording of financial transactions. The SNWA will continue to identify ways in which it can strengthen its control procedures.

Debt Administration. It is the general intent of the SNWA that rates and charges are adequate to provide for all costs, and reliance on property taxes is to be avoided. Ad valorem taxes have never been needed to support the SNWA's operations or debt service. For a full discussion of debt objectives and guidelines see section 7, Debt Management Policy.

The State of Nevada operates a Municipal Bond Bank Program, which is designed to assist municipalities in undertaking local projects for the protection and preservation of the property and natural resources of the state. In May 1997, the SNWA was authorized to sell bonds directly to the state bond bank. Additionally, the SNWA issues bonds through the Clark County bond bank and through the LVVWD. As a result of legislation approved by the 1999 Legislature, Clark County established a bond bank to assist municipalities within Clark County. The LVVWD issues short-term

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or variable rate debt for the SNWA in addition to standard debt issues.

The State of Nevada general obligation debt is rated "Aa2" by Moody's and "AA" by Standard & Poor's. Clark County's general obligation debt is rated "Aa1" by Moody's and "AA+" by Standard and Poor's. The LVVWD's general obligation debt is rated "Aa1" by Moody's and "AA+" by Standard & Poor's. It is expected that the SNWA will still utilize the state and county bond banks and the LVVWD to issue debt. The SNWA obtained the credit rating primarily at the request of parties who wished to enter into long term purchased power agreements with the SNWA and needed an evaluation of the SNWA's credit worthiness.

As of July 1, 2019, the SNWA has \$3.2 billion in outstanding debt, excluding unamortized premiums and discounts. All debt is backed by a pledge of the SNWA's revenues. All applicable bond covenants such as ratios of net income to debt service, sinking funds, and insurance coverage have been met or exceeded.

Cash Management. Funds not immediately required for paying operating or capital expenditures are invested in U.S. Government and agency securities and other money market instruments. Nothing in the Cooperative Agreement creating the SNWA or the Facilities and Operations Agreement governing the SNWA's relationship with its purveyor members dictates permitted investments. Also, there is no applicable Nevada law. However, the SNWA chooses to comply with Nevada Revised Statutes (NRS) 355.170, which governs permitted investments for counties, cities, and school

districts in Nevada. NRS 355.170 limits investments to obligations of the federal government and its agencies, commercial bank certificates of deposit, obligations of state and local governments rated A or above, bankers' acceptances, repurchase agreements, and money market mutual funds. All investments are held by a commercial bank's trust department in the name of the SNWA and are insured or collateralized with securities held by a third party in the name of the SNWA.

Risk Management. The SNWA employs a multifaceted approach to risk management, which includes the transfer, elimination, avoidance, reduction and/or assumption of risk of loss. The SNWA also purchases risk insurance (including terrorism insurance) from the commercial insurance market on real and personal property, including earthquake and flood, with common policy restrictions, covering direct physical loss of or damage to buildings, fixtures, equipment, boilers, machinery and supplies. The blanket limit of liability under the property insurance program is \$500 million per occurrence with a deductible of \$1 million per occurrence. The program also includes earthquake coverage (\$100 million limit) and flood coverage (\$50 million limit) each having a \$100,000 deductible. The SNWA self-insures the first \$1 million for its automobile and general liability exposure and purchases \$30 million of excess liability insurance.

In contracts, the SNWA obtains indemnification and hold-harmless agreements, and requires that contractors name the SNWA as an additional insured under the indemnitor's insurance coverage,

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usually \$1 million to \$10 million for commercial general and auto liability insurance. The SNWA provides builders risk insurance for all construction projects with a blanket limit of \$100 million per contract, or higher as needed, with a \$50,000 deductible per claim, except earthquake and flood where the deductible is \$500,000 per claim.

Capital Project Structure and Controls.

Identification of Capital Project Need. Capital projects for the SNWA are proposed in response to identified needs for improvements to the facilities providing for delivery of community water supplies to the members of the SNWA. These improvements may be either 1) new facilities to expand or enhance capabilities or 2) repair, upgrade or replace existing facilities no longer functioning as required.

Identification of proposed new facilities to meet expanding water delivery requirements is accomplished through a process involving continuing assessment of current and projected future community water demands. The SNWA works with its purveyor members to establish both short-range and long-range projections of future water demands. These water demands are compared to the capacities of the existing SNWA water facilities. Where facility capacities are insufficient to meet projected demands, the SNWA undertakes efforts to plan potential new facilities to address the projected shortfall. New facilities may also be proposed to enhance the reliability of the water delivery facilities, or to enhance the quality of the water provided to the community.

Identification of existing facilities requiring repair, upgrade or replacement comes about through continuous monitoring and assessment of facility performance. To the extent possible, major repair, upgrade or replacement projects are identified in time to allow for planning and scheduling of the projects to minimize costs and interruptions to operations of other facilities.

The SNWA meets periodically with its purveyor members to discuss water demand projections, compare those projections to existing system capacities, review operational issues, define an annual operating plan, discuss progress on approved capital projects under design and construction, and consider proposals for new capital projects. Proposals for new capital projects are presented to the Southern Nevada Water System Work Group (Work Group), a formal advisory committee composed of representatives of the SNWA and the SNWA Purveyor Members. Upon endorsement by the Work Group, new projects are incorporated into amendments to the SNWA's capital plans and are presented to the SNWA Board for approval. If the amended capital plan requires an increase in the total cost of the plan, then the amended capital plan must also be approved by the governing body of each Purveyor Member.

Execution of Capital Plan. After approval of the capital plan by the SNWA Board, the Engineering department assembles a staging plan for each project and develops specifications to be used as criteria during the competitive bidding process. Major construction portions are then let to an open competitive bidding process. All bids are reviewed, and the lowest qualifying bid is

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presented to the SNWA Board for their approval. At the approval date, the Finance department (Finance) and the Engineering department encumber the total amount of the contract. Change orders are submitted to the SNWA Board as needed with full explanations as to why the change is necessary.

The Engineering department issues capital plans annually. The most recent capital plans can be viewed in Section 6 of this 2019-20 Budget Plan document. The capital plan reflects all capital projects, their projected start and end dates, their projected costs, the gross amount of expended or encumbered funds per project, projected future cash requirements, and the budget variance of each project. Finance also tracks expenditures and encumbrances for capital projects and plans future debt service issues on these calculations.

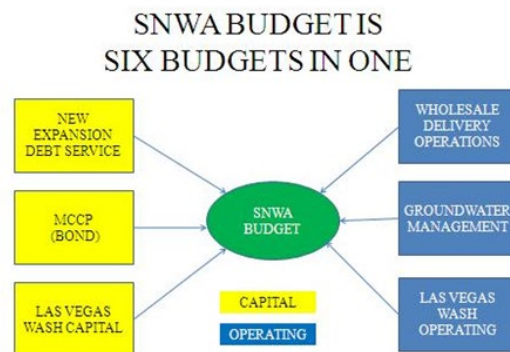
Upon completion of a project, the Engineering department presents a summary of the project to the SNWA Board for their review and approval. The project is then moved from construction work in progress to property, plant and equipment by Finance.

Budget Controls and Process

Basis of Accounting.

The SNWA's audited Comprehensive Annual Financial Report (CAFR) is presented on the full accrual basis of accounting wherein revenues are recognized in the accounting period in which they are earned, and expenses are recognized in the period incurred,

regardless of when payments are actually made. However, the budget is presented on a modified cash basis. In addition, the budget is broken into sub funds of the single proprietary fund, which shows beginning balance, sources of funds, uses of funds, and ending balance. The SNWA is an enterprise fund; the sub funds are an internal cost control aiding management in insuring revenues and expenses for major projects are properly matched. The SNWA maintains six separate sub funds. Three track the financial activity of SNWA's capital programs while the other three track day-to-day operations.



Sub fund balances are reconciled to the audited CAFR. For budget preparation and presentation, the Las Vegas Wash Capital and Las Vegas Wash Operating sub funds are combined into one sub fund for simplification purposes.

Budgetary Controls.

By State statutes, the SNWA's budget is approved annually, following a public hearing by the SNWA Board, and a copy is submitted to the State Department of Taxation. Budgetary controls are established at the

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

The SNWA is encouraged, but is not required by law, to adopt a balanced budget. A balanced budget is defined as a budget where sources of funds are equal to, or exceed, uses of funds. Throughout the budget process, the SNWA examines projected financial needs and determines whether or not rates, fees and charges should be adjusted to make funds available for those needs.

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 Finance 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 (IT). Finance 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 staffing is controlled by the Human Resources department (HR).

Budget Process.

The SNWA's budget process starts in December of each year, and proceeds with a series of meetings with the department directors. Financial analysis is done to project the revenues under current rate structures. Wholesale Delivery Charge revenue projections are based on the estimated water the SNWA is planning to deliver in the coming year. The budget reflects the strategies and goals adopted by the SNWA.

Budget staff disseminates current and historical information to managers to assist them in preparation of future budgets within budgeting guidelines. The budget process consists of three major phases. The first phase includes preparing new requests for capital and staff positions for the new fiscal year. The second phase consists of preparing department operating budgets, including payroll and related expenditures. Estimating payroll and related expenditures are based on current approved positions and factors based on historical adjustments throughout the year. The third phase involves department directors, managers and supervisors meeting with Executive Management to justify expenditure requests. After all of the departments' budgets have been reviewed and approved by Executive Management, the budget is consolidated 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 non-compliance with the statutory laws of the State of Nevada.

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On the fourth Thursday in May, the SNWA's Board conducts a public hearing to allow the public an opportunity to discuss the proposed budget. During the public hearing, the GM requests final approval from the SNWA Board. The approved final budget document is filed with the State of Nevada. Once approved and filed, departments are provided copies of their budgets. The approved budget is implemented on July 1, the first day of the new fiscal year.

Budget Augmentation. Nevada State law (NRS 354.493) defines budget augmentation as a procedure for increasing appropriations of a fund with the express intent of employing unbudgeted resources to carry out the purpose for the increased appropriations. To augment the budget, the SNWA Board must adopt a resolution providing for an augmentation at a regular meeting of the SNWA 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 Department of Taxation.

FISCAL YEAR 2019-20 BUDGET CALENDAR

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

FISCAL YEAR 2019-20 BUDGET CALENDAR

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

FISCAL YEAR 2019-20 BUDGET CALENDAR



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

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Southern Nevada Water Authority Strategic Plan

Strategic Plan Background.

The SNWA's Strategic Plan represents the latest iteration in the SNWA's long-standing commitment to self-assessment, continuous improvement, and comprehensive planning. The Strategic Plan provides future direction for the SNWA, 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 SNWA, senior management and employees of the SNWA, with policy guidance from the SNWA Board, completed a comprehensive Strategic Plan in 1993. The SNWA's Strategic Plan identified forces influencing decision-making and formulated goals and strategies to guide the SNWA in responding to the challenges, and evolve into a dynamic, responsive and effective organization. In 1997, the SNWA 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 SNWA's Strategic Plan, and a revised plan with new goals and strategies was presented to and adopted by the SNWA 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 SNWA and the member agencies.

In fall 2012, the Senior Management Team began meeting to update the strategic plan. This strategic planning process allows the SNWA and the member agencies to continue to respond to current economic conditions, plan for future needs and implement changes to ensure efficient and effective operations. The revised strategic plan was finalized, and the organization-wide implementation launched in 2013.

Strategic Plan and 2019-20 Budget Plan Preparation.

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

The SNWA has a long-standing commitment to self-assessment, continuous improvement, customer service and comprehensive planning, and has undergone several strategic planning initiatives over the past two 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 challenges of the current economic climate, organizational realignment and operational needs.

For the past decade, Southern Nevada has weathered unprecedented drought conditions on the Colorado River and, more recently, has survived the effects of the recent economic downturn. The recession impacts

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included a change in the community's business environment, a decrease in water sales and sales tax revenue, and a significant decrease in the SNWA connection charges. During this period of economic uncertainty, organizational structure and budgetary issues have been closely evaluated to ensure the organization's focus meets current community needs. The strategic plan represents a roadmap for the next three to five years which realigns the organization's focus on enhancing service levels, improving asset management, providing rate stability and streamlining the organization to meet current and future community needs.

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

The strategic planning process involved management and employees in all departments through a comprehensive exercise to assess the organizations and their current environment; review and clarify the organizational vision, mission and values; and to develop goals and strategies that support these objectives. By involving all levels of employees in the development of measures, milestones, standards of excellence, and incorporating their input into the strategic plan, the entire workforce 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 and mission 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 SNWA prepared the following strategies:

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Assure quality water through reliable and highly efficient systems.

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

Deliver an outstanding customer service experience.

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

- Monitor other organizations and 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.

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- Allocate the resources necessary to advance research, technology and other innovations.
- Develop and strengthen partnerships on a global basis to leverage resources and advance innovation.

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

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

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

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

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SECTION 3

OPERATING AND CAPITAL BUDGET PLAN

Budget Summary..... 3-1
Sources..... 3-2
Uses..... 3-6
Summary of Sources and Uses of Funds and Changes in Net Assets 3-11
Sub Funds..... 3-12



SOUTHERN NEVADA WATER AUTHORITY™

FISCAL YEAR 2019-20

OPERATING AND CAPITAL BUDGET

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The fiscal year 2019-20 Budget Plan reflects the continued commitment of the Southern Nevada Water Authority (SNWA) to provide water resources and services to meet the demands of Southern Nevada. The SNWA utilizes its Strategic Plan as a guide in shaping its annual Budget Plan. The fiscal year 2019-20 Budget Plan's total sources of funds are projected to be \$544.3 million, or a five

percent increase compared to the fiscal year 2018-19 Adopted Budget Plan. The fiscal year 2019-20 Budget Plan's total uses of funds are projected to be \$619.8 million, or a six percent decrease compared to the fiscal year 2018-19 Adopted Budget Plan. The table below shows the Sources and Uses Summary for the fiscal years 2017-18, 2018-19, and 2019-20.



Budget Summary

	Actual 2017-18	Budget 2018-19	Budget 2019-20	Budget-to-Budget Variance	
				\$	%
Sources					
Wholesale Delivery Charge	\$ 134,480,919	\$ 141,151,263	\$ 148,499,845	\$ 7,348,582	5%
Infrastructure Charge	151,907,841	158,564,232	163,397,958	4,833,726	3%
Commodity Charge	70,552,575	69,814,797	71,754,479	1,939,682	3%
Connection Charge	76,343,260	62,298,684	71,280,690	8,982,006	14%
Reliability Surcharge	5,555,189	5,569,153	5,871,922	302,769	5%
Sales Tax	63,601,130	65,506,404	67,592,491	2,086,087	3%
Investment Income	6,318,578	5,880,785	8,783,271	2,902,486	49%
Groundwater Management Fees	878,647	896,494	894,208	(2,286)	0%
LV Wash Program Fees	429,845	426,040	443,863	17,824	4%
Grant Proceeds	3,669,577	420,165	300,000	(120,165)	-29%
Other Sources	8,338,523	5,436,366	5,481,247	44,881	1%
Subtotal	\$ 522,076,084	\$ 515,964,385	\$ 544,299,974	\$ 28,335,590	5%
Debt Issuance Proceeds	-	-	-	-	
Total Sources	\$ 522,076,084	\$ 515,964,385	\$ 544,299,974	\$ 28,335,590	5%
Uses					
Water Resource Investments	\$ 5,481,473	\$ 19,016,798	\$ 13,904,000	\$ (5,112,798)	-27%
Energy	36,244,051	35,727,002	36,012,788	285,786	1%
Payroll & Related	77,133,261	83,096,589	88,513,090	5,416,501	7%
Operating Expenses	53,122,401	69,263,847	75,677,836	6,413,989	9%
Capital Expenditures	182,786,895	188,228,615	140,095,748	(48,132,867)	-26%
Debt Service	259,210,095	266,611,625	265,578,019	(1,033,606)	0%
Total Uses	\$ 613,978,176	\$ 661,944,474	\$ 619,781,481	\$ (42,162,994)	-6%
Total Net Surplus/(Deficit)	\$ (91,902,092)	\$ (145,980,089)	\$ (75,481,507)		

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Sources

The fiscal year 2019-20 Budget Plan’s total sources of funds are projected to be \$544.3 million, which is a five percent increase compared to the 2018-19 Adopted Budget Plan. The increase is primarily attributable to increases in the wholesale delivery charge, infrastructure charge, and connection charges.

Wholesale Delivery Charge.

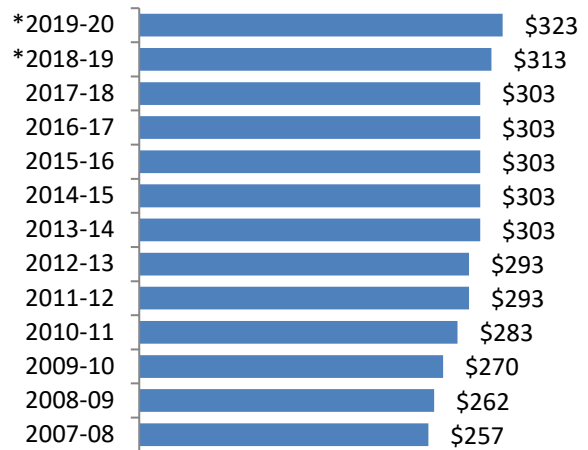
The wholesale delivery charge is the revenue generated from Colorado River water delivered by the SNWA to its purveyor members. Those purveyor members then sell the purchased water to end-users. The SNWA has no retail customers. For fiscal year 2019-20, the wholesale delivery charge for most water sold will rise by \$10 per acre-foot for treated water. This increases the charge from \$313 to \$323 per acre-foot.

Periodic rate increases have kept the wholesale delivery charge revenue relatively stable during periods of flat-to-declining usage. The increase of \$7.3 million (five percent) in fiscal year 2019-20 is the result of the rate increase, as well as growth in water sales to purveyor members. As the following chart illustrates, the SNWA makes a concerted effort to keep the wholesale delivery per acre-foot charge economical for its purveyor members.

Wholesale Delivery

Charge Rate

(\$ per Acre Foot)



* = Budgeted

Infrastructure Charge.

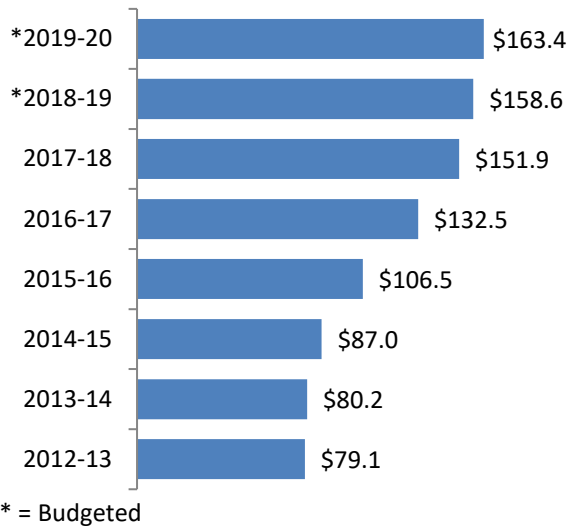
In October 2011, the SNWA’s Board of Directors authorized an extensive rate study and a public outreach process to study various alternative rate structures to service the SNWA’s outstanding debt. In February 2012, the Board approved an infrastructure charge. This charge is applied by the SNWA purveyor members, typically to retail bills, and is a fixed charge assessed based on meter size and customer class. Consumption is not considered in the application of the charge. Revenue is remitted to the SNWA, from its purveyor members, on a monthly basis. At the same time in 2012, the SNWA Board of Directors (Board) appointed a 21-member Integrated Resource Planning Advisory Committee (IRPAC). The IRPAC reviewed financial projections of the SNWA and recommend strategies concerning the financial commitments. IRPAC’s Phase 1 recommended, with subsequent Board approval, a four-year step-in increase of the infrastructure charge beginning January 1,

Southern Nevada Water Authority
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2014, and increased annually through January 1, 2017.

In addition to IRPAC’s Phase 1 recommended increases to the infrastructure charge, IRPAC’s Phase 2 recommended, with subsequent Board approval in December 2014, to increase the fixed monthly charges. This charge was called the Drought Protection Charge and was added to the infrastructure charge. IRPAC Phase 2 had a three-year step-in increase of the infrastructure charge beginning January 1, 2016, and increased annually through January 1, 2018. Infrastructure Charges are budgeted to increase \$4.8 million compared to the 2018-19 Adopted Budget Plan.

Infrastructure Charge
 (\$ in millions)

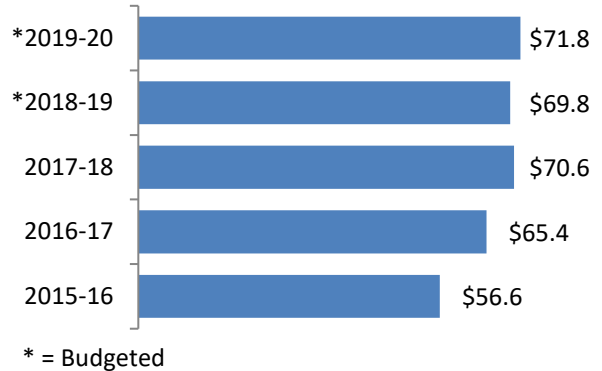


Commodity Charge.

The commodity charge went into effect in November 1996. This charge is typically collected by purveyor members and remitted to the SNWA monthly. The commodity charge is applied to retail water bills. In addition to the infrastructure charge

mentioned earlier, IRPAC’s Phase 1 recommended, with subsequent Board approval, the commodity charge be increased annually through the same duration as the Phase 1 increases to the infrastructure charge. The \$0.30 per 1,000 gallons rate increased to \$0.34 in January, 2014, to \$0.38 in January, 2015, to \$0.44 in January, 2016, with the final increase to \$0.48 in January, 2017.

Commodity Charge
 (\$ in millions)

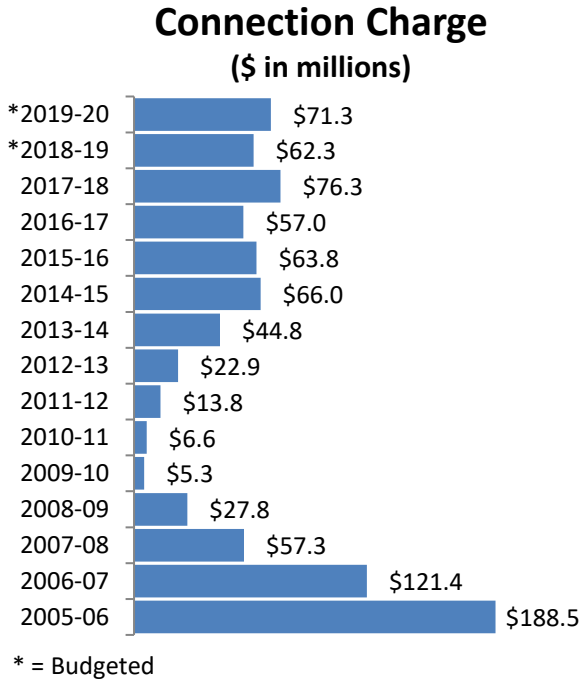


Connection Charge.

The connection charge is a charge assessed for new connections to the potable water system and is based on customer type, land usage, and meter size. The SNWA’s purveyor members collect these charges when customers apply for new water services and they are remitted to the SNWA monthly. The fiscal year 2019-20 projection of connection charge revenue is \$71.3 million, which is higher (14 percent) than the 2018-19 Adopted Budget Plan. Connection charge collections were one of the SNWA’s largest sources of funds in the mid-2000s. However, during the subsequent recession, this revenue fell sharply with the lack of construction activity in the SNWA’s service area. Since reaching a low in fiscal year 2009-

**Southern Nevada Water Authority
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Fiscal Year Ending June 30, 2020**

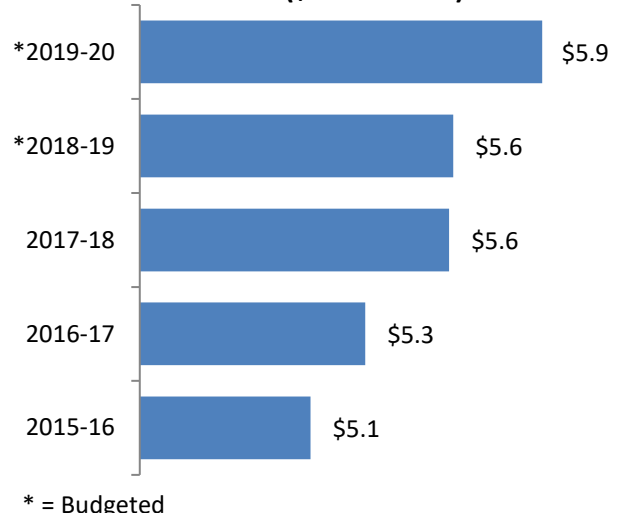
10, connection charges have increased steadily.



Reliability Surcharge.

The reliability surcharge went into effect in April 1998 and is based on the total water bill, excluding the infrastructure charge, of the SNWA’s purveyor members. The rate is 0.25 percent for residential customers and 2.5 percent for non-residential customers. These revenues are collected by purveyor members from retail billings and are remitted to the SNWA monthly. The fiscal year 2019-20 reliability surcharge is projected to increase \$0.3 million, or five percent. Because this surcharge is based on the total water bill charged to an end user by a purveyor, less the infrastructure charge, the reliability surcharge will increase when a purveyor approves a retail rate increase, when the SNWA increases the commodity charge and when additional customers are added to the system.

**Reliability Surcharge
(\$ in millions)**

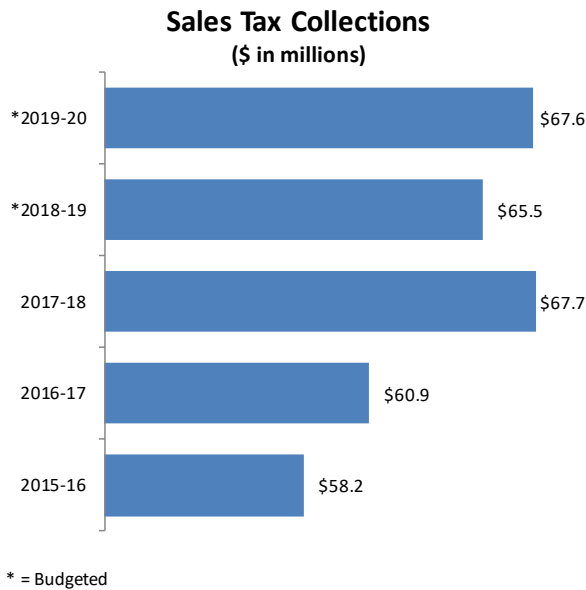


Sales Tax.

The only taxes the SNWA receives are sales taxes. The SNWA does not levy taxes on its own. The Clark County Water and Wastewater Infrastructure Sales Tax went into effect on April 1, 1999. At that time, this increased the sales tax rate in Clark County from 7.0 percent to 7.25 percent. The tax is collected by the Nevada Department of Taxation (DOT) and remitted to the SNWA monthly. Of the gross amount received from the DOT, approximately 3.3 percent is forwarded to rural areas in the county and 4.0 percent is held in reserve by the SNWA to fund needed capital improvements in the Las Vegas Wash. The Las Vegas Wash is the primary channel through which excess water returns from the Las Vegas area to Lake Mead. The water flowing through the wash comprises less than two percent of the water in Lake Mead and consists of urban runoff, shallow groundwater, storm water and releases from the three water reclamation facilities within the Las Vegas area.

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By agreement with the wastewater agencies in the service area, the SNWA received 100 percent of the remaining sales tax proceeds for the first two years. Since then, the remainder has been split between water and wastewater based on the relative size of their capital improvement plans. The fiscal year 2019-20 projection of sales tax revenue is \$67.6 million, or three percent, higher than the 2018-19 Adopted Budget Plan, due to an improving economy.



Investment Income.

Investment income includes both interest from bank accounts and investment earnings. The primary objectives of such investments are, in order of importance, safety of principal, maintenance of liquidity, and return on investment (ROI). Investment income is projected to increase \$2.9 million over the 2018-19 Adopted Budget Plan. This increase is primarily attributable to the increases in interest rates and return on investments.

Groundwater Management Program Fees.

The groundwater management program fees consist of an annual fee of \$30 per acre-foot of permitted groundwater rights or \$30 per domestic well. The fee consists of \$13 reserved for operation and maintenance expenses and \$17 reserved for recharge water purchases. The SNWA will have no recharge water available for purchase for the groundwater management program in fiscal year 2019-20. Consequently, for the seventh year in a row, the SNWA will not charge the \$17 portion of the groundwater management fee; therefore, revenue is projected to be relatively consistent with the fiscal year 2018-19 Adopted Budget Plan.

Las Vegas Wash Program Fees.

The SNWA, along with the City of Henderson, Clark County Water Reclamation District, City of Las Vegas, Clark County, and the Clark County Regional Flood Control District, has entered into an interlocal agreement establishing funding for annual operations of the Las Vegas Wash. Each participant will be billed for budgeted costs according to the interlocal agreement. The program fees of \$0.4 million are projected to remain relatively flat in fiscal year 2019-20 as compared to the 2018-19 Adopted Budget Plan.

Grant Proceeds.

The SNWA attempts to secure grant monies from federal and state sources to help defray some construction, research, and operation costs. These proceeds are expected to be \$0.3 million in fiscal year 2019-20. This is a decrease of \$0.1 million compared to the 2018-19 Adopted Budget Plan.

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Other Sources.

Other sources are projected to be \$5.5 million, which is slightly higher (one percent) than the fiscal year 2018-19 Adopted Budget Plan.

Debt Issuance Proceeds.

The SNWA is not projected to issue any new money debt in 2019-20.

Uses

The fiscal year 2019-20 Budget Plan's total uses of funds are projected to be \$619.8 million, a six percent decrease compared to the 2018-19 Adopted Budget Plan. The uses decreased from the prior year due to projected reductions in water resource investments and capital expenditures; these were partially offset by increases in payroll and related, and operating expenses.

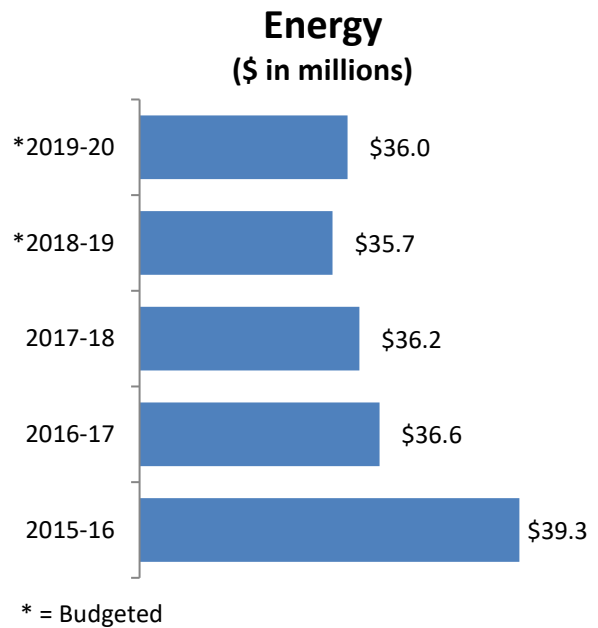
Water Resource Investments.

Southern Nevada obtains 90 percent of its water supply from the Colorado River. Since the year 2000, persistent drought conditions, the worst in the Colorado River Basin's recorded history, have affected supply and forced stakeholders and the community to change the way water is utilized in Southern Nevada. Because of long-standing community conservation practices, Southern Nevada finds itself in a position in which water demands would still be met, even under a shortage declaration. Moreover, investments made in the regional water system will help the SNWA reliably deliver water even during the most severe drought conditions. The 2019-20 Budget plan reflects these investments, which are expected to be \$13.9 million, a \$5.1 million decrease compared to

the 2018-19 Adopted Budget Plan. The decrease is due to retaining more water in Lake Mead rather than expending money to bank water with the State of Arizona.

Energy.

Treating raw water from Lake Mead and delivering it to the Las Vegas area is energy intensive. The cost of energy for fiscal year 2019-20 is projected to increase \$0.3 million (one percent) over the fiscal year 2018-19 Adopted Budget Plan. This increase is primarily due to slight rate and usage fluctuations.

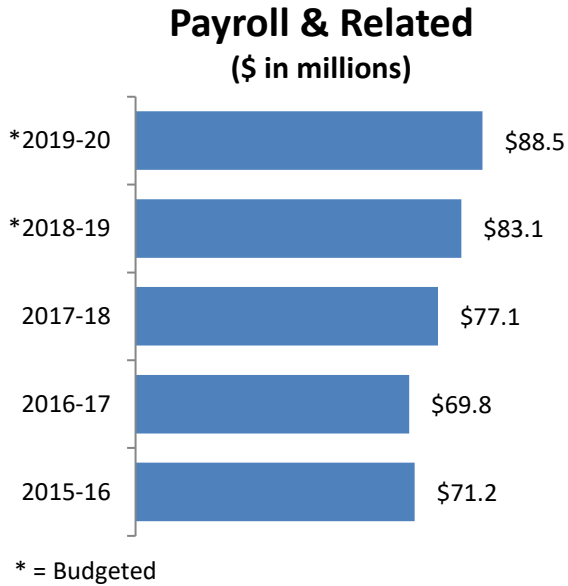


Payroll & Related.

The SNWA does not have any employees. As described in the introduction section of this budget document, the Las Vegas Valley Water District (LVVWD) is the operating agent for the SNWA. A significant portion of the SNWA's operating expenses, including payroll costs, are initially paid by the LVVWD and then reimbursed by the SNWA. Payroll

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and related includes wages, salaries and benefits. For fiscal year 2019-20, payroll and related expenses are anticipated to be \$88.5 million. This represents an increase of \$5.4 million, or seven percent, compared to the 2018-19 Adopted Budget Plan.



Full-time equivalent (FTE) is a unit of measurement which represents the workload of one full-time employed person. The SNWA’s FTE count is expected to increase by approximately three employees over the fiscal year 2018-19 Adopted Budget Plan. Demands to secure and protect water resources, ensure efficient use of existing resources, and provide a safe and reliable water supply under current operational conditions has resulted in increased staffing requirements for the SNWA. The following chart summarizes the number of equivalent FTE positions by department charging time to the SNWA.

FTE Summary

<u>Department</u>	<u>Actual</u> <u>2017-18</u>	<u>Budget</u> <u>2018-19</u>	<u>Budget</u> <u>2019-20</u>
Executive Management	5.4	5.5	5.5
Legal Services	7.4	8.5	8.5
Finance	18.8	15.3	14.7
Information Technology	34.1	40.1	42.0
Human Resources	2.2	4.6	4.4
Public Services	34.3	39.8	38.8
Environmental, Health, Safety & Corporate Security	32.7	28.6	31.2
Customer Care & Field Services	3.0	2.9	3.1
Engineering	24.7	23.3	20.8
Resources & Facilities	65.8	78.9	78.5
Infrastructure Management	20.7	23.6	24.6
Water Resources	38.8	40.5	40.6
Energy Management	5.6	6.0	6.0
Operations	55.1	57.3	58.7
Water Quality & Treatment	81.5	86.4	86.4
Total	430.1	460.8	463.7

**Totals may be off slightly due to rounding*

Operating Expenses.

Operating expenses include all normal operating costs of the SNWA except energy, payroll and related, capitalized expenditures, and debt service, which are presented separately. Examples include, but are not limited to, materials and supplies, maintenance and repairs, rental and leases, water treatment chemicals, research and studies, legal fees, and office supplies. Operating expenses are projected to increase \$6.4 million (nine percent) as compared to the 2018-19 Adopted Budget Plan. The rise in operating expenses is due to increased operation and maintenance costs, including increased conservation efforts and an organizational shift to more “cloud-based” software solutions.

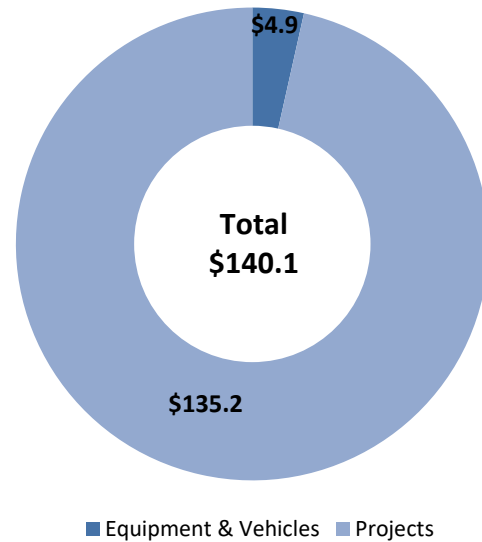
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Capital Expenditures.

Capital expenditures are projected to decrease \$48.1 million (26 percent), compared to the fiscal year 2018-19 Adopted Budget Plan. The decrease is largely due to the Low Lake Level Pumping Station (L3PS) project nearing completion.

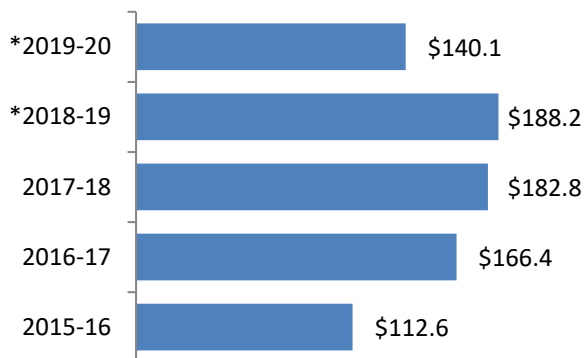
Capital expenditures are different from operating expenses in that they are generally related to assets and those assets have useful lives extending beyond three years and surpass an internally established dollar threshold. Typically, capital expenditures of the SNWA are related to infrastructure assets, but can be related to water rights. Examples include, but are not limited to, construction of water treatment and distribution infrastructure, water resource acquisitions, vehicles, and some computer equipment.

**Capital Expenditures in
 Fiscal Year 2019-20 Budget Plan**
 (\$ in millions)



The capital projects are generally accounted for in the SNWA's two approved capital improvement plans (CIP):

Capital Expenditures
 (\$ in millions)



* = Budgeted

The majority of the SNWA's capital expenditures are project related.

- **Major Construction and Capital Plan (MCCP)** - The projects of this CIP are mainly for the water treatment and delivery infrastructure or the acquisition and retention of water resources. It is funded primarily with publicly issued municipal debt.
- **Las Vegas Wash Capital Plan** - The projects of this CIP are related to the improvement of the Las Vegas Wash. It is funded primarily with sales tax proceeds.

The following is a brief description of the most significant MCCP project:

- **Intake No.3 Project (L3PS)** - The construction of a 900 million gallons per day L3PS continues in order to eventually convey water from the Intake No. 3

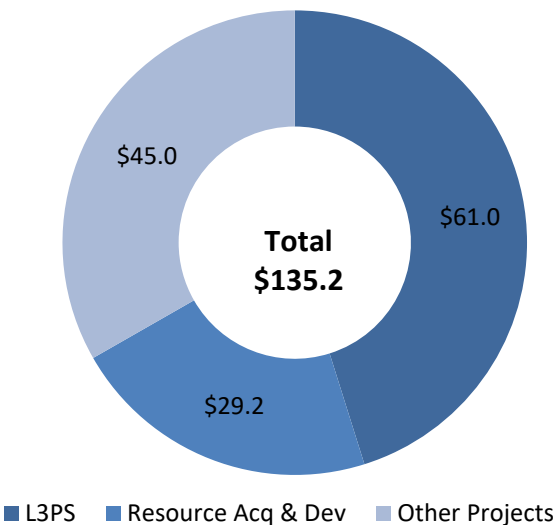
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tunnel to the existing treatment facilities, 600 million gallons per day (MGD) to the Alfred Merritt Smith Water Treatment Facility and 300 MGD to the River Mountains Water Treatment Facility. The L3PS will function to replace the lost capacities of the existing Intake Pumping Stations No. 1 and No. 2 in the event of extremely low lake levels. The design and construction costs for this project are estimated to be approximately \$650 million and is scheduled to be completed in 2020. The fiscal year 2019-20 Budget Plan includes \$61.0 million to be spent on this project.

two major reasons – 1) to ensure end users have a reliable, consistent source of water and 2) to deliver that water in the most economical manner possible.

The construction of major capital items fits into an overall goal of system reliability and efficiency. Unlike other government agencies that can highlight a park, school, or street, for example, and immediately determine possible maintenance and operating costs, the capital items for a water utility affect the coordination of the entire water system. An increase in costs for one section of the project may cause a reduction in another connected portion. The SNWA’s capital projects utilize state of the art diagnostic equipment and testing procedures which significantly reduce the risk of catastrophic failures and help to minimize routine operating costs. Additionally, the SNWA utilizes internal cost controls to ensure funds are spent in the most conscientious manner. However, even with comprehensive controls such as these, estimating long range costs, especially in current financial conditions, can be a challenge.

**Capital Projects in
 Fiscal Year 2019-20 Budget Plan
 (\$ in millions)**



Periodically, the SNWA pays for capital costs on a pay-as-you-go basis, attempting to minimize financing costs for these capital expenditures, while maintaining financial stability. Projecting long term additional expenses of future capital projects, including the ones described above, is tenuous at best. Capital projects are typically instituted for

Debt Service.

This reflects all outstanding debt of the SNWA. For more detail on the SNWA’s outstanding debt, see the Debt Management Policy, which is section seven of this budget document.

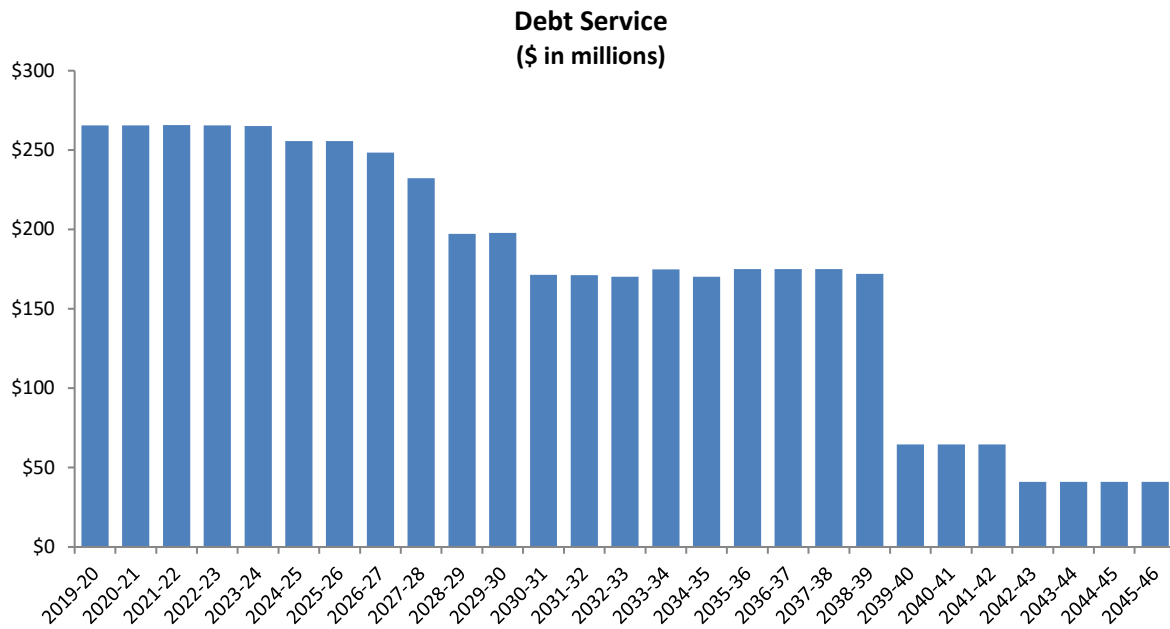
The Las Vegas area has experienced extraordinary population growth since the SNWA’s inception in 1991. The vast majority of the SNWA’s outstanding debt was necessary to fund infrastructure projects to support such extraordinary population growth. During the recession of the late 2000’s, population growth slowed and the

Southern Nevada Water Authority
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SNWA took actions to provide cash flow relief. For example, the SNWA postponed various capital projects and took advantage of historically low borrowing costs to refinance debt.

As the following chart illustrates, the existing debt service is projected to be relatively stable for approximately the next five years, then decline over subsequent years.

Debt service payments are anticipated to decrease \$1.0 million compared to the 2018-19 Adopted Budget Plan.



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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 SNWA accounts for its Net Assets in accordance with GASB Statement 33. The following table summarizes the estimated sources and uses of funds and changes in net assets for the fiscal year 2019-20 Budget Plan.

Estimated Net Assets Detail
Fiscal Year 2019-20 Budget

	Invested in Capital Assets Net of Related Debt	Restricted	Unrestricted	Total Net Assets
Estimated Net Position on June 30, 2019	\$ 1,143,854,978	\$ 275,749,918	\$ 707,143,612	\$ 2,126,748,508
<i>From Revenues, Expenses, and Net Income Schedule (RENI), Page 4-5</i>				
Operating Revenue	\$ -	\$ -	\$ 155,319,163	\$ 155,319,163
Capital Contributions	-	67,892,491	312,305,049	380,197,540
Interest Earned	-	-	8,783,271	8,783,271
Payroll and Related Energy	-	-	(88,513,090)	(88,513,090)
Operating Expenses	-	-	(89,581,836)	(89,581,836)
Depreciation Expense	(140,000,000)	-	-	(140,000,000)
Interest Expense (Debt Service)	121,605,486	-	(265,578,019)	(143,972,533)
<i>Subtotal from RENI</i>	<u>\$ (18,394,514)</u>	<u>\$ 67,892,491</u>	<u>\$ (3,278,250)</u>	<u>\$ 46,219,727</u>
<i>Items not on RENI</i>				
Capitalized Expenditures	\$ 140,095,748	\$ (140,095,748)	\$ -	\$ -
Debt Issuance Proceeds	-	-	-	-
<i>Subtotal Items not on RENI</i>	<u>\$ 140,095,748</u>	<u>\$ (140,095,748)</u>	<u>\$ -</u>	<u>\$ -</u>
Estimated Net Position on June 30, 2020	<u><u>\$ 1,265,556,212</u></u>	<u><u>\$ 203,546,661</u></u>	<u><u>\$ 703,865,362</u></u>	<u><u>\$ 2,172,968,235</u></u>

Southern Nevada Water Authority
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Sub Funds

According to Generally Accepted Accounting Principles (GAAP), governmental entities use fund-based accounting. As a governmental entity, the SNWA accounts for its financial activities in a single enterprise fund. However, the SNWA utilizes sub funds for internal tracking purposes.

and Las Vegas Wash Operating sub fund are small in terms of activity and dollars, they are typically combined into one sub fund for budgeting purposes. Therefore, the SNWA budget presents only five sub funds. Three are classified as capital sub funds while two are operating sub funds. The following table presents the five sub funds, which are described after the table.

The SNWA maintains six sub funds. Since both the Las Vegas Wash Capital sub fund

Budget Summary by Sub Fund
Fiscal Year 2019-20

	Operating Sub Funds		Capital Sub Funds			Total
	Wholesale Delivery Operations	Groundwater Management Plan	New Expansion Debt Service	Major Capital & Construction Plan	Las Vegas Wash	
Sources						
Wholesale Delivery Charge	\$148,499,845	\$ -	\$ -	\$ -	\$ -	\$ 148,499,845
Infrastructure Charge	-	-	163,397,958	-	-	163,397,958
Commodity Charge	-	-	71,754,479	-	-	71,754,479
Connection Charge	-	-	71,280,690	-	-	71,280,690
Reliability Surcharge	-	-	5,871,922	-	-	5,871,922
Sales Tax	-	-	63,198,979	-	4,393,512	67,592,491
Investment Income	175,665	-	4,215,970	4,365,286	26,350	8,783,271
Groundwater Management Fee:	-	894,208	-	-	-	894,208
LV Wash Program Fees	(642,762)	-	-	-	1,086,625	443,863
Grant Proceeds	-	-	-	300,000	-	300,000
Other Revenues	1,057,310	-	4,039,937	72,000	312,000	5,481,247
Subtotal	\$149,090,058	\$ 894,208	\$383,759,935	\$ 4,737,286	\$ 5,818,487	\$ 544,299,974
Debt Issuance Proceeds	-	-	-	-	-	-
Total Sources	\$149,090,058	\$ 894,208	\$383,759,935	\$ 4,737,286	\$ 5,818,487	\$ 544,299,974
Uses						
Water Resource Investments	\$ -	\$ -	\$ 13,904,000	\$ -	\$ -	13,904,000
Energy	36,012,788	-	-	-	-	36,012,788
Payroll & Related	65,637,908	80,003	18,737,554	3,352,665	704,960	88,513,090
Operating Expenses	49,132,852	793,500	25,133,534	-	617,950	75,677,836
Capital Expenditures	-	-	1,892,000	133,203,748	5,000,000	140,095,748
Debt Service	-	-	265,578,019	-	-	265,578,019
Total Uses	\$150,783,548	\$ 873,503	\$325,245,107	\$ 136,556,413	\$ 6,322,910	\$ 619,781,481
Total Net Surplus/(Deficit)	\$ (1,693,490)	\$ 20,705	\$ 58,514,828	\$ (131,819,127)	\$ (504,423)	\$ (75,481,507)

Southern Nevada Water Authority
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Operating Sub Funds.

Wholesale Delivery Operations sub fund. This sub fund accounts for the sources and uses of funds related to the SNWA's primary operations, which is the treatment and delivery of potable water to its members. Other activities include the research and study of water quality issues in support of the overall water industry.

Groundwater Management Program sub fund. This sub fund accounts for the sources and uses of funds related to the SNWA's groundwater management program. In 1997, the Nevada Legislature directed the SNWA to develop a Groundwater Management Program to protect and manage the Las Vegas area's primary groundwater supply. The program protects the local groundwater basin from over-drafting and potential sources of contamination.

Capital Sub Funds.

New Expansion Debt Service sub fund. The primary purpose of this sub fund is to account for the majority of the SNWA's debt service and funds received to support those debt service payments. Other expenses include non-turf rebate conservation costs, northern resources costs, non-engineering capitalized labor in support of the MCCP, and some pay-as-you-go capital expenditures.

Major Construction and Capital Plan sub fund. This sub fund accounts for proceeds of debt issued to support the MCCP and capital expenditures related to the MCCP.

Las Vegas Wash sub fund. This sub fund is two small sub funds combined into one for budget presentation purposes. They are the Las Vegas Wash Capital sub fund and the Las Vegas Wash Operating sub fund. The major function of this sub fund is to pay for costs of the Las Vegas Wash. This sub fund tracks capital and operational revenues and expenses pertaining to the Las Vegas Wash.

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SECTION 4

STATE OF NEVADA

BUDGET DOCUMENTS

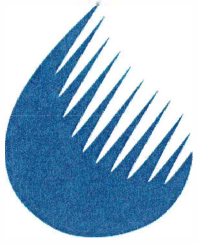
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SOUTHERN NEVADA WATER AUTHORITY™

FISCAL YEAR 2019-20

OPERATING AND CAPITAL BUDGET



SOUTHERN NEVADA WATER AUTHORITY™

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

Southern Nevada Water Authority herewith submits the (TENTATIVE) --- **(FINAL)** budget for the fiscal year ending June 30, 2020

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

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

This budget contains 0 governmental fund types with estimated expenditures of \$ 0 and 1 proprietary funds with estimated expenses of \$ 498,080,247

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: 5/23/19

APPROVED BY THE GOVERNING BOARD

Marilyn K. Kirkpatrick, Chair *Marilyn K. Kirkpatrick*

Bob Coffin, Vice Chair *Bob Coffin*

Scott Black *Scott Black*

James B. Gibson *James B. Gibson*

Justin Jones *Justin Jones*

Peggy Leavitt *Peggy Leavitt*

John F. Marz *John F. Marz*

SCHEDULED PUBLIC HEARING:

Date and Time: Thursday May 23, 2019 1:00 PM

Publication Date: May 10, 2019

Place: Molasky Corporate Center, 100 City Parkway, Suite 700, Las Vegas, NV

**SOUTHERN NEVADA WATER AUTHORITY
BUDGET DOCUMENT INDEX**

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III PROPRIETARY FUNDS

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FULL TIME EQUIVALENT EMPLOYEES BY FUNCTION

	ACTUAL PRIOR YEAR ENDING 06/30/18	ESTIMATED CURRENT YEAR ENDING 06/30/19	BUDGET YEAR ENDING 06/30/20
General Government			
Judicial			
Public Safety			
Public Works			
Sanitation			
Health			
Welfare			
Culture and Recreation			
Community Support			
TOTAL GENERAL GOVERNMENT			
Utilities	430.1	460.8	463.7
Hospitals			
Transit Systems			
Airports			
Other			
TOTAL			

POPULATION (AS OF JULY 1)	2,228,618	2,262,047	2,316,336
SOURCE OF POPULATION ESTIMATE*	NV Dept. of Taxation (https://tax.nv.gov/) Publications, Population Statistics & Reports	Population Statistics & Reports Figure Increased by Demographer's annual % increase projection for Clark County	
Assessed Valuation (Secured and Unsecured Only)			
Net Proceeds of Mines			
TOTAL ASSESSED VALUE			
TAX RATE			
General Fund			
Special Revenue Funds			
Capital Projects Funds			
Debt Service Funds			
Enterprise Fund			
Other			
TOTAL TAX RATE			

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

Southern Nevada Water Authority
(Local Government)

SCHEDULE S-2 - STATISTICAL DATA

PROPRIETARY FUND	(1)	(2)	(3) (4) BUDGET YEAR ENDING 06/30/20	
	ACTUAL PRIOR YEAR ENDING 6/30/2018	ESTIMATED CURRENT YEAR ENDING 6/30/2019	TENTATIVE APPROVED	FINAL APPROVED
OPERATING REVENUE				
Wholesale Delivery Charge	\$ 134,480,919	\$ 141,151,263	\$ 148,499,845	\$ 148,499,845
Groundwater Management Fees	878,647	896,494	894,208	894,208
Administration Costs Recoveries	695,443	712,323	1,057,310	1,057,310
Las Vegas Wash Program Fees	429,845	426,040	443,863	443,863
Other Revenues	5,261,653	4,724,043	4,423,937	4,423,937
Total Operating Revenue	\$ 141,746,507	\$ 147,910,163	\$ 155,319,163	\$ 155,319,163
OPERATING EXPENSE				
Energy	36,244,051	35,727,002	36,012,788	36,012,788
Payroll and Related	73,687,225	62,920,299	88,513,090	88,513,090
Operating Expenses	58,603,874	88,280,645	89,581,836	89,581,836
Depreciation/Amortization	109,196,145	130,000,000	140,000,000	140,000,000
Total Operating Expense	\$ 277,731,295	\$ 316,927,946	\$ 354,107,714	\$ 354,107,714
Operating Income or (Loss)	\$ (135,984,788)	\$ (169,017,783)	\$ (198,788,551)	\$ (198,788,551)
NONOPERATING REVENUES				
Investment Income	1,722,807	2,958,035	8,783,271	8,783,271
Capital Contributions	381,402,434	362,173,436	380,197,540	380,197,540
Amortization of Bond Premiums & Discounts	20,063,488	-		
Other	288,832	-		
Total Nonoperating Revenues	\$ 403,477,561	\$ 365,131,471	\$ 388,980,811	\$ 388,980,811
NONOPERATING EXPENSES				
Interest Expense	\$ 105,825,457	\$ 129,379,325	\$ 143,972,533	\$ 143,972,533
Amortization of Refunding Costs	4,092,768			
Bond Issue & Commercial Paper Costs	2,018,097			
Total Nonoperating Expenses	\$ 111,936,322	\$ 129,379,325	\$ 143,972,533	\$ 143,972,533
Net Income before Operating Transfers	\$ 155,556,451	\$ 66,734,364	\$ 46,219,727	\$ 46,219,727
Transfers (Schedule T)				
In				
Out				
Net Operating Transfers				
CHANGE IN NET POSITION	\$ 155,556,451	\$ 66,734,364	\$ 46,219,727	\$ 46,219,727

Southern Nevada Water Authority
(Local Government)

SCHEDULE F-1 REVENUES, EXPENSES AND NET POSITION

FUND Enterprise

Page: 5
Schedule F-1

PROPRIETARY FUND	(1)	(2)	(3) (4) BUDGET YEAR ENDING 06/30/20	
	ACTUAL PRIOR YEAR ENDING 6/30/2018	ESTIMATED CURRENT YEAR ENDING 6/30/2019	TENTATIVE APPROVED	FINAL APPROVED
A. CASH FLOWS FROM OPERATING ACTIVITIES:				
General and Administrative / Resources Charges	\$ 3,035,000	\$ 712,323	\$ 1,057,310	\$ 1,057,310
Groundwater Management Fees	878,647	896,494	894,208	894,208
Las Vegas Wash Program Fees	429,845	426,040	443,863	443,863
Wholesale Delivery Charge	134,350,122	141,151,263	148,499,845	148,499,845
Other Revenues	2,684,995	4,724,043	4,423,937	4,423,937
Cash Payments to Suppliers of Goods and Services	(118,515,167)	(186,927,946)	(214,107,714)	(214,107,714)
a. Net cash provided by (or used for) operating activities	\$ 22,863,442	\$ (39,017,783)	\$ (58,788,551)	\$ (58,788,551)
B. CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:				
b. Net cash provided by (or used for) noncapital financing activities	\$ -	\$ -	\$ -	\$ -
C. CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:				
Purchase or Construction of Capital Assets	\$ (162,353,653)	\$ (208,404,905)	\$ (140,095,748)	\$ (140,095,748)
Proceeds from Disposal of Property and Equipment	291,032	-	-	-
Proceeds of Debt Issuance	-	-	-	-
Principal Paid on Debt	(112,089,439)	(116,524,074)	(121,605,486)	(121,605,486)
Interest Paid on Debt	(147,120,656)	(150,087,551)	(143,972,533)	(143,972,533)
Interest Rebate	2,088,891	-	-	-
Capital Contributions	347,508,025	362,173,436	380,197,540	380,197,540
Other Cash Payments			(36,000,000)	(36,000,000)
c. Net cash provided by (or used for) capital and related financing activities	\$ (71,675,800)	\$ (112,843,094)	\$ (61,476,227)	\$ (61,476,227)
D. CASH FLOWS FROM INVESTING ACTIVITIES:				
Purchases of Investment Securities	\$ (856,929,242)	\$ (1,286,905,059)	\$ (878,956,549)	\$ (878,956,549)
Proceeds from Sales or Maturities of Investment Securities	888,752,050	1,399,376,082	1,024,765,727	1,024,765,727
Investment Income	10,444,322	5,880,785	8,783,271	8,783,271
d. Net cash provided by (or used in) investing activities	\$ 42,267,130	\$ 118,351,807	\$ 154,592,450	\$ 154,592,450
NET INCREASE (DECREASE) in cash and cash equivalents (a+b+c+d)	\$ (6,545,228)	\$ (33,509,069)	\$ 34,327,672	\$ 34,327,672
CASH AND CASH EQUIVALENTS AT JULY 1, 20xx	\$ 26,335,125	\$ 19,789,897	\$ (13,719,172)	\$ (13,719,172)
CASH AND CASH EQUIVALENTS AT JUNE 30, 20xx	\$ 19,789,897	\$ (13,719,172)	\$ 20,608,500	\$ 20,608,500

Southern Nevada Water Authority
(Local Government)

SCHEDULE F-2 STATEMENT OF CASH FLOWS

FUND ENTERPRISE

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

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

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) (10)		(11)
NAME OF BOND OR LOAN List and Subtotal By Fund	*	TERM	ORIGINAL AMOUNT OF ISSUE	ISSUE DATE	FINAL PAYMENT DATE	INTEREST RATE	BEGINNING OUTSTANDING BALANCE 7/1/2019	INTEREST PAYABLE	REQUIREMENTS FOR FISCAL YEAR ENDING 06/30/20 PRINCIPAL PAYABLE	(9)+(10) TOTAL
FUND										
Nevada Drinking Water State Revolving Fund Loan 1	2	20 Years	\$ 12,269,695	12/30/1999	2/1/2020	3.61%	\$ 843,750	\$ 22,913	\$ 843,750	\$ 866,663
Nevada Drinking Water State Revolving Fund Loan 2	2	20 Years	10,000,000	6/29/2001	8/1/2021	3.46%	1,655,453	51,746	645,196	696,941
LVVWD Commercial Paper	2	N/A	400,000,000	3/10/2004	N/A	Variable	400,000,000	10,580,000	-	10,580,000
Clark County 1106 Refunding Bonds	2	30 Years	604,140,000	11/2/2006	11/1/2036	2.5% - 5.00%	69,545,000	1,965,425	-	1,965,425
SNWA Renewable Energy 2008 Bonds	2	14 Years	6,900,000	7/30/2008	12/15/2022	1.17%	1,840,000	18,837	460,000	478,837
Clark County 2009 Refunding Bonds	2	20 Years	50,000,000	10/22/2009	6/1/2030	5.00%	35,525,000	1,776,250	2,500,000	4,276,250
State of Nevada 2009 Bonds	2	21 Years	2,214,457	10/22/2009	7/1/2029	0.00%	1,328,674	-	126,540	126,540
State of Nevada 2010B Refunding Bonds	2	10 Years	7,405,000	6/24/2010	6/1/2020	3.70%	1,175,000	43,416	1,175,000	1,218,416
LVVWD 2011A Refunding Bonds	2	15 Years	58,110,000	5/24/2011	6/1/2026	3.05% - 5.43%	40,050,000	2,007,219	4,950,000	6,957,219
LVVWD 2011B Refunding Bonds	2	16 Years	129,650,000	10/19/2011	6/1/2027	2.79% - 4.96%	91,180,000	4,013,315	10,490,000	14,503,315
LVVWD 2011C Refunding Bonds	2	26 Years	267,815,000	10/19/2011	6/1/2038	2.0% - 5.0%	198,945,000	9,962,963	11,710,000	21,672,963
Clark County 2012 Refunding Bonds	2	20 Years	85,015,000	6/20/2012	6/1/2032	4.0% - 5.0%	79,515,000	3,180,600	-	3,180,600
LVVWD 2012B Bonds	2	30 Years	360,000,000	7/31/2012	6/1/2042	3.0% - 5.0%	324,520,000	15,551,450	8,055,000	23,606,450
State of Nevada 2013 Refunding Bonds	2	15 Years	21,720,000	2/20/2013	8/1/2027	3.0%	21,720,000	651,600	-	651,600
LVVWD 2015 Refunding Bonds	2	24 Years	332,405,000	1/13/2015	6/1/2039	4.0% - 5.0%	332,405,000	16,370,250	-	16,370,250
LVVWD 2015B Refunding Bonds	2	12 Years	177,635,000	6/1/2015	6/1/2028	4.0% - 5.0%	144,115,000	6,900,375	12,215,000	19,115,375
LVVWD 2015C Refunding Bonds	2	14 Years	42,125,000	6/18/2015	9/15/2029	3.0% - 5.0%	33,920,000	1,594,875	2,960,000	4,554,875
Clark County 2016A Refunding Bonds	2	14 Years	263,955,000	3/3/2016	11/1/2029	4.5% - 5.0%	202,400,000	9,476,125	25,755,000	35,231,125
LVVWD 2016A Bonds	2	30 Years	497,785,000	4/6/2016	6/1/2046	3.0% - 5.0%	469,215,000	23,303,850	12,470,000	35,773,850
Clark County 2016B Refunding Bonds	2	18 Years	271,670,000	8/3/2016	11/1/2034	4.0% - 5.0%	263,920,000	12,586,350	4,160,000	16,746,350
LVVWD 2017B Refunding Bonds	2	15 Years	22,115,000	3/14/2017	6/1/2032	4.0% - 5.0%	22,115,000	1,027,125	1,605,000	2,632,125
Clark County 2017 Refunding Bonds	2	21 Years	321,640,000	3/22/2017	6/1/2038	4.0% - 5.0%	311,730,000	13,947,100	10,405,000	24,352,100
LVVWD 2018B Bonds	2	8 Years	79,085,000	3/6/2018	6/1/2026	4.25% - 5.0%	70,840,000	3,542,000	8,665,000	12,207,000
LVVWD 2019A Refunding Bonds	2	20 Years	107,975,000	2/1/2019	6/1/2039	5.0%	107,975,000	5,398,750	2,415,000	7,813,750
TOTAL ALL DEBT SERVICE							\$ 3,226,477,877	\$ 143,972,533	\$ 121,605,486	\$ 265,578,019

SCHEDULE C-1 - INDEBTEDNESS

Southern Nevada Water Authority Budget Fiscal Year 2019-2020
(Local Government)

SCHEDULE OF EXISTING CONTRACTS
Budget Year 2019 - 2020

Local Government: Southern Nevada Water Authority
Contact: E. Kevin Bethel
E-mail Address: kevin.bethel@lvvwd.com
Daytime Telephone: 702-822-8809

Total Number of Existing Contracts: 218

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2019-20	Proposed Expenditure FY 2020-21	Reason or need for contract:
1	A Track-Out Solution LLC	09/01/16	08/31/19	\$ 10,037	\$ -	Dumpster Services For SNWA
2	Abrarix LLC	09/10/18	09/09/19	5,000		Lab Equip. Main. Agreement
3	Accurate Corrosion Control Inc	12/31/18	12/31/18	14,925	-	Stray Current Testing Services
4	Advanced Telemetry Systems	07/01/18	06/30/23	11,219	10,000	Cattle Tracking Collar Services
5	Agilent Technologies	04/01/18	03/31/19	126,983	-	Service Agreement For Lab Equipment
6	Alliance For Water Efficiency	06/22/17	04/30/20	100,000	100,000	Water Use Consulting Services
7	Allied Universal Security Services	03/07/17	2/29/22	384,893	400,000	Security Services
8	Am Quip DBA American Equip.	08/28/18	02/28/19	249,008	-	Hacienda Rofcs Crane & Monorails
9	Ankura Consulting Group LLC	12/31/18	12/31/18	35,600	-	IT Continuity Of Operations Planning Services
10	Anzalone Pumps Inc	04/12/18	04/11/23	250,000	250,000	Irrigation Well Maintenance
11	Anzalone Pumps Inc	07/31/18	08/30/23	100,000	100,000	On-Call Well & Pump Systems Maintenance & Repair Svcs
12	Argus Engineering	07/01/15	06/30/20	130,000	130,000	Eng. Svc. To Support Control Systems
13	Arizona Machinery LLC	01/01/16	12/31/23	30,000	30,000	John Deere Repair Parts And Service For GB Ranches
14	Arrowood, Raleigh	12/31/18	12/31/18	30,863	-	Gmp Well Conversion Reimbursement
15	Artel	04/01/18	03/31/19	1,350	1,350	Service Agreement For Lab Equipment
16	Association Of Metropolitan Water Agencies	01/01/18	12/31/21	59,912	59,912	AMWA Administrative Support Services
17	Association Of Metropolitan Water Agencies	01/03/19	12/31/20	100,000	100,000	Water Utility Climate Alliance Support
18	Aveva Software LLC	01/01/19	12/31/25	300,000	300,000	Software Maintenance And Technical Services
19	B&W Trucking	01/01/16	12/31/23	24,000	24,000	Transportation Services For Livestock And Agricultural Products
20	Basin Engineering	12/31/18	12/31/18	10,830	-	Engineering Design Services
21	Beckman Coulter, Inc.	01/01/19	12/31/19	20,136	10,262	Lab Equipment Maintenance
22	Biolog, Inc.	01/03/19	01/02/20	2,900	2,900	Lab Equipment Maintenance
23	Blackline Systems Inc	12/31/18	12/31/23	71,808	70,000	Blackline Software Subscription Services
24	Boomi Inc	08/02/18	08/01/25	160,000	160,000	Cloud-Base Integration Software And Services
25	Boulder City Disposal Inc	12/31/18	12/31/18	13,699	-	Landfill Disposal Service
26	BSA Environmental Services	07/01/18	06/30/19	35,000		Zooplankton Analysis For Water Quality Div.
27	C&E Fence LLC	07/01/17	06/30/22	49,000	49,000	Fencing Services For Northern Resources
28	Cathy Leece	01/30/18	01/29/23	44,000	44,000	Graphic Designer Services
29	CDW Government	02/01/16	01/31/21	500,000	50,000	Hardware And Software And Maintenance Services
30	Central Arizona Water Conservation District	11/01/18	06/30/20	100,000	100,000	Professional Consulting Services
31	CH2M Hill Engineers	07/01/17	06/30/22	600,000	600,000	Professional Engineering Services
32	Chemware LLC	07/01/18	06/30/25	90,000	90,000	Software Upgrade Services
33	Cherwell Software LLC	12/31/18	12/31/18	32,779	-	Software Renewal Service
34	City Of North Las Vegas	12/31/18	12/31/18	28,199	-	Mobile Home Park Connection Services
35	Clark County	12/31/18	12/31/18	50,150	-	Event Permitting Services
36	Clark County Recorder	12/31/18	12/31/18	63,000	-	Recording Services
37	Cmmcm DBA Muller Construction	07/16/18	07/15/19	186,214	-	Bilco Hatch Project For Snws Forebays
38	Coastline Equipment	12/31/18	12/31/18	10,414	-	Equipment Rental Services
39	Codale Electric Supply	09/26/17	09/25/22	2,000,000	2,000,000	Allen Bradley Variable Frequency Drives
40	Commercial Roofers Inc	12/31/18	12/31/18	26,669	-	Roofing Repairs On Building 7A
41	Community Strategies Inc	12/31/18	12/31/18	112,000	-	Legal Services
42	Condeco Software Inc	04/18/18	04/17/21	97,000	97,000	Software And Implementation Services
43	Construction Product Marketing	12/31/18	12/31/18	13,150	-	Wvl Shutdown Repairs
44	Contri Construction Company	11/28/17	11/28/21	1,000,000	1,000,000	Lateral Repairs Contract
45	Cornerstone Detention Products Inc	08/30/18	02/28/19	66,366	-	Modular Gate Installation As Ams
46	Corporation De L'Ecole Polytechnique	12/31/18	12/31/18	83,606	-	Professional Services In Support Of The WRF
47	Cosco Fire Protection Inc	08/16/18	08/15/23	25,000	25,000	Fire System Upgrades
48	Cosco Fire Protection Inc	12/03/18	12/02/23	75,000	75,000	Fire System Repairs
49	Cosco Fire Protection Inc	08/13/18	08/12/23	100,000	100,000	Fire System Inspection, Testing And Repair Services
50	Creel Printing Company	11/28/16	11/27/21	88,746	88,746	SNWA Water Smart Living Newsletter - Printing Svcs
51	D&G Scales	07/01/17	06/30/22	7,500	7,500	Annual Maintenance And Inspection Of Truck Scale
52	Department Of The Interior	12/31/18	12/31/18	194,598	-	Hydroflow Data Collection
53	Design My Paradise Expert Tree Service LLC	12/31/18	12/31/18	24,174	-	Tree Trimming Services
54	Dielco Crane Service	05/07/18	05/06/23	25,000	25,000	On-Call Crane Services For SNWA
55	Digital Guardian Inc	12/29/16	12/28/21	36,016	-	Software Technical Implementation Services
56	Digital Mapping Inc	02/22/18	12/31/19	80,000	-	Digital Imagery Services
57	Digital Mapping Inc	04/25/18	06/30/21	99,500	99,500	Aerial Imagery Services
58	DLT Solutions LLC	12/31/18	12/31/18	44,303	-	Annual Software Maintenance Renewal

SCHEDULE OF EXISTING CONTRACTS
Budget Year 2019 - 2020

Local Government: Southern Nevada Water Authority
Contact: E. Kevin Bethel
E-mail Address: kevin.bethel@lvvwd.com
Daytime Telephone: 702-822-8809

Total Number of Existing Contracts: 218

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2019-20	Proposed Expenditure FY 2020-21	Reason or need for contract:
59	DMP Expert Tree Service	06/07/18	06/06/23	50,000	50,000	Tree Trimming & Removal Service at Northern Resources
60	Dotson Law Corp.	10/12/16	10/11/21	50,000	25,000	Outside Counsel Litigation Services
61	DP Air Corporation	07/02/18	06/30/22	20,000	20,000	River Mtn HVAC
62	DP Video Productions LLC	04/10/18	04/09/24	17,750	17,750	Develop, Manage & Maintain A Website
63	Dr Lewis Somers	12/31/18	12/31/18	30,817	-	Data Collection Services SNWA
64	Dynamic Graphics Inc (Ca)	12/31/18	12/31/18	19,535	-	Software Maintenance And Technical Services
65	Dyno Plumbing	11/14/18	11/13/23	25,000	25,000	On-Call Plumbing Services SNWA
66	Eagle Drilling Services LLC	12/31/18	12/31/18	221,894	-	Miscellaneous Well Abandonments
67	Ecosynthesis Scientific & Regulatroy Services Inc.	07/10/17	07/09/21	75,000	75,000	Geologic And Biologic Consulting Services
68	Elogger Inc	12/31/18	12/31/18	14,636	-	Software Maintenance And Technical Services
69	Elsevier Inc	12/31/18	12/31/18	11,250	-	Open Access To Published Water Research Article
70	Emcor Services Nevada	07/01/18	06/30/23	15,788	15,788	Chiller Maintenance
71	Environmental Resource Associates	01/03/19	01/03/26	52,000	52,000	Lab Proficiency Testing
72	Environmental Systems Research Institute Inc (Esri)	07/01/16	06/30/21	45,231	46,000	Geographic Information System Software Services
73	Eppendorf North America	08/08/18	08/06/19	2,215	-	Lab Equip. Main. Agreement
74	Eurofins Eaton Analytical	11/01/17	10/31/20	150,000	50,000	Water Sample Analysis Services
75	Executive Information Systems LLC	12/31/18	12/31/18	18,510	-	Software Maintenance And Technical Services
76	Fairchild Shearing LLC	12/31/18	12/31/18	21,275	-	Sheep Shearing Services
77	Faiss Foley Warren	08/01/13	07/31/19	900,000	-	Integrated Communication And Support Services
78	Federal Heath Sign Co.	04/01/16	03/31/21	4,500	4,500	Maintenace Of Outside Lighting/Bbwd
79	Fei Company	12/05/18	12/04/19	29,220	-	Lab Equip. Maint. Agreement
80	Fencing Specialists Inc	06/01/18	05/31/23	25,000	25,000	Fence Repair Services
81	Frazier & Deeter LLC	04/26/18		95,500	-	Accounting And Budget Operations Advisory Services
82	Geohydros LLC	12/31/18	12/31/18	80,579	-	Geologic Modeling Services
83	Geophex Surveys LTD	01/23/19	01/22/21	200,000	200,000	Digital Aerial Imagery Services
84	George T. Hall	05/18/17	06/30/22	300,000	300,000	Prof. Svc. For Automation Projects
85	Geospatial Training Services, LLC	11/08/18	09/30/19	40,000	-	Geospatial Software Training Services
86	Great Basin Bird Observatory	08/28/14	08/27/20	75,073		Avian And Vegetation Monitoring In LV Wash
87	Great Basin Bird Observatroy	10/01/15	06/30/20	43,160		WSNA Bird Surveys
88	Great Basin Institute	12/18/17	10/31/24	99,000	99,000	WSNA Vegetation Control And Docent Staffing
89	Great Basin Institute	12/31/18	12/31/18	58,246	-	Cleaning Crew Services
90	Great Basin Irrigation	01/01/16	12/31/23	40,000	40,000	Irrigation Systems Parts And Maintenance
91	Ground Control Systems Inc	02/01/18	01/31/23	45,391	47,250	Idirect Usage Satellite Internet Service At The Ranches
92	Gunnison Bend Veterinary Services	08/09/17	06/30/22	50,000	50,000	PSA For Veterinary Services At The Ranches.
93	Gust Electric	01/01/19	12/31/23	100,000	100,000	Electrical Supplies, Materials And Related Service For The Ranches
94	Hands On Technology Transfer, Inc.	12/31/18	12/31/18	28,320	-	Software Training Services
95	Harris Las Vegas LLC	08/01/18	07/31/23	25,000	25,000	SNWA Hvac Repair Svcs
96	High Sierra Waterlab	12/01/14	11/30/19	16,667	-	Water Sample Analysis Services
97	Hispana Comucion Integral	03/01/17	02/28/22	86,706	98,000	Spanish Language Support Services
98	Hobbs, Ong & Associates Inc	07/21/16	07/20/21	150,000	150,000	Financial Advice And Debt Management Services
99	Holland And Hart	11/20/08	upon notice	1,500,000	500,000	Legal Services, Environmental Compliance, Water Resources
100	Holland And Hart	08/23/13	08/22/20	100,000	100,000	Legal Services, Energy
101	Horiba Instruments	01/04/19	01/03/20	7,500	-	Lab Equip. Maint. Agreement
102	Horizon Lab Systems LLC	12/31/18	12/31/18	90,340	-	Lab Testing Services
103	Horrocks Engineers Inc	12/31/18	12/31/18	15,800	-	Engineering Design Services
104	HRA Inc.	03/25/18	03/25/19	49,500	-	National Historic Preservation Act Compliance Srvs
105	Illumina	12/31/18	12/31/25	12,231	12,231	Maintenance On Illumina Miseq System Integrated Instrument.
106	Institute For Executive Development	08/29/13	08/28/20	-	-	Development Of Organizational Initiatives
107	Intraworks Inc	12/31/18	12/31/18	30,656	-	Security Cameras And Installation Services
108	IT'LL Gro Inc	12/31/18	12/31/18	20,000	-	Green Waste Recycling Services
109	JA Tiberti Construction Co Inc	12/31/18	12/31/18	29,974	-	Solar House Deck Replacement
110	Jena Antonchuk	04/01/16	03/31/21	45,478	99,000	PSA To Assist Public Services With Outreach Communication

SCHEDULE OF EXISTING CONTRACTS

Budget Year 2019 - 2020

Local Government: Southern Nevada Water Authority

Contact: E. Kevin Bethel

E-mail Address: kevin.bethel@lvvwd.com

Daytime Telephone: 702-822-8809

Total Number of Existing Contracts: 218

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2019-20	Proposed Expenditure FY 2020-21	Reason or need for contract:
111	Joseph Guild & Associates	01/23/19	01/22/26	64,000	64,000	Ranch And Agricultural Consulting Services
112	Joshua Tree Productions	07/01/18	06/30/23	90,000	90,000	Video Production Services
113	KLIR Platform Inc	08/13/18		125,000	-	Environmental Permit Management Software And Technical Services
114	Knight & Leavitt Associates	07/05/17	07/04/20	50,000		Agreement For Desert Tortoise Services
115	Korn Ferry Hay Group, Inc.	07/01/17	06/30/20	100,000	-	Talent Management Services
116	Laguna Production	07/05/18	07/04/23	40,000	40,000	Video Production Services
117	Laguna Production	02/21/17	02/20/22	11,153	93,475	Water Ways TV Show
118	Land View Inc	12/31/18	12/31/18	13,181	-	Hay Tarping Services For Ranches
119	Landscape Specialties Inc	04/04/18	11/03/18	77,630	-	Landscape Maintenance Services
120	Las Vegas Color Graphics	11/28/16	06/30/21	56,077	56,077	SNWA Water Smart Living Newsletter - Mailing Svcs
121	Lawrence Roll-Up Doors Inc	08/20/18	08/19/24	25,000	25,000	Repair Contract
122	Leavitt Enterprises LLC	07/01/18	06/30/23	27,000	27,000	WSNA Handyman Services
123	Legacy Rock	09/01/16	08/31/19	10,000		Materials Such As Soil, Gravel, And Boulders Needed At The WSNA
124	Lewis & Roca	03/22/10	upon notice	100,000	100,000	Legal Services
125	Life Technologies	03/11/18	03/10/19	8,872		Lab Equip. Main. Agreement
126	Loren Purcell DBA Paper Zombies	06/07/18	06/30/24	91,000	91,000	Graphic Design Services
127	Maddaus Water Management	12/17/18	10/01/19	29,950	-	Water Efficiency Auditing Services
128	Malitzlaw Inc	11/06/16	06/30/23	15,000	15,000	Legal Counsel Services
129	March Counsel, LLC	07/01/17	06/30/24	100,000	100,000	Legal Services For Energy Matters
130	Marcus G. Faust PC	07/01/18	06/30/28	150,000	150,000	PSA Governmental Affairs Consulting Services
131	Marcus R Jensen	10/01/16	08/07/20	90,000	-	Professional Engineering Services
132	Market Decisions Corporation	04/01/18	03/31/24	73,310	100,000	Data Collection Services SNWA
133	Master Built Construction	12/10/18	04/30/19	81,950	-	AMS Utility Bldg. Electrical Upgrade
134	Mesa Labs	12/31/18	12/31/18	25,471	-	Software Conversion Services
135	Metropolitan Water District	12/31/18	12/31/18	65,467	-	WUCA Trust Fund Services
136	Miele Professional	04/01/18	03/31/19	1,675		Lab Equip. Maint. Agreement
137	Milestone Microwave Laboratory Sys.	06/06/18	06/05/19	4,000		Lab Equip. Maint. Agreement
138	MMC, Inc.	06/05/18	06/04/23	1,414,000	1,414,000	On-Call Operation & Maint. Support Svcs.
139	Moapa Band Of Paiutes	12/31/18	12/31/18	178,500	-	Surface Water Sublease Agreement
140	Moapa Valley Water District	12/31/18	12/31/18	14,347	-	Moapa System Design
141	Mountain Vet Supply	12/31/18	12/31/18	46,149	-	Veterinary Services
142	Moyle Irrigation	01/01/16	12/31/23	50,000	50,000	Pivot Irrigation System Parts And Maintenance Services For GB Ranches
143	National Park Service	02/01/17	01/31/22	66,125	66,125	Provide Professional Weed Control Services
144	Naturaldry Carpet Cleaning	09/25/18	10/31/23	21,562	47,918	Carpet Cleaning
145	Navigant Consulting Inc	08/10/17	08/10/24	60,000	60,000	Transmission Evaluation Services
146	NDL Group Inc	04/04/18	03/31/23	24,500	24,500	General Contracting Services
147	Nevada Division Of Forestry	01/31/17	01/31/22	50,000	50,000	Inmate Conservation Camp Services
148	Nevada Division Of Forestry	06/07/18	06/06/23	250,000	250,000	NDF Personnel And/Or Conservation Camp Crews Services
149	New Vista Ranch Inc	12/31/18	12/31/18	74,574	-	SNWA Well Conversion - Vista Ranch
150	Nice Systems Inc	12/31/18	12/31/18	19,981	-	Software Support And Maintenance
151	Nv Energy	12/31/18	12/31/18	39,621	-	Luce North Electrical Upgrade Services
152	O'Flarety Plumbing And Heating	01/01/16	12/31/23	35,000	35,000	Plumbing Repair Services For GB Ranches
153	Opportunity Village	04/01/13	03/31/19	18,087	18,087	Shredding And Recycling Services
154	Otis Bay Inc	05/03/18	07/31/18	28,886	-	Refuge Stream Fish Barrier Removal
155	Overton Power District	12/31/18	12/31/18	13,447	-	Power For WSNA
156	Pacific Coast Contracting Svc.	08/15/18	01/31/19	24,990	-	Lab Flooring Replacement
157	Park Landscape Inc DBA PM Landscape	01/28/19	01/31/24	100,000	100,000	Landscape Manintenance Services
158	Parker Hannifin	05/29/18	05/29/19	28,952		Lab Equip. Maint. Agreement
159	Patty A. Emery	05/18/17	05/17/19	24,900		Editorial Services
160	Perkin Elmer Health Sciences Inc	08/01/18	07/31/19	21,204		Lab Equip. Maint. Agreement
161	PFM Asset Management LLC	12/03/18	12/02/20	100,000	50,000	Additional Debt Arbitrage Compliance Services
162	PGAL, LLC	11/12/18	11/11/19	45,680	-	Engineering Services For Projects L0022 & L0023
163	Piercy Bowler Taylor & Kern	03/30/17	03/29/22	47,500	47,500	Authority Auditor Services
164	Plante & Moran PLLC	12/31/18	12/31/18	18,714	-	Purchasing Consolidation Project Consulting Services
165	Power Plus Engineering	03/06/18	03/05/19	24,950		U.P.S. Equipment Maintenance Services

SCHEDULE OF EXISTING CONTRACTS

Budget Year 2019 - 2020

Local Government: Southern Nevada Water Authority

Contact: E. Kevin Bethel

E-mail Address: kevin.bethel@lvvwd.com

Daytime Telephone: 702-822-8809

Total Number of Existing Contracts: 218

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2019-20	Proposed Expenditure FY 2020-21	Reason or need for contract:
166	Purcell Studios Of Art & Design DBA Paper Zombies	06/11/18	06/30/19	29,670	-	Graphic Design Services
167	Pyro Combustion & Controls	11/14/18	11/13/23	25,000	25,000	Boiler PM And Repair Services
168	Qaigen	12/12/18	12/11/25	61,280	61,280	Annual PM Service On Qiasymphony Sp Instrument.
169	R&R Partners	02/14/19	04/08/37	75,000	75,000	Strategic Advice On Natrual Resources, Power & Water Issues That Affect SNWA
170	R&R Partners, Inc	02/01/18	01/30/24	75,000	75,000	SNWA Government Affairs
171	Ranch Advisory Partners	08/01/16	07/31/19	75,000	-	Biological Consulting Services On Grazing Land
172	Rebel Party Rentals	12/31/18	12/31/18	12,048	-	Event Set-Up And Fixture Rental Services
173	Regents Of The University Of California	12/31/18	12/31/18	17,930	-	Climate Change Document Services
174	Reliant Technology LLC	12/31/18	12/31/18	13,591	-	Maintenance Renewal For Reliant Technology Software
175	Rimon Pc	12/31/18	12/31/18	21,103	-	Records Management Services
176	Robin Rockey	07/01/16	06/30/19	94,000	TBD	Media And Event Services
177	Robinson, Steve	10/31/18	10/30/19	58,000	-	Public Services Consulting Service
178	Santoro Whitmire LTD	11/06/18	11/05/25	500,000	500,000	Coyote Spring Valley Legal Services
179	Santoro Whitmire LTD	11/07/18	11/06/25	100,000	100,000	Legal Services
180	Santoro Whitmire LTD	10/02/18	09/30/20	100,000		Legal Counsel Services
181	Sedaru Inc	12/31/18	12/31/18	10,410	-	Assessment Data Collection Service
182	Sharp Bbq LLC	12/31/18	12/31/18	20,350	-	Catering Services For Planting Events
183	Shimadzu Scientific	11/01/18	10/31/19	11,192		Lab R&D Services Agreement
184	Silver State Petroleum Service	12/31/18	12/31/18	19,284	-	Generator Tank Sump And Seal Services
185	Simplot Growing Solutions	10/01/13	10/01/19	50,000	-	Soil Testing Services
186	SO LLC DBA Eagle Promotions	12/31/18	12/31/18	12,381	-	Promotional Printing Services For Biannual Green-Ups
187	Soil Tech, Inc	08/02/16	08/01/21	496,800		Wash Revegetation Services
188	Southern Nevada Environmental (SNEI)	08/09/17	08/08/21	25,000		Environmental Consulting Services For Monitoring, Surveying And Compliance Inspections
189	Spring Valley Associates	01/01/15	01/01/20	1,200,000		Ranch Management
190	Stanka Consulting LTD	01/31/07	upon notice	210,000	210,000	Water Rights Assesments
191	Steve Reagan	01/01/16	12/31/23	35,000	35,000	Veterinary Services For GB Ranches
192	Steve Robinson	11/28/17	11/25/24	58,000	58,000	Consulting Services For Public Services
193	Stinson Leonard Street	01/02/14	06/30/21	-	-	Legal Services
194	Stradling Yocca Carlson & Rauth, P.C.	12/05/17	12/05/24	50,000	50,000	Bond Disclosure Counsel Services
195	T&M Controls	07/24/18	07/23/23	245,000	245,000	Electrical On-Call Services
196	Taggart & Taggart LTD	02/20/03	upon notice	1,000,000	1,000,000	Legal Services Water Resouces
197	Teixeira Cattle Company	12/31/18	12/31/18	27,376	-	Ranch Livestock Services
198	The Law Offices Of Rory Reid	06/21/18	05/31/25	31,000	31,000	Legal Services
199	The Tiberti Fence Company	09/01/16	08/31/22	49,000	49,000	Fence Repairs At WSNA
200	Total-Western, Inc.	07/26/18	07/25/23	100,000	100,000	Miscellaneous Mechanical Services
201	Tree Dr Services	12/31/18	12/31/18	67,600	-	Tree Trimming Servies
202	Tri-County Weed Control	06/25/17	06/24/21	35,000	35,000	Noxious And Invasive Weed Control
203	Tri-County Weed Control	01/10/19	01/09/22	45,000	45,000	Weed Control Services
204	Tri-County Weed Control	03/19/18	03/18/24	50,000	50,000	Noxious And Invasive Weed Control Services
205	United Soil Science	02/22/17	02/21/22	236,636	236,636	Fertilizer Services For The Ranches
206	University Of Colorado, Boulder	01/22/19	12/31/19	308,000		Hydrology And Climate Reporting Development Services
207	University Of Delaware	12/31/18	12/31/18	11,800	-	Specialty Water Chemistry Analysis
208	University Of Nevada-Las Vegas	12/31/18	12/31/18	11,999	-	CBER Agreement AG-7154
209	Upper Colorado River Commission	12/31/18	12/31/18	270,291	-	Mc Cracken Project #20181215W6
210	Utah Division Of Water Resources	11/27/17	09/30/18	66,084	66,084	Weather Modification Program
211	Valbridge Property Advisors	12/31/18	12/31/18	10,000	-	Appraisal For Office
212	WAG Services	06/01/15	06/30/20	49,500		Hay Tarping Services For Ranches
213	Water Research Foundation	12/31/18	12/31/18	15,000	-	Water Research Foundation Project 4642/WRF-17-29
214	Waterstart	12/31/18	12/31/18	30,000	-	Co-Funding For Apana Project
215	Weck Analytical	11/01/17	10/31/20	125,000	41,667	Water Sample Analysis Services
216	Wilmer Cutler Pickering Hale & Dorr LLP	08/30/18	08/29/20	100,000	50,000	Legal Counsel For System-Wide Colorado River Issues
217	Wunderlich-Malec	07/01/17	06/30/22	300,000	300,000	Programming Technical Services
218	Wyoming Water Development Office	11/28/17	12/31/18	100,000		Weather Modification Program
	Total Proposed Expenditures			\$ 24,573,017	\$ 15,029,038	

SCHEDULE OF PRIVATIZATION CONTRACTS

Budget Year 2019 - 2020

Local Government: Southern Nevada Water Authority

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 2019-20	Proposed Expenditure FY 2020-21	Position Class or Grade	Number of FTEs employed by Position Class or Grade	Equivalent hourly wage of FTEs by Position Class or Grade	Reason or need for contract:
1	None									
2										
3										
4										
5										
6										
7										
8	Total									

Attach additional sheets if necessary.

AFFIDAVIT OF PUBLICATION

STATE OF NEVADA)
COUNTY OF CLARK) SS:

**LV WATER DISTRICT
1001 S VALLEY VIEW BLVD
LAS VEGAS NV 89153-0001**

**Account # 22455
Ad Number 0001047035**

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 05/10/2019 to 05/10/2019, on the following days:

05 / 10 / 19

NOTICE IS HEREBY GIVEN

that the Board of Directors of the Southern Nevada Water Authority (SNWA) will hold a Public Hearing on Thursday, May 23, 2019, at the hour of 1:00 p.m. at the SNWA Board Chambers at the Molasky Corporate Center, 100 City Parkway, Suite 700, Las Vegas, NV 89106, on the Tentative Budget and possible adoption of the Final Budget for the fiscal year 2019-20.

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 Las Vegas Valley Water District, 1001 South Valley View Boulevard, Las Vegas, Nevada 89153.

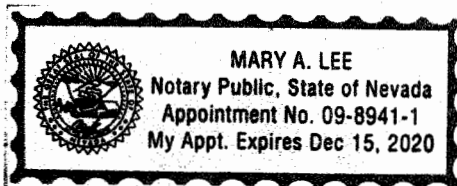
Southern Nevada
Water Authority
PUB: May 10, 2019
LV Review-Journal

Leslie McCormick

 LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 10th day of May, 2019

Notary *Mary A. Lee*





STATE OF NEVADA
DEPARTMENT OF TAXATION

Web Site: <http://tax.nv.gov>
1550 College Parkway, Suite 115
Carson City, Nevada 89706-7937
Phone: (775) 684-2000 Fax: (775) 684-2020

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

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

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

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

June 17, 2019

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

Re: Final Budget – Fiscal Year 2019-2020
Southern Nevada Water Authority

Dear Mr. Bethel:

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

Please be advised the following tax rates will be presented to the Nevada Tax Commission on June 25, 2019 for certification:

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

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

Sincerely,

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

SECTION 5

DEPARTMENT BUDGETS

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SOUTHERN NEVADA WATER AUTHORITY™

FISCAL YEAR 2019-20

OPERATING AND CAPITAL BUDGET

Southern Nevada Water Authority
Operating and Capital Budget
Department Budgets
Fiscal Year Ending June 30, 2020

Department Budgets

This section contains summaries of budgets for each of the Southern Nevada Water Authority's (SNWA) departments. Each department's budget narrative contains detailed budget information and other

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

SNWA
Summary of Department Expenditures

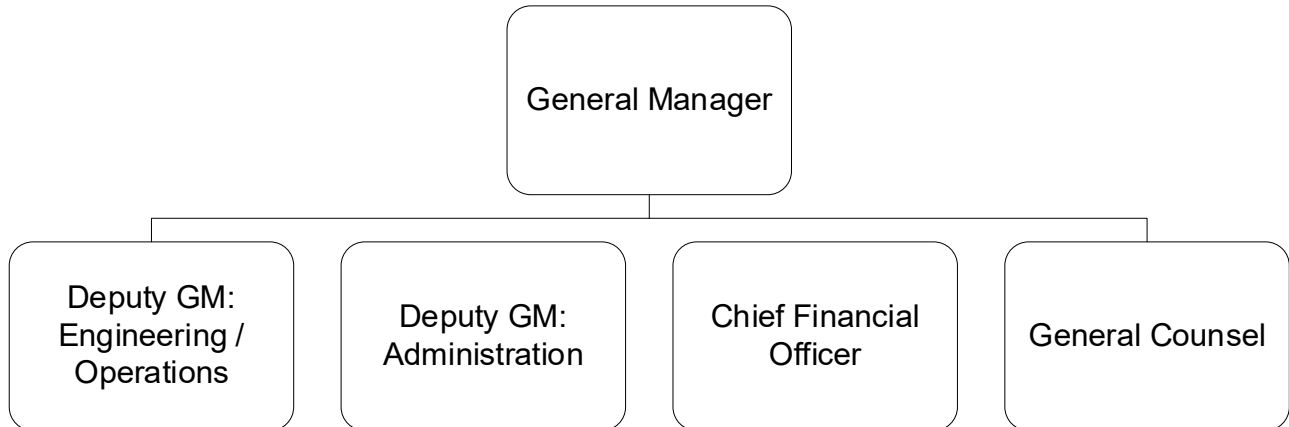
Departments	2017-18 Actual	2018-19 Budget	2019-20 Budget	Budget-to-Budget Variance
Executive Management	\$ 1,469,338	\$ 1,719,356	\$ 1,978,317	\$ 258,961
Legal Services	3,329,523	4,716,733	6,625,128	1,908,395
Finance	23,905,947	11,932,847	11,875,070	(57,777)
Information Technology	11,661,529	16,861,649	19,288,489	2,426,840
Human Resources	365,535	798,881	721,380	(77,501)
Public Services	11,788,605	15,336,156	16,083,803	747,648
Environmental Health Safety & Corporate Security	5,357,053	4,956,707	5,405,598	448,891
Customer Care & Field Services	489,084	440,638	567,684	127,045
Engineering	148,114,793	132,013,674	82,411,133	(49,602,542)
Resources & Facilities	27,644,739	32,984,568	32,587,167	(397,401)
Infrastructure Management	10,924,860	16,976,779	18,064,914	1,088,136
Water Resources	30,537,751	57,590,653	61,838,121	4,247,468
Energy Management	37,511,291	43,096,095	39,321,011	(3,775,084)
Operations	11,935,690	15,283,433	16,215,446	932,013
Water Quality & Treatment	29,732,343	40,624,682	41,220,200	595,518
Total Department Expenditures	\$ 354,768,081	\$ 395,332,851	\$ 354,203,462	\$ (41,129,388)
Debt Service	\$ 259,210,095	\$ 266,611,625	\$ 265,578,019	\$ (1,033,606)
Total Uses of Funds	\$ 613,978,176	\$ 661,944,475	\$ 619,781,481	\$ (42,162,994)

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EXECUTIVE MANAGEMENT

Level: 1000



Mission Statement

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

The Executive Management Team

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

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

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

Southern Nevada Water Authority
Operating and Capital Budget
Department Budgets
Executive Management
 Fiscal Year Ending June 30, 2020

Expenditures

SNWA Uses	Actual 2017-18	Budget 2018-19	Budget 2019-20
Materials & Supplies	\$ 6,920	\$ 30,100	\$ 30,100
Maintenance & Repairs	1,146	100	100
Other Employee Expenses	128,071	190,700	155,700
Other Expenses	120,541	253,740	354,440
Total Operating Expenses	\$ 256,677	\$ 474,640	\$ 540,340
Capital Expenditures	\$ -	\$ -	\$ -
Payroll & Related Costs	\$ 1,212,661	\$ 1,244,716	\$ 1,437,977
Total Department Expenditures	\$ 1,469,338	\$ 1,719,356	\$ 1,978,317
FTE Positions	5.4	5.5	5.5

Major Activities

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

- Continued collaboration with Colorado River partners on conservation programs to help protect Lake Mead water

elevations, including execution of the Lower Basin Drought Contingency Plan.

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

Lower Basin Drought Contingency Plan.

In November 2018, the SNWA Board of Directors authorized the execution of three

Southern Nevada Water Authority
Operating and Capital Budget
Department Budgets
Executive Management
Fiscal Year Ending June 30, 2020

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

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

Conservation Initiatives.

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

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

For example, the SNWA Board of Directors authorized an increase to the Water Smart Landscapes Rebate Program rebate from \$2 to \$3 per square foot to stimulate program participation. As a result, residential landscape conversions and total turf removed have increased by 29 percent and 27 percent, respectively. This is significant, as outdoor water use accounts for 60 percent of the community's water consumption.

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

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

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

Low Lake Level Pumping Station.

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

Workers have recently completed work in the underground forebay, which has now been flooded. Crews will be installing 32 specially-designed submersible pumps with a 900 million-gallon-per-day pumping capacity, which will send water to SNWA's two water treatment facilities. Once complete, L3PS will

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help Southern Nevada maintain reliable access to its primary water supplies even if drought conditions worsen.

LVVWD Capital Improvement Plan.

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

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

- Installation of 11,600 backflow prevention devices on meters throughout the LVVWD's service area. To date, more than 1,580 backflows have been installed.
- Replacement of 1,820 large meters, with 119 meters remaining to be changed out as part of the large meter replacement program.
- Construction of a 10 million-gallon reservoir and associated appurtenances on the western edge of the valley, which will provide additional reliability to existing customers as well as additional capacity and emergency storage for current and future demands in the area.
- Construction of a 5 million-gallon reservoir and pumping station in the northwest corner of the valley, which will transfer storage to the valley's far-western pressure zones and the future Rome 2745 Zone Reservoir.

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

WaterStart.

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

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

Strategic Plan Objectives and Accomplishments

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

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

2019-20 Performance Objectives

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

2018-19 Major Accomplishments

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

- L3PS construction remains on-schedule with forebay construction complete and preparation for submersible pump installation underway.
- Continued progress on asset management, necessary system expansion and water quality compliance projects provided within LVVWD's 10-year Capital Improvement Plan.

Strategic Plan Goal - Deliver an outstanding customer service experience.

2019-20 Performance Objectives

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

2018-19 Major Accomplishments

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

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- In December 2018, the Springs Preserve began offering a combination ticket, providing visitors a more streamlined payment experience and reducing onsite staffing impacts.
- Continued outreach to customers through trickle report letters, which are sent to customers whose meters report constant water use—often the sign of an undiscovered on-site leak.

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

2019-20 Performance Objectives

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

2018-19 Major Accomplishments

- In November 2018, Nevada became the first lower basin state to adopt DCP measures, which require Arizona, California and Nevada to make a series of voluntary water contributions to protect Lake Mead water levels. Ultimately, the completed DCP agreements will be designed to reduce the risk of reaching critical elevation levels in Lake Powell and Lake Mead accordingly.

- The LVVWD was recently the recipient of the AMWA Sustainable Water Utility Management Award. This achievement—earned by fewer than 40 utilities nationwide—recognized the LVVWD for successfully balancing innovative efforts in the areas of economic, social and environmental endeavors; responsible resource management; protection of public health; meeting responsibilities to the community and providing cost effective services to ratepayers.
- Significantly increased conservation incentives and enforcement efforts to stimulate sustained water conservation throughout the community.
- Partnered with the U.S. Bureau of Reclamation, Western Water Assessment, and Climate Assessment for the Southwest to produce a report that will synthesize recent progress in climate and hydrology research that is applicable to water resources management in the Colorado River Basin. The goal is to lay a scientific foundation that paves the way for more accurate and actionable forecasts and projections of Colorado River Basin water supply. The report is expected to be available in the fall of 2019.
- Completed construction of the Tropicana Weir – the last of the 21 weirs planned and constructed at the upper Las Vegas Wash. The Wash remains an important component to Southern Nevada’s watershed by carrying the valley’s reusable water through wetlands, which serve as critical habitats to birds and plants, and a crucial cleansing point for runoff.

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

2019-20 Performance Objectives

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

2018-19 Major Accomplishments

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

to monitor quagga mussels and the overall condition of its three drinking water intakes at Lake Mead.

- Continued to support environmental management efforts at SNWA Northern Resource Properties by putting primary groundwater rights to beneficial use. Ranch staff maintains critical assets and provides services to technical staff conducting research and monitoring activities.

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

2019-20 Performance Objectives

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

2018-19 Major Accomplishments

- LVVWD ended FY2017-18 with \$350.5 million in unrestricted reserves, exceeding its fund balance target by 14 percent.
- SNWA ended FY2017-18 with \$551.7 million in unrestricted reserves, exceeding its fund balance target by 13 percent.
- In January 2019, the LVVWD Board of Directors authorized the issuance of General Obligation Water Refunding

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Bonds. The proceeds of the bonds will be used to advance-refund a portion of the outstanding General Obligation Improvement Bonds, reducing debt service by nearly \$16 million.

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

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

2019-20 Performance Objectives

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

2018-19 Major Accomplishments

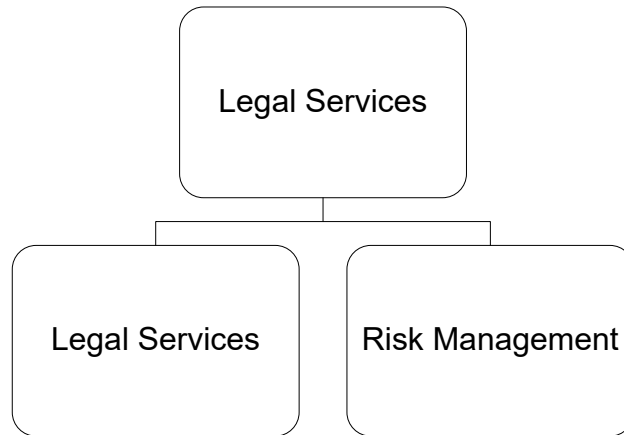
- The LVVWD recently received the AWWA Wendell LaDue Utility Safety Award which recognizes distinguished water utility safety programs in employee involvement, training and process improvement.
- Over the past year, the Alfred Merritt Smith Water Treatment and River Mountains Water Treatment Facilities each earned the Partnership for Safe Water's Excellence in Water Treatment Award, which recognizes utilities that have adopted best practices in water treatment. SNWA is only the fourteenth community water system—out of more

than 50,000 nationwide—to receive the exclusive designation.

- In 2018, SNWA assisted 15 well users to connect to the municipal water supply, in compliance with the SNWA's financial assistance guidelines for the Groundwater Management Program as established by the Nevada Legislature. Through the Sub-Meter Assistance Program, five sub-meters have been distributed to well owners, two rebates have been issued for sub-meter installation, and six wells have been plugged and abandoned.
- The Springs Preserve was recently recognized as the "Best Educational Family Outing" and Best Interactive Hands-On Attraction" by Desert Companion Magazine.

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LEGAL SERVICES
Level: 1200



Mission

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

Department Description

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

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

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

Budget Objectives and Highlights

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

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Legal Services
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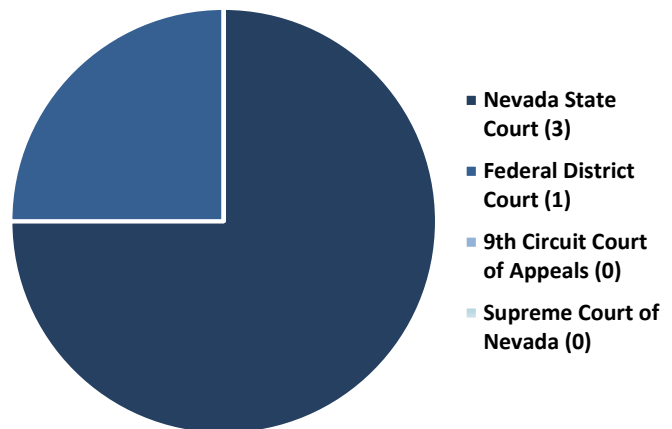
Expenditures

SNWA Uses	Actual 2017-18	Budget 2018-19	Budget 2019-20
Materials & Supplies	\$ -	\$ 50,500	\$ 50,500
Maintenance & Repairs	-	-	-
Rental & Leases	-	-	-
Other Employee Expenses	65,614	83,500	81,000
Other Expenses	1,681,070	2,742,050	4,536,050
Total Operating Expenses	\$ 1,746,684	\$ 2,876,050	\$ 4,667,550
Capital Expenditures	\$ -	\$ -	\$ -
Payroll & Related Costs	\$ 1,582,839	\$ 1,840,683	\$ 1,957,578
Total Department Expenditures	\$ 3,329,523	\$ 4,716,733	\$ 6,625,128
FTE Positions	7.4	8.5	8.5

Department Performance

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

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



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Strategic Plan Objectives and Accomplishments

Deliver an Outstanding Customer Service Experience

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

Strengthen and Uphold a Culture of Service, Excellence and Accountability

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

2018-19 Major Accomplishments

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

2019-20 Performance Objectives

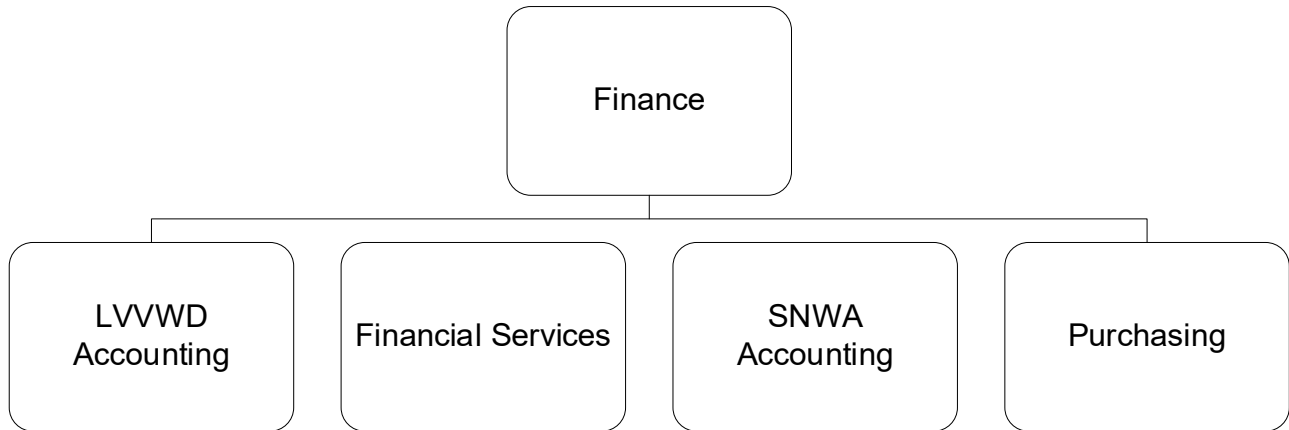
- To be highly responsive to the needs of our clients and provide concise, clear and accurate legal opinions.
- To increase communication between Legal Services and organization staff in a coordinated response to legal issues.
- To provide proactive contract reviews to minimize the threat of extended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

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FINANCE
Level: 2100



Mission

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

Department Description

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

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

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

Budget Objectives and Highlights

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

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Expenditures

SNWA Uses	Actual 2017-18	Budget 2018-19	Budget 2019-20
Water Resource Investments	\$ 3,224,346	\$ -	\$ -
Materials & Supplies	1,907,681	278,900	75,650
Maintenance & Repairs	1,218,027	48,550	48,250
Rental & Leases	-	1,450	1,450
Other Employee Expenses	11,419	62,655	67,805
Other Expenses	13,871,332	8,856,305	8,839,805
Total Operating Expenses	\$ 20,232,805	\$ 9,247,860	\$ 9,032,960
Capital Expenditures	\$ -	\$ -	\$ -
Payroll & Related Costs	\$ 3,673,142	\$ 2,684,987	\$ 2,842,110
Total Department Expenditures	\$ 23,905,947	\$ 11,932,847	\$ 11,875,070
FTE Positions	18.8	15.3	14.7

Department Performance

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

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

The LVVWD outsources its mail payment remittance processing. The Accounting division researches and resolves mail payment exceptions, records and reconciles payments received by direct debit, electronic funds transfer, credit card payments by phone, internet payments, recurring credit card

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transactions and payments received from over 150 satellite pay station locations throughout the Las Vegas valley.

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

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

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

The division also performs a variety of strategic and long-range financial forecasting, financial and water rate scenario analyses and develops water rates, connection and other fee recommendations for the organization. On an annual basis, this division conducts a survey of water rates from over 50 cities located in the western United States, closely monitors water production and consumption data, and prepares statistical reports.

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

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

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

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

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serve our customers, and cost savings are among the division's priorities.

Strategic Plan Objectives and Accomplishments

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

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

2019-20 Performance Objectives

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

Strategic Plan Goal - Deliver an outstanding customer service experience.

2019-20 Performance Objectives

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

2018-19 Major Accomplishments

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

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It also increased efficiency and timeliness of small dollar purchases.

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

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

2019-20 Performance Objectives

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

2018-19 Major Accomplishments

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

improve accuracy and efficiency of payment processes.

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

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

2019-20 Performance Objectives

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

2018-19 Major Accomplishments

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

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

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

2019-20 Performance Objectives

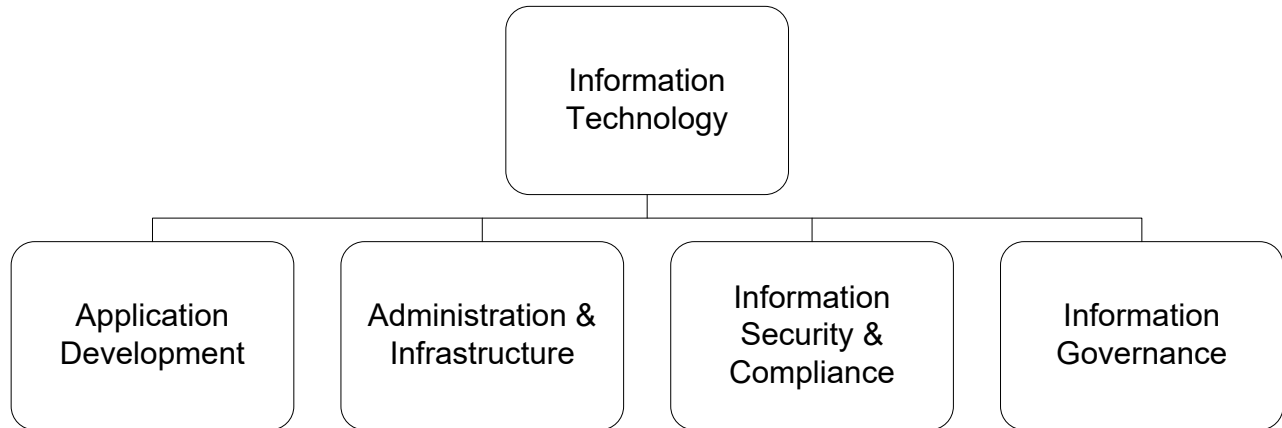
- Submit the LVVWD and SNWA CAFR for the year ending June 30, 2019, to the Government Finance Officers Association (GFOA) and receive the Certificate of Excellence in Financial Reporting.
- Receive unmodified opinions from external auditors for the LVVWD, SNWA and BBWD fiscal year 2019 audits.
- Receive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

2018-19 Major Accomplishments

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

INFORMATION TECHNOLOGY

Level: 2300



Mission

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

Department Description

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

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

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

Budget Objectives and Highlights

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

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 Information Technology
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Expenditures

SNWA Uses	Actual 2017-18	Budget 2018-19	Budget 2019-20
Materials & Supplies	\$ 522,704	\$ 646,868	\$ 1,157,300
Maintenance & Repairs	2,694,729	3,345,984	4,837,123
Rental & Leases	337,003	462,000	464,000
Other Employee Expenses	6,382	170,010	190,747
Other Expenses	1,355,676	3,314,276	3,693,480
Total Operating Expenses	\$ 4,916,494	\$ 7,939,138	\$ 10,342,650
Capital Expenditures	\$ 195,197	\$ 1,243,200	\$ 590,000
Payroll & Related Costs	\$ 6,549,838	\$ 7,679,311	\$ 8,355,839
Total Department Expenditures	\$ 11,661,529	\$ 16,861,649	\$ 19,288,489
FTE Positions	34.1	40.1	42.0

Department Performance

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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as developing and refining processes to support secure infrastructure.

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

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

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

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

Information on the responsive delivery of public records requests.

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

Strategic Plan Objectives and Accomplishments

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

Strategic Plan Goal – Deliver an outstanding customer service experience.

2019-20 Performance Objectives

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

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

2018-19 Major Accomplishments

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

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

2019-20 Performance Objectives

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

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

2018-19 Major Accomplishments

- A system was implemented to automate and help assist Accounts

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Payable's business processes with automated data capture, auto-match, workflow, and analytics.

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

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

2019-20 Performance Objectives

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

2018-19 Major Accomplishments

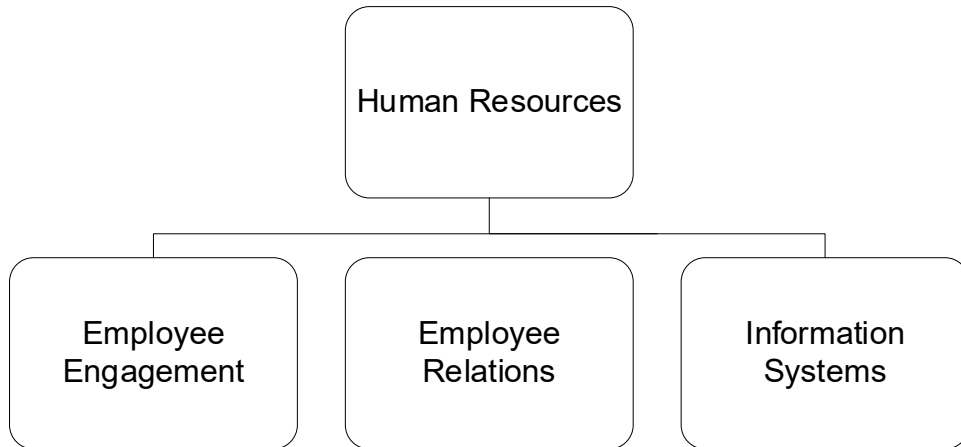
- A new system was developed improved reporting of water waste violations by customers. The application leveraged mobile device features such as location and camera to report more accurate information to investigators.
- The Customer self-service portal was enhanced to include leak notifications and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

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HUMAN RESOURCES

Level: 2400



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

Budget Objectives and Highlights

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

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 Human Resources
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Expenditures

SNWA Uses	Actual 2017-18	Budget 2018-19	Budget 2019-20
Materials & Supplies	\$ -	\$ -	\$ -
Maintenance & Repairs	-	-	-
Rental & Leases	-	-	-
Other Employee Expenses	-	-	-
Other Expenses	-	100,000	-
Total Operating Expenses	\$ -	\$ 100,000	\$ -
Capital Expenditures	\$ -	\$ -	\$ -
Payroll & Related Costs	\$ 365,535	\$ 698,881	\$ 721,380
Total Department Expenditures	\$ 365,535	\$ 798,881	\$ 721,380
FTE Positions	2.2	4.6	4.4

Department Performance

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

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

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

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

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Strategic Plan Objectives and Accomplishments

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

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

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

2019-20 Performance Objectives

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

2018-19 Major Accomplishments

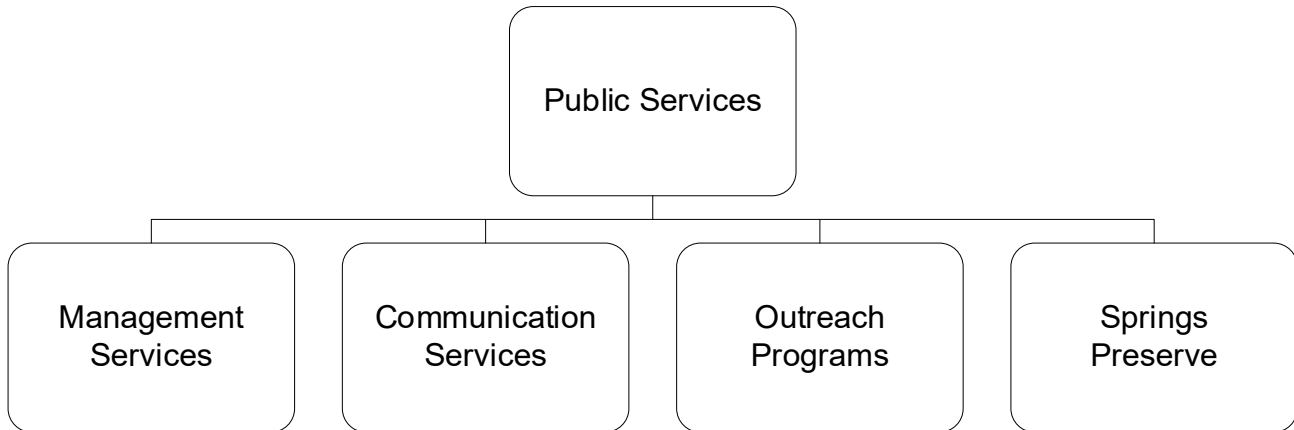
- Coordinated the successful implementation of Workday recruitment with a communication plan and training for employees in cooperation with Management Services.
- Implemented Workday for Open Enrollment and Recruitment.

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PUBLIC SERVICES

Level: 2500



Mission

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

Department Description

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

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

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

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

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

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

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

Budget Objectives and Highlights

The 2019-20 budget remains consistent with the organization’s efforts to enhance efficiency and service to internal and external

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customers.

Expenditures

SNWA Uses	Actual 2017-18	Budget 2018-19	Budget 2019-20
Materials & Supplies	\$ 151,693	\$ 365,400	\$ 496,550
Maintenance & Repairs	461,868	240,280	313,480
Rental & Leases	2,382	26,000	21,000
Other Employee Expenses	65,261	222,444	187,044
Other Expenses	5,485,770	7,224,115	7,519,500
Total Operating Expenses	\$ 6,166,975	\$ 8,078,239	\$ 8,537,574
Capital Expenditures	\$ -	\$ 720,000	\$ 547,000
Payroll & Related Costs	\$ 5,621,630	\$ 6,537,917	\$ 6,999,229
Total Department Expenditures	\$ 11,788,605	\$ 15,336,156	\$ 16,083,803
FTE Positions	34.3	39.8	38.8

Department Performance

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

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

In the last fiscal year, the division provided support to the 2019 Nevada State Legislative Session through expert analysis and tracking of the many bills affecting the utility.

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

Communication Services. Communication Services is responsible for developing materials that reach customers through web, social media, television, email and print. Over the past year, the division coordinated a Water Smart Landscapes Rebate direct-mail campaign to 56,000 properties with on-site grass. This campaign raised awareness and

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contributed to a 35 percent increase in turf conversions over the previous year.

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

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

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

Two new educational campaigns are in development and scheduled to debut in May 2019. They will target residents and businesses and emphasize water-waste reduction, non-functional turf removal and fixing leaks. Conservation-related outreach activities will increase as the Division implements various targeted grassroots tactics to promote conservation programs.

Outreach related to the Springs Preserve will continue to focus on special events and general admission.

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

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

Strategic Plan Objectives and Accomplishments

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

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

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

2019-20 Performance Objectives

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

2018-19 Major Accomplishments

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

Strategic Plan Goal – Deliver an outstanding customer service experience.

2019-20 Performance Objectives

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

2018-19 Major Accomplishments

- Launched a new Springs Preserve membership campaign that increased employee membership by more than 25 percent and increased by 14 percent the existing members who upgraded to a donor level membership.
- Completed a comprehensive study and recommendations report to implement wayfinding and update signage at the Springs Preserve to improve the guest experience.
- Continued an active social media program designed to increase attendance and revenue. Social media posts received 10.1 million impressions, more than 74,000 engagements, 22,000 link clicks, and 1.2 million video views during the first seven months of the 2018-2019 fiscal year.
- Public Outreach coordinated a variety of technical and media tours of the Low Lake Level Pumping Station construction site, which included more than 250 community

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members, engineering professionals, students, and journalists. Outreach also includes considerable communication with the National Park Service to schedule and manage activities at the construction site within the Lake Mead National Recreation area.

- The redesigned Springs Preserve website was recognized for excellence in web design by the Las Vegas Chapter of the Public Relations Society of America.
- Responded to approximately 450 phone inquiries on the Groundwater Information Line.
- Conducted outreach for approximately 70 major construction projects to rehabilitate or repair the water system.
- Community outreach efforts continue to raise awareness and provide education supporting the SNWA's water conservation initiatives. Also, communications campaign for the Springs Preserve and the launch of a public education campaign highlighting community investment in water infrastructure.

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

2019-20 Performance Objectives

- Enhance understanding of climate change impacts among ourselves and our stakeholders.
- Conduct long-term water resources and facilities planning to ensure adequate resources are available when needed.

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

2018-19 Major Accomplishments

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

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

2019-20 Performance Objectives

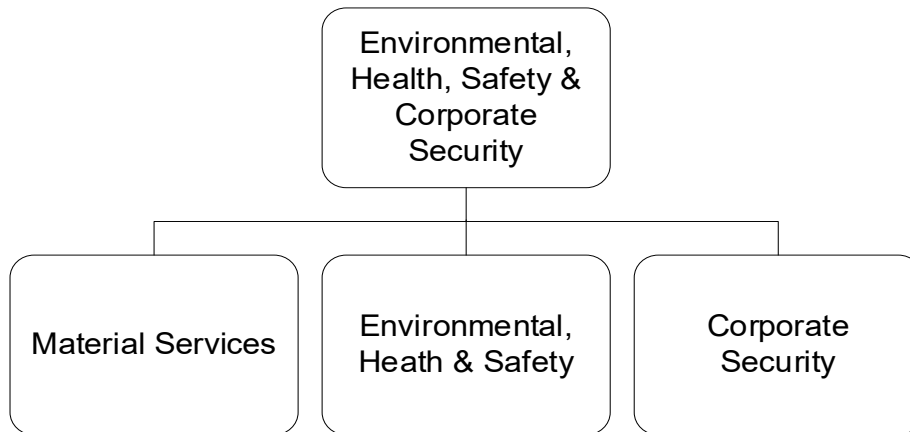
- Increase customer communication so there is a better understanding of the organization’s products and services.
- Ensure predictable rates that are aligned with community expectations.
- Establish and utilize benchmarks to explore new opportunities for improved efficiencies.
- Formulate risk assessments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

2018-19 Major Accomplishments

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

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Environmental, Health, Safety & Corporate Security
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**ENVIRONMENTAL, HEALTH, SAFETY &
CORPORATE SECURITY**
Level: 2700



Mission Statement

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

Department Description

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

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

Budget Objectives and Highlights

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

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

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Expenditures

SNWA Uses	Actual 2017-18	Budget 2018-19	Budget 2019-20
Materials & Supplies	\$ 33,084	\$ 159,500	\$ 163,500
Maintenance & Repairs	66	150,000	-
Rental & Leases	-	-	-
Other Employee Expenses	25,340	26,000	32,000
Other Expenses	1,533,866	345,000	345,000
Total Operating Expenses	\$ 1,592,357	\$ 680,500	\$ 540,500
Capital Expenditures	\$ -	\$ -	\$ -
Payroll & Related Costs	\$ 3,764,695	\$ 4,276,207	\$ 4,865,098
Total Department Expenditures	\$ 5,357,053	\$ 4,956,707	\$ 5,405,598
FTE Positions	32.7	28.6	31.2

Department Performance

Environmental, Health and Safety Division.

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

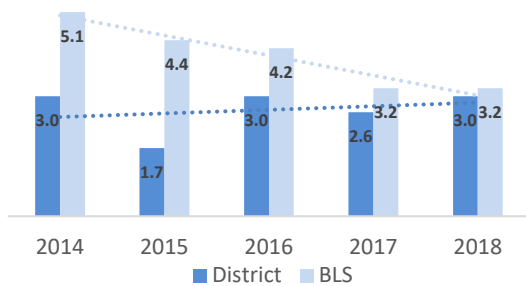
compliance reporting for operations and maintenance. Maintaining proper upkeep and care of the LVVWD's Process Safety Management program for a highly hazardous chemical (chlorine) at Alfred Merritt Smith Water Treatment Facility (AMSWTF). Develops and publishes safety procedures ensuring compliance with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

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

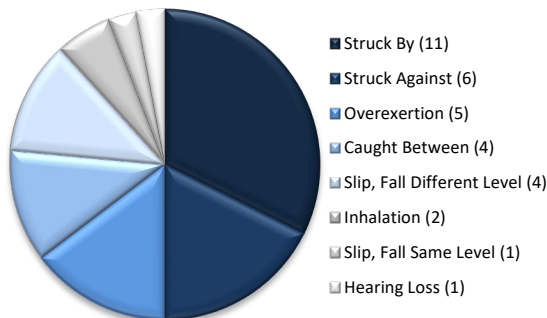
Recordable Injury Rates

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



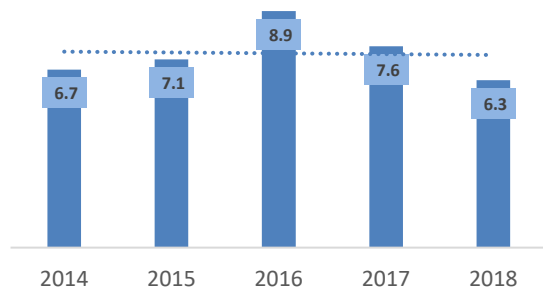
Recordable Injuries by Category

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



Vehicle Accidents & Rates

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



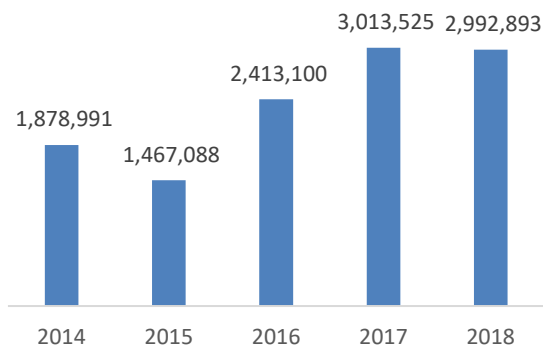
Health Assessments

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

Total Pounds Recycled

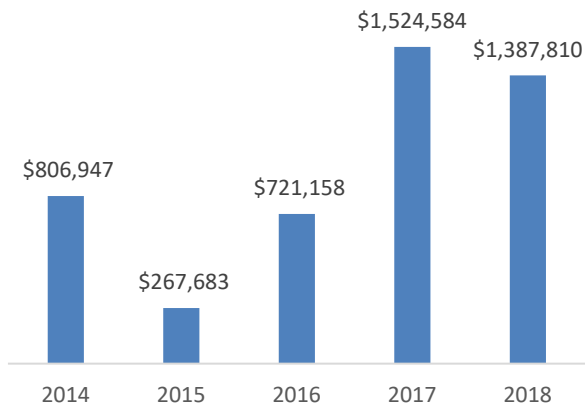
LVVWD and SNWA recycled a combined total of 2,992,893 pounds of materials in 2018, which is 99.32 percent of the total materials recycled in 2017.

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Total Revenue Generated

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



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

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

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

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

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

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

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

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

Strategic Plan Objectives and Accomplishments

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

2019-20 Performance Objectives

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

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parameters to reduce pollutants discharged.

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

2018-19 Major Accomplishments

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

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

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

Corporate Security

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

Emergency Management

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

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meetings and prepare coordinators programs.

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

Strategic Plan Goal – Deliver an outstanding customer service experience.

2019-20 Performance Objectives

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

instructor-led courses to assess customer satisfaction.

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

2018-19 Major Accomplishments

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

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

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

2019-20 Performance Objectives

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

Atmospheric Administration (NOAA)

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

2018-19 Major Accomplishments

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

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

2019-20 Performance Objectives

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

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

2018-19 Major Accomplishments

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

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

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

2019-20 Performance Objectives

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

2018-19 Major Accomplishments

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

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

2019-20 Performance Objectives

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

2018-19 Major Accomplishments

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

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

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

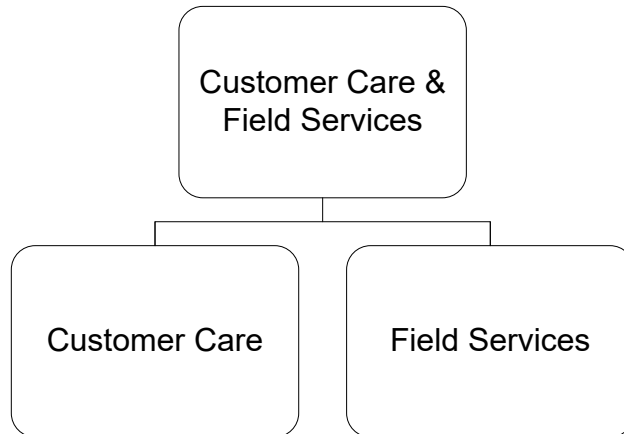
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CUSTOMER CARE AND FIELD SERVICES

Level: 2800



Mission

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

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

Department Description

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

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

Budget Objectives and Highlights

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

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

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Expenditures

SNWA Uses	Actual 2017-18	Budget 2018-19	Budget 2019-20
Materials & Supplies	\$ 1,642	\$ 2,000	\$ 5,500
Maintenance & Repairs	3,264	3,500	3,500
Rental & Leases	-	-	-
Other Employee Expenses	34	-	-
Other Expenses	(8)	-	-
Total Operating Expenses	\$ 4,933	\$ 5,500	\$ 9,000
Capital Expenditures	\$ -	\$ -	\$ -
Payroll & Related Costs	\$ 484,152	\$ 435,138	\$ 558,684
Total Department Expenditures	\$ 489,084	\$ 440,638	\$ 567,684
FTE Positions	3.0	2.9	3.1

Department Performance

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

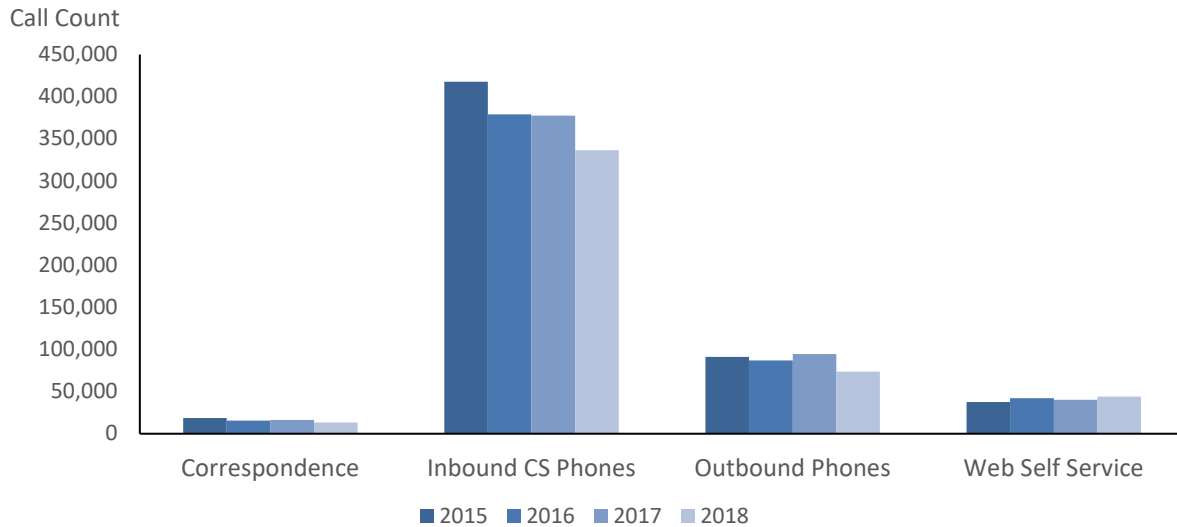
Customer Care. The Customer Care division serves as the primary point of contact for internal and external service inquiries—supporting approximately 397,000 active services. The division manages the customer care phones, web requests, correspondence and walk-in requests. Customer Care handles payments,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

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

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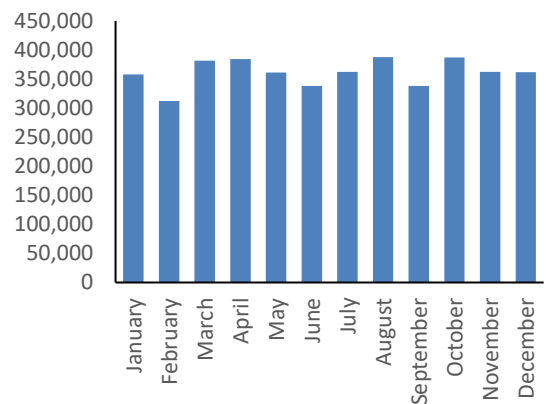
The following graph illustrates the shift in volume distribution over the past four years as process and technical innovations advance the meter to cash philosophy.

Customer Care Phone and Correspondence Volume



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

Bills Generated 2018



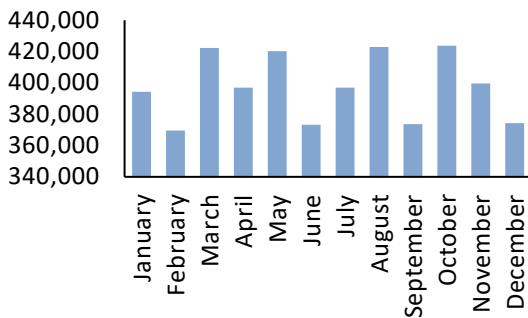
The following chart depicts the total number of bills generated monthly in 2018.

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

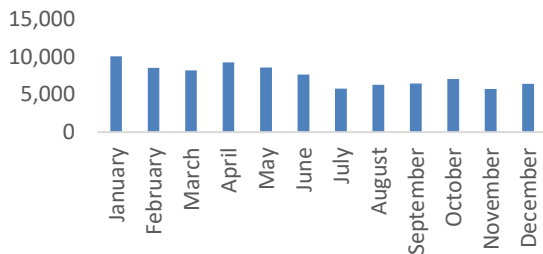
The 2018 Meter Reads chart illustrates the number of meter reads processed by Field Services in 2018 (Over 4.6 million total).

Meter Reads 2018



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

Field Activities Completed 2018



Strategic Plan Objectives and Accomplishments

Strategic Plan Goal – Deliver on Outstanding Customer Service Experience.

2019-20 Performance Objectives

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

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

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

2019-20 Performance Objectives

2018-19 Major Accomplishments

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

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

2018-19 Major Accomplishments

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

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

2019-20 Performance Objectives

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

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

2018-19 Major Accomplishments

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

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

2019-20 Performance Objectives

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

feedback and solicit recommendations.

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

2018-19 Major Accomplishments

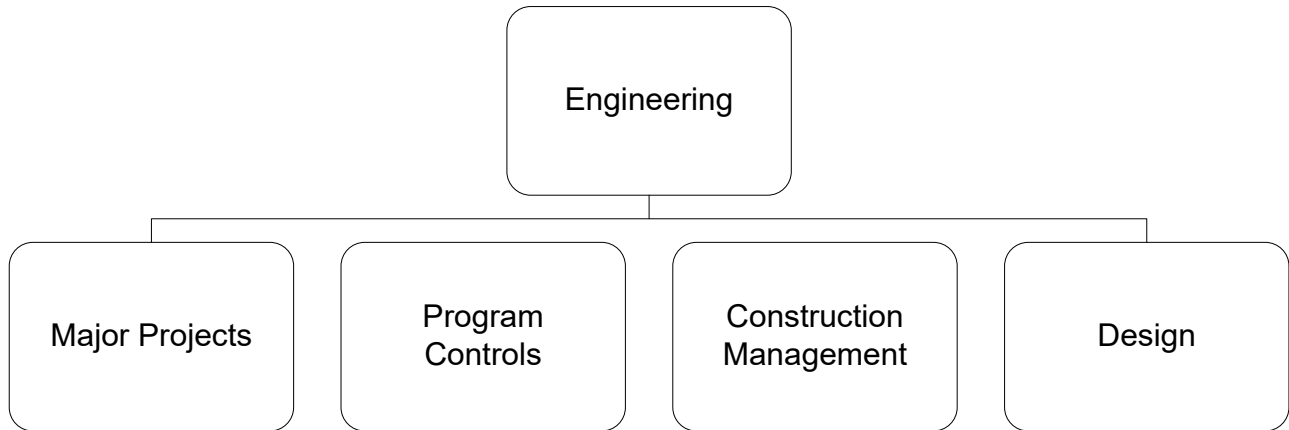
- Revamped doorhanger notifications that will allow feedback from our customer base.
- Increased Quality Monitoring to enhance the functional capabilities of the individual, team and departmental performance.
- Utilized various subject matter experts throughout the department to support training initiatives.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

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ENGINEERING

Level: 3400



Mission

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

Department Description

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

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

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

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

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services for many of the MCCP projects.

by the Wash CIP.

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

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

Expenditures

SNWA Uses	Actual 2017-18	Budget 2018-19	Budget 2019-20
Materials & Supplies	\$ 6,025	\$ 4,750	\$ 3,950
Maintenance & Repairs	115,344	703,000	703,000
Rental & Leases	-	-	-
Other Employee Expenses	23,934	23,250	20,550
Other Expenses	438,414	3,130,900	895,900
Total Operating Expenses	\$ 583,717	\$ 3,861,900	\$ 1,623,400
 Capital Expenditures	 \$ 142,386,953	 \$ 123,452,909	 \$ 76,471,717
 Payroll & Related Costs	 \$ 5,144,123	 \$ 4,698,865	 \$ 4,316,016
 Total Department Expenditures	 \$ 148,114,793	 \$ 132,013,674	 \$ 82,411,133
 FTE Positions	 24.7	 23.3	 20.8

Budget Objectives and Highlights

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

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

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

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

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

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

Department Performance

The Engineering department is organized around five functional areas.

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

Design. The design team is comprised of professional engineers, technicians, permit

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

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

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

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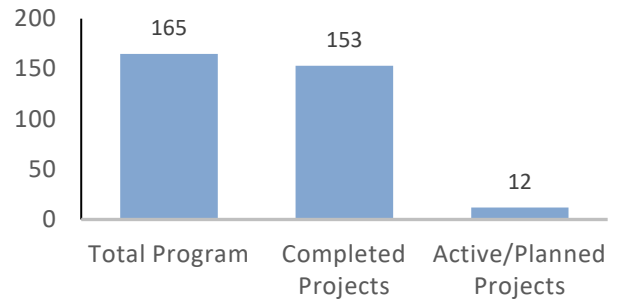
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projects. This team makes use of computer-based tools which compile relevant project data from various departments. This team also performs a vital function in collecting projected capital expenditures as a tool for forecasting future funding requirements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

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

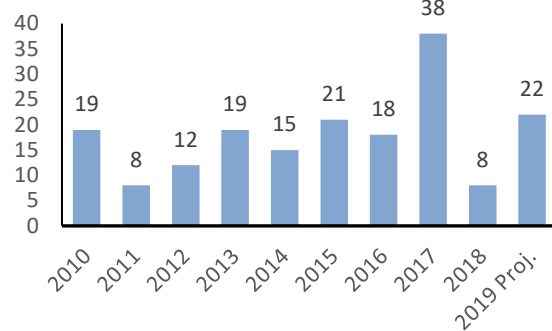
The following charts compare completed projects to active and planned projects for each of the SNWA’s capital plans and give perspective for the magnitude of the capital plan activities.

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

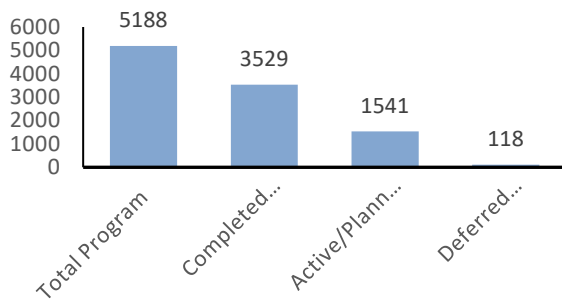


The chart below (Completed LVVWD Construction Projects) represents the number of the LVVWD construction projects completed by Engineering since 2010 and the number expected to be completed in 2019.

Completed LVVWD Construction Projects



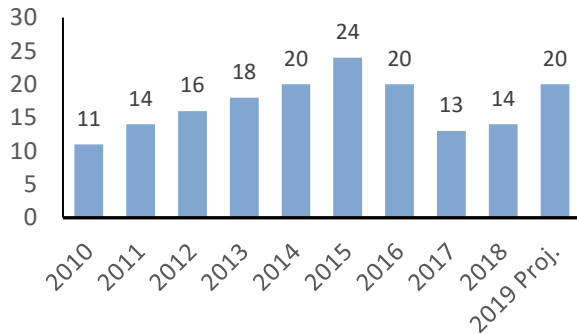
**Major Construction & Capital Plan Status
As of March 2019**



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

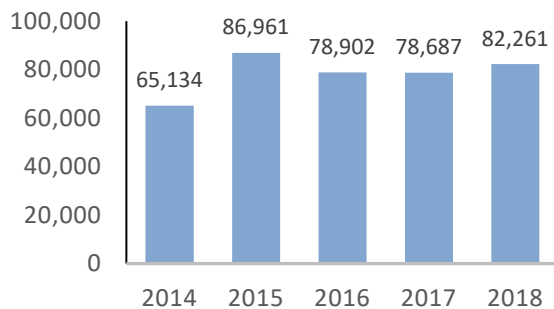
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**Completed LVVWD
Design Projects**



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

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



Strategic Plan Objectives and Accomplishments

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

2019-20 Performance Objectives

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

2018-19 Major Accomplishments

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

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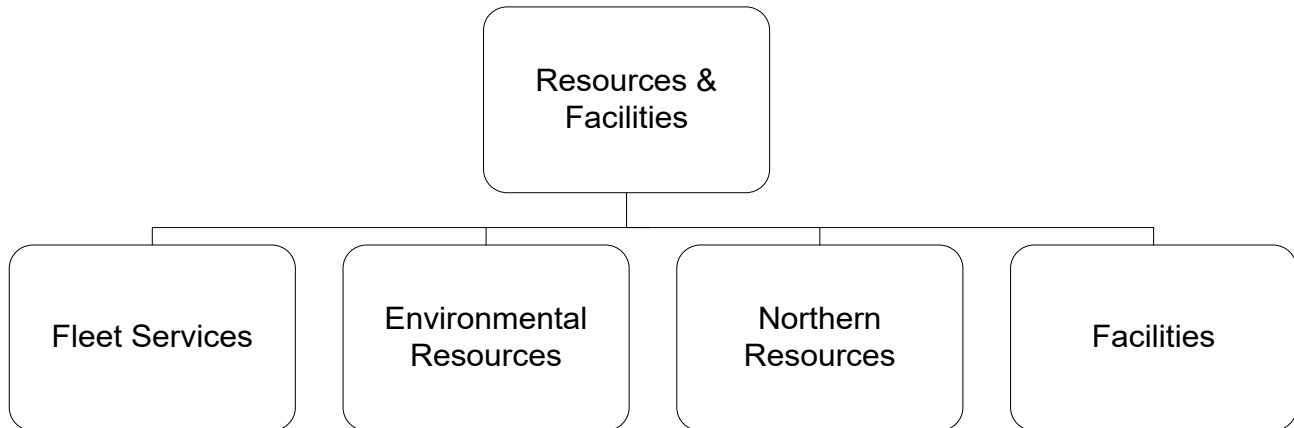
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facilities.

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

RESOURCES & FACILITIES

Level: 3600



Mission

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

Department Description

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

Budget Objectives and Highlights

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

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

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

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

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

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

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Expenditures

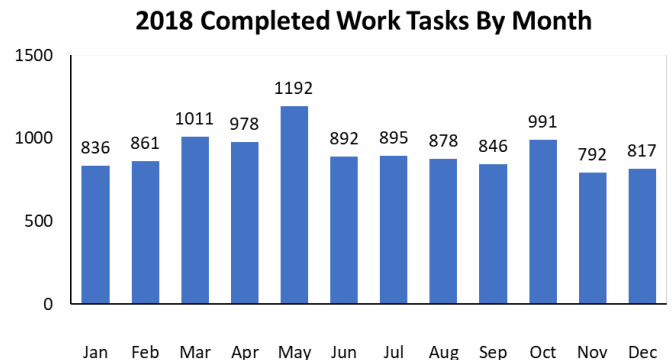
SNWA Uses	Actual 2017-18	Budget 2018-19	Budget 2019-20
Materials & Supplies	\$ 1,714,080	\$ 2,014,650	\$ 2,675,850
Maintenance & Repairs	1,938,857	2,904,500	2,987,900
Rental & Leases	2,144,943	2,221,000	2,278,000
Other Employee Expenses	69,408	195,250	226,750
Other Expenses	2,179,689	4,177,350	3,724,150
Total Operating Expenses	\$ 8,046,977	\$ 11,512,750	\$ 11,892,650
Capital Expenditures	\$ 9,233,639	\$ 9,290,805	\$ 7,607,800
Payroll & Related Costs	\$ 10,364,122	\$ 12,181,012	\$ 13,086,717
Total Department Expenditures	\$ 27,644,739	\$ 32,984,568	\$ 32,587,167
FTE Positions	65.8	78.9	78.5

Department Performance

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

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

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



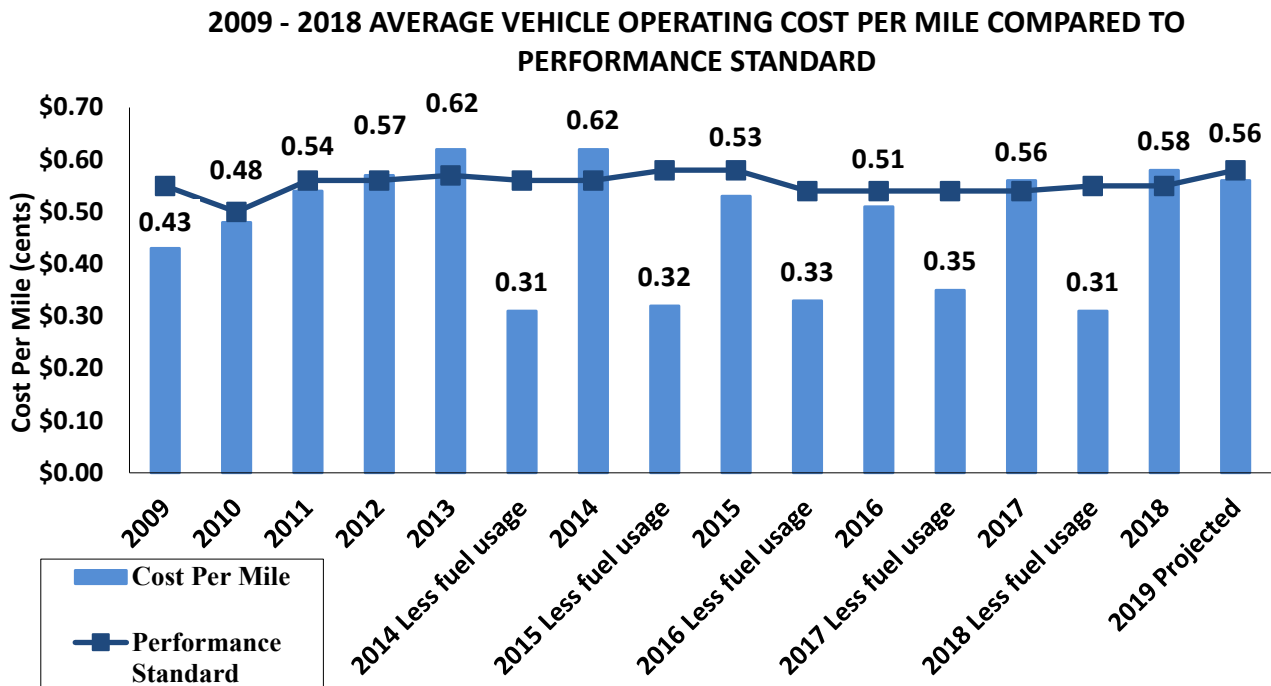
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Fleet Services. The mission of the Fleet Services division is to provide safe, reliable and functional vehicles, equipment, tools, fuel, and communications equipment to the LVVWD, SNWA, LVSP, and BBWD operations. Currently the division maintains more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

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

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



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

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

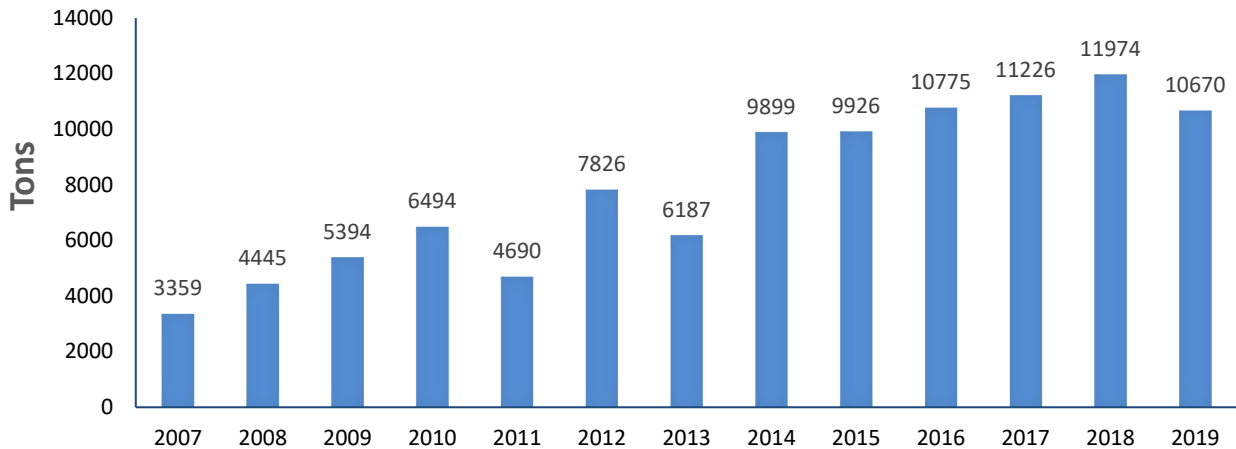
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restoration of the Las Vegas Wash, and the Warm Springs Natural Area.

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

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

Forage Production



Strategic Plan Objectives and Accomplishments

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

2019-20 Performance Objectives

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

measure equipment uptime percentage.

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

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

2018-19 Major Accomplishments

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

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

Strategic Plan Goal – Deliver an Outstanding Customer Service Experience.

2019-20 Performance Objectives

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

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

2018-19 Major Accomplishments

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

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

2019-20 Performance Objectives

- Continue to lead and develop the alternative fuel vehicle program in support of clean air in the Las Vegas Valley.
- Recondition and reuse service bodies for light duty vehicles.
- Expand the Districts plug-in electric vehicles fleet.
- Expand the use of compressed natural gas as an automotive fuel.
- Maintain environmental permits and support water rights for the SNWA’s central-eastern Nevada groundwater.
- Sustainably manage the Great Basin Ranches such that annual gross revenue covers at least 100 percent of direct costs, measured as a five-year running average.
- Develop and certificate 100 percent of ranch water rights.
- Maintain Great Basin Ranch assets, including property, facilities, water rights, and grazing allotments in accordance with annual work plans and permits.
- Inspect 100 percent of ranch irrigation, stock, and domestic wells at least annually, and maintain at least 90 percent of the wells at full operational capacity.
- Complete environmental compliance and monitoring for existing SNWA and LVVWD infrastructure.

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- Collaborate on all major local and regional climate change initiatives relevant to the SNWA.
- Make progress towards achieving the goals of the Recovery Plan for rare aquatic species on the Muddy River (Moapa dace).
- Provide public access and public outreach at the Warm Springs Natural Area.
- Reduce fire fuels and maintain fire breaks annually at the Warm Springs Natural Area in accordance with the property Fire Management Plan.
- Communicate sustainability goals and progress to the organization.
- Added 422 head of replacement cows to the herd. Converted old population to 100% Black Angus animals.
- Added 905 head of replacement ewes to the herd.
- Installed a transmission pipeline from Swallow Spring to the Shoshone agriculture fields.
- Designed, source materials and constructed a sheep processing facility at the Phillips Ranch.
- Drilled and developed a new irrigation well at the Kerr ranch, well will allow pumping of actual water right.
- Completed the installation of WACO modular house at Wahoo. This expands seasonal housing which supports seasonal labor needs.

2018-19 Major Accomplishments

- Developed an annual plan to maintained ranch assets through roof repairs or replacement on the McCoy house, Phillips sheep barn, Huntsman barn, and the completion of electrical upgrades at the Huntsman feedlot.
- Installed truck fill station, irrigation screen, transmission building, light, heat and security light on ranch sign at the Harbecke Ranch.
- Drilled new domestic well at Harbecke, installed new electrical, replaced plumbing, pressure tank and controls, which provides safe drinking water for field and ranch staff.
- Completed the install of power to Huntsman feedlot and completed the construction of the hospital and storage building.
- Constructed the third hay storage barn at Huntsman Ranch.
- Expanded dog kennel facility to support ranch growing population.
- Replaced shop doors and concrete at the Wahoo shop – allows for a wash bay area to clean equipment.
- Replaced one mile of perimeter fence at Wahoo 5 for security and safety reasons.
- Replaced security doors on commissary building.
- Met or exceeded the projected Ranch Revenue budget and operated within the operations budget.
- Replaced older diesel and gasoline powered vehicles with flex fuel vehicles, lowering capital cost and reducing the Districts carbon foot print.
- Selected as one of the 100 Best Fleets “Top 100 Fleets in North America” and “Top Green Fleets in North America”.
- Supported preparation of legal briefs and oral arguments in defense of the

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federal right-of-way for the future development of SNWA's central-eastern Nevada groundwater rights.

- Prepared a Moapa dace assessment report supporting SNWA's water rights in the Lower White River Flow System.
- Monitored more than 300 fixed monitoring locations across SNWA's Great Basin Ranch grazing allotments.
- Coordinated extensively with local ranchers in central-eastern Nevada and the BLM regarding management of shared grazing allotments; supported the filing of legal protests on BLM grazing use decisions.
- Conducted raptor, dark kangaroo mouse, sage grouse, northern leopard frog, and other sensitive species surveys in Clark County and central eastern Nevada.
- Responded to 11 calls for dangerous animals at SNWA and LVVWD facilities.
- Conducted in-depth review of 229 external projects, legislative and regulatory proposals, and prepared 11 comment letters.
- Acquired two new parcels as part of the Warm Springs Natural Area and began tenant improvements for building to be used as Warm Springs operations facility.
- Established volunteer program to staff the Warm Springs public use area on weekends.
- Conducted bi-annual Moapa dace counts on the upper Muddy River, and the winter dace population increased 34 percent.
- Conducted threatened and endangered bird species and marsh bird surveys at the Warm Springs Natural Area and monitored bird population recovery from the 2010 wildfire and habitat restoration.
- Hosted the Audubon Society Christmas Bird count that counted over 300 birds of about 81 different species in the Upper Moapa Valley.
- Grew over 5,000 native plants at the Warm Springs greenhouse for restoration areas on both Warm Springs and the Las Vegas Wash.
- Trimmed 133 palm trees and mowed and maintained 9,000 feet of fire breaks to protect infrastructure and Moapa dace streams at the Warm Springs Natural Area.
- Monitored 10 ecological restoration sites at Warm Springs Natural Area for restoration success.
- Provided public outreach to 80 students from Moapa Valley Future Farmers of America who assisted in planting and property cleanup, 118 local fifth-graders for repotting event and World Wetlands Day information, and Boy Scouts of America Eagle Scout candidates who installed over 2,600 native plants, removed 100 palm trees, installed a foot bridge and 150 feet of trail, and installed 400 feet of split rail fencing.
- Monitored climate change science and potential impacts to the SNWA through coordinated activities with the Water Utilities Climate Alliance and Association of Metropolitan Water Agencies.
- Participated in the annual holiday drive, recycling over 2,500 Christmas trees.

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- Continued to employ energy efficient upgrades in the lighting and climate control applications.
- Facilitated the Sustainability CDT, which met more than six times to coordinate the organization's sustainability goals.

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

2019-20 Performance Objectives

- Without compromising safety and/or service level, reduce operating costs through standardization opportunities, inactive inventory reduction, and continuous process improvements.
- Reduce the overall cost per mile/hour of operation for the LVVWD's vehicles and equipment.
- Annual department expenditures remain within budget.
- Continue to seek grant funding and provide support to other departments who are applying for grant funding.
- Facilitate renovation projects utilizing in-house labor whenever possible.

2018-19 Major Accomplishments

- Produced 17,422 bales of forage or 10,670 tons of marketable products with a value of \$2.1M, presently sold \$1.6M, balance is in inventory.
- The ranch produced 1720 beef calves, sold 1213 head at 614,656 pounds of beef with a value of \$1.01M and added 495 beef replacement females to the inventory with a value of \$891,000.

- The ranch produced 4274 lambs, sold 2887 at 232,235 pounds for \$344,806. Ranch added 907 ewe lambs valued at \$226,750. Additionally, the sheep produced 48,968 pounds of wool with a value of \$128,965.
- Replace older diesel and gasoline powered vehicles with flex fuel vehicles, saving an estimated \$200,000 in capital replacement costs.
- Replaced 83 vehicles and equipment pieces that were no longer cost effective to operate and maintain and added an additional 33 pieces for organizational growth and improve capabilities of the organization.
- Recovered over \$1,041,739 in vehicle resale at auction.
- Recovered over \$55,377 in vehicle warranty repairs through our in-house warranty programs.
- Recovered over \$40,886 from insurance companies for the in-house repair of not at fault vehicle accident damage.
- Obtained \$483,800 in Federal and State grant funding to support water quality monitoring, archaeological resources, program management, revegetation, and public outreach for the Las Vegas Wash.
- Continued to provide proper care and operation of fire protection and life safety systems, climate control for personnel and mission-critical areas, repair and maintenance of plumbing systems, and integrity of facility components including: lighting, building facades, sidewalks, roofs, roads, and perimeter walls.

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

2019-20 Performance Objectives

- Department average annual incident rate exhibits a downward trend, based on a five-year average.
- Ensure 90 percent of Facilities preventive maintenance work is completed by the due date.
- Ensure 98 percent or greater, fire and life safety inspections or tests are completed by the due date.
- Continue to partner with other departments to create vehicle/equipment committees to better assess needs and improve end products provided.
- Provide comprehensive preventive and predictive maintenance.
- Team safety. Zero lost-time accidents.
- Train and certify maintenance and service personnel in new technology and repair techniques.
- Maintain Automotive Service Excellence (ASE) “World Class Technician Status.”
- Maintain I-CAR Platinum Class Certification for Fleet Services paint and body operations.

2018-19 Major Accomplishments

- Renovations for safer operation of El Tejon Ranch irrigation lift station; replacement of hazardous irrigation electrical CT stand at Shoshone.
- The Facilities division comprised of a team of custodians reliably maintains

an orderly, clean and compliant environment at all sites.

- Created vehicle/equipment committees with key customers in order to better assess needs and improve end products provided.
- Maintained Automotive Service Excellence (ASE) “Blue Seal of Service Award.”
- Maintained Automotive Service Excellence (ASE) “World Class Technician Status.”
- Maintained I-CAR Platinum Class Certification for Fleet Services paint and body operation.
- Completed 10,826 work orders and over 14,690 repair tasks on vehicles and equipment over the past 12 months.
- No lost-time accidents occurred.

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

2019-20 Performance Objectives

- Continue to equip fleet facilities with state-of-the-art testing and diagnostic equipment in order to properly diagnose and repair vehicle and equipment failures in a timely cost-effective manner.
- Implement GPS/telematics technology throughout the fleet in order to enhance fleet management capabilities, save fuel and improve fleet utilization.

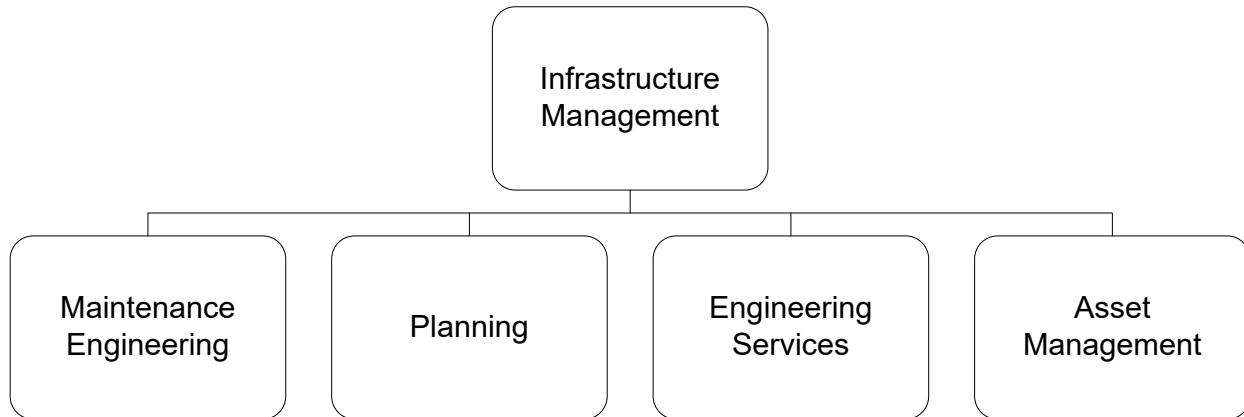
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2018-19 Major Accomplishments

- Equipped all fleet repair facilities with state-of-the-art manufacture specific diagnostic equipment, reducing vehicle down time and repair costs.
- Provided online technical training and diagnostic information to technicians at all repair locations.

INFRASTRUCTURE MANAGEMENT

Level: 3700



Mission

To provide world-class stewardship of the existing water system infrastructure through comprehensive asset assessment, protection, and renewal in the most fiscally responsible manner possible.

Department Description

The primary responsibility of the Infrastructure Management department is to manage the Las Vegas Valley Water District (LVVWD) and the Southern Nevada Water Authority (SNWA) assets by developing and maintaining the asset management program. To accomplish this, the Engineering Services division reviews water plan submittals for proposed development to ensure they meet the LVVWD's construction standards. The Planning division ensures new developments have adequate water pressure and fire flow, evaluates future system requirements, and develops future capital cost projections. The Maintenance Engineering division provides technical support and develops capital

projects for the Operations, Resources and Facilities, and Water Quality and Treatment (WQ&T) departments. The Asset Management division conducts pumping unit efficiency tests, provides inspection support, tests for leaks on large diameter pipelines, and maintains the LVVWD and the SNWA cathodic protection systems. The Startup Team division coordinates the safe integration of new equipment, components, and facilities in the LVVWD, SNWA, and the Big Bend Water District (BBWD) operating systems. These efforts are directly in support of the department's mission.

Budget Objectives and Highlights

The 2019-20 Infrastructure Management department budget contains a comprehensive view of ongoing efforts to maintain existing service levels, provides funding to continue the development and maintenance of the asset management program, and demonstrates a commitment to providing daily operational support for the LVVWD's and SNWA's projects.

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Infrastructure Management’s total operating expense budget between the LVVWD and the SNWA decreased \$1,103,925 from budget year 2018-19 to 2019-20. Contributing factors to the increased operating expense budget include SNWA, BBWD, and LVVWD emergency

and maintenance work, joint replacements, innovation projects and initiatives, and reservoir improvements. The department will continue to focus efforts on maintaining cathodic protection, SCADA, and the 4-1-1 developer review process.

Expenditures

SNWA Uses	Actual 2017-18	Budget 2018-19	Budget 2019-20
Materials & Supplies	\$ 101,841	\$ 180,500	\$ 212,500
Maintenance & Repairs	474,655	2,230,000	2,290,000
Rental & Leases	173,858	225,000	225,000
Other Employee Expenses	2,688	39,600	40,250
Other Expenses	157,625	111,550	211,700
Total Operating Expenses	\$ 910,667	\$ 2,786,650	\$ 2,979,450
Capital Expenditures	\$ 5,503,858	\$ 9,306,000	\$ 9,715,000
Payroll & Related Costs	\$ 4,510,334	\$ 4,884,129	\$ 5,370,464
Total Department Expenditures	\$ 10,924,860	\$ 16,976,779	\$ 18,064,914
FTE Positions	20.7	23.6	24.6

Department Performance

Maintenance Engineering. The Maintenance Engineering division is responsible for the engineering design enhancements and modifications needed to operate and maintain pumping stations, rate-of-flow-control stations, reservoirs, water treatment facilities, the distribution and transmission pipelines, and wells in a safe and efficient manner. Specific responsibilities of Maintenance Engineering include

PLC/HMI/SCADA programming and 24x7 support, SNWA communications network management and 24x7 support, engineering design, project management, construction management, and operations engineering support. Specific projects include THM mitigation, motor control center and switchgear upgrades, vault and pipeline repairs/replacements, cathodic protection installations, tank re-coating, pump and valve installations and facilities improvements. The division provides engineering analysis in the

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form of electrical coordination studies, arc flash studies, load analysis, structural integrity evaluations, new equipment and technology evaluations, and water treatment tracer tests. The division also provides day-to-day engineering support for the LVVWD, SNWA, BBWD, Alfred Merritt Smith Water Treatment Facility (AMSWTF), River Mountains Water Treatment Facility (RMWTF), and rural systems.

The division is currently managing over 250 projects between the LVVWD and the SNWA, with a capital budget of more than \$25 million. Major projects include the LVVWD SCADA upgrade; multi-site ROFC valve and venturi replacements; south valley lateral actuator replacements; AMSWTF VPSA blower replacement; medium voltage transformer replacements; the AMSWTF electrical distribution upgrade; electrical distribution and engine controls upgrade at Campbell Pump Station; THM mitigation system installation at Elkhorn reservoir; reservoir joint replacements at Campbell and Luce Pump Stations; emergency power system upgrade at Stewart Pump Station; and the build out of the fiber optic communications network.

Startup Team. The Startup Team division was formed in FY 2018-19 to coordinate the safe integration of new equipment, components, and facilities into the LVVWD, SNWA, and BBWD operating systems. The division will provide appropriate plans, policies, procedures, and instructions for the control and performance of the systematic testing, startup, and initial operations of new facilities, systems, and equipment. The division will also establish a contract 'Warranty Management' tracking process during startup,

continuing through the contract warranty period, for each project. The division will be composed of one Senior Process Control Engineer, a Construction Engineer, and an Engineering Technician to support LVVWD and SNWA new construction projects that require integration into the existing control systems (SCADA).

Planning. The Planning division provides research, analytics, statistical analytics, modeling, and forecasting to support several activities at both the LVVWD and the SNWA. The division provides long-term forecasts, estimates of customer demand curves, analysis of changing demand patterns, and conservation model results to the SNWA as inputs into regional water resource planning. The division provides economic analysis, water demand projections, population distributions, statistical support and water demand distributions to the LVVWD as inputs into financial planning and rate setting, infrastructure planning, operations planning, and small system analysis. This data is utilized for the evaluation of system additions initiated by the LVVWD and large system additions initiated by developers. The data is also used for hydraulic criticality assessment of distribution system components to ensure system reliability. The division maintains an industry leading hydraulic model of the distribution system, with cutting edge modeling capabilities, which is utilized for engineering analysis and decision support. The division locates, sizes, and schedules new pumping stations, reservoirs, wells, and major pipelines. The division also maintains the Asset Management model which is used to prioritize asset renewal projects and provide capital cost projections. The division reviews pressure

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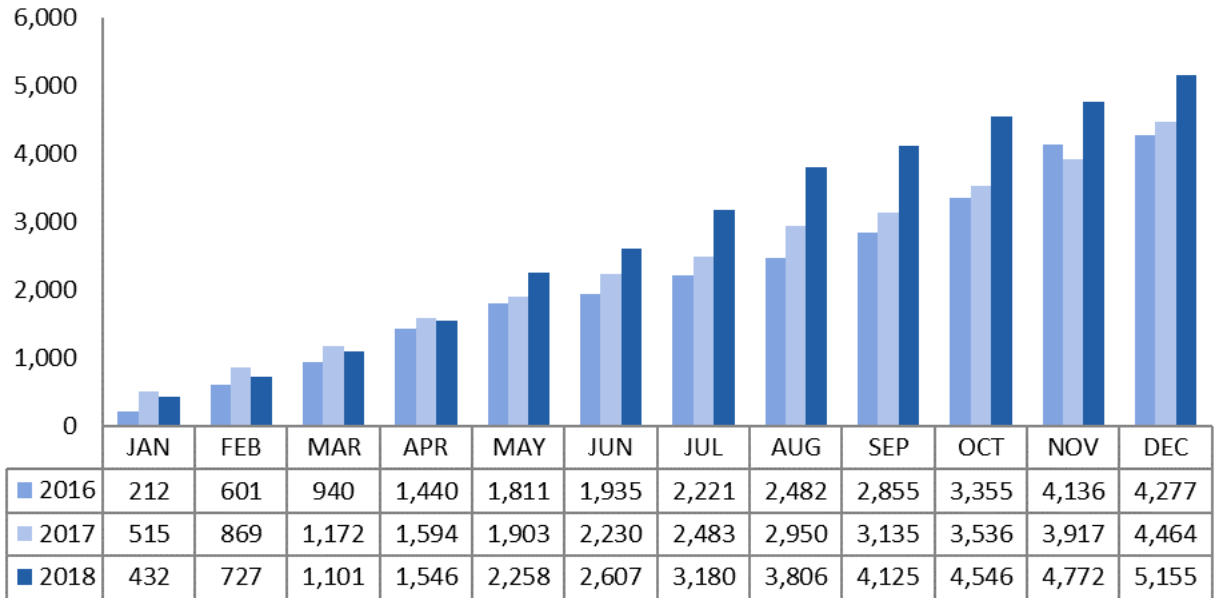
and fire flow availability for new developments and writes cost sharing agreements for the design and construction of major water facilities. The division collaborates with the WQ&T and Operations departments to address water quality compliance issues, to research and develop alternative technologies applicable to the LVVWD water distribution system, and to plan for capital improvements and required monitoring for regulatory compliance. The division conducts distribution system pressure and flow investigations in support of Customer Care and Field Services, Operations and Public Information. The division also performs planning for small systems, recycled water distribution systems, and out-of-valley transmission systems.

Engineering Services. The Engineering Services division is responsible for reviewing

plans for additions and modifications to the systems of the LVVWD and the SNWA, initiated by developers, utilities, and public entities. The division approves the water plans for these system additions, and ensures system additions meet the LVVWD's and the SNWA's requirements for reliability and maintainability, calculates fees, processes agreements, commits water resources to new developments, and ensures water facility construction is per the LVVWD's standards. The division coordinates with other public works construction to minimize both the LVVWD costs and inconvenience to the public. The division is responsible for the evaluation and testing of products for use in the water distribution system and oversees the LVVWD Approved Products List. The following chart represents the LVVWD's cumulative data representing new service points.

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New Service Points
2016-2018 Cumulative New Service Points Received



Asset Management. The Asset Management division assesses infrastructure conditions and forecasts short and long-term capital renewal needs to meet service level expectations. Asset Management performs condition assessments on LVVWD pipelines with the latest technology such as acoustic leak detection, pipe wall measurements, and CCTV internal inspections to determine the remaining useful life of the pipelines and identify pipelines in need of rehabilitation. Reservoirs are inspected while in service with divers or the LVVWD owned Remote Operated Vehicle (ROV) or are inspected while out of service with Magnaflux Leakage Technology (MFL) and a visual assessment. Pump performance evaluations are conducted utilizing SCADA data without the need for field testing to determine the current pump efficiency. The division is responsible for managing the corrosion control program

for the LVVWD, SNWA, and associated small systems. The goal of the corrosion control program is to extend the life of steel pipe and other steel structures by applying and maintaining cathodic protection (CP). Corrosion Control Systems Technicians collect annual corrosion data on over 2,762 CP test stations and 17 impressed current rectifiers for the LVVWD, as well as 1,025 CP test stations and 73 impressed current rectifiers for the SNWA. The division also maintains CP system components, installs new anodes and test stations, and performs corrosion assessments.

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Strategic Plan Objectives and Accomplishments

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

2019-20 Performance Objectives

- Complete the SCADA upgrade at BBWD to the Wonderware System Platform.
- Continue to build out fiber optic communications network over the next five years.
- Maintain a capital improvements program for the LVVWD, SNWA, and small systems, and review development submittals in a timely manner.
- Monitor and evaluate water quality in the distribution system and recommend improvements in response to changing water quality and regulatory conditions.
- Develop an internal pipeline inspection program utilizing the LVVWD's new CCTV pipeline equipment.

2018-19 Major Accomplishments

- Completed cost sharing agreements with land developers for the design and construction of the Rome 2860 Zone North Water Facility Improvements and the Cougar 3090 Zone Reservoir.
- Finalized the Emerson Ovation SCADA system upgrade at SNWA.
- Completed fiber network installations at Montessori, Cactus, and Levi pump

stations. Continued fiber work at Carlton Square, Gowan, Fort Apache, Decatur, and Tropical pump stations.

- Completed the THM mitigation installations at the Durango, Luce, and Pico sites.
- Implemented the LVVWD's first surge tank pressure vessel inspection program.
- Worked with the City of Las Vegas on Interlocal Agreements for three Betterment Projects: Flamingo – Boulder Highway North; 6th Street Pedestrian and Bicycle improvements; and Downtown Pedestrian and Bicycle Improvements, 3rd Street Phase 1.

Strategic Plan Goal – Deliver an outstanding customer service experience.

2019-20 Performance Objectives

- Maintain efficiency in reviewing water plan submittals, network analyses, and hydraulic grade line requests.
- Continue the 4-1-1 review process for developer projects; four-week first review, one-week resubmittal review, and one-week for final Mylar review/approval; with a target success rate of 90 percent.
- Encourage pre-submittal meetings with developers, the agency, and their engineers to identify potential issues and/or special conditions resulting in one less plan review required per project.
- Continue to work with other agencies to include water facility upgrades and replacements in road improvement projects.

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2018-19 Major Accomplishments

- Approved 5,155 new water service connections, 491 hydraulic grade line and fire flow information requests, 270 water network analyses, and 868 sets of development plan requests.
- Reviewed 4,240 sets of developer, utility, and public works plans for the LVVWD and the SNWA, including brand new submittals, re-submittals, and revisions.
- Hosted 379 project review meetings with developers and engineers.
- Implemented cellular communications at pressure monitoring stations and pressure reducing stations to reduce the time to bring developer projects online.

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

2019-20 Performance Objectives

- Update master planning areas and associated facilities needed to serve developed and vacant acreages based on new development trends.
- Continue to utilize the latest condition assessment technologies to determine the true condition and expected remaining life of the infrastructure.
- Maintain an industry leading hydraulic model, with state-of-the-art modeling tools, of the distribution system for effective decision support and further automate the hydraulic model and tools for maintenance, calibration, asset rehabilitation, emergency

response, shutdown analysis, and water quality applications.

- Collaborate with Clark County Public Works to perform pipeline replacement in Las Vegas Boulevard as part of the proposed County pavement replacement project from Sahara Avenue to I-215.

2018-19 Major Accomplishments

- Updated LVVWD’s Table 1 demand factors used by developers to size pipelines and facilities to reflect current water demand usage patterns.
- Completed 172 Maintenance Engineering projects, at a cost of \$12.5 million.
- Utilized a remote submarine to inspect critical infrastructure, such as the low-level intake structure and several reservoirs to reduce costs with diver services and used Magnaflux Leakage (MFL) technology to scan steel tank floors to measure wall thickness and identified holes.

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

2019-20 Performance Objectives

- Provide updated cost curves and risk assessments for the LVVWD and the SNWA pipelines.
- Continue to conduct Uniform Design and Construction Standards (UDACS) training sessions for engineering firms; addressing each firm’s needs and assisting them in submitting more accurate plans.

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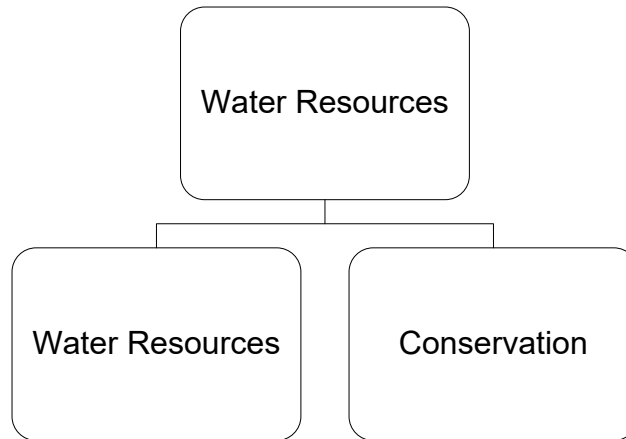
- Collaborate with Clark County and the City of Las Vegas Fire Departments to enhance onsite fire flow analyses, and train consultants on including pertinent information in civil plans.

2018-19 Major Accomplishments

- Processed 489 record drawing requests for developer and public works projects.
- Completed two UDACS' training seminars with engineering firms and a Developer Forum.
- Supported the Nevada Division of Environmental Protection (NDEP) and the water utilities in Nevada by providing engineering expertise in a state-wide working group and suggested edits to the Nevada Administrative Code.
- Completed 11 vault and backflow installations to address safety or regulatory issues.

WATER RESOURCES

Level: 3800



Mission

The mission of the Water Resources Department is to ensure adequate water resources are available to meet the community's current and future water needs in the face of climate uncertainty.

Department Description

The Water Resources Department manages SNWA's water resource portfolio to ensure a reliable water supply for the community. Primary responsibilities include the management of existing water supplies, the acquisition of new water supplies, water demand management, and monitoring of regional hydrologic and water-quality conditions. The department supports policy initiatives on the Colorado River, conducts forward planning for water resource needs, assesses future water supply risks, provides

technical support for the operations of LVVWD and SNWA production, artificial-recharge, and irrigation wells, and administers regional water conservation programs.

Budget Objectives and Highlights

The department's budget is \$66,306,231, which represents an increase compared to the fiscal year 2018-19 budget. Increases are primarily attributed to investigating new well production sites in the Las Vegas Valley and increased conservation activities including water waste enforcement. Budgets for other ongoing Colorado River activities, and environmental compliance costs remain similar to previous years' budgets. The budget for conservation activities reflects SNWA's long-term commitment to increased water conservation.

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Expenditures

SNWA Uses	Actual 2017-18	Budget 2018-19	Budget 2019-20
Water Resource Investments	\$ 2,032,966	\$ 18,766,798	\$ 13,654,000
Materials & Supplies	744,228	5,206,700	8,500,450
Maintenance & Repairs	449,786	535,300	537,350
Other Employee Expenses	111,658	250,645	264,195
Other Expenses	4,104,699	5,118,800	5,832,050
Total Operating Expenses	\$ 7,443,336	\$ 29,878,243	\$ 28,788,045
 Capital Expenditures	 \$ 15,443,595	 \$ 19,724,400	 \$ 24,440,000
 Payroll & Related Costs	 \$ 7,650,820	 \$ 7,988,010	 \$ 8,610,076
 Total Department Expenditures	 \$ 30,537,751	 \$ 57,590,653	 \$ 61,838,121
 FTE Positions	 38.8	 40.5	 40.6

Department Performance

Water Resources. The Water Resources Division is responsible for securing and managing regional and local groundwater and surface water resources to ensure a reliable water supply for Southern Nevada. This responsibility involves managing existing Colorado River allocations and agreements including those for river-related environmental compliance; conducting regional water resource planning, including integrated water resource planning, population forecasting, regional water demand forecasts and analyses, and water use accounting and reporting; identifying, evaluating, and developing sources of additional groundwater and surface water supplies; managing banked resources; establishing hydrologic and climatological

monitoring networks; securing water rights from the Nevada State Engineer’s (NSE) Office; and ensuring all water-resource assets remain in good standing.

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SNWA Permanent and Temporary Resources		
	Supply	Consumptive Use
Permanent	Colorado River (SNWA)	272,205 AFY
	Nevada Unused Colorado River (Non-SNWA)	0-21,067 AFY
	Tributary Conservation/ Imported Intentionally Created Surplus	40,000 AFY
	Las Vegas Valley Groundwater Rights	46,961 AFY
	Direct-Reuse	21,800 AFY
Temporary	Southern Nevada Groundwater Bank	335,410 AF
	Interstate Banks (California and Arizona)	931,266 AF
	Intentionally Created Surplus (storage in Lake Mead)	582,302 AF

Conservation. The Conservation division develops and implements demand reduction programs and strategies with emphasis on consumptive uses. The SNWA monitors water use in terms of Net Gallons Per Capita per Day (GPCD), since SNWA agencies recycle nearly all indoor water use, either through return-flow credits or direct reuse. Net GPCD more accurately reflects the community’s use of

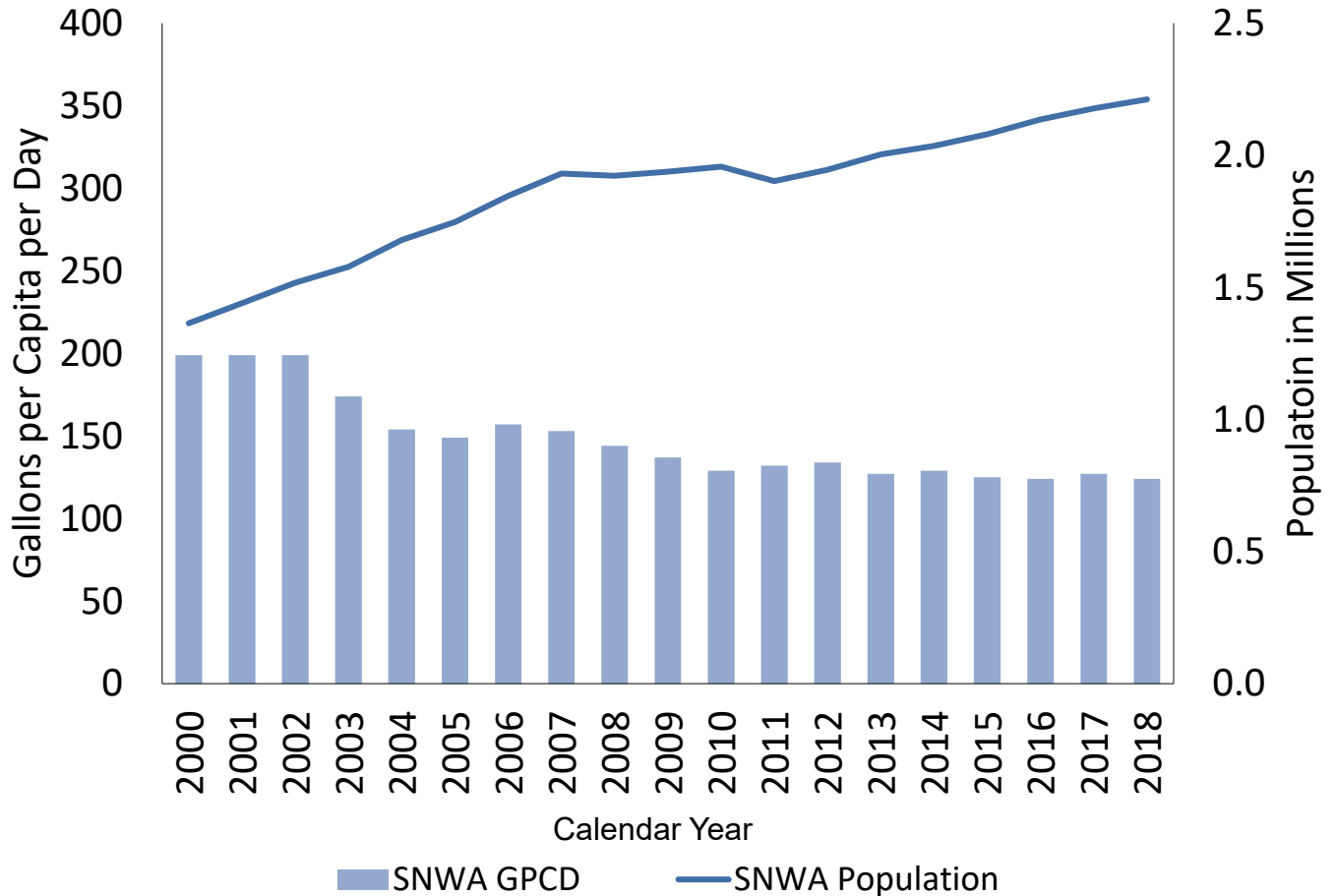
water resources and improves comparability with other communities. The SNWA’s net GPCD was 124 in 2018. This is a reduction of 38 percent, since onset of drought policies in 2002.

In 2018, the SNWA supported 2,328 projects comprising 3.6 million square feet of landscape conversion. These conversions will produce perpetual annual savings of more than 200 million gallons. The cumulative benefit of landscape conversions completed since 2000 reduced the SNWA’s 2018 consumptive water use by more than 10.5 billion gallons.

The Conservation division employs three water-efficiency strategies: education, incentives, and regulation. Education strategies include multi-media (managed through the Public Information division), customer contacts, publications, videos, special events, demonstration projects, and a comprehensive website. The incentive strategy utilizes rebates to promote landscape conversions and use of water-efficient technology and accounts for the largest share of conservation funding. The regulatory strategy relies on coordination with other jurisdictions to implement efficient development standards, time-of-day watering requirements, water waste penalties and tiered water rate structures. Beginning in FY20, the Conservation Division will increase expenditures for enforcement of water use regulations.

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SNWA GPCD and Population



Strategic Plan Objectives and Accomplishments

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

2019-20 Performance Objectives

- Cooperate with other Colorado River water users on programs that protect critical elevations in Lake Powell and Lake Mead.
- Ensure reliability of Colorado River supplies through active participation

in environmental compliance and management programs.

- Inspect the SNWA and the LVVWD wells annually to ensure appropriate operational capacity for each service area. Manage, develop, and certificate water rights, as appropriate.

2018-19 Major Accomplishments

- Continued implementation of the Colorado River Pilot System Conservation Program. Lake Mead contains approximately 25 feet of

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- additional water from the program and other storage initiatives.
- Completed all compliance monitoring and reporting for LVVWD groundwater rights, and permits to recharge, store, and recover water from the Southern Nevada Water Bank.
 - Administered LVVWD groundwater rights to optimizing operation flexibility.
 - Constructed high-capacity production well, W124, to replace well W027.
 - Performed an evaluation of production well W104 and designed and installed a liner to improve the quality of the production water.
 - Performed an evaluation at three reservoir sites in Las Vegas Valley to determine suitability of the sites for future production wells.
 - Prepared scientific reports for the NSE in support of water rights SNWA owns within the Lower White River Flow System.
 - Maintained and perfected SNWA groundwater and surface water rights while optimizing operation flexibility.
 - Provided well design, construction oversight, and project management for the Riverbank Filtration Well for Big Bend Water District.
 - Implemented a maintenance and repair plan to optimize efficiencies of irrigation wells and the development of water rights associated with the NR Ranch properties.
 - Constructed a high-capacity irrigation well to replace the Kerr irrigation well at Great Basin Ranch.

- Constructed a replacement well for the Harbecke Ranch quasi-municipal well.
- Continued funding and/or participation in the Lower Colorado River Multi-Species Conservation Program and the Glen Canyon Dam Adaptive Management Program.
- Cooperate with Colorado River stakeholders to update the economic damages model used by the Salinity Control Forum in their efforts to establish goals for triennial Plans of Implementation.

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

2019-20 Performance Objectives

- Maintain 90 percent or greater client satisfaction rating for delivery of the Water Smart Landscapes program.
- Expand single family Site Evaluation Pilot Program to make it available to multiple agencies as a tool to assist high water use inquiries.

2018-19 Major Accomplishments

- Conservation customer satisfaction rating increased to 94.8 percent (4.74/5-point scale).
- Developed program and process to offer rebates for smart leak detector devices.
- Developed a pilot program to offer consulting services to residential customers with disproportionately-high water use.
- Taught 23 English and Spanish landscaping/irrigation classes at the

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Springs Preserve to more than 600 residents.

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

2019-20 Performance Objectives

- Cooperate with other Colorado River water users on programs that protect critical elevations in Lake Powell and Lake Mead.
- Complete actions as required under the SNWA / Department of Interior Stipulated Agreements.
- Publish annual updates to SNWA's Water Resource Plan and Water Budget.
- Ensure compliance with terms of the SNWA Cooperative Agreement and Section 5 contracts with the Secretary of the Interior to fully utilize Nevada's 300,000 acre-feet of Colorado River apportionment.
- Communicate conservation goals and progress to the organization.
- Develop and submit the 2019-2023 5-Year Conservation Plan.
- Support conservation plans that benefit endangered and threatened species to ensure access to current and future water supplies.
- Monitor, and when appropriate participate in, external activities that might interfere with SNWA's access to current and future water supplies.

2018-19 Major Accomplishments

- Developed the 5-year Conservation Plan.
- Issued more than 5,000 conservation rebates saving the community nearly 260 million gallons per year.
- Piloted storage of approximately 56,000 acre-feet of conserved NV Colorado River water in Lake Mead to protect reservoir elevations.
- Participated in the ongoing implementation of the Pilot System Conservation Program.
- Conducted Colorado River modeling in support of ongoing negotiations and resource management activities.
- Partnered with Colorado River stakeholders to identify and prioritize research initiatives that would improve the accuracy of hydrological forecasts, enhance the performance of predictive and decision support tools, and to reduce uncertainty related to future supply and demand conditions in the CRB.
- Maintained a regional monitoring network in east central and southern Nevada to collect long-term hydrologic and climatological data.
- Designed and oversee construction of replacement wells within the Las Vegas Valley and for the ranches.
- Achieved 2018 Net GPCD of 124.
- Partnered with NV Energy, Southwest Gas, and the Desert Research Institute to supply 1,000 Water and Energy home retrofit kits to schools through a school sustainability curriculum.

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- Implemented a uniform conservation policy for water features among all municipalities.
- Published the combined SNWA 2018 Water Resource Plan & Water Budget.
- Created approximately 32,000 acre-feet of Tributary Conservation ICS and over 740 acre-feet of System Conservation water from the Muddy and Virgin Rivers to Lake Mead.
- Delivered 13,500 acre-feet of water for interstate banking in Arizona.
- Develop the first of its kind coupon/research program for Leak Detection Devices.
- Participate in the implementation of Minute No. 323, “Extension of Cooperative Measures and Adoption of a Binational Water Scarcity Contingency Plan in the Colorado River Basin”.

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

2019-20 Performance Objectives

- Increase participation in SNWA conservation incentive programs such as Water Smart Landscapes Program and Water Efficient Technologies Program
- Host 12th Annual WaterSmart Innovations Conference.
- Continue to collaborate with water efficiency technology incubators and accelerators, including WaterStart, ImagineH2O, the Metropolitan Water District of Southern California, the Alliance for Water Efficiency and others.
- Participate in a multi-agency, national research initiative on cooling technology and water demand.
- Collaborate with WaterStart on a study of water efficiency technology for resort and large facility management.

2018-19 Major Accomplishments

- Developed a 2-hour, state-approved continuing education course for Community Association Managers.
- Implemented a new incentive and research program for residential leak detection devices.
- Increased Water Smart Landscapes incentive 50 percent and experienced a doubling of residential applications.
- Implemented a program to provide additional support to member agencies to enforce watering restrictions.
- Ongoing collaboration with the State of Nevada’s WaterStart program and ImagineH2O to review water efficiency technology and select award recipients.
- Completed development of a national water efficiency rating system for new homes in conjunction with RESNET.
- Partnered with the Alliance for Water Efficiency and major utilities to fund and develop a research venture to explore water conserving approaches to cooling.
- Hosted approximately 1,000 attendees at the 11th Annual WaterSmart Innovations Conference and Expo, the nation’s largest event

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- for exhibiting and presenting water efficiency programming and technology.
- Partnered with the Metropolitan Water District of Southern California and Central Arizona Project to implement the Innovative Conservation Program.
 - Participated in the development of a scope of work for the study of water desalination opportunities in the Sea of Cortez.

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

2019-20 Performance Objectives

- Implement hydrologic monitoring efficiencies with remote data collection.
- Leverage conservation research dollars through regional/national projects that attract funding and participation from peer utilities.
- Implement a new business system to streamline workflows, maintain accountability, reduce labor intensity through automation and expand use of electronic documents.

2018-19 Major Accomplishments

- Continued installation of Geostationary Operational Environmental Satellite telemetry systems to monitor and provide real-time access to important hydrologic sites in remote locations and reduce travel-related expenses.

- Collected \$300,000 in grant funding to support conservation programs.
- Partnered with Lower Basin water users to fund a study to explore opportunities for desalinization of sea water along the Sonoran coast of the Sea of Cortez.

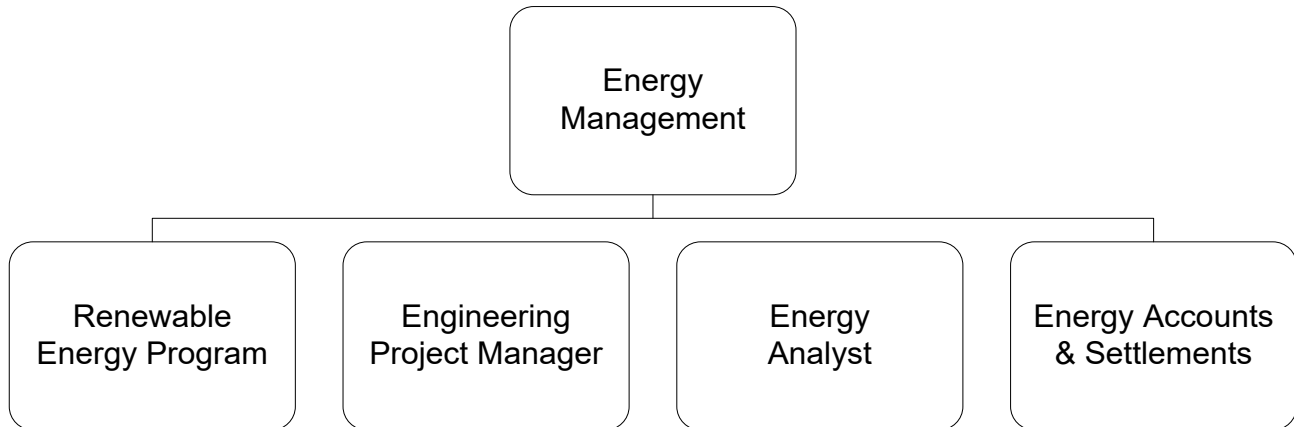
Strategic Plan Goal 6– Strengthen and uphold a culture of service, excellence and accountability

2018-19 Major Accomplishments

- Developed an interdepartmental dashboard to track and report conservation achievements.

ENERGY MANAGEMENT

Level: 3900



Mission

The mission of the Energy Management department is to manage an energy resources portfolio for the members of the Silver State Energy Association (SSEA), including the Southern Nevada Water Authority (SNWA) and its member agencies, which yields predictable prices; considering the overall value of sustainability and cost minimization.

Department Description

The Energy Management department was established in fiscal year 2005-06 to manage the procurement and utilization of energy resources necessary to pump, treat, and deliver water to the member agencies. The SNWA, in collaboration with the Colorado River Commission of Nevada (CRC), initially purchased energy supplies for its own water pumping needs and later began supplying power for the water pumping and wastewater needs of the SNWA member agencies, including the Las Vegas Valley Water District (LVVWD), the City of Las Vegas, the City of

Henderson, the Clark County Water Reclamation District and the City of North Las Vegas.

In 2007, the SNWA, along with the CRC, Lincoln County Power District No. 1, Overton Power District No. 5 and the City of Boulder City, formed the SSEA, a joint action agency charged with procuring and managing power resources for its members. Today, Energy Management personnel and CRC personnel, acting as the staff of the SSEA, manage the procurement and utilization of energy resources for the SNWA and its member agencies needs and the needs of the other SSEA members.

Key functions performed by Energy Management personnel on behalf of the SSEA include energy trading and procurement, accounting and settlements, energy risk management, forecasting, analytical support, and project planning and development. In addition to the functions performed on behalf of the SSEA, Energy Management personnel also support the renewable energy initiatives

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of the SNWA and the LVVWD.

Budget Objectives and Highlights

The fiscal year 2019-20 Energy Management department budget contains funding for all expenses associated with the procurement and management of energy resources for the SNWA’s electrical loads. Expenses for the LVVWD, other SNWA member agencies, and other SSEA members, are not included in this

budget. The majority of budget funding is for energy commodities and services purchased by the SSEA from the energy and financial marketplace to meet the SNWA’s needs. Other expenditures include transmission, distribution and ancillary services; operation and maintenance expenses associated with transmission and generating assets; and administrative and general expenses for CRC and the personnel of the SNWA.

Expenditures

SNWA Uses	Actual 2017-18	Budget 2018-19	Budget 2019-20
Energy	\$ 36,049,855	\$ 35,462,002	\$ 35,737,788
Materials & Supplies	2,903	2,500	2,250
Maintenance & Repairs	6,474	-	-
Rental & Leases	-	-	-
Other Employee Expenses	5,677	8,250	9,250
Other Expenses	81	1,250	1,250
Total Operating Expenses	<u>\$ 36,064,990</u>	<u>\$ 35,474,002</u>	<u>\$ 35,750,538</u>
Capital Expenditures	\$ 51,468	\$ 6,120,000	\$ 2,000,000
Payroll & Related Costs	\$ 1,394,833	\$ 1,502,093	\$ 1,570,473
Total Department Expenditures	<u>\$ 37,511,291</u>	<u>\$ 43,096,095</u>	<u>\$ 39,321,011</u>
FTE Positions	5.6	6.0	6.0

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

Southern Nevada Water Authority
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Department Budgets
Energy Management
Fiscal Year Ending June 30, 2020

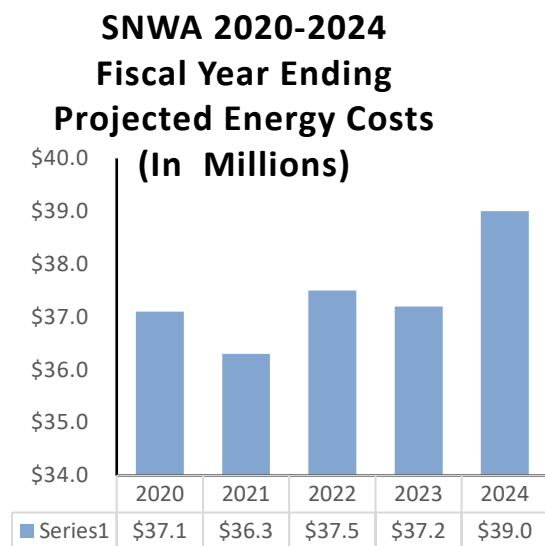
Energy Services group have met this need for many years now.

Expanding the energy portfolio managed by this group to include the SNWA member agencies and the members of the SSEA has brought significant economies of scale and portfolio synergies to each of the participants, including the SNWA. Furthermore, the energy portfolio has been able to be expanded in this way with only a minimal increase in the size of the labor and overhead required to properly manage it. Over \$1 million per year of general overhead and operating costs are now being paid for by non-SNWA entities, costs that otherwise would be paid for by the SNWA.

Some of the benefits the SNWA realizes by participating in the SSEA include 1) economies of scale when purchasing energy; 2) lower overhead costs; 3) lower balancing, imbalance and ancillary services costs due to the synergies of serving a single larger portfolio vs. serving the different load shapes of each individual entity; 4) federal hydropower optimization, which can only be realized by serving the combined portfolio; 5) economies of scale, shared resources, and shared costs of project development work; and 6) additional opportunities to work cooperatively with the other public entities in the overall energy portfolio.

Energy Price Stability. Energy Management measures its success on the basis of how well it is meeting its objective to provide energy to the SSEA members yielding stable, low and predictable prices. Consistent with the SSEA’s Energy Risk Procedures the price exposure of the SNWA’s energy portfolio has largely been

eliminated through calendar year 2023. The SSEA locks in its energy portfolio costs by securing a combination of physical market resources (generation assets or contracts for the delivery of electricity) as well as electric and gas financial products to meet the needs of its members. Physical contracts for electricity are secured whenever there are sufficient buyers and sellers to create liquid markets. Financial products are secured when physical contracts are unavailable or market liquidity is unacceptably low. Financial products protect against price movements in the market and can be converted to physical supplies at a later time when physical power markets are more liquid. Because the SNWA portfolio cost is substantially fixed through calendar year 2023, changes in the market price of energy are expected to have little effect on the SNWA’s expected costs during this period. The chart below shows the SNWA’s actual and projected energy costs through fiscal year 2024 as of the end of January 2019.



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Energy Management has met its objective of providing energy at stable and predictable prices. This long-term management approach has allowed the SNWA and its members to budget for energy costs with a high degree of confidence years in advance. To ensure the commitment to long-term price stability is met, a Risk Control Committee comprised of the SNWA and its member agencies meets quarterly to review standardized reports produced by the SSEA, and to monitor the SSEA's adherence to its Risk Control Procedures.

The SNWA's energy costs are expected to be approximately \$36 million, excluding the estimated cost of capital associated with the SNWA's energy assets for the fiscal year 2019-20. This amount is recovered through the SNWA wholesale water delivery charge

SSEA Eastern Nevada 230 kV Transmission Project. For the past several years, the SSEA members have been working cooperatively to develop the Eastern Nevada Transmission Project (ENTP), a 230 kV transmission system that would allow for the interconnection of SSEA members' electrical systems with each other and with the Mead Substation. Mead is the major regional wholesale market access point in Southern Nevada. The SSEA has completed an Environmental Assessment and received full project right-of-way grant and permits from the Bureau of Land Management. Management is presently evaluating various opportunities to move this project forward into the design phase.

SNWA and LVVWD Sustainability Initiatives. The SNWA continues to pursue economical energy contributing to the SNWA's and the LVVWD's goal of providing 25 percent of the

supply portfolio with renewable energy by 2025 and currently stands at 18 percent.

Strategic Plan Objectives and Accomplishments

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

2019-20 Performance Objectives

- Complete the installation of the 2 MW Solar Covered Parking project at the LVVWD Campus.
- Negotiate and execute a 50 MW Power Purchase Agreement and a Transmission Wheeling Agreement with a solar developer in support of our renewable energy goals.
- Negotiate and execute new Portfolio Energy Credit (PEC) agreements for the sale of all SNWA certified PECs.
- Install metering and communications sufficient to enable the correlation of L3PS power and water consumption.

2018-19 Major Accomplishments

- Finalized an agreement to install solar covered parking at the LVVWD campus. The project will include 2 MW of solar panels.
- Evaluated a microgrid application integrating the solar carport energy with battery storage at the LVVWD campus.
- Performed a Request for Interest for the supply of 50 MW of solar power in support of the ENTP project. Began negotiations with the preferred solar developer.
- Determined the 69kv system configuration and capacity to serve the L3PS project. Advised on a sequence of

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installations for lines and substations to connect temporary and permanent power to the loads for the L3PS project.

Strategic Plan Goal – Deliver an outstanding customer service experience.

2019-20 Performance Objectives

- Facilitate the transition of water and wastewater pumping loads as requested by member agencies to the SSEA energy management program.
- Provide advisory services to the SNWA member agencies as they evaluate various alternatives for serving their future energy needs.
- Ensure the customers who have been allocated federal hydropower are receiving the maximum benefits from the resource.
- Develop and launch a revised SSEA member website and document portal.

2018-19 Major Accomplishments

- Provided advisory and consulting services to the City of Las Vegas and the City of Henderson in their effort to understand the energy landscape and evaluate options for meeting their future energy needs.
- Implemented data exchange protocol to deliver SSEA bills directly into Henderson’s new billing system.
- Provided FERC compliance training to all network power customers.
- Provided quarterly educational presentations to all network power customers on the Risk Control Committee.

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

2019-20 Performance Objectives

- Coordinate the month-ahead scheduling process with scheduling contractors and implement improvements as needed.
- Maintain a managed portfolio of energy resources for all Silver State Energy requirements within all hedge guidelines and procedures.
- Cross train middle office personnel on mission critical systems and processes.
- Begin processing Hoover Dam energy payments for LVVWD.

2018-19 Major Accomplishments

- Implemented regular meetings between energy trading and risk management personnel to facilitate communication and enhance financial performance.
- Created a report to facilitate the tracking of Portfolio Energy Credits and worked with the Public Utilities Commission of Nevada to certify them in a timely manner.
- Worked with the SSEA’s scheduling entity to establish a process for recovering damages from energy suppliers due to non-delivery of energy resources.
- Enhanced energy accounting system to provide more robust cost versus actual comparison reports.
- Investigated alternative methods for customer collateral posting.
- Performed a comprehensive review and amendment to the SSEA Risk Management Procedures.

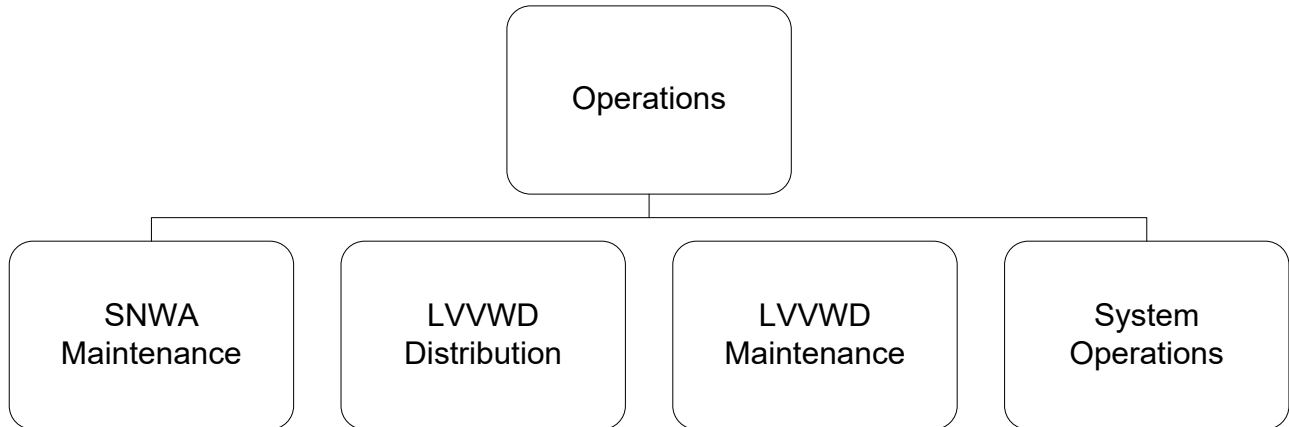
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Southern Nevada Water Authority
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OPERATIONS

Level: 4100



Mission

To serve the Southern Nevada Water Authority (SNWA) customers by delivering high quality drinking water to the greater Las Vegas area through efficient, reliable, state-of-the-art delivery systems. To support the Las Vegas Valley Water District’s (LVVWD) mission by delivering water to customers that is adequate to meet their needs and proven safe through a system that is effectively operated and maintained.

Department Description

The LVVWD system is comprised of a wide variety of facilities which include various pumping stations ranging in size from 7,500 gallon per minute (GPM) to 93,000 GPM and various reservoirs ranging in size from 10 million gallon (MG) to 50 MG, for a total storage of just over 900 MG. The LVVWD has 64 potable wells capable of producing 200 MGD, 31 specially constructed wells dedicated to recharging the groundwater basin with treated Colorado River water

during the winter months, and two recycled water distribution systems that include two reservoirs, five pumping stations and four wells.

The SNWA system consists of 31 pumping plants, 36 rate-of-flow control stations (ROFCS) also referred to as metering sites, 163 miles of large diameter pipeline, and over 60 regulating tanks, reservoirs and surge towers.

Operations also serves customers located not only in the metropolitan Las Vegas area, but also the small service areas of Blue Diamond, Jean, Kyle Canyon, Searchlight, Eldorado Valley, Coyote Springs/Moapa, Sloan and Laughlin.

Budget Objectives and Highlights

In October 2014, the SNWA/Southern Nevada Water System (SNWS) and the LVVWD Operations department’s divisions and functions were merged into a single department. Building on this action, the department was further reorganized in October 2015 to create a combined Systems

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Operations division with separate maintenance divisions for the LVVWD and the SNWA.

Operations' divisions are responsible for the day-to-day and long-term operations of a complex network of pumping stations, reservoirs, ROFCS, sodium hypochlorite facilities, and ground water wells necessary to meet water delivery demands. Wholesale customers of the SNWA include the LVVWD, City of Henderson, City of North Las Vegas, Boulder City, Nellis Air Force Base, and the Park Service. Retail customers of the LVVWD receiving water from Lake Mead include residents of unincorporated Clark County and the City of Las Vegas. The department also operates small ground water systems for the communities of Blue Diamond, Jean, Mt. Charleston, Searchlight, the Sloan Army Reserve Center, and the Moapa Water Treatment Plant.

Equipment and Project Budget. The Operations department combined equipment and project budget reflects the new items to establish improved maintenance practices, replacement of existing equipment items no longer supportable by the manufacturer, and capital projects the divisions manage. The total request is \$7,600,000 for the fiscal year 2019-20 Budget Plan between the LVVWD and the SNWA.

Operating Expense Budget. The department's Operating Expenses budget continues to focus on Reliability Centered Maintenance (RCM) aspects of keeping the overall water delivery system fully operational and reliable. The Operating Expenses for fiscal year 2019-20 Budget Plan are shown on the following table.

Operations' fiscal year 2019-20 overall budget totals \$70,230,043 between the LVVWD and the SNWA.

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Expenditures

SNWA Uses	Actual 2017-18	Budget 2018-19	Budget 2019-20
Water Resource Investments	\$ 224,160	\$ 250,000	\$ 250,000
Energy	194,196	205,000	215,000
Materials & Supplies	1,194,765	2,542,500	2,178,000
Maintenance & Repairs	-	430,000	430,000
Rental & Leases	-	-	-
Other Employee Expenses	50,903	73,100	113,800
Other Expenses	820	221,350	21,100
Total Operating Expenses	\$ 1,664,845	\$ 3,721,950	\$ 3,207,900
Capital Expenditures	\$ 1,359,343	\$ 2,016,500	\$ 2,716,845
Payroll & Related Costs	\$ 8,911,502	\$ 9,544,983	\$ 10,290,701
Total Department Expenditures	\$ 11,935,690	\$ 15,283,433	\$ 16,215,446
FTE Positions	55.1	57.3	58.7

Department Performance

SNWA Maintenance. The SNWA Maintenance division is responsible for the repair and maintenance of the production facilities and distribution system. The division ensures the system, facilities and equipment are maintained at a level to fulfill the SNWA's contracted water delivery commitments. This is a large, complex system consisting of 31 pumping plants, 36 metering sites called rate-of-flow control stations (ROFCS), 163 miles of large diameter pipeline, and over 60 regulating tanks, reservoirs and surge towers.

The Electrical/Electronics section consists of two teams of technicians responsible for all levels of reactive, preventive and predictive maintenance, emergency repair, new construction, retrofitting and installation, and upgrading of all equipment and process control systems belonging to the SNWS. All the SNWS pumping stations and ROFCS are fully automated and remotely controlled. This allows the SNWS to operate a 900 million-gallon per day water system with minimal staff. The Electrical/Electronics section is comprised of a workforce to maintain systems from 24 VDC to 13.8KV, working closely with the Colorado River Commission (CRC).

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The Mechanical section, consisting of two teams, is responsible for the maintenance and repair of the large pumping units, pneumatic/hydraulic valve actuating systems for the pump discharge control valves, the rate of flow valves and operators at the system pumping stations delivery points. These sections are also responsible for the heavy support maintenance and repair of all the in-valley and out-valley SNWS mechanical equipment consisting of motors and gear reduction units, valves and valve actuators, canal gates, air compressors and chemical feed systems utilized by treatment. A full capacity machine shop provides for in-house repair and fabrication of equipment needed to support the mission.

LVVWD Distribution. The Distribution division (Distribution) is responsible for maintaining 6,773 miles of pipeline and laterals, 128,288 valves, 401,112 service laterals, 39,695 fire hydrants, and all related appurtenances comprising the LVVWD's distribution system. In fiscal year 2017-18, Distribution crews completed 8,405 work orders consisting of repairs to pipelines, and the repair and replacement of valves and fire hydrants; additionally, 2,060 leaking service laterals were replaced. Distribution is in the process of replacing the estimated 80,000 polyethylene services installed within the LVVWD's distribution system between 1971 and 1989. These services have been problematic and very unreliable, with multiple failures. Approximately 62,995 of these services have been replaced, leaving 17,005 in unreliable service. Distribution also assists other departments, such as Asset Management and Inspections, by installing cathodic test stations, valve corrections, and water quality.

Distribution continues the preventive maintenance valve program which locates, operates, and maintains valves within the distribution system. Distribution located and exercised 10,285 valves in fiscal year 2017-18, keeping them in good working order and improving Distribution staff's ability to quickly perform main shutdowns in case of a leak or large emergency. This has helped Distribution staff lower the average time to shut down a leaking water main in an emergency and reduce non-revenue water losses.

The Backflow Prevention section administers the LVVWD's Backflow Prevention Program. This is a service protection program involving annual testing and repair of all backflow assemblies in the LVVWD distribution system. An active backflow program ensures contaminated water cannot enter the potable water system if a backflow, backpressure or back siphonage condition exists. The backflow technicians are certified by the California/Nevada section of the American Water Works Association (AWWA). They are currently managing approximately 30,600 backflow prevention devices.

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

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

The Field Booster Pump/Valve Repair section maintains, repairs, and installs mechanical equipment found at major pumping stations,

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select small system sites, and recycled water valve vaults.

The Pump System Repair section expedites repair of major pumps and motors. This is accomplished using machinists, mechanical, and coating and painting skills of the section members. The section also implements the predictive maintenance tool of vibration analysis on the LVVWD's more than 300 motors. Another major responsibility is to maintain the natural gas industrial engines at the Campbell Pumping Station and field deployed emergency generators.

The Electrical section maintains, repairs, and installs electrical equipment typically used as a control voltage for starting electrical motors. This involves performing preventive maintenance as determined by the RCM process and implementing the infrared predictive maintenance technology, knowing and understanding the controls, power and mechanics of the water system, and having a working knowledge of the LVVWD's pumping strategies.

The Telemetry section maintains and repairs all instrumentation pertaining to water system operation and security, including monitoring water pressure, flow, level, drawdown, and chlorination instrumentation and systems, field computer systems, and associated devices for the SCADA system, multiple address radios and repeater system, spread spectrum radios and repeater system, microwave radio communications equipment, and security equipment in support of field sites.

The Well Crew section performs predictive, preventive, and corrective maintenance on all well pumps, artificial injection wells, and

control valves. This section further plays a significant role in the evaluation of pump efficiencies and works in concert with Maintenance Engineering within Infrastructure Management to recommend well rehabilitation schedules for the well bore and pumping equipment.

Systems Operations. The Systems Operations division is comprised of the management team, LVVWD Systems Operations, SNWS Systems Operations, the Disinfection Reservoir shop, and a Small Systems section.

The management team is responsible for ensuring the sections have the necessary resources to accomplish their specific functions. Along with the section supervisors, the team consists of a manager, administrative staff, and an energy analyst. The energy analyst is integral in compiling the monthly water usage for which the SNWA bills its customers.

The LVVWD SCADA Operations section provides around-the-clock monitoring and control of all retail water distribution systems using the SCADA computer system. Daily tasks include coordinating water deliveries from SNWS and operating pumps and wells to maintain reservoir levels and water system pressure. This section remains dedicated to preparing daily pumping plans to fine tune pumping decisions which improve distribution system water quality and saves electricity costs.

The SNWS SCADA Operations section provides around-the-clock monitoring and control of wholesale water transmission and distribution system equipment using the SCADA computer system. Daily tasks include coordinating water and power orders from

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the LVVWD. They also operate pumps and valves at all pumping stations, and monitor flows, tank levels, system pressures, chlorine residuals and other information through the SCADA network. Purveyor, wholesale customer, demands are met by pumping water through the distribution system to the ROFCS, where the water is metered for billing. The SCADA system data is used to develop trends, reports and statistical information required for effective system operation.

The Disinfection and Reservoir section is a vital part of the potable delivery system for the Las Vegas Valley Water District. They manage reservoir networks that represent most assets of a water utility. Their principal responsibilities are the management and disinfection of the potable water storage network of reservoirs and wells to meet standards required for human consumption. These networks are managed to achieve long-term sustainability of the District's critical assets. They continually find ways to incorporate innovative water technologies to optimize operational performances of the disinfection systems, including injection principles and methods to reduce or eliminate current water quality concerns. Just as important are the sodium hypochlorite storage and delivery systems that are maintained and operated to a standard that meets or exceeds current American Water Works Association (AWWA) and the National Sanitation Foundation (NSF) standard 60 protocols

The Small Systems section oversees operations and maintenance of the rural water systems located in Blue Diamond, Coyote Springs (Moapa), Jean, Kyle Canyon,

Searchlight, and Sloan. This group is comprised of two rural systems operators (RSOs) and a Small Systems Superintendent. The RSOs perform daily inspections of rural sites to operate, maintain, and repair water distribution mains, service lines, meters, tanks, reservoirs, chemical feed systems and other related appurtenances. The Superintendent handles the day-to-day administrative aspects of the rural areas, including planning, budgeting, supervising the RSOs and correlating the Small Systems' needs with other maintenance work groups. The Superintendent also leads the Small Systems Cross Departmental Team (CDT) which is comprised of personnel from the LVVWD and SNWA organizations. The CDT's purpose is to ensure sound decision-making and transparency for each of the rural water systems.

Strategic Plan Objectives and Accomplishments

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

2019-20 Performance Objectives

- Both SCADA groups will collaborate on the final SCADA system alarm philosophy, displays, and control strategy to allow for the installation of a common SCADA system for both groups.
- LVVWD SCADA operations will produce a comprehensive delivery system vulnerability assessment to guide future capital projects geared toward improving overall system reliability.
- SNWS SCADA operations will participate in the integration of L3PS

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- data into SCADA. They will also participate in point-to-point testing and initial start-up activities.
- The Disinfection Shop will revitalize the diver supported reservoir inlet/outlet valve exercising program. Results will include prompt verification of valve status and immediate initiation of repair activities.
 - Small Systems will partner with several internal work groups to utilize Army Corp of Engineer funding to upgrade piping in Blue Diamond and Searchlight water systems.
 - Small Systems will initiate an expense reporting process for use at the Town Advisory Board meetings. This will increase transparency so customers will be able to fully appreciate the relationship between rates and system reliability.
 - Continue motor refurbishments on the A and C Laterals.
 - Establish temporary generator power emergency preparedness program for all In-Valley ROFCS.
 - Valve actuator replacement project on the South Valley Lateral.
 - Replace the failing variable frequency drive at IPS2 Unit No.1.
 - BPS2 Unit No. 9 and PP2A Unit No. 5 pump rebuilds.
 - Foothills Pumping Station Unit No. 7 cone valve rebuild.
 - Remove and reinstall IPS2 Unit No. 6 pump.
 - Install flow control valves at Hacienda ROFCS.
 - Install new venturis at Unit Nos. 6A, 6B and 6C.
 - Install final control valve and REXA operator at Flamingo ROFCS.

- Install new isolation valves at Horizon Ridge ROFC.
- Remove and install a replacement VFD at IPS2 Unit No. 1.
- Remove and install a replacement VFD at BPS2.
- Install automatic transfer switch (ATS) at PS1C to provide redundant power to critical items within the station.
- Install ATS at Foothills Pumping Station to provide redundant power to critical items within the station.
- Replace RTU/PLC cabinet at Sloan Pumping Station.
- Refurbish Motor No. 4 at Pumping Station 6.
- Install new ROTORK control valve actuators on South Valley Lateral.

2018-19 Major Accomplishments

- LVVWD SCADA operations supported the first-ever Broadbent Forebay outage for various maintenance projects. Reverse bypass flow into Rice Reservoir for 30 days provided ample time for the replacement of a 54-inch dismantling valve.
- SNWS SCADA Operations oversaw the planning and execution of 58 individual site and equipment outages. Expert planning and involvement by all concerned resulted in no impact to overall water deliveries to the purveyors.
- SNWS SCADA Operations supported three impromptu requests for tracer studies on the RMWTF finished water.
- Disinfection Shop staff initiated and completed an eye wash station weatherization project. This saved well over \$20,000 in equipment related failures associated with the

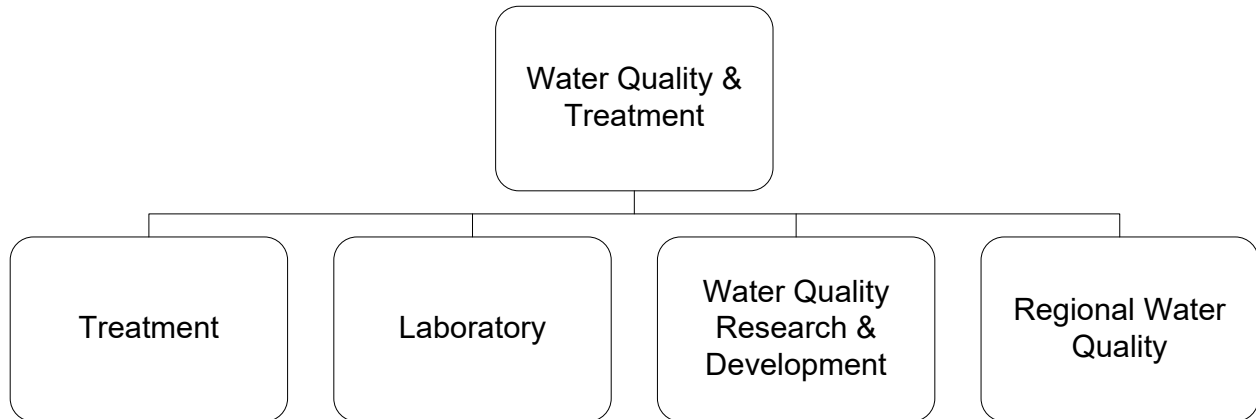
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- freezing temperatures felt in January and February.
- Small Systems averted a complete water outage for the Jean system by constantly monitoring the nitrogen packer and turbidity of the Midway Well. This afforded the Well Crew the seven days needed to replace Gold Strike Well pump and motor.
 - Small Systems partnered with Distribution to save an historic cottonwood tree in Blue Diamond. The tree was in the easement for the system's water main and required the combination use of a backhoe, vacuum truck, and hand-digging to expose the leak area and make a repair.
 - Conducted both a table-top and practical field exercise of loss of SCADA scenario within the LVVWD system. Staff responded to pumping equipment start and/or stop, as needed; field level measurements were taken, and after 48 hours of exercising, the lessons learned list was prepared and shared.
 - Executed 57 major SNWS outages in support of maintenance, engineering, or construction projects.
 - Replaced PS2C Unit No. 5 48-inch suction isolation valve.
 - Replaced all four discharge control valves at PP3.
 - Replaced the Park Service flow meter.
 - Rebuilt Unit No. 2 sleeve valve at Emergency Bypass ROFCS.
 - Installed 48-inch inlet butterfly and 48-inch outlet gate isolation valves at Hacienda ROFCS.
 - Installed 30- and 36-inch outlet isolation valves at Simmons ROFCS.
 - Installed 36- and 42-inch flow control valves at Oakey ROFCS.
 - Replaced the variable frequency drive at Booster Pumping Station 1A.
 - Upgraded surge tank controls at Foothills Pumping Station.
 - Upgraded and replaced batteries and chargers at ROFCS No. 3.
 - Removed and installed PLC cabinet at Decatur Pumping Station.
 - Installed wiring for the gantry crane at Hacienda ROFCS.
 - Replaced the hydraulic air compressor skids at Pumping Station 6.
 - Installed the UPS battery back-up at Decatur Pumping Station.
 - Replaced 23-year-old Ronzone Pumping Station valve actuators.
 - Replaced the Blue Diamond well pumping equipment and upgraded well site to meet State requirements and provide for a more reliable source of water for the community.
 - Refurbished the Jean Midway well to provide backup well capacity.
 - Replaced Carlton Square 3000 kVa electrical transformer due to age and oil condition.

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Water Quality & Treatment
Fiscal Year Ending June 30, 2020

WATER QUALITY & TREATMENT
Level: 4500



Mission

To provide world-class water service through innovative and effective water quality stewardship and reliable and efficient treatment operations.

Department Description

Presently, the functions under the Water Quality and Treatment (WQ&T) department include: Treatment, Laboratory, Water Quality Research and Development (R&D), and Regional Water Quality. The primary responsibility of the WQ&T department is to ensure the water quality provided to the Southern Nevada Water Authority (SNWA) purveyor members meets or surpasses all Safe Drinking Water Act (SDWA) standards. In order to do this, all of the divisions in the

WQ&T department have specific roles. The Treatment division is responsible for the operation and maintenance of the treatment process to supply high quality drinking water to the Las Vegas Valley. The Laboratory division is responsible for ensuring the finished water quality is compliant with the SDWA monitoring and reporting requirements. The Research and Development (R&D) division is responsible for performing research and process optimization studies to ensure the Treatment division is prepared for changing and emerging water quality challenges. The Regional Water Quality division is responsible for coordinating water quality in the SNWA source waters. All of these efforts are in support of the primary responsibility for the department.

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Water Quality & Treatment
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Expenditures

SNWA Uses	Actual 2017-18	Budget 2018-19	Budget 2019-20
Energy	\$ 55,840	\$ 60,000	\$ 60,000
Materials & Supplies	4,030,676	4,524,100	4,860,100
Maintenance & Repairs	762,394	1,025,000	1,066,983
Rental & Leases	-	-	-
Other Employee Expenses	443,917	678,125	637,960
Other Expenses	(76,361)	1,083,000	1,057,024
Total Operating Expenses	\$ 5,216,466	\$ 7,370,225	\$ 7,682,067
Capital Expenditures	\$ 8,612,841	\$ 16,354,800	\$ 16,007,386
Payroll & Related Costs	\$ 15,903,035	\$ 16,899,657	\$ 17,530,747
Total Department Expenditures	\$ 29,732,343	\$ 40,624,682	\$ 41,220,200
FTE Positions	81.5	86.4	86.4

Department Performance

Treatment. The Treatment division is responsible for the operation and maintenance of three treatment facilities: the Alfred Merritt Smith Water Treatment Facility controls all water treatment, chemical dosages, filter backwashing, and water quality. Treatment plant operators have direct responsibility for the operation of the water treatment facilities. The operator must comply with the SDWA, the Surface Water Treatment Rule and optimize treatment while minimizing cost.

Each operator must be certified for water treatment by the Nevada Division of Environmental Protection (NDEP) to the appropriate level for their responsibilities.

(AMSWTF), the River Mountains Water Treatment Facility (RMWTF), and the Big Bend Water District (BBWD), with a combined design treatment capacity of 1 billion gallons per day. The division, through a Supervisory Control and Data Acquisition System (SCADA), The American Water Works Association (AWWA) certifies operators at journeyman level and above as laboratory analysts. The water treatment process consists of ozonation for disinfection, followed by flocculation and filtration, as well as corrosion control, fluoridation and chlorination.

Laboratory. The Laboratory division is responsible for routine water quality monitoring, testing, and reporting. The sections within the Laboratory include Chemistry, Microbiology, Monitoring, and

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Laboratory Services. 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.

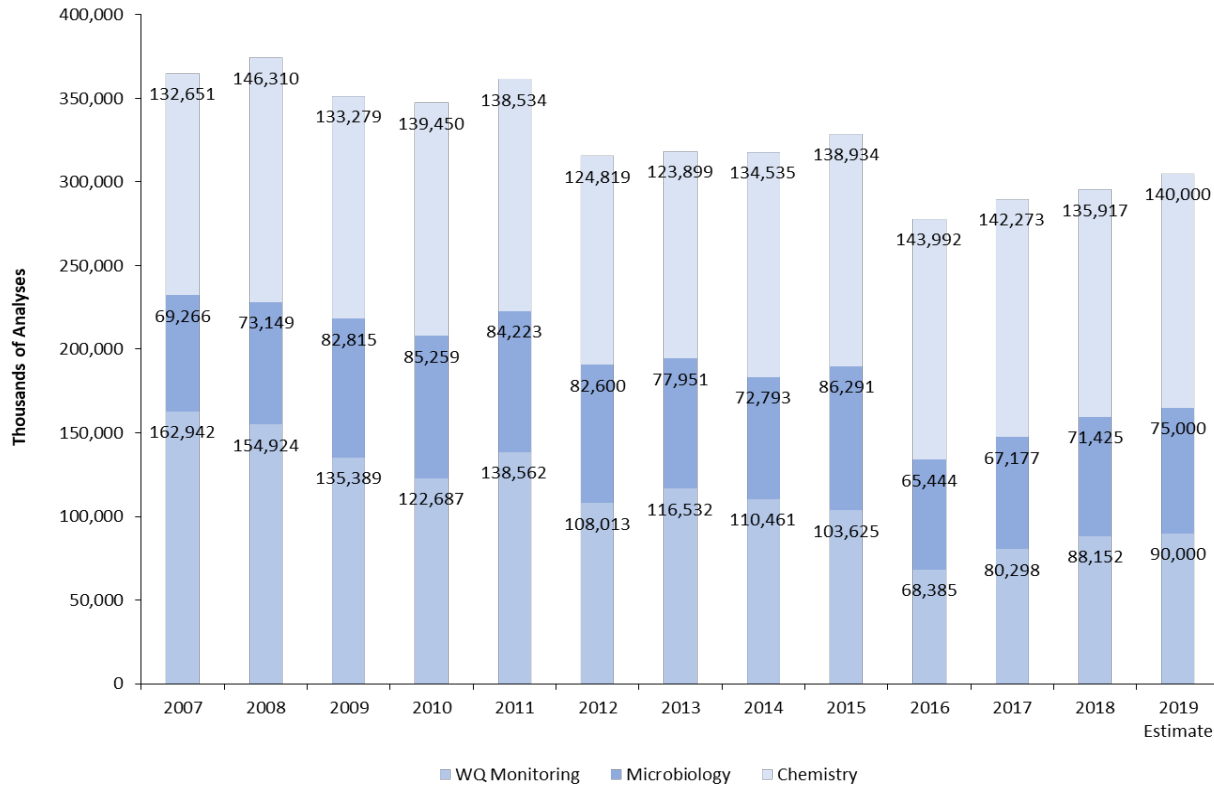
Analyses associated with the SDWA compliance testing are the highest priority in the Laboratory. The SDWA requires each public water system to perform or have performed a comprehensive set of analyses on its delivered water. The Laboratory Services section is responsible for scheduling all the routine and non-routine sampling events and receiving these samples into the laboratory. In addition, staff in this section serve as the primary point of contact for all Laboratory customers, including the private laboratories contracted for analytical services. The Monitoring section is responsible for collecting samples in the distribution systems of the SNWA purveyors. The Monitoring, Chemistry and Microbiology sections subsequently perform a variety of analyses on these samples. In addition, the Laboratory completed all the 2018 SDWA monitoring requirements for the 15 Clark County public water systems it serves.

The Laboratory conducts numerous analyses on samples from Lake Mead and its sources. Results of this work provide a general indication of the quality of water that will be received by the regional water treatment plants. The Laboratory also provides analytical support to the R&D division pilot plant and grant-funded research projects. With 36 employees, approximately 88,152 samples were collected and 295,494 analyses performed in 2018. The following chart

presents the total number of laboratory analyses through calendar years 2007-2018 (2019 estimate). The number of analyses can fluctuate year-to-year depending on the year's monitoring requirements.

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**SNWA Number of Water Quality Laboratory Analyses
2007-2019**



Water Quality Research and Development.

The R&D division is involved in cutting-edge investigations of low-level environmental contaminants and water treatment plant processes. The low-level environmental contaminant research is generally in support of existing or future compliance monitoring requirements mandated by the U.S. Environmental Protection Agency (EPA) under the SDWA. The water treatment plant process research involves bench or pilot plant

investigations to optimize existing treatment or evaluate alternative treatment technologies to meet future regulatory requirements. The R&D division is comprised of Research and Development, Analytical Research and Development, and Applied Water Quality Research sections. The chart below represents the cumulative amount of water quality research funding received from outside sources through calendar years 2002 - 2018.

Regional Water Quality. The Regional Water Quality division is responsible for coordination of regional water quality issues within the SNWA and other local, state, and federal agencies. Another essential function is to collect data in the Muddy and Virgin Rivers

and the Las Vegas Wash, and to compile, validate, and analyze all water quality data collected in these water bodies, as well as the data collected from Lake Mead and Lake Mohave by other agencies and the SNWA. All data collected is uploaded into the Lower

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Colorado River Regional Water Quality Database (Database) available at: www.snwawatershed.org/members.

Data is also analyzed to assess impacts of nutrients, quagga mussels, perchlorate, total dissolved solids, selenium, Microcystis, and other contaminants on the water quality in Lake Mead and the drinking water supply. The division continued its efforts to integrate data and understanding of Colorado River dynamics upstream of Lake Mead including Lake Powell, the Colorado River through Grand Canyon, and releases during High Flow Experiments.

In 2019-20, the Regional Water Quality division will continue to update the Lake Mead Water Quality Model with current data, including data collected from the sampling platforms. The abundance of data will result in more accurate and robust model calibrations, which will lead to increased

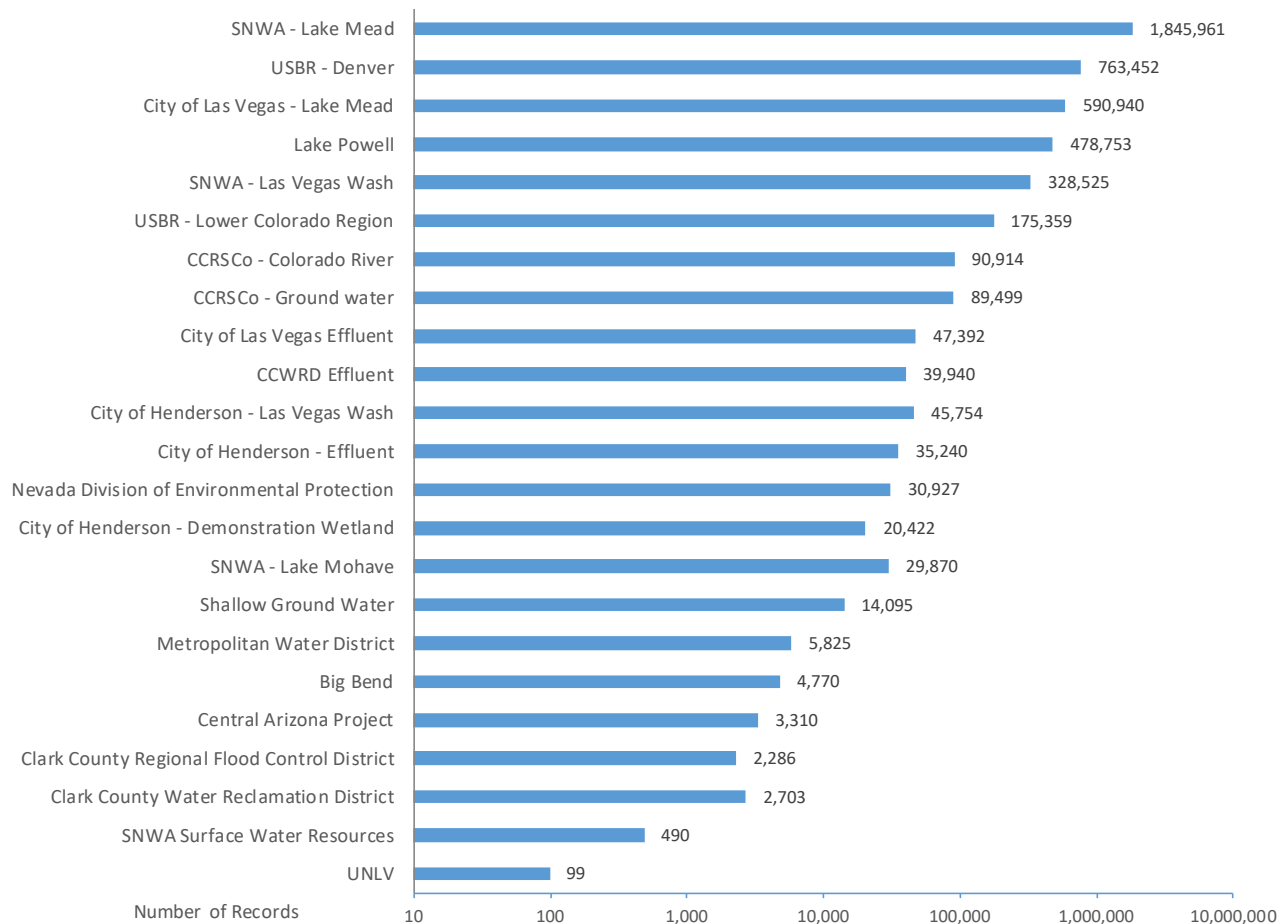
predictive capability of the model. The model will continue to be used to study scenarios deemed important to the Southern Nevada Water Authority, including but not limited to predicting sediment loads at the third intake as lake levels decline.

The division continued to coordinate the Lake Mead Monitoring and Ecosystem and the Interagency Monitoring Workgroups works with the Nevada Division of Environmental Protection on regional water quality issues.

The division actively seeks out new sources of data for the Database. Water quality information can be found in the Colorado River from Lake Powell to the international border with Mexico, which makes the Database a truly regional database. There are currently over 4.6 million records in the Database. The following chart is a summary of the data that has been uploaded by each agency into the Database.

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**SNWA Number of Records in Lower Colorado River
Water Quality Database (Logarithmic Scale - December 2018)**



Strategic Plan Objectives and Accomplishments

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

2019-20 Performance Objectives

- Continue development of a linked model to describe water quality in Lake Mead and the treatment of this water through the drinking water treatment process. This work will be done in conjunction with UNLV

utilizing grant funding from the USBR WaterSMART program. This work will allow for the exploration of potential future conditions and changes to the water treatment system that may be required.

- Work closely with Information Technology (IT) to complete the upgrade of ChemWare Laboratory Information Management System (LIMS) software and become proficient in use of the new upgrade.
- Continue to enhance Operator-in-training.

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- Refurbish AMSWTF Filters 16-20 and conduct performance study.
- Refurbish AMSWTF Fluorosilicic Acid (fluoride) storage system.
- Refurbish RMWTF Sodium Hypochlorite manufacturing system and reconfigure with several dilution options.
- Complete the AWWA Partnership for Safe Drinking Water for both the AMSWTF and the RMWTF for the “Excellence in Water Treatment” award.
- Complete all Unregulated Contaminant Monitoring Rule 4 (UCMR4) monitoring required in 2018 for Henderson and LVVWD.
- Continue support of various ongoing research projects by providing quality data in a timely manner, including extensive lake and sources monitoring, complex storage/distribution system trihalomethane (THM) monitoring, as well as ad-hoc water quality monitoring requests.
- Obtain UV Disinfection Credit for BBWD.
- Continue serving the International Ozone Association – Pan American Group (IOA-PAG) as President and Administrative Communications Officer.
- Continue to interact with internal and external customers of Lake Mead, Lake Mohave, Lower Colorado River and Las Vegas Wash water quality data to ensure a leadership role for SNWA in environmental issues.
- Implement updated water quality monitoring equipment and real-time data transfer capabilities for the Las Vegas Wash to support the activities of the Las Vegas Valley Watershed Advisory Committee.

2018-19 Major Accomplishments

- Continued to analyze Lake Mead and Mohave water quality data and to advise Water Quality and Treatment staff on possible impacts to the treatment system.
- Refurbished AMSWTF Filters 3, 4 and 5 and conducted filter performance study.
- Initiated annual eight-hour Treatment Operations training.
- Developed strategy to use chloramines to eliminate biological activity in the filters at Big Bend Water District(BBWD).
- Completed Phase IV of the AWWA Partnership for Safe Drinking Water for both the AMSWTF and the RMWTF for the “Excellence in Water Treatment” award.

Strategic Plan Goal – Deliver an outstanding customer service experience

2019-20 Performance Objectives

2018-19 Major Accomplishments

- The Water Quality Monitoring and Microbiology sections worked together to implement a new instrument, Endetec TECTA detection system, allowing for early detection of total coliform (TC) and *E. coli* (EC) in a sample. This new procedure allows the laboratory to provide customers with

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quicker results than current TC and EC procedures.

- Supported R&D division, LVVWD Operations, and Rainbow Canyon residents with quick-turn analysis for various analytical parameters related to corrosion control and lead and copper issues.
- Provided support service and guidance to the IOA-PAG resulting in a surplus of \$44,000 from the 2018 IOA PAG Annual Conference in Las Vegas, NV.
- Developed a predictive, model-based relationship between Lake Mead elevations and the temperature and pH of water withdrawn through the BMI intake for the City of Henderson and the Nevada Division of Wildlife to access water quality under future water surface elevation predictions.

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

2019-20 Performance Objectives

- Use the AEM3D Lake Mead water quality model to evaluate changes in the quality of water leaving Lake Mead and entering Lake Mohave at various lake surface elevations.
- Continue rehabilitation of filters at AMSWTF.
- Water quality conversion to input data into Avantis for RMWTF.
- Operate, maintain and perform challenge testing for water quality instrumentation at the AMSWTF Star Lab. Develop standard operation procedures for the online

instrumentation.

- Supply data and attend the project meeting to discuss the final report for Water Research Foundation (WRF) Project 4636 titled “An Integrated Modeling and Decision Framework to Evaluate Adaptation Strategies for Sustainable Drinking Water Utility Management Under Drought and Climate Change.”

2018-19 Major Accomplishments

- Awarded a US Bureau of Reclamation (USBOR) grant through WaterSMART Drought Response Program: “Building long-term resiliency to drought by employing riverbank filtration to improve water quality”.
- Regional Water Quality has continued to analyze Lake Mead water quality data in the context of changing climactic conditions. In 2018 – 2019, this analysis has focused on the impact of the ongoing drought in the Colorado River Basin.
- Deployed five operational buoys, each containing a suite of on-line water quality monitoring sensors, in Lake Mead.

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

2019-20 Performance Objectives

- Complete development of a linked model to describe water quality in Lake Mead and the treatment of this water through the drinking water treatment process. This work will be done in conjunction with

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UNLV utilizing grant funding from the USBR WaterSMART program.

- Expand the collection of Lake Mead water quality data through the use of automated data collection and analysis.
- Coordinate ongoing high-turbidity filter study with R&D division.
- Investigate the use of Dissolved Air Flotation (DAF) to enhance filter performance.
- Investigate use of Next Generation Sequencing of Deoxyribonucleic acid (DNA) to differentiate between the types of microorganism present in our source waters.
- Continue support of R&D division projects involving algal toxin monitoring, Polymerase Chain Reaction (PCR) analysis, and other microbial methods.
- Continue work on externally-funded projects by WRF (Projects 4691, 4719, 4716, 4711, 4912, 4913, 4914, 17-05), NSF, DOD SERDP and US Department of Agriculture (USDA).

2018-19 Major Accomplishments

- Operated copper sulfate injection system for biological control of pilot plant and raw water sampling pipe.
- Fully implemented the electronic tablet-based Horizon Logbook Manager (HLM) for Water Quality Monitoring.
- Evaluated the use of ATP and flow cytometry for early detection of harmful algal blooms.
- Completed WaterStart research project with Riventa.
- Completed externally-funded projects with WRF 4692 and WERF U2R13.

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

2019-20 Performance Objectives

- Enhance cross-training efforts of staff at RMWTF and AMSWTF.
- Pursue solicited and unsolicited externally-funded research grants from the WRF (e.g., Tailored Collaboration Project on disinfection framework for biofilters), US EPA, National Science Foundation and the USBOR.
- Renovate the RMWTF pilot plant into a new research microbiology laboratory.
- Maintain Phase IV AWWA Partnership for Safe Drinking Water standards at both the AMSWTF and the RMWTF.

2018-19 Major Accomplishments

- Operator-in-training completed training and advanced to Operator I position.
- The laboratory collaborated with procurement to negotiate a significant five-year discount for quality control standard and samples from its proficiency testing vendor.
- Received over \$470,000 from external grants.
- Awarded the Phase IV AWWA Partnership for Safe Drinking Water for both the AMSWTF and the RMWTF for the “Excellence in Water Treatment” award.

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

2019-20 Performance Objectives

- Investigate AWWA performance awards at the BBWD.
- Continue presenting scientific research at conferences and publishing on research projects.
- Maintain Phase IV AWWA Partnership for Safe Drinking Water standards at both the AMSWTF and the RMWTF.

2018-19 Major Accomplishments

- Awarded the AWWA Partnership for Safe Drinking Water for both the AMSWTF and the RMWTF for the “Excellence in Water Treatment” award.
- NDEP completed annual sanitary survey and found no deficiencies in the treatment process.
- Published 39 articles in scientific journals.
- Presented 7 papers at the 2018 American Water Works Association (AWWA) Water Quality Technology Conference.
- Presented 5 papers at the 2017 IOA World Congress.
- Submitted 3 papers at the 2018 AWWA Annual Conference and Exposition.

SECTION 6

CAPITAL PLANS

Capital Budget..... 6-1



SOUTHERN NEVADA WATER AUTHORITY™

FISCAL YEAR 2019-20

OPERATING AND CAPITAL BUDGET

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Capital Budget

The Southern Nevada Water Authority (SNWA) maintains a long-range facility planning process to determine the type, size and location of water distribution and treatment facilities needed to meet the water service demands of the areas in Clark County served by the member agencies – Las Vegas Valley Water District, City of Henderson, City of North Las Vegas, City of Boulder City and the Big Bend Water District (Member Agencies). As water system facilities are defined, they are incorporated into the SNWA’s overall construction program. The program is dynamic, with projects added, changed, or deleted as necessary to meet the changing conditions of the Member Agencies.

The overall capital project-related expenditures for 2019-20, totaling \$135.2 million, consist of continuing construction of the Low Lake Level Pumping Station at Lake Mead, groundwater development, weir improvements and expansion, pumping stations, water resources acquisition and development, reservoirs and wells, new water pipelines, and other distribution facilities. The capital equipment budget of over \$4.9 million consists of vehicles, Information Technology equipment, water works and diverse industrial equipment.

Impact of Construction Program on Operation and Maintenance Expenses

For water distribution facilities, in the near term, the SNWA does not anticipate any impact on maintenance expenses and only minimal expenses associated with the operation of the new facilities added to the SNWA’s water distribution system through its

overall construction program. This is due to the following three factors:

- First, the facilities being added to the SNWA’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 SNWA until they are fully inspected and tested and ready for operation.
- Third, over the past several years the SNWA 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 SNWA anticipates incurring maintenance expenses for the rehabilitation of facilities such as reservoirs, pump stations, and pipelines. However, these costs are minimized through the SNWA’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 member agencies 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 expense.

Projecting long-term additional operating expenses driven by the addition of capital assets to the SNWA’s water system is not easily quantified.

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The tables on the following pages contain a listing of all the capital equipment and capital projects included in the SNWA's capital expenditures for the fiscal year 2019-20.

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SNWA: CAPITAL BUDGET 2019-20

CAPITAL EQUIPMENT

2300 - Information Technology

Infoblox Appliance Upgrade	\$	48,000
Tape Library Relocation		60,000
Additional VxRails		64,000
Storage Growth		68,000
Backup Storage Upgrades		100,000
General Infrastructure		100,000
Converged Systems		150,000
Subtotal		\$ 590,000

3600 - Resources & Facilities

Hot Pressure Washer	\$	12,000
Genie GS1930 Manlift		15,000
20' Flat Bed Goose Neck Trailer		17,000
Portable Light Plant		18,000
Portable Gravel Screening System		20,000
1/2 Ton Extended Cab 4X4		35,000
Self-Cleaning & Adjustable Grizzly Screen		35,000
Land Leveler with Laser		40,000
Vermeer BC1000XL Chipper		42,000
3/4 Ton Crew Cab Short Bed 4X4		50,000
Robbins 9 Bale Automatic Bale Feeder		54,000
John Deere 318G or Equal Skid Steer Loader with Attachments		69,500
1 Lot of 8 Replacement Equipment Pieces		100,000
2 Each 1 Ton Crew Cab, Flat Bed 4X4		108,000
1 Lot of 3 Replacement Vehicles		162,000
SNWA - HVAC Unit Replacement		200,000
1 Lot of 3 Replacement Equipment Pieces		213,000
Twin Engine Aluminum Sampling Boat		335,000
Livestock - Replacement of Bulls/Heifers, Rams & Horses		355,000
35 Ton Boom Truck		355,000
1 Lot of 7 Replacement Vehicles		641,000
Subtotal		\$ 2,876,500

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4100 - Operations

LUDECA SDT270DU Pro Ultrasound System	\$ 17,500
3 Rittmeyer Ultrasonic Upgrades	74,595
3-MV Breaker Remote Racking Units	99,750
Subtotal	\$ 191,845

4500 - Water Quality & Treatment

Lake Mead Data Profiling Equipment - Multi-Parameter Sonde	\$ 46,000
Metrohm Ion Chromatograph (IC) System	85,000
Laboratory Dishwasher	138,434
Symbiosis On-line Solid Phase Extractor	148,639
Safe Drinking Water Act (SDWA) Compliance Monitoring and Tracking Software	175,000
Thermo Triple Quadrupole Mass Spectrometer	255,000
Q Exactive Mass Spectrometer	409,313
Subtotal	\$ 1,257,386

TOTAL CAPITAL EQUIPMENT	\$ 4,915,731
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CAPITAL PROJECTS

2500 - Public Services

Colorado River Traveling Exhibit	\$	547,000
Subtotal	\$	547,000

3400 - Engineering

Three Kids Replacement Revegetation	\$	85,054
Housing Replacement		100,000
Flood Repair Allocation		100,000
Final Archaeological Survey		115,000
Warm Springs Facility		137,500
AMSWTF Asphalt Repair and Resurfacing, Phase II		200,000
Tropicana Outfall Revegetation		209,521
880C - Historic Lateral Weir Expansion Revegetation		216,727
880W - Sunrise Mountain Revegetation		219,762
Evaporative Cooler Replacement (Leakage at 1A/1B)		270,000
Pump Station Roof Replacements		285,000
BOR Materials & Equipment		300,000
SNWA Roof Replacements		398,000
Final Weir Structure Modifications		3,600,000
Southern System Expansion		4,200,000
Lower Wash Project		5,000,000
Lake Mead Intake No. 3 (L3PS)		61,035,153
Subtotal	\$	76,471,717

3600 - Resources & Facilities

North McCoy House Heat and AC	\$	16,000
Wahoo #1 Roof Replacement		16,000
Bastian Creek Concrete Intake, Screen & Liner		22,000
Meadow Creek Transmission Pipeline		22,000
Warm Springs Office Conference Room		31,800
Kerr Pivot System		45,000
Wahoo Pipeline Replacement		47,000
AMS EHS Office		50,000
SNWA Tortoise Fence Installation		50,000
Ranch Fleet Maintenance Facility Room, North Bay Door, and Man Door		50,000

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Molasky Countertop Replacement	60,000
Domestic Well Repair Phillips	75,000
RMWTF- Loading Dock Leveler Replacement	80,000
McCoy and Huntsman Pit Toilets	100,000
Warm Springs Natural Area - Trail and Warm Springs Road Crosswalk	100,000
RMWTF- R&D Lab Management Remodel	100,000
AMSWTF Infrastructure Staff and Tech Library Relocation	100,000
RMWTF Lab Exhaust Fan Upgrade	110,000
Entry Gate for Foothill Complex	120,000
Harbecke, Shoshone, Huntsman, Wahoo House Repairs	123,000
AMSWTF Warehouse Office Reconfiguration	150,000
AMSWTF Miscellaneous Facilities Improvements	170,000
RMWTF Fire Alarm System Replacement	200,000
Building Energy Management and Control Expansion	200,000
Wahoo Haybarn #5	220,000
SNWA Energy Management System Expansion	260,000
AMSWTF Chiller #2 Upgrade	300,000
McCoy Creek Replacement Pipeline	310,000
Multi-Sites - Install LED Lighting	500,000
Clark, Lincoln, and White Pine Counties Groundwater Development - Environmental	503,500
Williams Creek Pipeline Replacement	600,000
Subtotal	\$ 4,731,300

3700 - Infrastructure Management

College ROFC Site - Personnel Access -Entry Lighting Addition	\$ 10,000
Multi-Site - Forebay Hatch Repairs - PP3,PP4,PP5,PP7 Forebays and Reg Tank 6	20,000
AMSWTF SCADA Room Halon System	25,000
Mag to Venturi Conversion	25,000
Fill or Install Traffic Rated Grating in Drainage Swale in Front of Machine Shop	50,000
Install New Pumps PS-4 (5 Each)	50,000
Install New Pumps PS-5	50,000
Twin Lakes Pump Station Crane Addition	50,000
Pilot Plant Area Restoration Project	50,000
RMWTF Site - Repair RMWTF Ozone Contactor #7	50,000
Parkway ROFC Site - Driveway Access	75,000
AMSWTF Site - 72-Inch EBROF Discharge Isolation Valve Vault Ladder Project	80,000
Multi-Site - Misc. Vault Repair	80,000
Pumping Station 5 Site - PP5 Forebay Drain Valve Replacement	100,000
Regulating Tank #6 Overflow Pipe Leak	100,000

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Sleeve Valve Installation at Galleria, Simmons, Carlton, and Gibson ROFC Stations	100,000
SNWS - SCADA PC/Server Hardware Upgrades	100,000
SNWS Network Switch Upgrades	100,000
Upgrade AMSWTF and RMWTF Security Data Communication Cables	100,000
South Valley Regulating Tank Site - SVRT Interior Joint Sealing	150,000
Foothills Pumping Station Site - Foothills ICCP Project	150,000
UPS Replacement and DC Plant Upgrade for All SNWS Distribution Sites	180,000
Multi-Site - PP1A/2A Crane Upgrade Project	200,000
Decatur Pumping Station Site - Investigate PS Inlet Pipeline Settling	200,000
RMWTF and AMSWTF Add Infrared Windows to Switchgear	200,000
RMWTF Site - Argon Pipe/Delivery System Project	200,000
SNWS – Control Logix Hardware Upgrades	200,000
Stage I and II Facilities PLC Upgrades	200,000
SNWS - Replace PLC 5 Processors and Remote Racks from Production Sites	250,000
AMSWTF Site - Complete Change-Out of Valve Actuators in Filters 21-26	300,000
Replacement of Ampgard 5kv Switchgear/MCC Hacienda Pumping Station Site - MCC Replacement	300,000
R-8 Equestrian Pump Replacement	300,000
Flamingo ROFC Fence	300,000
AMSWTF Site - Treatment Chemical Storage Tank Repairs	350,000
RMWTF Site - Back-Up VPSA Blower Project	370,000
SNWA SONET Transport Ring Replacement and DWDM Upgrades	400,000
Sloan Forebay Rehabilitation	500,000
Install New Pumps for BC PW Lateral (PS-1A Pumps, 8-12)	500,000
SNWS - RMWTF Site - RMWTF Ozone Modicon Controller Replacement	500,000
South Valley Lateral Actuator Replacement Project	750,000
PS 1C, 2C, BPS1A, and BPS2 Variable Frequency Drive Enhancements	2,000,000
Subtotal	\$ 9,715,000

3800 - Water Resources

Clark, Lincoln, and White Pine Counties Groundwater Development - Planning Hydrologic and Water-Quality Monitoring and Assessment of Las Vegas Valley Groundwater	\$ 100,000
Clark, Lincoln, and White Pine Counties Groundwater Development - Water Resources	840,000
Clark, Lincoln, and White Pine Counties Groundwater Development - Water Resources	1,050,000
Phillips Irrigation Well Replacement - Northern Ranches	1,150,000
Virgin and Muddy Rivers Water Resource Acquisition	2,000,000
Interim Colorado River Supplies - Project Management	2,000,000
Interim Colorado River Supplies - Water Banking	3,000,000

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Water Resource Acquisition and Development - Conservation - Water Smart Landscape Program	14,300,000
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Subtotal	\$ 24,440,000
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3900 - Energy Management

Eastern Nevada Transmission Project	\$ 2,000,000
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Subtotal	\$ 2,000,000
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4100 - Operations

PS 1A, 2A, 1B and 2B Pump Repairs and Flow Meter Installation	\$ 100,000
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Recoat Pump Casings at BPS1A and BPS2	100,000
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Machine Shop Equipment	375,000
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"A" Lateral Motor Refurbishment	450,000
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Reg Tank 6 Modifications	500,000
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Motor Refurbishment (Originally 6S027)	500,000
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Sleeve and Miscellaneous Valve Repairs	500,000
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Subtotal	\$ 2,525,000
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4500 - Water Quality & Treatment

Ozone System Related Needs	\$ 150,000
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R&D Necessary Unforeseen Projects	200,000
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Innovation Projects	500,000
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SNWA Necessary Unforeseen Projects	500,000
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RMWTF Microbiology Research Laboratory Retrofit	900,000
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Sodium Hypochlorite System Upgrades at RMWTF	2,500,000
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AMSWTF Filter Improvements	10,000,000
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Subtotal	\$ 14,750,000
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TOTAL CAPITAL PROJECTS	\$ 135,180,017
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TOTAL CAPITAL BUDGET	\$ 140,095,748
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SECTION 7

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Debt Management Policy

In Accordance With
NRS 350.013



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Debt Management Policy

NRS 350.013 Subsection 1(c)

Introduction

The Southern Nevada Water Authority (SNWA) is charged with: 1) operating the Southern Nevada Water System (SNWS) to deliver wholesale treated Colorado River water to its purveyor members, 2) expanding the SNWS as needed to meet the growing demand for water by its purveyor members, and 3) securing additional supplies of water for Southern Nevada, and effectively manage existing water supplies through the cooperative action of its member agencies.

The SNWS was originally a joint effort of the State of Nevada (State) acting through its Colorado River Commission (CRC) and the United States of America acting through the U.S. Bureau of Reclamation. Prior to 1995, the debt associated with the SNWS was either repayment contracts with the federal government, or general obligations of the State. Assembly Bill No. 542, approved by the Nevada Legislature in June 1995, transferred all assets and liabilities associated with the SNWS from the CRC to the SNWA effective January 1, 1996.

The SNWA's current debt structure is presented in the appendix. The SNWA has four options to sell debt:

- The SNWA can request the Las Vegas Valley Water District (LVVWD) to sell debt on its behalf. Standard & Poor's rates the LVVWD bonds "AA+", and Moody's Investors Service rates them at "Aa1". This rating makes the

LVVWD's bonds "high investment grade". This option has generally been used to sell most debt.

- The SNWA can sell its bonds to the State of Nevada's (State) Bond Bank, which then sells the State general obligation bonds. The 1997 Nevada Legislature made this option available. Standard & Poor's rates State bonds "AA", and Moody's Investors Service rates them at "Aa2". This rating classifies the State's bonds as "high investment grade". This option has generally been used to sell long term fixed rate debt.
- The SNWA can sell its bonds to the Clark County (County) Bond Bank, which can then sell County general obligation bonds. The 1999 Nevada Legislature made this option available. Standard & Poor's rates County bonds "AA+", and Moody's Investors Service rates them at "Aa1". This rating classifies the County bonds as "high investment grade". This option has generally been used to sell long term fixed rate debt.
- The SNWA can issue debt in its own name. However, the SNWA is unable to make a general obligation (property tax) pledge, therefore interest rates on the debt would tend to be higher. This debt has not been rated but is likely to be below the rating of the LVVWD, the State, and the County, which would result in higher interest rates. Therefore, it is expected that the SNWA will continue to use the previously mentioned options to issue debt.

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The SNWA's Major Construction and Capital Plan (MCCP) outlines the phased construction plan developed to meet the growing demands for water in the Las Vegas Valley. Originally the MCCP was provided in two documents. The first was the Capital Improvements Plan (CIP), first produced in December 1995 and updated sixteen times hence. This plan detailed treatment facilities and intake systems needed to expand the SNWS capacity to 900 million gallons per day (MGD). The second was called the MCCP and covered other construction and capital projects not included in the CIP. The original MCCP was first published in June 2002. In February 2010, the SNWA's Board of Directors (the Board) approved the merger of the two capital plans into a new MCCP. The MCCP is reviewed semi-annually and is presented to the Board as determined appropriate by the SNWS work group. The most recent update was adopted by the Board in May 2015. The MCCP has been partially funded with debt.

The Las Vegas Wash Capital Improvements Plan (LVWCIP) covers projects the SNWA is building in the Las Vegas Wash. The LVWCIP is updated periodically with the most recent update occurring in May 2016. The SNWA intends to use an inter account loan from the New Expansion Debt Service sub fund, as well as grant proceeds, to pay for these projects. Four percent of the SNWA's overall sales tax proceeds received are dedicated to the Las Vegas Wash and will be used to make debt service payments on this inter account loan.

This document is not intended to review the SNWA's total financial position. Analysis of the SNWA's debt position is important, as growth in the County, as well as impacts from the ongoing drought within the Colorado River

Basin, have resulted in an increased need for capital financing. Resources, as well as needs, drive the SNWA's debt issuance program. The MCCP and LVWCIP were developed to identify clearly, and in detail, the specific facilities which are to be built, the year in which they are proposed to be completed, and an estimate of how much each will cost. As projects are completed, these plans will also document actual costs of those facilities.

Below are excerpts from Nevada Law, which require local governments to submit this 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:

(a) A complete statement of current general obligation debt and special elective taxes, and a report of current debt and special assessments and retirement schedules, in the detail and form established by the Committee on Local Government Finance.

(b) A complete statement, in the detail and form established by the Committee on Local

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Government Finance, of general obligation debt and special elective taxes contemplated to be submitted to the commission during the fiscal year.

(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 this 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 property tax rate.

(d) Either:

(1) Its plan for capital improvement for the ensuing 5 fiscal years, which must include

any contemplated issuance of general obligation debt during this period and the sources of money projected to be available to pay the debt; or

(2) A statement indicating that no changes are contemplated in its plan for capital improvement for the ensuing 5 fiscal years.

(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

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(6) A discussion of its sources of money projected to be available to pay existing general obligation debt, authorized future general obligation debt and proposed future general obligation debt

Existing, Authorized and Proposed General Obligation/Revenue Supported Bond Indebtedness Issued by the Las Vegas Valley Water District (“LVVWD Bonds”).

The SNWA’s Bonds issued in the name of the LVVWD 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, subject to Nevada constitutional and statutory limitations on the aggregate amount of ad valorem taxes. The LVVWD Bonds are payable from general ad-valorem taxes on all taxable property in the LVVWD service area and are additionally secured by certain pledged revenues as set forth in Section 4, Chapter 631, Statutes of Nevada 1993. The pledged revenues currently consist of connection, commodity, infrastructure and reliability charges, which were approved by the SNWA, the LVVWD, and the cities of Henderson and North Las Vegas.

In any year in which the total property taxes levied within the LVVWD’s service area by all applicable taxing units (e.g. the State, 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 Bonds or their security may be repealed, amended, or modified in such a manner as to adversely impair 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 Bonds is not secured by an encumbrance, mortgage or other pledge of property of the LVVWD or the SNWA, and no property shall be liable to be forfeited or taken in payment of the LVVWD Bonds; provided the payment of the Bonds is secured by the proceeds of general (ad valorem) taxes and the LVVWD’s and the SNWA’s 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 LVVWD 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 or the SNWA, past, present or future, either directly or indirectly by virtue of any statute or rule of law. The LVVWD Bonds will be repaid with revenues of the SNWA and/or revenues made available to the LVVWD by certain members of the SNWA.

The LVVWD has never levied an ad valorem tax because theirs and the SNWA’s revenues have been sufficient to pay debt service on all of the LVVWD’s bonds and obligations secured by such revenues.

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Proposed Future SNWA Water Bonds. The SNWA does not intend to issue new money debt in fiscal year 2019-20. However, the bond market is constantly monitored for savings opportunities via refunding or restructuring existing debt issues.

Bonded Indebtedness. The following table shows the SNWA's outstanding LVVWD Bonds as of June 30, 2019.

Debt Service Requirements. See the appendix for the table illustrating the debt service to maturity on the LVVWD Bonds.

Property Tax Rate Impact. Principal and interest on the LVVWD Bonds are payable from the SNWA's pledged revenues. There will be no direct impact on the ad valorem tax rate as long as pledged revenues are sufficient to pay debt service on the outstanding bonds. See the appendix for a table that illustrates the SNWA's pledged revenues and debt service coverage.

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Debt Issued By The Las Vegas Valley Water District
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	Issue Date	Original Amount Issued	Outstanding Principal
LVVWD Commercial Paper	Mar-04	\$ 400,000,000	\$ 400,000,000
LVVWD 2011A Refunding Bonds	May-11	58,110,000	40,050,000
LVVWD 2011B Refunding Bonds	Oct-11	129,650,000	91,180,000
LVVWD 2011C Refunding Bonds	Oct-11	267,815,000	198,945,000
LVVWD 2012B Bonds	Jul-12	360,000,000	324,520,000
LVVWD 2015 Refunding Bonds	Jan-15	332,405,000	332,405,000
LVVWD 2015B Refunding Bonds	Jun-15	177,635,000	144,115,000
LVVWD 2015C Refunding Bonds	Jun-15	42,125,000	33,920,000
LVVWD 2016A Refunding Bonds	Apr-16	497,785,000	469,215,000
LVVWD 2017B Refunding Bonds	Mar-17	22,115,000	22,115,000
LVVWD 2018B Refunding Bonds	Mar-18	79,085,000	70,840,000
LVVWD 2019A Refunding Bonds	Mar-19	107,975,000	107,975,000
Total		<u>\$ 2,474,700,000</u>	<u>\$ 2,235,280,000</u>

SOURCE: Southern Nevada Water Authority

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Existing, Authorized and Proposed General Obligation/Revenue Supported Bond Indebtedness Issued by the Clark County, Nevada Bond Bank (“County Bonds”).

The County Bonds will be repaid with revenues of the SNWA and/or revenues made available to the SNWA by certain members of the SNWA. AB 201, approved by the 1997 State Legislature, provides that members of the SNWA must contract with the SNWA to make payments from the revenues of the members’ water systems that, in the aggregate, are fully sufficient to pay those bonds as they become due. If the water revenues of any such member are insufficient to pay the member’s share of the amount due on the bonds, the member shall pay the deficiency out of money available for that purpose in the general fund of the member. If the money in the general fund of the member is insufficient to pay fully any such deficiency promptly, the member shall levy a general ad valorem tax on all taxable property within the member’s boundaries at a rate necessary to produce revenue in an amount sufficient to pay that member’s share of the payments due on the bonds. The obligations of the members of the SNWA to the SNWA and the State as a result of the acquisition of bonds of the SNWA pursuant to AB 201 do not constitute indebtedness of the members within the meaning of any constitutional, charter, or statutory limitation or other provision restricting the ability to incur debt. Nevada statutes provide that no act concerning the County 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.

Payment of the County Bonds is not secured by an encumbrance, mortgage or other pledge of property of the SNWA, and no property shall be liable to be forfeited or taken in payment of the County Bonds; provided payment of the Bonds is secured by the SNWA revenues, which are pledged for payment of the Bonds. Furthermore, Section 350.606 of the Bond Act provides that 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 County 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 SNWA, past, present or future, either directly or indirectly by virtue of any statute or rule of law.

Proposed Future SNWA Clark County Bonds. The SNWA does not intend to issue new money debt in fiscal year 2019-20. However, the bond market is constantly monitored for savings opportunities via refunding or restructuring existing debt issues.

Bonded Indebtedness. The following table shows the SNWA’s outstanding County Bonds as of June 30, 2019.

Debt Service Requirements. See the appendix for the table illustrating the debt service to maturity for the existing County Bonds.

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Property Tax Rate Impact. There is no impact on tax rates as principal and interest on the County Bonds is payable from the SNWA’s pledged revenues only. See the

appendix for the table illustrating the SNWA’s pledged revenues and debt service coverage.

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Debt Issued By Clark County, Nevada Bond Bank
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	Issue Date	Original Amount Issued	Outstanding Principal
Clark County 1106 Refunding Bonds	Nov-06	\$ 604,140,000	\$ 69,545,000
Clark County 2009 Refunding Bonds	Nov-09	50,000,000	35,525,000
Clark County 2012 Refunding Bonds	Jun-12	85,015,000	79,515,000
Clark County 2016A Refunding Bonds	Mar-16	263,955,000	202,400,000
Clark County 2016B Refunding Bonds	Aug-16	271,670,000	263,920,000
Clark County 2017 Refunding Bonds	Mar-17	321,640,000	311,730,000
Total		<u>\$ 1,596,420,000</u>	<u>\$ 962,635,000</u>

SOURCE: Southern Nevada Water Authority

Existing, Authorized and Proposed General Obligation/Water Revenue Bonds Issued by the State of Nevada Bond Bank (“State Bonds”).

The SNWS was originally financed by a combination of State of Nevada, CRC General Obligation Bonds and Federal Repayment Contracts entered into between the State and the United States Bureau of Reclamation (the Repayment Contracts). These debt obligations were transferred to SNWA effective January 1, 1996, according to the Transfer Act (Assembly bill No. 542, NRS Chapter 393).

The State Bonds are general obligations of the State, and the payment of principal and interest due thereon are secured by general taxes levied against all taxable property within the State, subject to limitations

imposed by the constitution and statutes of the State. The full faith and credit of the State is pledged for the payment of the principal, redemption premium, if any, and interest on the State Bonds. For the purpose of paying the principal and interest on the Bonds, there shall be levied, until all the Bonds shall have been fully paid, a general tax on all property, both real and personal, subject to taxation within the boundaries of the State, including the net proceeds of mines, fully sufficient to pay and retire the State Bonds, without regard to any statutory tax limitations now or hereafter existing (other than the limitation of \$3.64 on each \$100 of assessed valuation in the State statutes, and after there are made due allowances for probable delinquencies).

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The payment of the State Bonds is further secured by a lien on the net pledged revenues derived from the operation of the SNWA's facilities.

In any year in which the total property taxes levied within the State by all overlapping units (e.g. the State, any county, the school district, any city, or any special district) exceed such property tax limitations, the reduction to be made by those units (including the State) must be in taxes levied for purposes other than the payment of their bonded indebtedness, including interest on such indebtedness, subject to any implied police power exception.

Nevada statutes provide that the faith of the State be pledged and any law supplemental or otherwise appertaining thereto, and any act concerning the Bonds, or other municipal securities, taxes or pledged revenues, shall not 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 State Bonds is not secured by an encumbrance, mortgage or other pledge of property of the State, except

the proceeds of general taxes, net pledged revenues, and other money pledged for the payment of the Bonds shall be liable or forfeited for, or taken in payment of, the Bonds.

Proposed Future SNWA State of Nevada Bonds. The SNWA does not intend to issue new money debt in fiscal year 2019-20. However, the bond market is constantly monitored for savings opportunities via refunding or restructuring existing debt issues.

Bonded Indebtedness. The following table shows the SNWA's outstanding State Bonds as of June 30, 2019.

Debt Service Requirements. See the appendix for the table illustrating the debt service to maturity for the existing State Bonds.

Property Tax Rate Impact. Principal and interest on the State bonds are payable from the SNWA's net pledged revenues. There will be no direct impact on the State's ad valorem tax rate as long as pledged revenues are sufficient to pay debt service on the outstanding bonds. See the appendix for the table illustrating the SNWA's pledged revenues and debt service coverage.

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Debt Issued By The State of Nevada Bond Bank
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	Issue Date	Original Amount Issued	Outstanding Principal
Nevada Drinking Water State Revolving Fund Loan 1	Dec-99	\$ 12,269,695	\$ 843,750
Nevada Drinking Water State Revolving Fund Loan 2	Jun-01	10,000,000	1,655,453
State of Nevada 2009 Bonds	Oct-09	2,214,457	1,328,674
State of Nevada 2010B Refunding Bonds	Jun-10	7,405,000	1,175,000
State of Nevada 2013 Refunding Bonds	Feb-13	21,720,000	21,720,000
Total		\$ 53,609,152	\$ 26,722,877

SOURCE: Southern Nevada Water Authority

Existing, Authorized and Proposed Water Revenue Bonds Issued by the Southern Nevada Water Authority (“SNWA Bonds”).

At present, the SNWA Bonds consist solely of the SNWA’s Subordinate Lien Revenue (Clean Renewable Energy) Bonds, Series 2008 (the “2008 Bonds”). The 2008 Bonds are payable from a pledge of the Sales Tax (hereinafter defined) and a subordinate pledge of all revenues from the SNWS, including revenues, charges or fees for commodities and services rendered by or through the SNWS. The pledge of the SNWS water revenues is subordinate to the lien thereon of the LVVWD Bonds (which are payable to the LVVWD pursuant to a Master Bond Repayment Agreement between the LVVWD and the SNWA), the County Bonds, the 2010B State Bonds and on a parity with the balance of the State Bonds.

The Sales Tax is authorized by NRS 377B.010 through 377B.210 and enacted pursuant to Chapter 4.18 of the Clark County Code. The Sales Tax is comprised of a tax upon retailers

at the rate of 0.25 percent of the gross receipts of any retailer from the sale of tangible personal property sold at retail, or stored, used or otherwise consumed in the County less a percentage (calculated on the same basis as the percentage calculated pursuant NRS 374.785(3)(a)) of all fees, taxes, interest and penalties as compensation to the State for the cost of collecting the Sales Tax). At present, the Sales Tax is only pledged to the payment of the 2008 Bonds.

The payment of the 2008 Bonds is not secured by an encumbrance, mortgage or other pledge of property of the SNWA and no property of the SNWA shall be liable to be forfeited or taken in payment of the 2008 Bonds except the proceeds of the Sales Tax and a subordinate lien on the proceeds of the revenues derived from the SNWS.

Proposed Future SNWA Water Bonds. The SNWA does not intend to issue new money debt in fiscal year 2019-20. However, the bond market is constantly monitored for

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savings opportunities via refunding or restructuring existing debt issues.

Bonded Indebtedness. The following table shows the SNWA outstanding Bonds as of June 30, 2019.

Debt Service Requirements. See the appendix for the table illustrating the debt service to maturity on the SNWA Bonds.

Property Tax Rate Impact. Principal and interest on the SNWA bonds are payable from the SNWA’s net pledged revenues. There will be no impact on ad valorem tax rates. See the appendix for the table illustrating the SNWA’s pledged revenues and debt service coverage.

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	Issue Date	Original Amount Issued	Outstanding Principal
SNWA Clean Renewable Energy 2008 Bonds	Jul-08	6,900,000	\$ 1,840,000
Total		\$ 6,900,000	\$ 1,840,000

SOURCE: Southern Nevada Water Authority

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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 SNWA does not have a specific debt limit dollar amount threshold. The SNWA's ability to issue and pay its debt is a function of its capital needs and revenues generated from the SNWA's 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 this 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;

The SNWA currently has no outstanding bonds payable directly from property taxes, as the SNWA cannot levy property taxes. The existing and proposed 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 may sell its bonds at a competitive or negotiated sale. The SNWA will follow these 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 governed by the requirements of the Nevada Open Meeting Law.

Competitive Sale.

In a competitive sale, all underwriter(s) are invited to submit a proposal to purchase an issue of bonds. The bonds are awarded to the underwriter(s) presenting the best bid according to stipulated criteria set forth in the notice of sale. The best bid is determined based on the lowest overall interest rate.

Negotiated Sale.

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

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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 SNWA.
- 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 SNWA to conclude a competitive sale would not be effective, including market conditions.

It is the policy of the SNWA to provide minority owned business enterprises, women owned business enterprises and all other business enterprises an equal opportunity to participate in the performance of the SNWA contracts. At a competitive sale, bidders are requested to assist the SNWA 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 SNWA 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 the SNWA's competitive bond 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 SNWA financings, or have submitted financing ideas and concepts for SNWA's consideration over the past five years.
- The CFO may distribute, or request that the SNWA's Financial Advisors distribute on behalf of the SNWA, a Request for Proposal (RFP) to underwriting firms on the list. The RFP may include, at a minimum, information regarding the firm's qualifications, staffing and personnel assigned to the SNWA, 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 to, conduct interviews of firms who submit responses to the RFP.
- The selection of underwriter(s) may be based on the overall quality of the response, qualifications of the firm, demonstrated success in pricing bonds, understanding of the SNWA's

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objectives, qualifications of the banking and underwriting team to be assigned to the SNWA, 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 SNWA. 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 five percent to any firm. The CFO will also determine the maximum amount to be designated to a single firm (typically 60 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 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 Refinitiv Credit.
- The Syndicate Policy Memo may include other relevant information (e.g., management fee or other fees, description of the sale timeline).

Selling Group.

The CFO may establish a selling group to assist in the marketing of the bonds as

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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 SNWA'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 the Capital Improvement Plans

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 (d), 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 SNWA's intent to finance future operational costs with water revenues and will therefore have no effect on ad valorem taxes. New capital improvement projects will allow the SNWA 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 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 the SNWA'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 the SNWA's reserves or debt service fund.

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

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future.

The SNWA 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 five 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, net present value savings of at least three percent or 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 SNWA 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 three years or less.

Debt Structure.

Maturity Structures. The term of the debt issues will not extend beyond the useful life of the project or equipment financed. As appropriate, debt 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 SNWA are sufficient to pay debt service, or where the deferral of principal allows the SNWA 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 to purchase bond insurance from bond proceeds

Bond insurance can be purchased directly by the issuer 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 issuer, 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

Southern Nevada Water Authority
Operating and Capital Budget
Debt Management Policy
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net present value insurance benefit (present value of debt service savings less insurance premium).

Fixed and Variable Rate Debt.

Fixed rate debt or variable rate debt may be issued, 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 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, it shall not constitute more than 25 percent of the SNWA's overall debt portfolio. The CFO, in consultation with the Financial Advisors, will determine the appropriate form of variable rate debt, subject to the approval of the Board.

Financing Sources. The SNWA will evaluate available State and County bond financing

programs before choosing the financing source. The SNWA will consider utilizing a State or County program if bonds can be sold by the State or County in a manner meeting the SNWA'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.

Southern Nevada Water Authority
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Chief Financial Officer Information

NRS 350.013 Subsection 1(e)

A statement containing the name, title, mailing address and telephone number of the chief financial officer of the municipality.

NAME: E. Kevin Bethel

TITLE: Chief Financial Officer

ADDRESS: 1001 South Valley View Boulevard
Las Vegas, NV 89153

TELEPHONE: (702) 822-8809

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Appendix

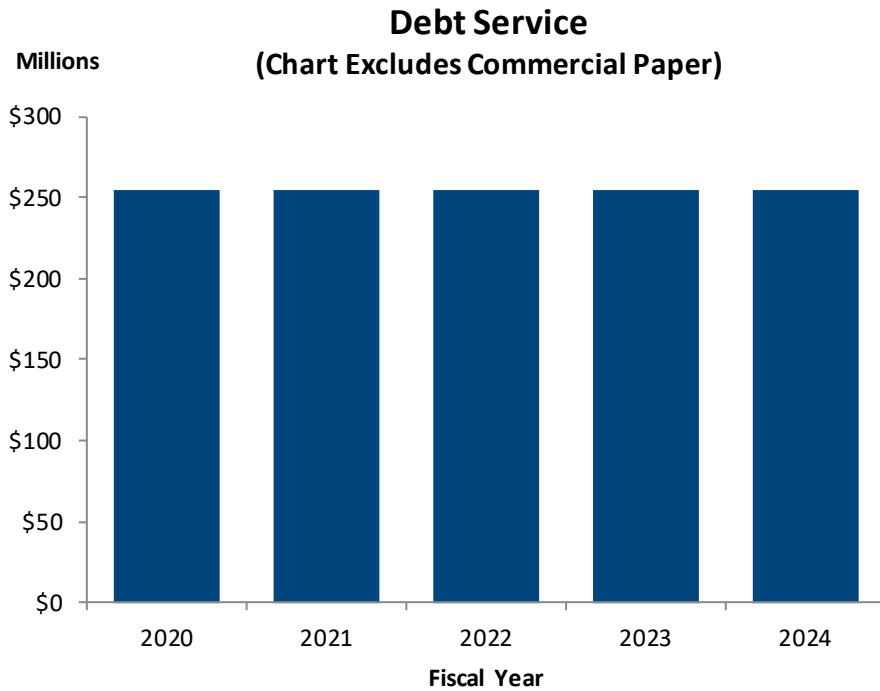
Debt Service and Pledged Revenue Tables

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

Southern Nevada Water Authority
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 Fiscal Year Ending June 30, 2020

Five Year Schedule of Debt Service Requirements
As of June 30, 2019

#	Fiscal Year	Commercial Paper	Bonds	Total Debt Service
1	2020	\$ 410,580,000	\$ 254,998,019	\$ 665,578,019
2	2021	-	255,015,616	255,015,616
3	2022	-	255,080,009	255,080,009
4	2023	-	255,025,479	255,025,479
5	2024	-	254,584,485	254,584,485

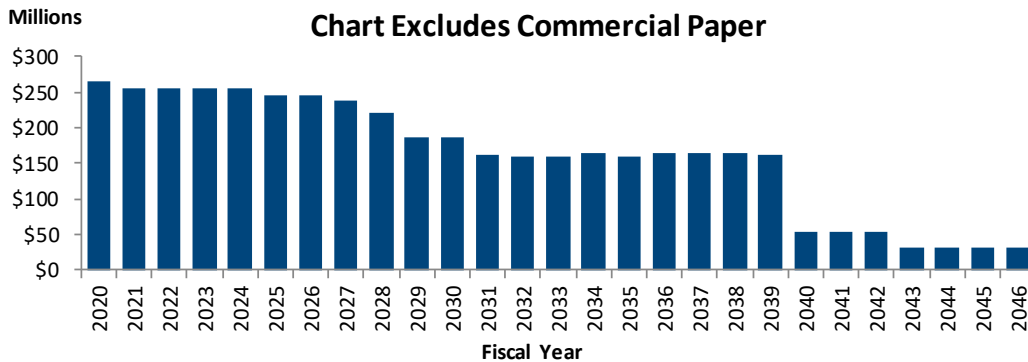


**Southern Nevada Water Authority
Operating and Capital Budget
Debt Management Policy**
Fiscal Year Ending June 30, 2020

**Combined Schedule of Debt Service Requirements
As of June 30, 2019**

Fiscal Year	Principal	Interest	Total
2020	\$ 521,605,486	\$ 143,972,533	\$ 665,578,019
2021	127,409,253	127,606,363	255,015,616
2022	133,574,085	121,505,924	255,080,009
2023	140,116,540	114,908,938	255,025,479
2024	146,631,540	107,952,944	254,584,485
2025	144,486,540	100,609,572	245,096,113
2026	151,911,540	93,129,031	245,040,571
2027	152,416,540	85,409,196	237,825,737
2028	143,926,540	77,831,125	221,757,665
2029	114,656,540	71,952,950	186,609,490
2030	120,513,270	66,709,688	187,222,958
2031	99,595,000	61,263,025	160,858,025
2032	103,735,000	56,829,375	160,564,375
2033	107,520,000	52,112,275	159,632,275
2034	117,070,000	47,100,025	164,170,025
2035	117,730,000	41,890,225	159,620,225
2036	127,990,000	36,484,125	164,474,125
2037	133,555,000	30,912,663	164,467,663
2038	139,000,000	25,461,700	164,461,700
2039	142,560,000	18,852,450	161,412,450
2040	42,160,000	11,836,350	53,996,350
2041	44,205,000	9,788,000	53,993,000
2042	46,355,000	7,640,150	53,995,150
2043	25,000,000	5,387,750	30,387,750
2044	26,250,000	4,137,750	30,387,750
2045	27,565,000	2,825,250	30,390,250
2046	28,940,000	1,447,000	30,387,000
Total *	\$ 3,226,477,877	\$ 1,525,556,377	\$ 4,752,034,254

* Totals may not be exact due to rounding.



**Southern Nevada Water Authority
Operating and Capital Budget
Debt Management Policy
Fiscal Year Ending June 30, 2020**

**Combined Schedule of Existing and Proposed Debt Service Requirements
As of June 30, 2019**

Fiscal Year	Existing Debt			Proposed (New Money)		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ 521,605,486	\$ 143,972,533	\$ 665,578,019	-	-	-
2021	127,409,253	127,606,363	255,015,616	-	-	-
2022	133,574,085	121,505,924	255,080,009	-	-	-
2023	140,116,540	114,908,938	255,025,479	-	-	-
2024	146,631,540	107,952,944	254,584,485	-	-	-
2025	144,486,540	100,609,572	245,096,113	-	-	-
2026	151,911,540	93,129,031	245,040,571	-	-	-
2027	152,416,540	85,409,196	237,825,737	-	-	-
2028	143,926,540	77,831,125	221,757,665	-	-	-
2029	114,656,540	71,952,950	186,609,490	-	-	-
2030	120,513,270	66,709,688	187,222,958	-	-	-
2031	99,595,000	61,263,025	160,858,025	-	-	-
2032	103,735,000	56,829,375	160,564,375	-	-	-
2033	107,520,000	52,112,275	159,632,275	-	-	-
2034	117,070,000	47,100,025	164,170,025	-	-	-
2035	117,730,000	41,890,225	159,620,225	-	-	-
2036	127,990,000	36,484,125	164,474,125	-	-	-
2037	133,555,000	30,912,663	164,467,663	-	-	-
2038	139,000,000	25,461,700	164,461,700	-	-	-
2039	142,560,000	18,852,450	161,412,450	-	-	-
2040	42,160,000	11,836,350	53,996,350	-	-	-
2041	44,205,000	9,788,000	53,993,000	-	-	-
2042	46,355,000	7,640,150	53,995,150	-	-	-
2043	25,000,000	5,387,750	30,387,750	-	-	-
2044	26,250,000	4,137,750	30,387,750	-	-	-
2045	27,565,000	2,825,250	30,390,250	-	-	-
2046	28,940,000	1,447,000	30,387,000	-	-	-
Totals *	\$ 3,226,477,877	\$ 1,525,556,377	\$ 4,752,034,254	\$ -	\$ -	\$ -

Fiscal Year	Total Existing & Proposed Debt		
	Principal	Interest	Total
2020	\$ 521,605,486	\$ 143,972,533	\$ 665,578,019
2021	127,409,253	127,606,363	255,015,616
2022	133,574,085	121,505,924	255,080,009
2023	140,116,540	114,908,938	255,025,479
2024	146,631,540	107,952,944	254,584,485
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2045	27,565,000	2,825,250	30,390,250
2046	28,940,000	1,447,000	30,387,000
Totals *	\$ 3,226,477,877	\$ 1,525,556,377	\$ 4,752,034,254

* Totals may not be exact due to rounding.

Southern Nevada Water Authority
Operating and Capital Budget
Debt Management Policy
Fiscal Year Ending June 30, 2020

Net Pledged Revenues
For the Fiscal Years Ended June 30

	2016 Actual	2017 Actual	2018 Actual	2019 Budget	2020 Budget
REVENUES					
Wholesale Delivery Charges	\$ 125,054,059	\$ 130,115,594	\$ 134,480,919	\$ 141,151,263	\$ 148,499,845
Regional Connection Charges	63,781,176	57,024,817	76,343,260	62,298,684	71,280,690
Regional Infrastructure Charges	61,704,236	132,471,445	151,907,841	158,564,232	163,397,958
Regional Water Charges	106,459,684	70,650,728	76,107,764	75,383,950	77,626,401
Sales Tax	58,152,408	60,856,934	63,601,130	65,506,404	67,592,491
Groundwater Management Fees	928,893	886,929	878,647	896,494	894,208
Las Vegas Wash Revenues	411,893	356,365	429,845	426,040	443,863
Investment Income (including Capitalized Portion)	4,803,855	4,917,264	6,318,578	5,880,785	8,783,271
Other Revenues ¹	59,447,266	95,847,684	12,008,100	5,856,531	5,781,247
Total Revenues	480,743,470	553,127,761	522,076,084	515,964,384	544,299,974
OPERATING EXPENSES					
Energy	39,333,766	36,631,385	36,244,051	35,727,002	36,012,788
Payroll and Related	56,252,596	55,987,034	73,687,225	62,920,299	88,513,090
Operating and Maintenance	39,349,790	44,934,538	58,603,874	69,263,847	75,677,836
Pay-as-you-go Capital Expenditures				6,642,000	4,915,731
Total Operating Expenses	134,936,152	137,552,958	168,535,150	174,553,148	205,119,445
NET PLEDGED REVENUES	345,807,318	415,574,803	353,540,934	341,411,236	339,180,529
Add Beginning Unrestricted Funds ²	382,138,848	422,030,778	480,331,301	551,736,488	550,176,630
Net Available for Debt Service	727,946,166	837,605,581	833,872,235	893,147,724	889,357,159
ANNUAL DEBT SERVICE³	216,455,955	264,956,748	259,210,095	266,611,625	265,578,019
DEBT SERVICE COVERAGE RATIO	3.36	3.16	3.22	3.35	3.35

1 Includes receipts from the Southern Nevada Public Lands Management Act (SNPLMA), raw water facilities charge and minor billings of purveyor members (Big Bend, City of Las Vegas, and Clark County Water Reclamation District).

2 Unrestricted funds include unrestricted cash and unrestricted investments as shown on the Comprehensive Annual Financial Report and sales tax proceeds on hand regardless of classification.

3 Includes the interest amounts paid on the 2004 Commercial Paper Notes. Gross of credits from the Build America Bonds (BABs).

**Southern Nevada Water Authority
Operating and Capital Budget
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Schedule of Debt Service By Issuer

As of Fiscal Year Ending June 30, 2019

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Fiscal Year	Southern Nevada Water Authority Through the Las Vegas Valley Water District			Southern Nevada Water Authority Through the Clark County Bond Bank		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ 475,535,000	\$ 100,252,171	\$ 575,787,171	\$ 42,820,000	\$ 42,931,850	\$ 85,751,850
2021	81,165,000	86,159,479	167,324,479	44,990,000	40,752,600	85,742,600
2022	85,370,000	82,377,350	167,747,350	47,275,000	38,462,975	85,737,975
2023	89,825,000	78,198,297	168,023,297	49,705,000	36,056,350	85,761,350
2024	94,250,000	73,775,369	168,025,369	52,255,000	33,525,975	85,780,975
2025	89,430,000	69,092,122	158,522,122	54,930,000	30,865,850	85,795,850
2026	94,025,000	64,408,206	158,433,206	57,760,000	28,069,225	85,829,225
2027	89,260,000	59,686,496	148,946,496	63,030,000	25,071,100	88,101,100
2028	55,810,000	55,643,975	111,453,975	66,270,000	21,861,350	88,131,350
2029	45,290,000	53,180,475	98,470,475	69,240,000	18,772,475	88,012,475
2030	46,555,000	50,971,338	97,526,338	73,895,000	15,738,350	89,633,350
2031	38,140,000	48,689,850	86,829,850	61,455,000	12,573,175	74,028,175
2032	56,510,000	46,804,750	103,314,750	47,225,000	10,024,625	57,249,625
2033	71,650,000	43,989,750	115,639,750	35,870,000	8,122,525	43,992,525
2034	75,230,000	40,407,250	115,637,250	41,840,000	6,692,775	48,532,775
2035	78,945,000	36,684,700	115,629,700	38,785,000	5,205,525	43,990,525
2036	82,810,000	32,823,550	115,633,550	45,180,000	3,660,575	48,840,575
2037	86,855,000	28,773,350	115,628,350	46,700,000	2,139,313	48,839,313
2038	115,590,000	24,525,300	140,115,300	23,410,000	936,400	24,346,400
2039	142,560,000	18,852,450	161,412,450	-	-	-
2040	42,160,000	11,836,350	53,996,350	-	-	-
2041	44,205,000	9,788,000	53,993,000	-	-	-
2042	46,355,000	7,640,150	53,995,150	-	-	-
2043	25,000,000	5,387,750	30,387,750	-	-	-
2044	26,250,000	4,137,750	30,387,750	-	-	-
2045	27,565,000	2,825,250	30,390,250	-	-	-
2046	28,940,000	1,447,000	30,387,000	-	-	-
Totals *	\$ 2,235,280,000	\$ 1,138,358,479	\$ 3,373,638,479	\$ 962,635,000	\$ 381,463,013	\$ 1,344,098,013

* Totals may not be exact due to rounding

**Southern Nevada Water Authority
Operating and Capital Budget
Debt Management Policy
Fiscal Year Ending June 30, 2020**

Schedule of Debt Service By Issuer

As of Fiscal Year Ending June 30, 2019

Fiscal Year	Southern Nevada Water Authority Through the State of Nevada Bond Bank			Southern Nevada Water Authority Issued by Southern Nevada Water Authority		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ 2,790,486	\$ 769,674	\$ 3,560,160	\$ 460,000	\$ 18,837	\$ 478,837
2021	794,253	680,829	1,475,082	460,000	13,455	473,455
2022	469,085	657,526	1,126,611	460,000	8,073	468,073
2023	126,540	651,600	778,140	460,000	2,691	462,691
2024	126,540	651,600	778,140	-	-	-
2025	126,540	651,600	778,140	-	-	-
2026	126,540	651,600	778,140	-	-	-
2027	126,540	651,600	778,140	-	-	-
2028	21,846,540	325,800	22,172,340	-	-	-
2029	126,540	-	126,540	-	-	-
2030	63,270	-	63,270	-	-	-
2031	-	-	-	-	-	-
2032	-	-	-	-	-	-
2033	-	-	-	-	-	-
2034	-	-	-	-	-	-
2035	-	-	-	-	-	-
2036	-	-	-	-	-	-
2037	-	-	-	-	-	-
2038	-	-	-	-	-	-
2039	-	-	-	-	-	-
2040	-	-	-	-	-	-
2041	-	-	-	-	-	-
2042	-	-	-	-	-	-
2043	-	-	-	-	-	-
2044	-	-	-	-	-	-
2045	-	-	-	-	-	-
2046	-	-	-	-	-	-
Totals *	\$ 26,722,877	\$ 5,691,829	\$ 32,414,706	\$ 1,840,000	\$ 43,056	\$ 1,883,056

* Totals may not be exact due to rounding

Southern Nevada Water Authority
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Schedule of Debt Service By Issuer

As of Fiscal Year Ending June 30, 2019

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Fiscal Year	Total Debt Service		
	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2020	\$ 521,605,486	\$ 143,972,533	\$ 665,578,019
2021	127,409,253	127,606,363	255,015,616
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2045	27,565,000	2,825,250	30,390,250
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Totals *	\$ 3,226,477,877	\$ 1,525,556,377	\$ 4,752,034,254

* Totals may not be exact due to rounding

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SECTION 8

STATISTICAL INFORMATION

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SOUTHERN NEVADA WATER AUTHORITY™

FISCAL YEAR 2019-20

OPERATING AND CAPITAL BUDGET

Southern Nevada Water Authority
Operating and Capital Budget
Statistical Information
Fiscal Year Ending June 30, 2020

Southern Nevada Water Authority
Statistical Summary

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Demographic Statistics
Clark County, Nevada
Five Calendar Years

Calendar Year	Clark County Population ⁽¹⁾	Per Capita Income ⁽²⁾	Clark County Personal Income (In Million \$) ⁽²⁾	Median Household Income ⁽³⁾
2018	2,284,616	N/A	N/A	N/A
2017	2,248,390	44,217	97,457	54,882
2016	2,205,207	42,284	91,150	52,629
2015	2,147,641	41,915	88,412	51,575
2014	2,102,238	39,860	82,306	52,070

Calendar Year	School Enrollment ⁽⁴⁾	Total Labor Force ⁽⁵⁾	Unemployment Rate ⁽⁶⁾
2018	322,266	N/A	N/A
2017	322,436	1,072,593	5.2%
2016	322,122	1,048,043	5.8%
2015	320,339	1,039,435	6.9%
2014	318,592	1,019,945	8.0%

Sources:

(1) Clark County Comprehensive Planning Department.

(2) U.S. Bureau of Economic Analysis as reported for the Las Vegas-Paradise MSA (which is comprised of Clark County).

(3) U.S. Census Bureau, American Community Survey.

(4) Clark County School District, Average Daily Membership.

(5) The Department of Employment, Training & Rehabilitation.

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

Southern Nevada Water Authority
Operating and Capital Budget
Statistical Information
 Fiscal Year Ending June 30, 2020

Top Ten Employers⁽¹⁾⁽²⁾
Clark County, Nevada
Calendar Year 2018

<u>Employer Trade name</u>	<u>Employees (2)</u>	<u>Ranking</u>
Venetian Hotel & Casino	10,000 or More	1
Aquarius Casino Resort	5,000 to 9,999	2
Caesars Palace Las Vegas Hotel	5,000 to 9,999	3
Flamingo Hotel	5,000 to 9,999	4
Las Vegas Metropolitan	5,000 to 9,999	5
Las Vegas Metropolitan Police	5,000 to 9,999	6
Las Vegas Sands Corp	5,000 to 9,999	7
Mandalay Bay	5,000 to 9,999	8
MGM Grand	5,000 to 9,999	9
Orleans Hotel & Casino	5,000 to 9,999	10

Total Labor Force 1,072,593

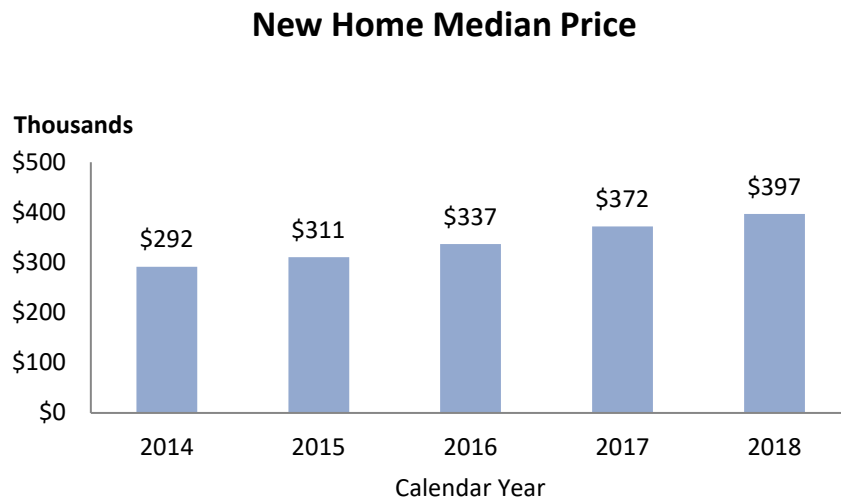
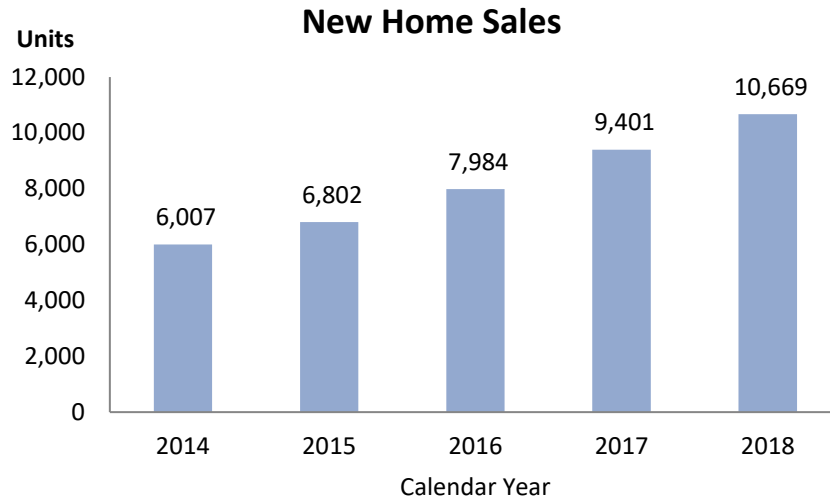
Sources:

(1) Nevada Department of Employment, Training & Rehabilitation (DETR). The data is for the second half of the calendar year 2018. In 2018, DETR changed the data source from internally created to a third party provider (Infogroup). Infogroup collects the data at the establishment level not rolled up into a collective whole. For example in the current method, the data set lists each school and/or department separately instead of aggregating it.

(2) Nevada law prohibits the disclosure of exact employee counts. All employee counts

Southern Nevada Water Authority
Operating and Capital Budget
Statistical Information
Fiscal Year Ending June 30, 2020

Residential Real Estate
Clark County, Nevada



Sources:

(1) New Home Sales are sourced from the Home Builders Research, Inc. - The Las Vegas Housing Market Letter.

(2) New Home Median Prices are as of December of each year and are sourced from the Home Builders Research, Inc. - The Las Vegas Housing Market Letter.

Southern Nevada Water Authority
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Secured Tax Roll
Clark County, Nevada
2018 - 19

<u>Taxpayer</u>	<u>Taxable Assessed</u>	<u>Taxable Appraised</u>
1. MGM Resorts International	\$ 2,983,831,250	\$ 8,525,232,143
2. NV Energy	1,758,478,701	5,024,224,860
3. Caesar's Entertainment Corp.	1,613,171,094	4,609,060,269
4. Wynn Resorts Limited	790,930,929	2,259,802,654
5. Las Vegas Sands Corporation	778,386,751	2,223,962,146
6. Station Casinos LLC	709,047,214	2,025,849,183
7. Boyd Gaming Corporation	428,466,235	1,224,189,243
8. Howard Hughes Corporation	393,465,355	1,124,186,729
9. Hilton Grand Vacations	265,373,448	758,209,851
10. Nevada Property 1 LLC	260,179,963	743,371,323
	<u>\$ 9,981,330,940</u>	<u>\$ 28,518,088,401</u>

SOURCE: Clark County Assessor's Report Dated April 1, 2018

Southern Nevada Water Authority
 Operating and Capital Budget
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 Fiscal Year Ending June 30, 2020

Temperature and Rainfall

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

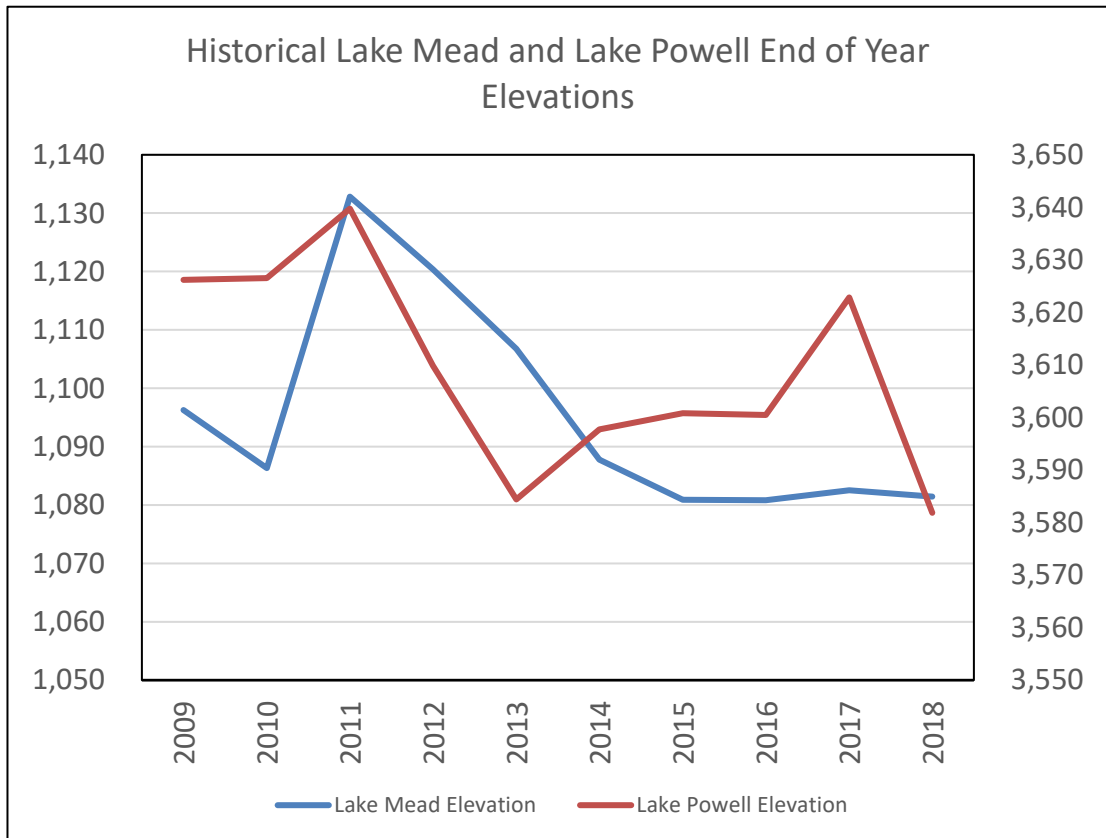
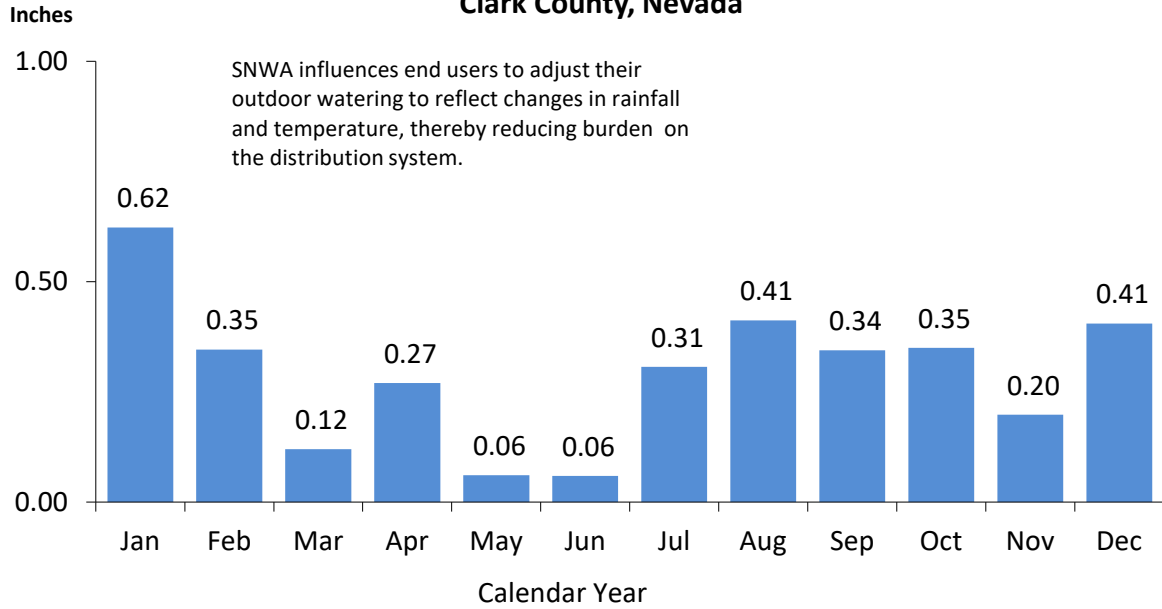
<u>Month</u>	<u>2013</u>			<u>2014</u>			<u>2015</u>		
	<u>Temperature</u>			<u>Temperature</u>			<u>Temperature</u>		
	<u>Max.</u>	<u>Min.</u>	<u>Rainfall</u>	<u>Max.</u>	<u>Min.</u>	<u>Rainfall</u>	<u>Max.</u>	<u>Min.</u>	<u>Rainfall</u>
January	56	36	0.4	64	42	0.0	62	44	0.9
February	62	41	0.0	68	46	0.3	71	49	0.5
March	75	54	0.2	74	52	0.0	78	56	0.3
April	82	58	0.0	81	59	0.0	80	58	0.3
May	89	67	0.0	90	67	0.0	85	64	0.2
June	104	79	0.0	101	77	0.0	104	80	0.0
July	105	84	0.3	105	83	0.2	101	80	0.2
August	100	79	0.3	99	78	0.4	104	82	0.7
September	91	71	0.4	96	74	0.6	98	76	0.0
October	78	56	0.0	86	63	0.0	84	65	1.2
November	67	48	1.4	70	49	0.0	64	45	0.2
December	57	38	0.1	58	44	0.3	56	38	0.0
Average Annual Temperature/ Total Rainfall	80.5	59.1	3.0	82.6	61.3	1.8	82.2	61.3	4.5

<u>Month</u>	<u>2016</u>			<u>2017</u>			<u>2018</u>		
	<u>Temperature</u>			<u>Temperature</u>			<u>Temperature</u>		
	<u>Max.</u>	<u>Min.</u>	<u>Rainfall</u>	<u>Max.</u>	<u>Min.</u>	<u>Rainfall</u>	<u>Max.</u>	<u>Min.</u>	<u>Rainfall</u>
January	57	40	0.5	57	42	0.9	63	44	1.5
February	70	46	0.1	65	49	0.6	64	44	0.0
March	75	53	0.0	77	54	0.0	70	50	0.3
April	79	58	2.3	81	59	0.0	84	61	0.0
May	86	65	0.0	89	66	0.1	90	68	0.2
June	105	81	0.5	105	79	0.0	103	79	0.0
July	107	84	0.2	107	85	0.1	107	85	0.8
August	102	80	0.2	103	81	0.2	105	84	0.1
September	93	71	0.0	92	72	0.5	100	77	0.0
October	84	64	0.2	84	60	0.0	79	61	0.1
November	71	51	0.0	73	53	0.0	68	48	0.2
December	57	40	0.8	63	42	0.0	55	40	0.2
Average Annual Temperature/ Total Rainfall	82.1	61.0	4.8	82.9	61.7	2.4	82.3	61.5	3.4

Southern Nevada Water Authority
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Average Rainfall Per Month Ten Year Span (2009 to 2018)

Clark County, Nevada



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SECTION 9

FINANCIAL POLICIES

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



SOUTHERN NEVADA WATER AUTHORITY™

FISCAL YEAR 2019-20
OPERATING AND CAPITAL BUDGET

Financial Policy

As operating agent for the Southern Nevada Water Authority, 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.

SOUTHERN NEVADA WATER AUTHORITY	SUBJECT: SOUTHERN NEVADA WATER AUTHORITY RESERVE POLICY	NUMBER: 11
		ISSUE: 1
BOARD POLICY	APPROVED BY: BOARD OF DIRECTORS January 21, 2016	PAGE: 1 OF 2
ISSUING DEPARTMENT: FINANCE		

Purpose

The purpose is to establish 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 Southern Nevada Water Authority (SNWA).

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 SNWA's reserve policy:

1. Volatility in Sources of Funds – Some of the SNWA's sources of funds have experienced significant volatility; for example, connection charges and sales tax, in periods where the local economy suffers.
2. Customer Concentration – The SNWA receives the majority of its unrestricted funds from its member agencies. Although none have ever defaulted, such a default or a significant delay could have a substantial impact on the SNWA's operations.
3. Likelihood of Successful Rate Increases – Although the SNWA has enjoyed tremendous support from its member agencies and the community, it is possible that these conditions could change in the future, thus impacting the SNWA's ability to increase rates to meet increasing costs.
4. Asset Age and Condition – As the infrastructure ages, maintenance and replacements costs will increase. Also, there is always the possibility of unexpected failures that can be quite expensive. Such failures could result from age-related causes or natural disasters.

5. Control Over Expenses – Although most of the SNWA's expenses are predictable, there remains the possibility of large, unexpected expenditures; for example, litigation, natural disasters, increases in energy and chemical costs.

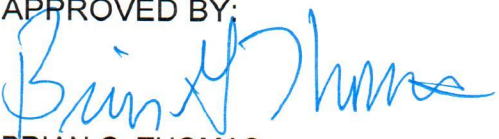
Reserve Components

The following are the four components identified for the SNWA'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 SNWA 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 SNWA 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 the SNWA operations, and provide assurances to investors that the SNWA 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, the capital improvement plan may be used. This reserve will fluctuate over time as projects change. This level of capital reserve will enable the SNWA 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 SNWA to continue with uninterrupted critical capital improvements during times of difficulty within the capital markets.
4. Unforeseen Events Reserve – Adequate reserves to fund one percent of assets subject to depreciation. This is to mitigate one-time, unforeseen infrastructure or major capital equipment failures and other significant non-recurring impacts to operating revenues and expenses.

Reporting

The General Manager shall notify the Board of Directors of the status of reserves at least annually and more often as significant changes occur.

LAS VEGAS VALLEY WATER DISTRICT DEPARTMENT POLICY	SUBJECT: CAPITALIZATION POLICY	NUMBER: 1
	APPROVED BY:  BRIAN G. THOMAS CHIEF FINANCIAL OFFICER Effective Date: July 1, 2018	ISSUE: 2018
ISSUING DEPARTMENT: FINANCE		PAGE: 1 OF 3

I. PURPOSE

The purpose of this policy is to define what costs are capitalized and depreciated/amortized (if applicable).

II. SCOPE

This policy applies to the Las Vegas Valley Water District (LVVWD), the Southern Nevada Water Authority (SNWA) and other entities for which the LVVWD has fiduciary responsibility.

III. CAPITAL ASSETS

- A. All land, land improvements, buildings, building improvements, vehicles, machinery, equipment, works of art and historical treasures, infrastructure, and all other tangible or intangible assets (assets that lack physical substance, such as easements, water rights, etc.) that are used in operations, with an initial individual cost greater than \$10,000 and an estimated useful life of at least three years are capitalized. Cost includes installation and delivery, but not training. The cost of designing and constructing facilities includes all direct and indirect expenditures.

Generally, the capitalization threshold is applied to individual items rather than groups of items. However, groups of assets with individual unit costs equal to or less than \$10,000 have been identified as integral to our operations and are capitalized regardless of individual unit cost. These groups are meters, service laterals, and pipelines. Assets / asset groups deemed integral may be revised only with written approval of the Chief Financial Officer.

- B. The cost of normal maintenance and repairs (any outlay that does no more than return a capital asset to its original condition, regardless of amount) are expensed and not capitalized. See Attachment A for a decision-tree to assist in defining whether expenditures are capital or operating and maintenance.

IV. COMPUTER SYSTEM SOFTWARE

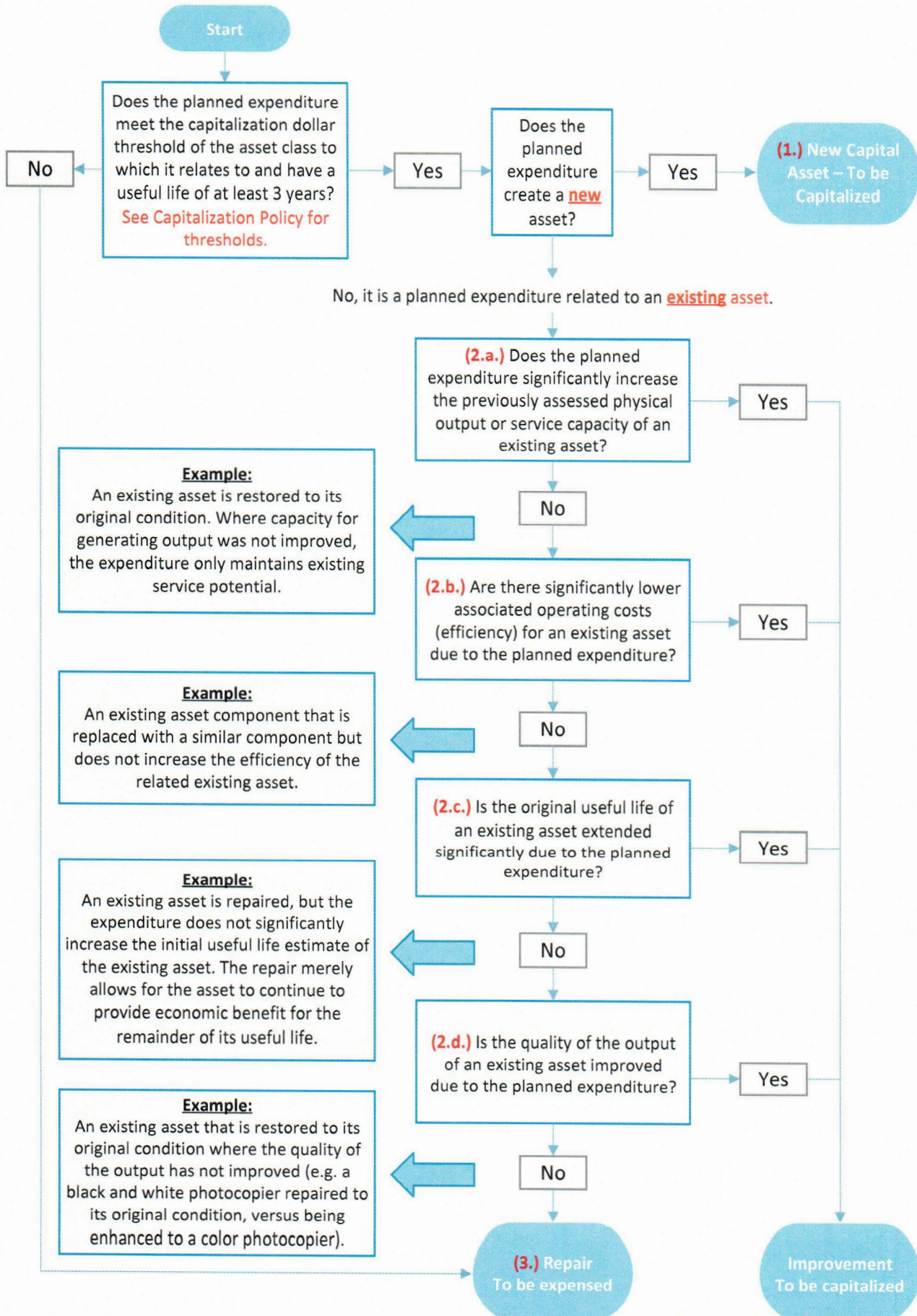
Major on-premises computer systems software and software modifications, whether purchased or internally developed, are capitalized if the total cost exceeds \$100,000 and the useful life is at least three years. Cost includes direct and indirect expenditures within the application development stage of implementation. Training on the operation and use of software is expensed and not capitalized. Costs that take place before the final selection of the software, such as due diligence and the evaluation of alternatives, are expensed and not capitalized.

Software-as-a-Service (SaaS) will generally be expensed as a service contract and does not qualify as a capital asset unless the SaaS includes a software license component that allows both the contractual right to take possession of the software at any time during the hosting period without significant penalty, and the ability to run the software on our own hardware or contract with another party unrelated to the vendor to host the software.

V. DONATED FACILITIES

Donated developer facilities are capitalized at the engineering estimates of acquisition value at the time the assets are donated.

New Asset vs. Improvement vs. Repair Decision Tree



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SECTION 10

GLOSSARY

Glossary.....10-1



SOUTHERN NEVADA WATER AUTHORITY™

FISCAL YEAR 2019-20

OPERATING AND CAPITAL BUDGET

Southern Nevada Water Authority
Operating and Capital Budget
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Fiscal Year Ending June 30, 2020

Accrual Basis Accounting. An accounting method that measures the performance and position of a company by recognizing revenue or expense events regardless of when cash transactions occur.

Acre-Foot (AF). A water measurement equating to 325,851 gallons or 43,560 cubic feet. An acre foot will supply the annual water needs of approximately 2 single family homes in the SNWA's service area.

Alfred Merritt Smith Water Treatment Facility (AMSWTF). Built in 1971, the Alfred Merritt Smith Water Treatment Facility currently treats most of the Las Vegas Valley's drinking water. The facility can treat up to 600 million gallons a day (MGD).

American Water Works Association (AWWA). A 50,000-member nonprofit dedicated to science, technology, education and the managing and treating of water.

Amortization. Amortization is paying off a debt with a fixed repayment schedule in incremental installments over a given period.

Arizona Groundwater Banking Program. A program between SNWA and the Arizona Water Banking Authority (AWBA). In exchange for financial consideration, the AWBA will bank recharged water in Arizona for future use by Clark County, Nevada.

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.

Automatic Transfer Switch (ATS). An electrical switch that switches a load between two sources.

Balanced Budget. A budget where sources of funds are equal to uses of funds. The SNWA is not required to issue a balanced budget.

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.

Big Bend Water District (BBWD). A general improvement district created in 1983 to supply water to Laughlin, Nevada.

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, usually one year.

Budget Calendar. The schedule of key dates or milestones the SNWA 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.

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Budget Document. The official written statement prepared by the SNWA and approved by the SNWA's Board of Directors.

Bureau of Labor Statistics (BLS). A unit of the United States Department of Labor, serves as a statistical resource to the United States Department of Labor, and conducts research into how much families need to earn to be able to enjoy a decent standard of living.

Bureau of Reclamation (BOR). A federal agency under the U.S. Department of the Interior, which oversees water resource management, specifically as it applies to the oversight and operation of the diversion, delivery, and storage projects that it has built throughout the western United States for irrigation, water supply, and attendant hydroelectric power generation.

Cathodic Protection (CP). A technique used to control the corrosion of a metal surface by making it the cathode of an electrochemical cell.

Capital Contributions. For net position purposes, defined as regional connection, commodity, reliability and infrastructure surcharge revenues as well as grant receipts.

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 useful life of three or more years.

Capital Revenue. A revenue source that is used solely to either retire debt or pay for construction of capital assets.

Capital Improvement Plan (CIP). A multi-year plan, which identifies capital projects and equipment purchases, provides a planning schedule and identifies options for financing the plan.

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

Clark County Water Reclamation District (CCWRD). Nevada's largest wastewater agency, treating wastewater from 248,000 accounts with over 2,000 miles of pipeline and 27 pumping stations.

Closed-circuit Television (CCTV). Also known as video surveillance, is the use of video cameras to transmit a signal to a specific place, on a limited set of monitors.

Colorado River Commission (CRC). An agency of the of the State of Nevada created to acquire and hold in trust Nevada's right to water and power resources from Colorado River water apportioned among the seven Colorado River Basin states and Mexico.

Commercial Paper. Short-term, unsecured, discounted, and negotiable notes sold through the open market. In most cases commercial paper provides immediate cash needs at lower rates than standard debt issues.

Comprehensive Annual Financial Report (CAFR). 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

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Governmental Accounting Standards Board (GASB).

Connection. Generic term for a retail customer. Currently a connection is estimated to increase the annual load on the water delivery system by 0.45 acre-foot per year. A customer whose annual load is estimated at more than 0.45 acre-foot per year is said to have multiple connections.

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 SNWA achieves the benefits of conservation through education of the end user, promoting water efficient hardware, and pricing signals.

Construction Expenditures. Generally, expenditures made to build, supervise, or provide materials used in the construction of capital assets.

Coyote Springs Water Resources General Improvement District (CSWRD). Created in 2006 to provide necessary water and wastewater services to the Coyote Springs community.

Cross Departmental Team. (CDT)

Debt Issuance Proceeds. Principal amount or face value of debt issues. These proceeds are used to pay for major construction expenditures incurred by the SNWA.

Debt Service Payments. Funds used for the repayment of annual principal and interest charges on debt the SNWA has issued.

Department. A basic organizational unit of the SNWA that is functionally unique in its delivery of services.

Depreciation. A reduction in the value of a physical asset with the passage of time.

Deoxyribonucleic Acid (DNA). A self-replicating material which is present in nearly all living organisms as the main constituent of genetic information.

Disbursements. Funds actually expended.

Dissolved Air Flotation (DAF). A water treatment process that clarifies wastewaters (or other waters) by the removal of suspended matter such as oil or solids.

Division. Organizational component of a department.

Drought Contingency Plan (DCP). Due to the historic drought conditions since 2000, the Department of the Interior requested State Governors along the Colorado River to submit Drought Contingency Plans (DCPs) to reduce the risks the Colorado River Basin is facing for Lake Powell and Lake Mead.

Eastern Nevada Transmission Project (ENTP). A 230 kV transmission system that would allow for the interconnection of SSEA members' electrical systems with each other and with the mead substation.

Escherichia coli (EC). A bacterium commonly found in the intestines of humans and other

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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.

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 SNWA's service area as well as power office buildings and other ancillary locations.

Enterprise Funds. Funds used to account for operations: 1) that are financed and operated in a manner similar to private business enterprises - where the intent of the governing body is that the costs (expenses, including depreciation) of providing goods and services to the general public on a continuing basis be financed or recovered primarily through user charges; or 2) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability, or other purposes.

Environmental, Health, Safety & Corporate Security (EHS&CS). A department of the LVVWD and SNWA. Also abbreviated as EHS.

Environmental Protection Agency (EPA). An agency of the U.S. federal government which

was created for the purpose of protecting human health and the environment by writing and enforcing regulations based on laws passed by Congress.

Expenditure. The payment of cash on the transfer of property or services for the purpose of acquiring an asset, service or settling a loss.

Fiscal Year (FY). For the Southern Nevada Water Authority, the 12-month period begins with July 1, and ends with June 30 of the designated fiscal year; e.g. FY 2019-20 ends on June 30, 2020.

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 sub-fund at the beginning or ending of an accounting period.

Fund Equity. The excess of an entity's assets over its liabilities.

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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.

Government Finance Officers Association. (GFOA). A professional association of approximately 17,500 state, provincial, and local government finance officers in the United States and Canada. In 1984, the GFOA signed an agreement with the Financial Accounting Foundation that gave them a voice and appointments in the creation of the Governmental Accounting Standards Board (GASB).

Grant. A contribution by a government or other organization to support a particular function. Grants may be classified as categorical or block, depending upon the amount of discretion allowed the grantee.

Great Recession. A global economic decline which began after 2005 and lasted roughly through the end of 2010.

Groundwater Management Fees. Fees imposed on municipalities and individual well owners. The proceeds of these fees are used to implement artificial recharge to

benefit well users, provide financial assistance to well owners who are required to connect to municipal water by the Nevada 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.

Inter-fund Loan. An internal financing device used by the wholesale delivery operations, capital improvements plan, and Las Vegas wash sub funds wherein money is “loaned” to the sub funds by the new expansion debt service sub fund. The WDO sub fund will repay the loan as the actual market price of power falls below the model clearing price. The MCCP sub fund will repay the loan when additional bond proceeds become available. The LVW sub fund will repay the loan with future sales tax revenues. In each case the repayments will include amounts equal to the estimated

**Southern Nevada Water Authority
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amount of interest the NEDS could have earned from the loan proceeds in addition to the principal.

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 SNWA 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)

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 Groundwater Management Program Sub Fund. Sub fund that tracks revenues and expenses incurred from the SNWA program designed to protect and manage the Las Vegas valley's primary groundwater supply.

Las Vegas Wash (LVW). The primary channel through which the valley's excess water returns to Lake Mead. The water flowing through the wash comprises less than 2 percent of the water in Lake Mead and consists of urban runoff, shallow groundwater, storm water and releases from the valley's three water reclamation facilities.

Las Vegas Wash Program Fees. Fees imposed on signatories of the Las Vegas Wash Inter local Agreement that will be used for Las Vegas Wash operating expenses. The fees are net of any anticipated grant proceeds. Participants in the Inter local Agreement are the SNWA, the City of Henderson, the City of Las Vegas, Clark County, the Clark County Regional Flood Control District, and the Clark County Water Reclamation District.

Las Vegas Wash (LVW) Sub Fund. Sub fund that tracks capital and operational revenues and expenses pertaining to the Las Vegas Wash.

Las Vegas Valley Water District (LVVWD). The major water retailer in southern Nevada. The LVVWD is the operating agent of the Southern Nevada Water Authority although the two companies are

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autonomous and produce financial records and statements independent of each other.

Leading Utilities of the World (LOUW). A global network of the world's most successful and innovative water and wastewater utilities.

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.

Major Construction and Capital Program (MCCP). 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.

Model Clearing Price. A power cost calculated per MWh and established to reflect the projected cost of electrical power over a ten year period.

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.

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.

New Expansion Debt Service (NEDS) Sub Fund. Sub fund that tracks revenues and expenses relating to debt service incurred from the expansion of the SNWA transmission and distribution system.

Northern Resources. All-inclusive term for water rights, land, and ranching operations owned by the SNWA and found in Lincoln and White Pine County, Nevada.

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

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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 of the SNWA's treatment and distribution system and through the Las Vegas Wash and groundwater management program. On a GAAP prepared financial statement, these costs will appear on the Statement of Revenues, Expenses and Changes in Net Position.

Operating Revenue. For net position purposes, defined as wholesale delivery charge, net income from ranch operations, program fees collected from the operation of the Las Vegas Wash and groundwater management fees.

Other Revenues. Various sundry revenues from minor sources. Other revenues include, but are not limited to, reimbursement of Authority operating expenses for purveyors who do not use the SNWA's treatment facilities and income from the SNWA's Northern Resource holdings.

Payroll and Related. A budget category that includes all SNWA employee salaries including overtime, longevity pay, and benefits. Labor can either be paid by operating funds or capital funds according to

then activity/project in which it was expended.

Period. The date (usually a 12 month span) that expenditures, encumbrances, etc. are recorded for reporting purposes.

Period Ending. The last date any expenditures, encumbrances, etc. are recorded for reporting purposes. Any data received after this date will be reflected in the next report. A Period Ending may be the end of a pay period, the end of the last pay period of a month, or the end of a calendar month.

Polymerase Chain Reaction (PCR). A method widely used in molecular biology to make many copies of a specific DNA segment.

Positions. Authorized (created by the LVVWD Board of Directors) employee slots (either currently filled or vacant) that are specifically funded through the budget process.

Potable water. Water that has been treated and meets or exceeds standards set by the Safe Water Drinking Act.

Power. Electricity and natural gas costs that are used for the transportation and transmission of water throughout the SNWA distribution system.

Proprietary Fund. Synonym in this document for Enterprise Fund.

Purveyor. A subset of the members of SNWA consisting of City of Boulder City, City of Henderson, City of Las Vegas, City of North Las Vegas, and the Las Vegas Valley Water

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District. These members purchase potable water from SNWA and remit a form of capital revenue.

Rate-of-Flow Control Systems (ROFCS). Flow control in a hydraulic system is to regulate speed. The device controls the speed of an actuator by regulating the flow rate.

Recharge. Lake water injected directly into the aquifer by wells to store for future use.

Reliability Centered Maintenance (RCM).

Remote Operated Vehicle (ROV). Unoccupied, highly maneuverable underwater robots typically operated 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.

Regional. Pertaining to the area of Clark County, Nevada (the jurisdiction of SNWA).

Regional Commodity Charge. Charge placed each thousand gallons of potable water sold. This charge is collected by SNWA's purveyor members (City of Henderson, City of North Las Vegas and Las Vegas Valley Water District only) and remitted monthly to SNWA.

Regional Connection Charge. Charge placed on new connections to the system. Mainly based on service size, although adjustments to certain customer classes are made. This charge is collected by SNWA's purveyor

members (City of Henderson, City of North Las Vegas and Las Vegas Valley Water District only) and remitted monthly to SNWA.

Regional Infrastructure Surcharge. Surcharge placed on all retail water bills. Revenue collected by the purveyors on this charge is forwarded to SNWA monthly. The charge is based on the size of meter or meters that service a customer. Different rates apply for residential, nonresidential and nonresidential fire services. Residential fire services are not assessed this charge.

Reliability Surcharge. Surcharge placed on retail water bills. Currently the charge is 0.25% of total retail bill for residential customers, and 2.5% of total retail bill for non-residential services. This charge is collected by SNWA's purveyor members (City of Henderson, City of North Las Vegas and Las Vegas Valley Water District only) and remitted monthly to SNWA.

Research and Development (R&D). Work directed toward the innovation, introduction, and improvement of products and processes.

Restricted Revenues. For net position purposes, defined as operating capital and expenses, payroll, recharge purchases and power costs. However it excludes these costs if they are present in the MCCP sub-fund or if they are associated with capital costs for the Las Vegas Wash.

Revenues. Funds received from various sources and treated as income to SNWA to finance expenditures.

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Revenue Bonds. Bonds where pledges are made to dedicate specific revenue sources to repay the bonds.

Risk Management. An organized attempt to protect a government'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.

Sales Tax. One quarter of one penny of the Clark County sales tax rate that is remitted to SNWA on a monthly basis. The rate was added on April 1999, and is shared with wastewater agencies, rural water and wastewater systems and the Las Vegas Wash.

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.

Solar Photovoltaic (PV). A technology that converts sunlight (solar radiation) into direct current electricity by using semiconductors.

Southern Nevada Public Lands Funds. A federal law governing the disposition of certain public lands in the Las Vegas Valley by the Bureau of Reclamation. The SNPLMA calls for SNWA to receive 10% of the purchase price of all public lands sold pursuant to the Act. These funds are restricted in use to paying for the SNWA Capital Improvement Plan.

Southern Nevada Water Authority (SNWA). Formed in 1991 to manage Southern Nevada's water needs on a regional basis. The SNWA 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

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Lake Mead and delivers potable water to Southern Nevada's municipal water providers.

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.

Sub Fund. An internal control measure used to ensure that revenues and expenses from similar operations are matched. Although SNWA is an enterprise fund under Nevada law, the sub fund philosophy assists SNWA in analyzing and controlling its costs throughout the year.

Supervisory Control and Data Acquisition (SCADA). Water operations control systems.

Total Coliform (TC). A group of related bacteria that are (with few exceptions) not harmful to humans.

Uniform Design and Construction Standards (UDACS). The Uniform Design and Construction Standards for Potable Water Distribution Systems represent the minimum design and construction criteria for water distribution systems within the participating Agency's jurisdiction.

Water Smart Landscape (WSL). The SNWA's rebate of \$3 per square foot of grass removed and replaced with desert landscaping up to the first 10,000 square feet converted per property, per year.

Warm Springs Natural Area (WSNA). A facility opened in 2017 that includes public access walking trails and interpretive signage

to educate and inform the public about its environmental resources.

Water Quality 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.

Wholesale Delivery Operations (WDO) Sub Fund. Sub fund that tracks revenues and expenses incurred from the production of 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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 SOUTHERN NEVADA WATER AUTHORITY™
**COMPREHENSIVE ANNUAL
FINANCIAL REPORT**

For Fiscal Years Ended June 30, 2018 and 2017



A reliable water supply is critical to our economy and quality of life, and Southern Nevada's conservation efforts will make a difference. The community's commitment to water efficiency and the Southern Nevada Water Authority's long-term water resource planning will help our community weather the drought and prepare for Colorado River shortage conditions. The SNWA increased its rebate incentives for the Water Smart Landscapes and Water Efficiency Technologies programs to provide residents, multi-family properties and businesses a quicker return on their investments in water efficiency. Learn more at [snwa.com](https://www.snwa.com).



SOUTHERN NEVADA WATER AUTHORITY™

Comprehensive Annual Financial Report

**For the Fiscal Years Ended
June 30, 2018 and 2017**

John J. Entsminger
General Manager

E. Kevin Bethel
Chief Financial Officer

Prepared by the SNWA Accounting Division of the Finance Department
Richard Snelding, SNWA Controller
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Introductory Section

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- Letter of Transmittal
- Map of Service Area
- Organizational Chart
- List of Principal Officials
- Certificate of Excellence in Financial Reporting

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October 25, 2018

To the Board of Directors,
Member Agencies,
and Citizens of Southern Nevada

FORMAL TRANSMITTAL OF THE COMPREHENSIVE ANNUAL FINANCIAL REPORT (CAFR)

We are pleased to present the Southern Nevada Water Authority's (SNWA) CAFR for the fiscal year ended June 30, 2018. This letter of transmittal is designed to complement the Management's Discussion and Analysis (MD&A), and should be read in conjunction with it. The SNWA's MD&A can be found immediately following the independent auditors' report.

This report was prepared by the SNWA's staff in accordance with current accounting and financial reporting principles promulgated by the Governmental Accounting Standards Board (GASB). The presentation of data is designed to conform to guidelines recommended by the Government Finance Officers Association of the United States and Canada (GFOA). The SNWA's management is solely responsible for the accuracy of the data presented and the completeness and fairness of presentation, including all disclosures. We believe the data to be accurate in all material respects and reported in a manner designed to fairly set forth the financial position and results of the SNWA's financial activities and operations.

We believe the SNWA's internal controls over financial reporting adequately safeguard the SNWA's assets and provide reasonable assurance of proper recording of financial transactions and the preparation of financial statements and accompanying information. In developing and evaluating the SNWA's accounting and financial reporting system, consideration is given to the adequacy of such internal controls. These controls are designed to provide reasonable assurance regarding safeguarding assets against loss from unauthorized use or disposition and to prevent fraudulent financial reporting. The controls enhance the reliability of financial records for preparing financial statements and maintaining accountability of the SNWA assets. Reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived from that control, and the evaluation of costs and benefits requires estimates and judgments by management. The SNWA is committed to continually improve and strengthen its internal control procedures.

Nevada Revised Statute 354.624 and bond covenants require an annual audit of the SNWA's basic financial statements. This year, the audit was performed by the independent public accounting firm of Piercy Bowler Taylor & Kern, Certified Public Accountants and Business Advisors. Their report on the basic financial statements, which contains an unmodified opinion, is included in the financial section.

The independent audit of the basic financial statements of the SNWA is part of a broader, federally-mandated "Single Audit" designed to meet the special needs of federal grantor agencies. The regulatory provisions governing Single Audit engagements require the independent auditor to report not only on the fair presentation of the basic financial statements, but also on the governmental entity's internal controls and compliance with legal requirements involving administration of federal awards. This report is available in a separate Single Audit Compliance Report.

PROFILE OF THE SNWA

Basic Information – The SNWA is a political subdivision of the State of Nevada (State), created in 1991 by a cooperative agreement among the SNWA’s member agencies. The SNWA was created to address Southern Nevada’s unique water needs on a regional basis and is charged with acquiring and managing current and future resources for Southern Nevada, constructing and managing regional water facilities, and promoting water conservation. The SNWA is governed by a seven-member Board of Directors (Board) comprised of one director from each of its seven-member agencies. Because its operations are autonomous from its member agencies and the State, the SNWA’s financial statements are not included in the financial statements of any other entity. The Las Vegas Valley Water District (LVVWD) serves as the operating agent for the SNWA.

Accounting System – The SNWA’s accounting system is structured based on fund accounting. In governmental accounting, a fund is a self-contained accounting entity with its own set of assets, liabilities, revenues, expenditures or expenses, and fund balance. The SNWA uses a single enterprise fund to present its financial operations. The enterprise fund is used to account for the SNWA’s operations using full accrual accounting in a manner like a private business enterprise. It is the intent of the SNWA to establish water rates and other charges at levels sufficient to provide for payment of general operations and maintenance expenses, as well as capital improvements and debt service. Under full accrual accounting, revenues are recognized when earned and expenses (including depreciation) as incurred.

Budgetary Controls – As required by Chapter 354 of the Nevada Revised Statutes, the Board approves the SNWA’s budget annually following a public hearing. A copy of the approved budget is then submitted to the Nevada Department of Taxation. Budgetary controls are established at the levels of total estimated operating and nonoperating expenses. The budget effectively controls expenditures at various levels. Department directors and division managers are accountable for their budget variances.

FACTORS AFFECTING FINANCIAL CONDITION

Local Economy – The economic environment for Las Vegas and Clark County has improved steadily over the past several years. According to the U.S. Bureau of Economic Analysis, the Las Vegas metropolitan area’s gross domestic product rose 4.5 percent from 2016 to 2017. According to the State of Nevada, the unemployment level in Clark County was 4.7 percent at the end of June 2018, which is a significant improvement over the 13.4 percent at the end of June 2011, and 13.8 percent at the end of June 2010. Although higher than the June 2018 national U.S. unemployment rate of 4.0 percent, Clark County’s unemployment rate continues to improve.

According to the U.S. Bureau of Census, Clark County’s population increased from 1.4 million in 2000 to 2.0 million in 2010, which is an increase of 36.6 percent. By the end of 2017, Clark County’s population was 2.2 million, according to the Nevada State Demographer.

The Las Vegas Convention and Visitors Authority reported that from calendar year 2016 to 2017 visitor count in Clark County decreased by 1.7 percent to 42.2 million; citywide hotel/motel occupancy decreased 0.4 percent to 88.7 percent; convention attendance rose by 5.3 percent to 6.6 million; and gaming revenue in Clark County rose by 2.7 percent to \$10.0 billion.

The Nevada Department of Taxation reported taxable sales in Clark County were \$3.8 billion in June 2018, which is a year-over-year increase of 6.2 percent.

The housing market in Clark County continues to improve. In June 2018, the home inventory was 9,153, which is a decrease of 14.8 percent year-over-year. The median price for a new home was \$379,648, which is an 11.8 percent increase year-over-year. The existing median home price was \$260,000, which is a 13.1 percent increase year-over-year.

New home sales were up year-over-year by 13.5 percent and existing home sales were down year-over-year by 6.7 percent.

Long-Term Financial Planning – The SNWA’s mission is to manage the region’s water resources and develop solutions that will ensure adequate future water supplies for its members. To accomplish this, comprehensive capital plans are developed in conjunction with financial plans that utilize practical methods of paying future capital expenditures and debt service obligations.

Capital projects for the SNWA are initiated in response to identified needs for improvements to the facilities that provide for treatment and delivery of water supplies to the members of the SNWA. These improvements include (1) new facilities to expand or enhance treatment and distribution capabilities; (2) new water resources to expand or extend available water supplies; and (3) the repair, upgrade or replacement of existing facilities.

The Engineering Department develops capital plans as needed, which the Board reviews and approves. The capital plans identify projects and initiatives for new facilities, acquisition of water and energy resources, and other capital related activities. They also identify estimated costs and schedules for all approved projects and initiatives. The Finance Department models these costs to project the size and timing of future bond issuances as well as probable revenue enhancements that would be needed to pay for future costs.

As of June 30, 2018, the SNWA has \$3.7 billion in outstanding debt (see Notes 14 and 16 for a discussion of outstanding debt). The SNWA is required to set rates and charges at levels sufficient to cover all operating costs and debt service when combined with accumulated funds. The SNWA remains in compliance with its bond covenants.

The SNWA has four options to sell debt:

- LVVWD may issue debt on behalf of the SNWA under the Master Bond Repayment Agreement;
- Borrow through the State Bond Bank, in which the SNWA issues a bond to the State and the State in turn issues State General Obligation bonds (pursuant to 1997 Nevada legislation);
- Borrow through the Clark County Bond Bank, in which the SNWA issues a bond to the County and the County in turn issues County General Obligation bonds (pursuant to 1999 Nevada legislation); or
- Issue revenue bonds in its own name, recognizing that the SNWA does not have the power to levy property taxes and issue general obligation bonds.

The credit ratings as of June 30, 2018, are listed below.

	Moody's	Standard & Poor's
LVVWD	Aa1	AA+
State of Nevada Bond Bank	Aa2	AA
Clark County Bond Bank	Aa1	AA+
LVVWD Commercial Paper	P-1	A-1+

Relevant Financial Policies – Budgets are developed to maintain balance between revenues and expenditures. Budgets are the financial road maps that assist engineering, operational, and administrative departments in performing their daily duties in a financially prudent manner and support the Finance Department in providing finance plans that can generate sufficient revenues to pay for projected expenditures.

The SNWA regards its cash reserves as a critical component of its fiscal health and one of the most important metrics supporting its strong credit ratings. Cash reserves are monitored regularly, and revenue shortfalls are managed through a combination of methods. User fees and charges are adjusted to maintain required debt service coverage ratios and sufficient working capital. Financial reserves are used sparingly. When used, the reserves are compared to long-range projections of reserve levels, and modifications to revenue and expense streams are made as needed.

Cash reserves and unspent bond proceeds are invested whenever practical in obligations of the U.S. government, obligations of government-sponsored agencies, certificates of deposit, money market accounts, and commercial paper in accordance with the investment policy. Investments are purchased through recognized and regulated brokers dealing in government securities. All investments are held by a third-party custodian in the SNWA's name or are insured or collateralized with securities held by a third party in the SNWA's name.

The SNWA's reserve policy provides guidance for maintaining adequate reserves. Maintaining adequate 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. Maintaining adequate reserves helps to ensure stable services and fees and allows the SNWA to better respond to unforeseen negative changes in the local economy while providing a high quality and reliable water supply to purveyor members. In addition, prudent reserves, along with a formal reserve policy, are a key factor rating agencies consider in their evaluation of creditworthiness.

Major Initiatives – The Colorado River system has experienced below average runoff for much of the last decade. As a result, the total volume of water stored in Lake Mead has been reduced to approximately 37 percent of capacity at the end of June 2018.

The SNWA remains focused on its responsibility to ensure the acquisition, treatment, and delivery of a reliable and high-quality water supply to the region. To this end, major activities in the next fiscal year will include:

- Operation of facilities to treat and deliver water.
- Continuation of conservation education and incentive programs to maximize available water supplies.
- Continuation of work with federal, state, and local agencies to develop and operate joint facilities that provide regional solutions to water quality, supply, and environmental issues on the Colorado River.
- Construction of the Low Lake Level Pumping Station (L3PS) to ensure access to Lake Mead water at the lowest elevations accessible by Intake No. 3.
- Maintenance efforts on the existing water infrastructure system.

Existing pumping stations associated with Intake No. 1 and Intake No. 2 are currently drawing water from Intake No. 3. Intake No. 1 becomes inoperable at elevation 1,050 feet and Intake No. 2 does the same at elevation 1,000 feet. Because current and forecasted conditions project a high probability of lake levels continuing to decline, potentially to 1,000 feet or lower within the next decade, a new pumping station (L3PS) is currently being constructed. Once complete and connected to Intake No. 3, the L3PS will be capable of drawing water from as low as 875 feet above sea level.

The L3PS remains an important priority for protecting Southern Nevada's primary water supply and represents the majority of the SNWA's capital commitments for the next fiscal year.

CONTINUING DISCLOSURE

On November 10, 1994, the Securities and Exchange Commission (SEC) amended the Securities Exchange Act of 1934, Rule 15c2-12, regarding continuing disclosure by issuers of municipal securities for the benefit of holders of such securities. The amendments require, among other things, that certain annual financial information be provided to various information repositories for bond issues sold on or after July 3, 1995. The annual financial information must include an update of the same financial statements, except for forecasts, that were included in the final official statement issued at the time of the bond sale. The required annual financial information for the SNWA is available on the Electronic Municipal Market Access (EMMA) website, the Municipal Securities Rulemaking Board's central repository.

AWARDS AND ACKNOWLEDGMENTS

CAFR – The GFOA awarded a Certificate of Achievement for Excellence in Financial Reporting to the SNWA for its CAFR for the fiscal year ended June 30, 2017. This was the twenty-second consecutive year that the SNWA has achieved this award. To be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized CAFR. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current CAFR continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

Budget – In addition, the SNWA also received the GFOA's Distinguished Budget Presentation Award for its annual budget document for the fiscal year beginning July 1, 2017. To qualify for this award, a government must publish a budget document that meets program criteria as a policy document, operations guide, financial plan, and communications device.

Innovation – The SNWA was inaugurated in the Leading Utilities of the World, a global network for the world's most innovative water utilities and agencies.

Water Treatment – The River Mountains Water Treatment Facility received the highest level of certification from Partnership for Safe Water. Less than 20 treatment plants in the U.S. have received this level of certification.

Other Acknowledgements – We express our appreciation to all members of the SNWA's administrative staff and the independent certified public accounting firm of Piercy Bowler Taylor & Kern. Additionally, we recognize the SNWA's accounting staff for their efforts in preparing this report, especially Richard Snelding, SNWA Controller; Cheryl Styck, Senior Accountant; Osvaldo Hernandez, Senior Accountant; and Shera Miyashiro, Accountant. We also thank the members of the Board for their continued support in the planning, implementation, and oversight of the SNWA's financial affairs.

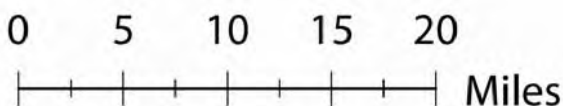
Sincerely,



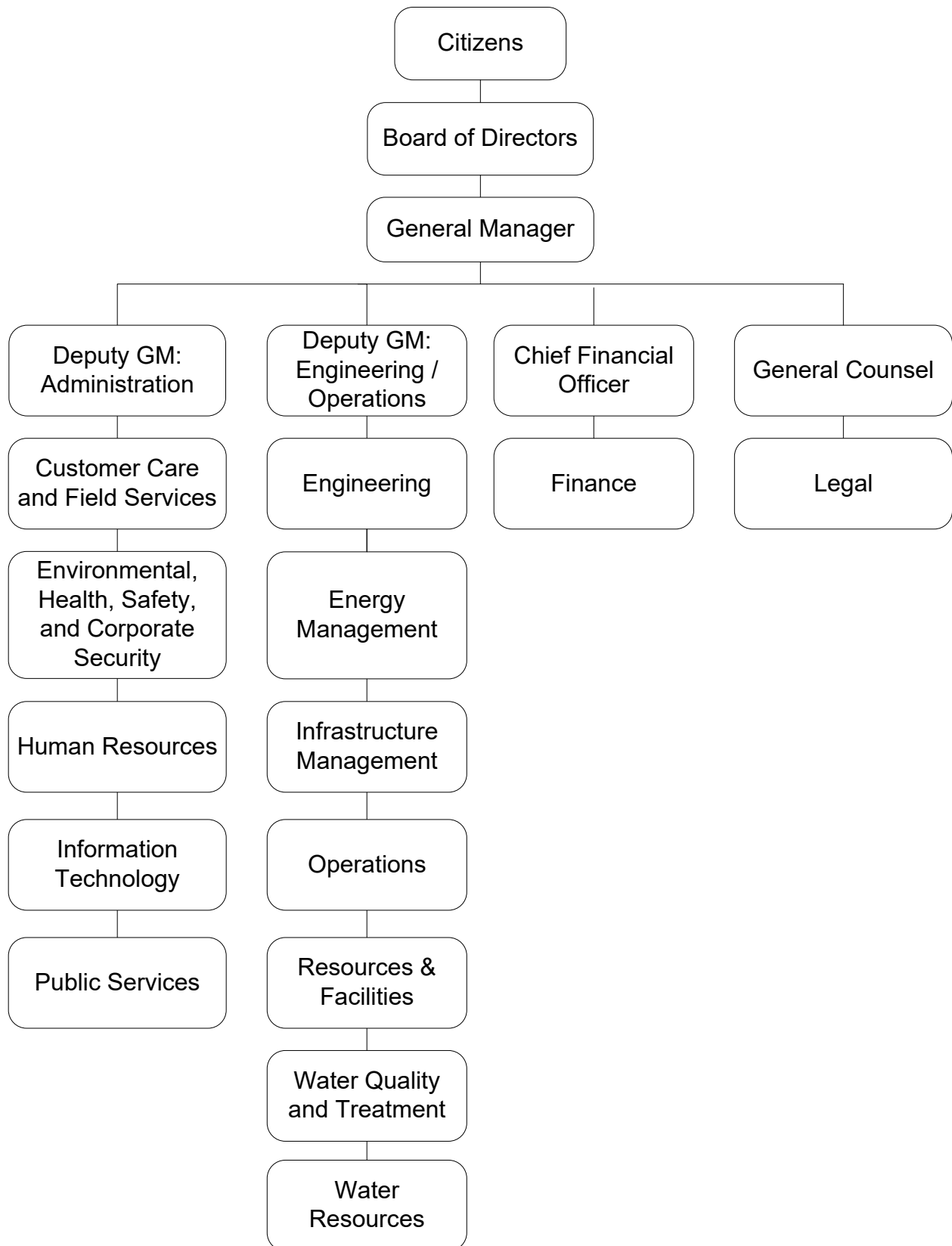
John J. Entsminger
General Manager



E. Kevin Bethel
Chief Financial Officer



Southern Nevada Water Authority
Organizational Chart
As of June 30, 2018





Board of Directors



Marilyn Kirkpatrick, Chair
Las Vegas Valley Water District



Bob Coffin, Vice Chair
City of Las Vegas



James B. Gibson
Clark County
Water Reclamation
District



Peggy Leavitt
City of Boulder City



John Lee
City of North Las Vegas



John Marz
City of Henderson



Steve Sisolak
Big Bend Water District

Executive Management



John J. Entsminger
General Manager



Julie A. Wilcox
Deputy General Manager
Administration



David L. Johnson
Deputy General Manager
Engineering/Operations



E. Kevin Bethel
Chief Financial
Officer



Gregory J. Walch
General Counsel



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Southern Nevada Water Authority

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2017

Christopher P. Morill

Executive Director/CEO

Financial Section

- Independent Auditors' Report
- Management's Discussion and Analysis
- Basic Financial Statements
- Notes to Basic Financial Statements
- Other Supplementary Information

INDEPENDENT AUDITORS' REPORT ON FINANCIAL STATEMENTS AND SUPPLEMENTARY INFORMATION

Board of Directors
Southern Nevada Water Authority
Las Vegas, NV

We have audited the accompanying financial statements of the Southern Nevada Water Authority (SNWA) as of and for the fiscal years ended June 30, 2018 and 2017 (as restated) and the related notes to the financial statements, which collectively comprise SNWA's basic financial statements as listed in the table of contents.

An audit performed in accordance with applicable professional standards is a process designed to obtain reasonable assurance about whether SNWA's basic financial statements are free from material misstatement. This process involves performing procedures to obtain audit evidence about the amounts and disclosures in the basic financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the basic financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to SNWA's preparation and fair presentation of the basic financial statements to enable the design of audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of SNWA's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of significant accounting estimates made by management, as well as the overall presentation of the basic financial statements.

Management's Responsibility for the Financial Statements. Management is responsible for the preparation and fair presentation of the basic financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of basic financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility. Our responsibility is to express an opinion on the basic financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the basic financial statements are free from material misstatement.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion. In our opinion, the basic financial statements referred to above present fairly, in all material respects, the financial position of SNWA as of June 30, 2018 and 2017 (as restated), and the changes in financial position and cash flows for the fiscal years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters. Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 2 - 3 through 2 - 7 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for

placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information. Our audit was conducted for the purpose of forming our opinion on the financial statements that collectively comprise SNWA's basic financial statements. The introductory section, other supplementary information, as listed in the table of contents, and statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The other supplementary information, as listed in the table of contents, is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information as listed in the table of contents is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory section and statistical section have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by Government Auditing Standards. In accordance with *Government Auditing Standards*, we have also issued our report dated October 25, 2018, on our consideration of SNWA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering SNWA's internal control over financial reporting and compliance.



Las Vegas, Nevada
October 25, 2018

placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information. Our audit was conducted for the purpose of forming our opinion on the financial statements that collectively comprise SNWA's basic financial statements. The introductory section, other supplementary information, as listed in the table of contents, and statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

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The introductory section and statistical section have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

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Las Vegas, Nevada
October 25, 2018

SOUTHERN NEVADA WATER AUTHORITY

Management's Discussion and Analysis
For the fiscal years ended June 30, 2018 and 2017

As management of the Southern Nevada Water Authority (SNWA), we offer readers of the SNWA's financial statements this narrative overview and analysis of the financial activities of the SNWA for the fiscal year ended June 30, 2018. We encourage readers to consider the information presented here in conjunction with the basic financial statements and accompanying notes, which follow this section.

Financial Highlights for 2018

- Total Assets increased \$29.5 million to \$5.7 billion, which was an increase of 0.5 percent.
- Total Liabilities decreased \$119.2 million to \$3.8 billion, which was a decrease of 3.0 percent.
- Net Position increased by \$147.2 million to \$2.0 billion, which was an increase of 8.0 percent.
- Construction Work In Progress increased by \$161.3 to \$1.0 billion, which was an increase of 18.2 percent. The increase was primarily due to continued work on the Low Lake Level Pumping Station (L3PS).

Overview of the Financial Statements

This discussion and analysis serves as an introduction to the SNWA's basic financial statements, which are comprised of two components: (1) enterprise fund financial statements and (2) notes to the basic financial statements. This Comprehensive Annual Financial Report (CAFR) also contains other supplementary and statistical information in addition to the basic financial statements.

Enterprise fund financial statements. The SNWA's operations are accounted for as a single enterprise fund using the full accrual basis of accounting. In this regard, the SNWA's operations are accounted for like a private business enterprise. Within this fund, the SNWA segregates revenues and expenses in its financial statements for various purposes such as operations, debt service, and capital improvements. This segregation is an internal discipline and does not create physically separate funds.

Notes to the financial statements. The notes provide additional information that is essential for a full understanding of the data provided in the basic financial statements. While the information included in this discussion and analysis is a summary, a review of the notes to the basic financial statements are necessary to achieve a full understanding of the SNWA's financial position.

Other supplementary information. The statement of revenues, expenses, and changes in net position as well as the statement of cash flows are presented on a budget-to-actual comparison in compliance with Nevada Revised Statute 354.

Statistical information. This statistical information provides financial trends, revenue capacity, debt capacity, demographic and economic condition, and operational trends to enhance the reader's understanding of the SNWA's economic position in a broader context.

Financial analysis. One indication of the financial health of the SNWA is net position, which is the difference between assets and liabilities.

SOUTHERN NEVADA WATER AUTHORITY

Management's Discussion and Analysis
For the fiscal years ended June 30, 2018 and 2017

The following table summarizes the Statements of Net Position as of June 30, 2018, 2017, and 2016.

Condensed Statements of Net Position (In Millions)

	2018	Change	2017	Change	2016
Assets and Deferred Outflows					
Capital Assets	\$4,684.4	\$ 77.3	\$4,607.1	\$ 39.5	\$4,567.6
Other Assets	1,063.4	(47.8)	1,111.2	(41.5)	1,152.7
Total Assets	5,747.8	29.5	5,718.3	(2.0)	5,720.3
Deferred Outflows of Resources	80.2	(2.1)	82.3	(3.8)	86.1
Total Assets and Deferred Outflows	5,828.0	27.4	5,800.6	(5.8)	5,806.4
Liabilities and Deferred Inflows					
Current Liabilities	559.8	4.6	555.2	8.2	547.0
Noncurrent Liabilities	3,256.6	(123.8)	3,380.4	(122.5)	3,502.9
Total Liabilities	3,816.4	(119.2)	3,935.6	(114.3)	4,049.9
Deferred Inflows of Resources	16.3	(0.5)	16.8	(1.2)	18.0
Total Liabilities and and Deferred Inflows	3,832.7	(119.7)	3,952.4	(115.5)	4,067.9
Net Position					
Net Investments in Capital Assets	1,338.5	80.2	1,258.3	59.8	1,198.5
Restricted for Debt Service / Capital Assets	28.3	(37.1)	65.4	49.6	15.8
Unrestricted	628.5	104.0	524.5	0.2	524.3
Total Net Position	1,995.3	147.1	1,848.2	109.6	1,738.6
Total Liabilities, Deferred Inflows, and Net Position	\$5,828.0	\$ 27.4	\$5,800.6	\$ (5.9)	\$5,806.5

Capital Assets increased by \$77.3 million (1.7%) and \$39.5 million (0.9%) in fiscal years 2018 and 2017, respectively. The increases were mainly due to continued progress on the capital improvement plans, primarily the L3PS. Other Assets decreased \$47.8 million (-4.3%) and \$41.5 million (-3.6%) in fiscal years 2018 and 2017, respectively. The decreases were primarily due to uses of resources on capital assets.

Deferred Outflows of Resources decreased \$2.1 million (-2.6%) and \$3.8 million (-4.4%) in fiscal years 2018 and 2017, respectively. The decreases were due to a combination of normal amortization of the deferred loss on bond refundings, bond refunding activities, and investment returns and other activities within the LVVWD's pension plan.

Current Liabilities increased \$4.6 million (0.8%) and \$8.2 million (1.5%) in fiscal years 2018 and 2017, respectively. The increases were attributable to more principal due on debt service. Noncurrent Liabilities decreased \$123.8 million (-3.7%) and \$122.5 million (-3.5%) in fiscal years 2018 and 2017, respectively. The decreases were mainly a result of paying debt.

Deferred Inflows of Resources decreased \$0.5 million (-3.0%) and \$1.2 million (-6.7%) in fiscal years 2018 and 2017, respectively. The net decreases resulted from normal amortization of deferred gains on bond refundings, bond refunding activities, and the addition of the SNWA's liability as a result of their share of the LVVWD's implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*.

SOUTHERN NEVADA WATER AUTHORITY

Management's Discussion and Analysis
For the fiscal years ended June 30, 2018 and 2017

The following table summarizes the Statements of Revenues, Expenses, and Changes in Net Position for the fiscal years ended June 30, 2018, 2017 and 2016.

Condensed Statements of Revenues, Expenses, and Changes in Net Position (In Millions)

	2018	Change	2017	Change	2016
Operating Revenues					
Wholesale Delivery Charges	\$ 134.4	\$ 4.3	\$ 130.1	\$ 5.1	\$ 125.0
Other Revenues	7.3	-	7.3	(43.8)	51.1
Total Operating Revenues	141.7	4.3	137.4	(38.7)	176.1
Operating Expenses					
Personnel and Related	73.7	17.7	56.0	(0.3)	56.3
Energy	36.2	(0.4)	36.6	(2.7)	39.3
Depreciation	109.2	11.7	97.5	6.7	90.8
Operating and Maintenance	58.6	(15.2)	73.8	34.5	39.3
Total Operating Expenses	277.7	13.8	263.9	38.2	225.7
Nonoperating Revenues (Expenses)					
Nonoperating Revenues	2.0	(17.9)	19.9	15.8	4.1
Nonoperating Expenses	(91.9)	24.1	(116.0)	17.4	(133.4)
Total Nonoperating Revenues (Expenses)	(89.9)	6.2	(96.1)	33.2	(129.3)
Capital Contributions	381.4	49.2	332.2	31.5	300.7
Change in Net Position	155.5	45.9	109.6	(12.2)	121.8
Net Position					
Beginning, as Previously Reported	1,848.2		1,738.6		1,616.8
Prior Period Adjustment	(8.4)		-		-
Beginning, as Adjusted	1,839.8		1,738.6		1,616.8
Changes in Net Position	155.5		109.6		121.8
Ending	\$1,995.3		\$1,848.2		\$1,738.6

Wholesale Delivery Charges revenues increased \$4.3 million (3.3%) and \$5.1 million (4.1%) in fiscal years 2018 and 2017, respectively. The increases are due to modest population growth in the SNWA's service area. In fiscal year 2016, the SNWA made a one-time sale of water to the Metropolitan Water District of Southern California, which explains the sharp decline of \$43.8 million (-85.7%) in Other Revenues between fiscal years 2016 and 2017.

Personnel and Related expenses increased \$17.7 million (31.6%) in fiscal year 2018. The increase is primarily attributable to a change in methodology for capitalizing indirect labor as well as a shift in labor allocation from the LVVWD as staff worked more on SNWA related activities.

Energy expenses decreased \$0.4 million (-1.1%) and \$2.7 million (-6.9%) in fiscal years 2018 and 2017, respectively. These changes are a result of modest decreases in energy prices coupled with modest increases in demand.

Depreciation expense increased \$11.7 million (12.0%) and \$6.7 million (7.4%) in fiscal years 2018 and 2017, respectively. These increases are due to capital assets being put into service as progress continues on the capital improvement plans.

SOUTHERN NEVADA WATER AUTHORITY

Management's Discussion and Analysis
For the fiscal years ended June 30, 2018 and 2017

Operating and Maintenance expenses increased by \$34.5 million (87.8%) in fiscal year 2017 and then decreased by \$15.2 million (-20.6%) in fiscal year 2018. The increase in fiscal year 2017 and decrease in 2018 was mainly attributable to the reclassification of capital projects that were deemed to be more operational in nature.

Nonoperating Revenues increased \$15.8 million (385.4%) in fiscal year 2017 and then decreased \$17.9 million (-89.9%) in fiscal year 2018. The SNWA sold its 25% stake in the Silverhawk Generation Station, which explains why 2017 is significantly higher than 2016 and 2018.

Nonoperating Expenses decreased \$24.1 million (-20.8%) and \$17.4 million (-13.0%) fiscal years 2018 and 2017, respectively. These decreases were due to continued payment of debt, debt refunding activities, and changes in capitalized interest.

Capital Contributions increased \$49.2 million (14.8%) and \$31.5 million (10.5%) in fiscal years 2018 and 2017, respectively. These increases are due to modest population growth within the SNWA's service area and a sharper increase in connection charges from new construction.

The prior period adjustment in fiscal year 2018 is due to the LVVWD's implementation of GASB Statement No. 75.

Capital Asset and Long-Term Debt Activity

Capital Assets. As of June 30, 2018, the SNWA had net capital assets of \$4.7 billion, which included transmission and distribution lines, pumping stations and equipment, treatment facilities, water and other natural resources rights, and land. In fiscal year 2018, the SNWA made capital asset expenditures of \$191.5 million. Most of these expenditures were for projects within the Major Construction and Capital Plan. The largest project within that plan was the L3PS. See Note 7 to the basic financial statements for additional information on the types and values of the SNWA's capital assets. See Note 9 to the basic financial statements for additional information on the SNWA's capital improvement plans and the L3PS.

Long-Term Debt. As of June 30, 2018, the SNWA had long-term debt of \$3.3 billion. In fiscal year 2018, the SNWA did not issue any new long-term debt, but it had one bond refunding dated March 6, 2018, which resulted in an estimated net present value savings of \$9.7 million. See Note 16 to the basic financial statements provides additional information on the SNWA's long-term debt.

Economic Factors and Next Year's Goals

The SNWA's financial outlook remains favorable. The economic environment of the SNWA's service area, Las Vegas and Clark County, has improved steadily over the past several years. The 2008 recession was the first time in decades that the Las Vegas area experienced a sustained period of little or no growth. Since then, growth has returned to the area, but at a more reasonable pace than Las Vegas experienced in the 1990s and early 2000s. Management continues to review the financial conditions of the area and actively take steps to ensure the SNWA's financial stability.

On May 31, 2018, the SNWA's Board of Directors approved an increase to the Wholesale Delivery Charge to \$313 per acre-foot for treated water and \$238 per acre-foot for untreated water effective July 1, 2018, an additional increase of \$10 per acre-foot for treated water and \$6 per acre-foot for untreated water effective July 1, 2019, and annual adjustments of both rates thereafter in accordance with the Consumer Price Index. These increases demonstrate the Board and community's understanding and commitment to the importance of water security.

One of the greatest challenges currently facing Southern Nevada continues to be the multi-year drought affecting the Colorado River Basin. The amount of water in Lake Mead has declined substantially since the year 2000. As of June 30, 2018, the lake level was 1,077 feet, which is 37% of capacity. While this level is above the SNWA's two

SOUTHERN NEVADA WATER AUTHORITY

Management's Discussion and Analysis
For the fiscal years ended June 30, 2018 and 2017

intakes, drawing water closer to the surface creates water quality challenges. In response, the SNWA is working within Nevada and with other Colorado River Basin states to develop solutions to mitigate impacts of the drought. The SNWA completed the third intake into Lake Mead and is currently constructing the L3PS to help ensure continued access to its Colorado River allocation should lake levels continue to decline.

In 2014, the SNWA engaged a citizens' advisory committee to review drought conditions on the Colorado River and their impact on Southern Nevada's water supply. That committee made formal recommendations to the Board in November 2014. On December 10, 2014, the Board adopted those recommendations. Among those recommendations were (1) to construct a new L3PS and (2) increase the Regional Infrastructure Charge rates to fund the new L3PS, projected to cost \$650.0 million. Although this project is ongoing and will take a few more years to complete, it still constitutes a significant portion of next year's goals.

Requests for Information

This financial report is designed to provide a general overview of the SNWA's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Chief Financial Officer, Southern Nevada Water Authority, 1001 South Valley View Boulevard, Mail Stop 480, Las Vegas, Nevada, 89153.

The CAFR can also be viewed at www.snwa.com. The website contains other financial and operational information pertaining to the SNWA as well as helpful information concerning conservation and water issues.

SOUTHERN NEVADA WATER AUTHORITY

ENTERPRISE FUND

STATEMENTS OF NET POSITION

AS OF JUNE 30, 2018 AND 2017

ASSETS	<u>2018</u>	<u>2017</u>
CURRENT ASSETS		
Current Assets - Restricted		
Investments	\$ 325,475,872	\$ 488,154,448
Sales Tax Receivable	18,235,587	17,295,905
Total Current Assets - Restricted	<u>343,711,459</u>	<u>505,450,353</u>
Current Assets - Unrestricted		
Cash and Cash Equivalents	19,789,897	26,335,125
Investments	531,946,591	405,905,237
Due From Member Agencies	34,096,447	46,821,885
Other Receivables	9,905,431	2,639,023
Other Current Assets	38,058,009	38,004,366
Total Current Assets - Unrestricted	<u>633,796,375</u>	<u>519,705,636</u>
Total Current Assets	<u>977,507,834</u>	<u>1,025,155,989</u>
NONCURRENT ASSETS		
Capital Assets		
Capital Assets Subject to Depreciation		
Property, Plant and Equipment	4,301,804,645	4,301,473,158
Accumulated Depreciation	<u>(1,339,429,475)</u>	<u>(1,233,840,905)</u>
Net Capital Assets Subject to Depreciation	<u>2,962,375,170</u>	<u>3,067,632,253</u>
Capital Assets Not Subject to Depreciation		
Land	165,934,322	148,162,139
Natural Resource Rights	508,165,420	504,654,344
Construction Work In Progress	<u>1,047,899,218</u>	<u>886,612,738</u>
Net Capital Assets Not Subject to Depreciation	<u>1,721,998,960</u>	<u>1,539,429,221</u>
Total Net Capital Assets	<u>4,684,374,130</u>	<u>4,607,061,474</u>
Other Noncurrent Assets		
Water Recharge Inventory	<u>85,919,996</u>	<u>86,052,728</u>
Total Noncurrent Assets	<u>4,770,294,126</u>	<u>4,693,114,202</u>
TOTAL ASSETS	<u>5,747,801,960</u>	<u>5,718,270,191</u>
DEFERRED OUTFLOWS OF RESOURCES		
Deferred Loss on Bond Refundings	71,418,560	79,867,112
Deferred Amount - Related Party	8,784,099	2,429,542
Total Deferred Outflows of Resources	<u>80,202,659</u>	<u>82,296,654</u>
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	<u>\$ 5,828,004,619</u>	<u>\$ 5,800,566,845</u>

The accompanying notes are an integral part of these financial statements.

SOUTHERN NEVADA WATER AUTHORITY

ENTERPRISE FUND

STATEMENTS OF NET POSITION

AS OF JUNE 30, 2018 AND 2017

LIABILITIES AND NET POSITION	2018	2017
CURRENT LIABILITIES		
Accounts Payable	\$ 28,048,722	\$ 27,582,074
Accrued Interest Payable	15,253,990	15,537,581
Current Portion of Notes Payable	1,437,534	1,387,898
Current Portion of Bonds Payable	115,086,540	110,701,540
Short-Term Debt Payable	400,000,000	400,000,000
Total Current Liabilities	<u>559,826,786</u>	<u>555,209,093</u>
NONCURRENT LIABILITIES		
Due to Related Party	90,614,914	74,958,737
Notes Payable, Net of Current Portion	2,499,203	3,936,737
Bonds Payable, Net of Current Portion, and Unamortized Premiums and Discounts	<u>3,163,418,142</u>	<u>3,301,556,816</u>
Total Noncurrent Liabilities	<u>3,256,532,259</u>	<u>3,380,452,290</u>
TOTAL LIABILITIES	<u>3,816,359,045</u>	<u>3,935,661,383</u>
DEFERRED INFLOWS OF RESOURCES		
Deferred Gain on Bond Refundings	15,832,512	16,754,422
Deferred Amount - Related Party	481,774	-
Total Deferred Inflows of Resources	<u>16,314,286</u>	<u>16,754,422</u>
NET POSITION		
Net Investments in Capital Assets	1,338,529,398	1,258,221,454
Restricted for Debt Service / Capital Assets	28,267,590	65,386,843
Unrestricted	<u>628,534,300</u>	<u>524,542,743</u>
Total Net Position	<u>1,995,331,288</u>	<u>1,848,151,040</u>
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	<u>\$ 5,828,004,619</u>	<u>\$ 5,800,566,845</u>

The accompanying notes are an integral part of these financial statements.

SOUTHERN NEVADA WATER AUTHORITY
ENTERPRISE FUND
STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
FOR THE FISCAL YEARS ENDED JUNE 30, 2018 AND 2017

	2018	2017
OPERATING REVENUES		
Wholesale Delivery Charges	\$ 134,480,919	\$ 130,115,594
Groundwater Management Fees	878,647	886,929
Administration Costs Recoveries	695,443	625,349
Las Vegas Wash Revenues	429,845	356,365
Other Revenues	5,261,653	5,389,896
Total Operating Revenues	141,746,507	137,374,133
OPERATING EXPENSES		
Personnel and Related	73,687,225	55,987,034
Energy	36,244,051	36,631,385
Depreciation	109,196,145	97,423,714
Operating and Maintenance	58,603,873	73,839,764
Total Operating Expenses	277,731,294	263,881,897
OPERATING LOSS	(135,984,787)	(126,507,764)
NONOPERATING REVENUES (EXPENSES)		
Investment Income	1,722,807	955,013
Interest Expense (Net of BAB Subsidy of \$2,092,295 and \$2,081,998)	(105,825,457)	(124,651,755)
Amortization of Refunding Costs	(4,092,768)	(3,737,630)
Bond Issue and Commercial Paper Costs	(2,018,097)	(5,569,998)
Amortization of Bond Premiums and Discounts	20,063,488	18,002,315
Gain on Sale of Assets	288,832	18,935,983
Total Nonoperating Revenues (Expenses)	(89,861,195)	(96,066,072)
LOSS BEFORE CAPITAL CONTRIBUTIONS	(225,845,982)	(222,573,836)
Capital Contributions	381,402,434	332,146,883
CHANGE IN NET POSITION	155,556,452	109,573,047
NET POSITION - BEGINNING OF THE YEAR, AS PREVIOUSLY REPORTED	1,848,151,040	1,738,577,993
PRIOR PERIOD ADJUSTMENT - DUE TO RELATED PARTY	(8,376,204)	-
NET POSITION - BEGINNING OF THE YEAR, AS ADJUSTED	1,839,774,836	1,738,577,993
NET POSITION - END OF THE YEAR	\$ 1,995,331,288	\$ 1,848,151,040

The accompanying notes are an integral part of these financial statements.

SOUTHERN NEVADA WATER AUTHORITY
ENTERPRISE FUND
STATEMENTS OF CASH FLOWS
FOR THE FISCAL YEARS ENDED JUNE 30, 2018 AND 2017

	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES:		
General and Administrative / Resources Charges	\$ 3,035,000	\$ 3,577,279
Groundwater Management Fees	878,647	886,929
Las Vegas Wash Revenues	429,845	356,365
Wholesale Delivery Charges	134,350,122	129,436,759
Other Revenues	2,684,995	2,426,532
Cash Payments to Suppliers of Goods and Services	(118,515,167)	(137,374,766)
Net Cash Provided by (Used In) Operating Activities	22,863,442	(690,902)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Purchase or Construction of Capital Assets	(162,353,653)	(169,046,968)
Proceeds from Disposal of Property and Equipment	291,032	76,939,276
Principal Paid on Debt	(112,089,439)	(106,181,517)
Interest Paid on Debt (Net of BAB Subsidy of \$2,088,891 and \$2,082,181)	(145,031,765)	(156,693,050)
Capital Contributions	347,508,025	313,381,711
Net Cash Provided by (Used In) Capital and Related Financing Activities	(71,675,800)	(41,600,548)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of Investment Securities	(856,929,242)	(950,359,687)
Proceeds from Sales or Maturities of Investment Securities	888,752,050	982,141,170
Investment Income	10,444,322	7,464,863
Net Cash Provided by (Used In) Investing Activities	42,267,130	39,246,346
NET DECREASE IN CASH AND CASH EQUIVALENTS	(6,545,228)	(3,045,104)
Cash and Cash Equivalents, Beginning of Year	26,335,125	29,380,229
Cash and Cash Equivalents, End of Year	\$ 19,789,897	\$ 26,335,125
RECONCILIATION OF OPERATING LOSS		
TO NET CASH PROVIDED BY OPERATING ACTIVITIES:		
Operating Loss	\$ (135,984,787)	\$ (126,507,764)
Depreciation	109,196,145	97,423,714
Expenses Related to Expansion Programs	24,113,212	13,587,962
(Increase) decrease in operating assets		
Due from Member Agencies	14,743,908	464,330
Other Receivables	363,698	(530,559)
Other Current Assets	(53,643)	9,547,756
Water Recharge Inventory	132,730	101,257
Deferred Amount - Related Party	(5,872,783)	8,386,436
Increase (decrease) in operating liabilities		
Accounts Payable	568,785	2,488,510
Due to Related Party	15,656,177	(5,652,544)
Net Cash Provided by (Used In) Operating Activities	\$ 22,863,442	\$ (690,902)
NONCASH INVESTING, AND CAPITAL AND RELATED FINANCING ACTIVITIES:		
Changes in Fair Value of Investments	\$ 10,066,537	\$ 1,969,315
Deferred (Gain) Loss on Refunded Bonds	(286,429)	12,162,943
Refunding Bonds Issued	(79,085,000)	(615,425,000)
Bonds Refunded	88,635,000	691,455,000
Contributed Capital	(9,781,197)	(5,177,210)

The accompanying notes are an integral part of these financial statements.

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements
For the fiscal years ended June 30, 2018 and 2017

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity

The Southern Nevada Water Authority (SNWA) is a political subdivision of the State of Nevada (State) and is the reporting entity. The SNWA was created on July 25, 1991, pursuant to Nevada Revised Statutes (NRS) Chapter 277.080 to 277.180, inclusive, by a cooperative agreement and a facilities and operations agreement among its member agencies. These agencies include the Big Bend Water District, City of Boulder City, City of Henderson, City of Las Vegas, City of North Las Vegas, Clark County Water Reclamation District, and the Las Vegas Valley Water District (LVVWD). The cooperative agreement was last amended in 2005. The facilities and operations agreement was last amended in 2012.

The SNWA was created to secure additional supplies of water for Southern Nevada and to effectively manage existing supplies of water through the cooperative action of its member agencies. A seven-member Board of Directors (Board) comprised of one Director from each member agency governs the SNWA equally. The SNWA operations are autonomous from its member agencies and the State, and its financial statements are not included in the financial statements of any other entity.

The Board has the power to periodically assess its member agencies directly for operating expenses and capital expenditures and for the satisfaction of any liabilities imposed against the SNWA. In 1991, each member agency made an initial contribution to the SNWA for operating and administrative expenses in the amount of \$15,000. Assessments for additional funds needed by the SNWA, in accordance with approved operating and capital budgets, have been apportioned to its member agencies based on water deliveries to those agencies. Funding received by the SNWA from its member agencies for operations is recorded as operating revenue, while funding received for capital improvement programs and other expansion related programs are recorded as capital contributions. Member agencies that are not potable water purveyors (the City of Las Vegas and the Clark County Water Reclamation District) each contribute \$35,000 annually to the SNWA.

Operating Agent / Related Party Disclosure

The Board has the responsibility to appoint a General Manager. The Board designated the LVVWD's General Manager as the General Manager of the SNWA in 1993. Simultaneously, the LVVWD was named the operating agent for the SNWA.

The LVVWD allocates a portion of its payroll costs to the SNWA for the LVVWD employees who are utilized on SNWA-related matters and pays certain costs and operating expenses on behalf of the SNWA. The SNWA has no employees of its own. Consequently, any financial reporting requirements regarding employees utilized by the SNWA, including but not limited to reporting on pension and other postemployment benefits, can be found in the LVVWD's Comprehensive Annual Financial Report (CAFR).

During the mid-1990s, the LVVWD paid substantially all operating and capital expenses on behalf of the SNWA, and the SNWA reimbursed the LVVWD monthly. In the late 1990s, to mitigate potential cash flow demands on the LVVWD under this arrangement, the SNWA began paying construction contracts directly, assumed responsibility for paying construction contract retention and paid most of the cost of power required to operate the Southern Nevada Water System. In 2008, the SNWA advanced \$19.0 million to the LVVWD to fund future SNWA-related operating expenses made on its behalf. The advance is replenished monthly and will be applicable throughout the SNWA's and LVVWD's operating agent relationship. The SNWA also pays other large recurring expenses that it deems would be detrimental to the LVVWD's cash flow.

The SNWA is autonomous from the LVVWD. The SNWA's operations and finances are separate from that of the LVVWD. The SNWA does not include the LVVWD's information within its financial statements, nor is the SNWA's information included in the LVVWD's financial statements.

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements
For the fiscal years ended June 30, 2018 and 2017

The LVVWD is a quasi-municipal corporation created under a special act of the Nevada State Legislature in 1947 for obtaining and distributing water primarily in the Las Vegas Valley, which includes the City of Las Vegas and certain portions of the metropolitan area of Clark County. The LVVWD's CAFR can be found at www.lvvwd.com or can be obtained by mailing a request to the SNWA.

Southern Nevada Water System

Effective January 1996, pursuant to Assembly Bill No. 542, approved by the Nevada Legislature in 1995 (the Transfer Act), the assets of the Southern Nevada Water System (SNWS), as well as certain liabilities and responsibility for operation of the SNWS, were transferred from the Colorado River Commission (CRC) to the SNWA. Along with the transfer of these assets, the CRC transferred all books and records in its possession relating to the SNWS and its facilities.

Fund Accounting

The accompanying basic financial statements are reported on the basis of fund accounting. A fund is a fiscal and accounting entity with a set of self-balancing accounts that comprise its assets, liabilities, net position, revenues, and expenses.

Enterprise Fund

The SNWA operations have been accounted for as a single enterprise fund, which is a type of proprietary fund. A fund is an accounting entity with a self-balancing set of accounts established to record the financial position and changes in financial position of a specific governmental activity. Enterprise fund operations are presented using the full accrual basis of accounting wherein revenues are recognized in the accounting period in which they are earned, and expenses are recognized in the period incurred, regardless of when revenues are received or expenses are paid. In this regard, the SNWA operations are accounted for in a manner like a private business enterprise, where the intent of the governing body is that the costs of providing goods and services to customers on a continuing basis are financed or recovered primarily through user charges, and its financial measurement focus is on determination of net income, financial position, and cash flows. The SNWA's financial statements comply with pronouncements of the Governmental Accounting Standards Board (GASB).

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires the use of estimates by management. Such estimates primarily relate to unsettled transactions and events as of the date of the basic financial statements. Actual results could differ significantly from those estimates.

Cash, Cash Equivalents, and Investments

Cash and cash equivalents include cash on hand and cash on deposit with financial institutions, including time deposits (Note 2). Authorized investments are described in Note 3. Investments with maturity dates of less than one year when purchased are reported at par. Premiums and discounts are amortized over the remaining life of the investment instrument. Investments with a maturity date of more than one year when purchased are reported at estimated fair value as required by GASB Statement No. 31, *Accounting and Financial Reporting for Certain Investments and for External Investment Pools* (Note 3).

Restricted Assets

Restricted assets include unused bond proceeds and sales tax proceeds which are externally restricted by bond covenants and Nevada Revised Statutes, respectively.

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements
For the fiscal years ended June 30, 2018 and 2017

Inventories

Inventories of supplies are recorded at cost, whereas inventories held for resale are recorded at lower of cost or market based on periodic reviews. Reduction of inventory is recorded using the first-in, first-out accounting method. Inventories are included in other current assets (Note 6).

Capital Assets

Property, plant, equipment, and land (Note 7) are carried at historical cost if purchased, estimated fair value if donated, or acquisition value if received in a service concession arrangement. Expenditures for improvements and betterments are capitalized. Generally, the SNWA capitalizes assets with a cost greater than \$10,000 and a useful life greater than three years.

Depreciation of property, plant and equipment is computed using the straight-line method over the estimated service lives of the respective assets. Major utility plant categories and their estimated service lives are as follows:

<u>Category</u>	<u>Estimated Service Life in Years</u>
Structures and Improvements	10 to 20
Pumping Stations and Wells	40
Transmission, Distribution, and Mains	50 to 75
Office Furniture and Related Equipment	5 to 15
Transportation and Related Equipment	5 to 10
Northern Resource Assets	5 to 27.5

Revenues

Operating revenues include Wholesale Delivery Charges, Groundwater Management Fees, Administration Cost Recoveries, Las Vegas Wash Fees, and other ancillary revenues. During the fiscal year ended June 30 2018, the Wholesale Delivery Charge was \$303 per acre-foot (AF) of potable water. The Wholesale Delivery Charge is designed to fund operation and maintenance of the SNWS, as well as the SNWA administration. The SNWA also charged \$232 per AF for non-potable water delivered to the City of Boulder City for use on golf courses. For the fiscal year ended 2018, groundwater management fees consist of an annual fee of \$13 per AF of permitted groundwater rights or \$13 per domestic well. Administration cost recoveries are amounts charged to member agencies of the SNWA that do not physically take potable water from the SNWS. These costs vary by purveyor and are designed to help compensate the SNWA for administration costs associated with their membership. Las Vegas Wash fees consist of contributions from other local governments towards operating costs of the Las Vegas Wash Coordination Committee. Other revenues consist primarily of sales made from the SNWA's northern resource properties' activities.

Nonoperating revenues consist of investment income (net of amounts capitalized) and a minimal amount of other miscellaneous items.

Expenses

Operating expenses include payroll and related allocations from the LVVWD, energy, costs associated with the operation and maintenance of the SNWS, administrative costs, and depreciation. Nonoperating expenses include interest expense (net of amounts capitalized) as well as amortization of deferred amount on debt refundings and premiums/discounts.

Capital Contributions

Capital contributions include various monies that the SNWA receives which are restricted for use in the capital improvement programs and other expansion related programs (Note 17).

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements
For the fiscal years ended June 30, 2018 and 2017

Litigation Defense Costs

The SNWA does not accrue for estimated future legal and defense costs, if any, to be incurred in connection with outstanding or threatened litigation and other disputed matters, but rather records such as period costs when services are rendered. See Note 13 for further information.

Water Rights Holding Company

In 1999, the Board established the Muddy River Water Holdings, Inc., a non-profit corporation authorized to facilitate the acquisition and holding of water rights stock and stock options. This corporation holds any stock purchased by the SNWA that represents water rights.

Prior Period Adjustment

The LVVWD adopted GASB Statement No. 75 *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, effective for fiscal year 2018. Although the SNWA is not subject to the implementation of the GASB Statement No. 75, the SNWA has an obligation to the LVVWD for its proportionate share of that liability. The cumulative effect of applying the new Statement is reported by the LVVWD as a restatement of the beginning net position in the initial period of implementation. The SNWA has recorded their corresponding liability in this same manner.

Ending net position as reported on June 30, 2017	\$1,848,151,040
Prior period adjustment	<u>(8,376,204)</u>
Beginning net position as restated on July 1, 2017	<u>\$1,839,774,836</u>

New Accounting Pronouncements

In November 2016, the GASB issued Statement No. 83, *Certain Asset Retirement Obligations*, which is effective for fiscal years beginning after June 15, 2018. Earlier application is encouraged. The objective of this Statement is to provide financial statement users with information about asset retirement obligations that were not addressed in GASB standards by establishing uniform accounting and financial reporting requirements for these obligations. The SNWA is currently evaluating how the adoption of Statement No. 83 will affect the SNWA's financial position, results of operation or cash flow.

In June 2017, the GASB issued Statement No. 87, *Leases*, which is effective for fiscal years beginning after December 15, 2019. Earlier application is encouraged. The objective of this Statement is to better meet the information needs of financial statement users by improving accounting and financial reporting for leases; enhancing the comparability of financial statements between governments; and enhancing the relevance, reliability (representational faithfulness), and consistency of information about the leasing activities of governments. The SNWA is currently evaluating how the adoption of Statement No. 87 will affect the SNWA's financial position, results of operation or cash flow.

In March 2018, the GASB issued Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*, which is effective for fiscal years beginning after June 15, 2018. Earlier application is encouraged. The primary objective of this Statement is to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. The SNWA is currently evaluating how the adoption of Statement No. 88 will affect the SNWA's financial position, results of operation or cash flow.

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements
For the fiscal years ended June 30, 2018 and 2017

In June 2018, the GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, which is effective for fiscal years beginning after December 15, 2019. Earlier application is encouraged. The objectives of this statement are (1) to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and (2) to simplify accounting for interest cost incurred before the end of a construction period. The SNWA is currently evaluating how the adoption of Statement No. 89 will affect the SNWA's financial position, results of operation or cash flow.

Other recent accounting standards issued by the GASB are not believed to have an effect on the SNWA's present or future financial position, results of operations, or cash flows.

NOTE 2. CASH AND CASH EQUIVALENTS

Cash and cash equivalents consist of demand deposit accounts containing restricted and unrestricted cash. Cash balances as of June 30, 2018 and 2017, were \$19.8 million and \$26.3 million respectively. The SNWA bank balances as of June 30, 2018, and 2017, were \$20.6 million and \$26.8 million respectively.

On July 22, 2003, the Nevada State Assembly approved an amendment to NRS 356.020 establishing a Nevada State Treasurer's Pooled Collateral Program for local governments. The primary objective of the collateral pool is to reduce the risk for government agencies, while at the same time decrease the overall collateral requirement for depositories. By centralizing the administration and reporting functions through the State Treasurer's Office, both government agencies and depositories realize cost savings in terms of operational support and collateral efficiency. The bank utilized by the SNWA participates in the pool by pledging securities for the SNWA monies on deposit. The collateral pool for public fund deposits administered and monitored by the Nevada State Treasurer's Pooled Collateral Office requires depository banks to place acceptable securities of no less than 102% of the market value of the aggregate total deposits of public entities in Nevada with a third-party custodian.

NOTE 3. INVESTMENTS

The SNWA's investment policy limits investments and risks to those permitted under the laws of the State of Nevada. The investments and risks authorized by NRS 355.170 relevant to SNWA investments are as follows:

- Bonds, debentures, bills, and notes of United States (U.S.), the maturity dates of which are not more than ten years after the date of purchase.
- Farm loan bonds, consolidated farm loan bonds, debentures, consolidated debentures and other obligations issued by federal land banks and federal intermediate credit banks under the authority of the Federal Farm Loan Act and bonds debentures, consolidated debentures and other obligations issued by banks for cooperatives under the authority of the Farm Credit Act of 1933.
- Obligations of an agency or instrumentalities of the U.S. or a corporation sponsored by the government, the maturity dates of which are not to exceed ten years after the date of purchase.
- Negotiable certificates of deposit (CDs) issued by commercial banks, insured credit unions, or savings and loan associations. Credit quality ratings and percentage allowed of total investments are not specified.
- Nonnegotiable CDs issued by insured commercial banks, insured credit unions, or insured savings and loan associations, except certificates that are not within the limit of insurance provided by an instrumentality of the U.S. unless those certificates are appropriately collateralized.
- Negotiable notes medium-term obligations issued by local governments of the State of Nevada.

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements
For the fiscal years ended June 30, 2018 and 2017

- Obligations of state and local governments if (1) the interest on the obligation is exempt from gross income for federal income tax purposes and (2) the obligation has been rated “A” or higher by one or more nationally recognized bond credit rating agencies.
- Commercial paper issued by a corporation organized and operating in the U.S. or by a depository institution licensed by the U.S. or any state and operating in the U.S. that (1) is purchased from a registered broker-dealer; (2) has a remaining term to maturity at the time of purchase of no more than 270 days; and (3) is rated by a nationally recognized rating service as “A-1,” “P-1” or its equivalent, or better, except that investments in commercial paper may not, in aggregate value, exceed 20% of the total portfolio as determined on the date of purchase. If the rating of the obligation is reduced to a level that does not meet the requirements, it must be sold as soon as possible.
- Obligations of the Federal Agricultural Mortgage Corporation.

The SNWA’s investments by fair value were as follows:

Investment Type	June 30, 2018	June 30, 2017
U.S. Agency Non-Callable Bonds	\$ 517,866,221	\$ 578,309,615
Commercial Paper	111,778,172	72,884,460
Negotiable Certificates of Deposit	106,930,280	64,996,100
U.S. Treasury Notes	91,227,290	137,929,660
U.S. Agency Discount Notes	-	14,999,100
U.S. Agency Callable Bonds	19,620,500	14,940,750
Commercial Paper Floater	10,000,000	10,000,000
Total	\$ 857,422,463	\$ 894,059,685

Credit Risk

As of June 30, 2018, the SNWA’s investment ratings and fair values were as follows:

Investment Type	S&P	Moody’s	Fair Value
U.S. Agency Non-Callable Bonds	AA+	Aaa	\$ 468,620,971
Commercial Paper	A-1+	P-1	38,411,661
Negotiable Certificates of Deposit	A-1	P-1	47,998,000
Negotiable Certificates of Deposit	A-1+	P-1	39,926,200
U.S. Agency Non-Callable Bonds	Unrated	Unrated	49,245,250
Commercial Paper	A-1	P-1	73,366,511
U.S. Agency Callable Bonds	AA+	Aaa	19,620,500
Commercial Paper Floater	A-1+	P-1	10,000,000
Negotiable Certificates of Deposit	Unrated	Unrated	19,006,080

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements
For the fiscal years ended June 30, 2018 and 2017

As of June 30, 2017, the SNWA's investment ratings and fair values were as follows:

Investment Type	S&P	Moody's	Fair Value
U.S. Agency Non-Callable Bonds	AA+	Aaa	\$ 548,424,065
Commercial Paper	A-1+	P-1	47,916,300
Negotiable Certificates of Deposit	A-1	P-1	35,007,299
Negotiable Certificates of Deposit	A-1+	P-1	29,988,801
U.S. Agency Non-Callable Bonds	Unrated	Unrated	29,885,550
Commercial Paper	A-1	P-1	24,968,160
U.S. Agency Discount Notes	A-1+	P-1	14,999,100
U.S. Agency Callable Bonds	AA+	Aaa	14,940,750
Commercial Paper Floater	A-1+	P-1	10,000,000

Concentration of Credit Risk

As of June 30, 2018, the following investments individually comprise 5% or more of the SNWA's total investment portfolio.

Issuer	Investment Type	Percentage of Investments
Federal Farm Credit Bank	U.S. Agency Bonds	18%
Federal Home Loan Mortgage Corporation	U.S. Agency Bonds	15%
Federal Home Loan Bank	U.S. Agency Bonds	14%
Federal National Mortgage Association	U.S. Agency Bonds	9%
Federal Agricultural Mortgage Corporation	U.S. Agency Bonds	6%

As of June 30, 2017, the following investments individually comprise 5% or more of the SNWA's total investment portfolio.

Issuer	Investment Type	Percentage of Investments
Federal Farm Credit Bank	U.S. Agency Bonds	24%
Federal Home Loan Mortgage Corporation	U.S. Agency Bonds	20%
Federal National Mortgage Association	U.S. Agency Bonds	11%
Federal Home Loan Bank	U.S. Agency Bonds	11%

Interest Rate Risk

As of June 30, 2018, the SNWA's investments were as follows:

Investment Type	Fair Value	Weighted Average Maturity in Days
U.S. Agency Non-Callable Bonds	\$ 517,866,221	565
Commercial Paper	111,778,172	111
Negotiable Certificates of Deposit	106,930,280	210
U.S. Treasury Notes	91,227,290	700
U.S. Agency Callable Bonds	19,620,500	1,955
Commercial Paper Floater	10,000,000	233
Total Fair Value	<u>\$ 857,422,463</u>	
Portfolio Weighted Average Maturity		505

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements
For the fiscal years ended June 30, 2018 and 2017

As of June 30, 2017, the SNWA's investments were as follows:

Investment Type	Fair Value	Weighted Average Maturity in Days
U.S. Agency Non-Callable Bonds	\$578,309,615	564
U.S. Treasury Notes	137,929,660	576
Commercial Paper	72,884,460	47
Negotiable Certificates of Deposit	64,996,100	122
U.S. Agency Discount Notes	14,999,100	4
U.S. Agency Callable Bonds	14,940,750	1,795
Commercial Paper Floater	10,000,000	34
Total Fair Value	\$894,059,685	
Portfolio Weighted Average Maturity		497

Fair Value Measurement

GASB Statement No. 72, *Fair Value Measurement and Application*, defines fair value, establishes a framework for measuring fair value, and provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The three levels of the fair value hierarchy are as follows:

- Level 1. Inputs are unadjusted quoted prices for identical assets or liabilities in active markets.
- Level 2. Inputs are other observable inputs.
- Level 3. Inputs are unobservable.

The fair value measurement level within the hierarchy is based on the lowest level of any input that is deemed significant to the fair value measurement. Valuation techniques used maximize the use of observable inputs and minimize the use of unobservable inputs.

The SNWA's Level 1 investments were valued based on quoted market prices provided by recognized broker dealers and its Level 2 investments were valued by recognized broker dealers based on a matrix pricing model that maximizes the uses of observable inputs for similar securities.

At June 30, 2018, the SNWA had the following fair value classifications by investment level:

Investment Type	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)
U.S. Agency Non-Callable Bonds	\$ 517,866,221	\$ -	\$ 517,866,221	\$ -
Commercial Paper	111,778,172	-	111,778,172	-
Negotiable Certificates of Deposit	106,930,280	-	106,930,280	-
U.S. Treasury Notes	91,227,290	91,227,290	-	-
U.S. Agency Callable Bonds	19,620,500	-	19,620,500	-
Commercial Paper Floater	10,000,000	-	10,000,000	-
Total Investments	\$ 857,422,463	\$ 91,227,290	\$ 766,195,173	\$ -

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements
For the fiscal years ended June 30, 2018 and 2017

At June 30, 2017, the SNWA had the following fair value classifications by investment level:

Investment Type	Fair Value	Quoted Prices in		
		Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)
U.S. Agency Non-Callable Bonds	\$ 578,309,615	\$ -	\$ 578,309,615	\$ -
U.S. Treasury Notes	137,929,660	137,929,660	-	-
Commercial Paper	72,884,460	-	72,884,460	-
Negotiable Certificates of Deposit	64,996,100	-	64,996,100	-
U.S. Agency Discount Notes	14,999,100	14,999,100	-	-
U.S. Agency Callable Bonds	14,940,750	-	14,940,750	-
Commercial Paper Floater	10,000,000	-	10,000,000	-
Total Investments	\$ 894,059,685	\$ 152,928,760	\$ 741,130,925	\$ -

NOTE 4. DUE FROM MEMBER AGENCIES

The SNWA bills its member agencies for Wholesale Delivery Charges for water delivered to purveyor members, and/or reimbursement of general, administrative and other charges. In addition to these billings, purveyors collect Regional Connection Charges, Regional Commodity Charges, and Regional Reliability Surcharges (the latter two known collectively as Regional Water Charges). Revenue from billings and collections are remitted to the SNWA monthly.

Also, the SNWA has advanced funds to the LVVWD that are used to fund daily operating costs paid by the LVVWD. The LVVWD sends the SNWA monthly detailed bills for expenses the LVVWD incurred on the SNWA's behalf and the SNWA pays these billings when received. At year end, the SNWA nets any outstanding amounts owed to the LVVWD against the advance and shows the unused balance of advanced funds in the Due from Member Agencies account. As of June 30, 2018 the entire advance was applied against SNWA-related expenses. As of June 30, 2017, \$4.9 million was unused and included in the net amount below.

Based on historical collection experience, management believes all accounts are collectible, and therefore no allowance has been provided for bad debts. At June 30, 2018 and 2017, the following amounts were due from the SNWA's member agencies:

Member Agency	June 30, 2018	June 30, 2017
Las Vegas Valley Water District	\$ 16,935,233	\$ 30,315,484
City of North Las Vegas	9,303,451	9,240,654
City of Henderson	7,249,424	6,701,305
City of Boulder City	479,626	475,245
Big Bend Water District	50,850	45,076
Nellis Air Force Base	42,863	44,121
Clark County Water Reclamation District	35,000	-
Total Due from Member Agencies	\$ 34,096,447	\$ 46,821,885

NOTE 5. RECEIVABLES

Receivables include amounts due from the State of Nevada, grantors and businesses, as well as accrued interest from investments. Based on historical collection experience, management believes all amounts are collectible, and therefore no allowance has been provided for bad debts.

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements
For the fiscal years ended June 30, 2018 and 2017

The following amounts were due as of June 30, 2018 and 2017:

Type	June 30, 2018	June 30, 2017
Current Receivables - Restricted		
State of Nevada - Department of Taxation	\$ 18,235,587	\$ 17,295,905
Current Receivables - Unrestricted		
Southern Nevada Public Lands Management Act	6,938,032	-
Accrued Interest from Investments	2,396,411	1,707,741
Grants Receivable	196,099	756,290
Build America Bonds (BAB) Subsidy Receivable	174,074	170,671
Other Receivable	200,815	4,321
Total Current Receivables - Unrestricted	9,905,431	2,639,023
Total Current Receivables	\$ 28,141,018	\$ 19,934,928

NOTE 6. OTHER CURRENT ASSETS

Other current assets consist of prepaid expenses, inventory, and miscellaneous current assets located at the SNWA's northern resource property locations. The \$0.1 million (0.1%) increase in other current assets is due primarily to increased inventory offset by a decrease in prepaid power. The SNWA prepays power to secure future power (electricity and natural gas) contracts.

The following items are included in Other Current Assets as of June 30, 2018 and 2017:

Type	June 30, 2018	June 30, 2017
Prepaid Power	\$ 29,751,808	\$ 35,536,247
Inventory	6,975,246	1,249,346
Other Prepays	1,330,955	1,218,773
Total Other Current Assets	\$ 38,058,009	\$ 38,004,366

NOTE 7. CAPITAL ASSETS

The following capital assets schedules summarize changes in major categories of capital assets for fiscal years ended June 30, 2018 and 2017. Natural resource rights are described in more detail in Note 8, and Construction Work In Progress is described in more detail in Note 9.

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<u>Capital Assets June 30, 2018</u>					
<u>Capital Assets Category</u>	Balance at June 30, 2017	Additions	Deletions	Transfers	Balance at June 30, 2018
<u>Capital Assets Subject to Depreciation</u>					
Structures and Improvements	\$ 806,110,229	\$ 1,784,600	\$ (27,904)	\$ 1,650,485	\$ 809,517,410
Pumping Stations and Wells	639,373,049	1,046,265	(13,822)	-	640,405,492
Transmission/Distribution/Mains	2,697,192,477	-	-	(12,051,358)	2,685,141,119
Office Furniture and Equipment	126,330,047	6,736,927	(2,698,962)	98,714	130,466,726
Transportation/Work/Equipment	7,132,380	1,697,663	(681,431)	-	8,148,612
Northern Resources Assets	25,334,976	2,977,188	(187,654)	776	28,125,286
Total Capital Assets Subject to Depreciation	4,301,473,158	14,242,643	(3,609,773)	(10,301,383)	4,301,804,645
<u>Accumulated Depreciation</u>					
Structures and Improvements	441,394,066	35,862,834	(27,906)	-	477,228,994
Pumping Stations and Wells	218,872,478	15,545,818	(13,822)	-	234,404,474
Transmission/Distribution/Mains	447,842,496	51,606,251	-	-	499,448,747
Office Furniture and Equipment	104,046,841	3,686,253	(2,698,962)	-	105,034,132
Transportation/Work/Equipment	5,349,757	704,972	(679,231)	-	5,375,498
Northern Resources Assets	16,335,267	1,790,017	(187,654)	-	17,937,630
Total Accumulated Depreciation	1,233,840,905	109,196,145	(3,607,575)	-	1,339,429,475
Net Capital Assets Subject to Depreciation	3,067,632,253	(94,953,502)	(2,198)	(10,301,383)	2,962,375,170
<u>Capital Assets Not Subject to Depreciation</u>					
Land and Land Rights	148,162,139	5,720,825	-	12,051,358	165,934,322
Natural Resource Rights	504,654,344	1,009,000	-	2,502,076	508,165,420
Construction Work In Progress	886,612,738	170,529,664	(4,991,133)	(4,252,051)	1,047,899,218
Net Capital Assets Not Subject to Depreciation	1,539,429,221	177,259,489	(4,991,133)	10,301,383	1,721,998,960
Total Net Capital Assets	\$ 4,607,061,474	\$ 82,305,987	\$ (4,993,331)	\$ -	\$ 4,684,374,130

<u>Capital Assets June 30, 2017</u>					
<u>Capital Assets Category</u>	Balance at June 30, 2016	Additions	Deletions	Transfers	Balance at June 30, 2017
<u>Capital Assets Subject to Depreciation</u>					
Structures and Improvements	\$ 780,771,907	\$ 1,605,128	\$ -	\$ 23,733,194	\$ 806,110,229
Pumping Stations and Wells	639,083,226	289,823	-	-	639,373,049
Transmission/Distribution/Mains	2,697,189,482	2,995	-	-	2,697,192,477
Office Furniture and Equipment	122,224,829	4,264,653	(159,435)	-	126,330,047
Transportation/Work/Equipment	6,446,000	1,058,534	(372,154)	-	7,132,380
Power Plant	101,854,657	-	(101,854,657)	-	-
Northern Resources Assets	23,232,730	2,700,629	(598,383)	-	25,334,976
Total Capital Assets Subject to Depreciation	4,370,802,831	9,921,762	(102,984,629)	23,733,194	4,301,473,158
<u>Accumulated Depreciation</u>					
Structures and Improvements	404,116,148	37,277,918	-	-	441,394,066
Pumping Stations and Wells	203,348,674	15,523,804	-	-	218,872,478
Transmission/Distribution/Mains	411,297,796	36,544,700	-	-	447,842,496
Office Furniture and Equipment	100,708,333	3,495,220	(156,712)	-	104,046,841
Transportation/Work/Equipment	5,279,500	442,411	(372,154)	-	5,349,757
Power Plant	41,307,720	2,546,366	(43,854,086)	-	-
Northern Resources Assets	15,292,384	1,593,295	(550,412)	-	16,335,267
Total Accumulated Depreciation	1,181,350,555	97,423,714	(44,933,364)	-	1,233,840,905
Net Capital Assets Subject to Depreciation	3,189,452,276	(87,501,952)	(58,051,265)	23,733,194	3,067,632,253
<u>Capital Assets Not Subject to Depreciation</u>					
Land and Land Rights	142,164,137	5,998,002	-	-	148,162,139
Natural Resource Rights	499,715,379	1,126,184	-	3,812,781	504,654,344
Construction Work In Progress	736,327,596	223,780,830	(45,949,713)	(27,545,975)	886,612,738
Net Capital Assets Not Subject to Depreciation	1,378,207,112	230,905,016	(45,949,713)	(23,733,194)	1,539,429,221
Total Net Capital Assets	\$ 4,567,659,388	\$ 143,403,064	\$ (104,000,978)	\$ -	\$ 4,607,061,474

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NOTE 8. NATURAL RESOURCE RIGHTS

Arizona Water Bank

In 1993, the Board approved a cooperative agreement among its member agencies for funding and participation in the Arizona Underground Storage Demonstration Project (Project). The Project was originally an agreement between the Central Arizona Water Conservation District (CAWCD) and the Metropolitan Water District of Southern California to store water from the Colorado River in underground aquifers in Arizona. The SNWA agreed to participate in the Project and pay CAWCD to store Colorado River water in Arizona. In the event of either a flood release or an anticipatory release of Colorado River water, water stored in Arizona would then become the property of the States of California and Nevada. In 1996 and 1997, the United States Secretary of Interior declared a surplus, and 50,000 AF of water stored in Arizona were assigned to the SNWA. Under the Project, the SNWA purchased the 50,000 AF of water available for future use and funded the expenditure through capital contributions from the SNWA's member agencies.

In 2001, the SNWA and CRC approved an Agreement for Interstate Water Banking (Banking Agreement) with the Arizona Water Banking Authority (AWBA). The AWBA agreed to use its best efforts to store 1.2 million AF of Colorado River water underground in Arizona for the SNWA under the Banking Agreement, and two related agreements that were executed in 2002. Also in 2002, the SNWA and the CRC entered into an agreement with the AWBA to allow the SNWA to store water in Arizona during that year while the remaining agreements were being negotiated. Under the 2002 agreement, the SNWA stored 66,595 AF of Colorado River water in Arizona. In 2004, as part of a subsequent agreement, the AWBA agreed to store an extra 10,000 AF of Nevada's unused Colorado River water for the SNWA.

In 2004, the Board approved an amendment to the 2001 Banking Agreement that guarantees Nevada 1.25 million AF of water storage in aggregate (approximately 1.13 million AF of additional storage plus utilization of the roughly 120,000 AF of water previously stored) in Arizona. In exchange for the water stored, the SNWA agreed to make an initial payment of \$100.0 million and payments of \$23.0 million per year for a ten-year period beginning in 2009. Additionally, the SNWA agreed to pay the AWBA's actual cost to recover the stored water.

After several mutually agreed upon deferrals of payment, the AWBA and the SNWA approved an amendment to the 2001 Banking Agreement in May 2013 that relieved the SNWA from its obligation to pay the AWBA \$217.3 million in remaining annual payments. In exchange, the AWBA will complete any additional storage of Colorado River water on a pay-as-you-go basis. Also, the SNWA will pay a \$20,000 annual administrative fee for maintenance of the SNWA's storage credits.

As of June 30, 2018, the SNWA has capitalized a total of \$137.0 million related to the AWBA.

Drop 2 / Brock Storage Reservoir Water Rights

In 2005, the Bureau of Reclamation completed a study of potential alternatives for replacing lost storage capacity, reducing excess deliveries to Mexico, and improving lower river operational control. It was determined that building a small reservoir near the All-American Canal was the best alternative.

In return for funding \$99.8 million to design and construct the Drop 2 Reservoir, the SNWA would receive the right to 400,000 AF of System Efficiency Intentionally Created Surplus. This water would be able to be utilized by the SNWA through 2036 at a maximum rate of 40,000 acre-feet per year (AFY).

Northern Resource Properties and Related Rights

In 2006 and 2007, the Board approved the purchase of seven properties in Spring Valley, Nevada. In addition to its land holdings of over 23,000 acres, the SNWA also acquired surface and groundwater rights associated with the

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properties. Through June 30, 2012, the SNWA acquired more than 33,000 AFY of surface water rights, more than 6,000 AFY of groundwater rights, and more than 23,000 AFY of supplemental water rights. Additional negligible water rights were acquired in 2010. The SNWA intends to use the surface water rights to help manage the groundwater basin and support other environmental management activities associated with its Clark, Lincoln, and White Pine Counties Groundwater Development Project.

The Bureau of Land Management (BLM) and United States Forest Service (USFS) issue permits allowing livestock to graze on lands in districts formed primarily under the Taylor Grazing Act. These grazing permits specify grazing preference and the terms and conditions under which permittees may graze these lands during the term of the permit. They are issued by land units called allotments with units known as Animal Unit Months (AUM). An AUM is defined as the amount of forage needed by an animal unit grazing for one month (approximately 1,000 pounds of dry forage). Permits issued by the BLM and USFS are effective for ten years and are subject to renewal. As of June 30, 2018, the SNWA owned permits equivalent to 46,180 AUMs. The SNWA has verified through a third party that the AUMs have not been impeded or decreased in value by any legal actions.

As of June 30, 2018, the SNWA has capitalized \$62.2 million of costs to acquire the northern resource properties and related rights.

Muddy River Water Rights

In 1996, the Board authorized the General Manager to request proposals for acquisition of up to 5,600 AF of Muddy River Water Rights from shareholders of the Muddy Valley Irrigation Company (MVIC). In 1999, the SNWA purchased 3,662 AF of water rights from several shareholders. In 2000, the SNWA exercised all options possible and obtained the permanent water rights associated with those options totaling 1,764 AF. The Board authorized and executed an additional purchase of shares in 2001, representing a total of 188 AF of water. In 2002 and 2004, the Board authorized the acquisition of an additional 3,300 AF and 600 AF, respectively, of Muddy River Water Rights bringing the total authorized for purchase to 9,500 AF. Finally, in 2008 (amended 2011) the Board authorized the acquisition of additional shares of the MVIC, along with additional shares of other northeastern Clark County rural irrigation companies. The authorization does not give a specific limit for the MVIC acquisition but instead establishes a \$57.1 million limit for post 2007 acquisitions or leases of the MVIC and two other rural irrigation companies. The SNWA has not exceeded this authorization.

As of June 30, 2018, the SNWA has capitalized \$65.9 million of costs related to the acquisition of Muddy River Water Rights.

Hydropower Rights

The CRC was created in 1935 for securing and distributing Nevada's right to Colorado River water and hydroelectric power. The CRC delivers Nevada's allocation of Colorado River hydroelectric power to various municipal and non-municipal customers in Southern Nevada.

The SNWA's hydropower portfolio consists of power that is generated at Hoover, Parker, and Davis Dams. The SNWA receives an allocation of Hoover power from the CRC of 17,146 kW of contingent capacity and 79,349,211 kWh per year of firm energy. This contract is effective from October 1, 2017 through September 30, 2067. The SNWA also receives a maximum of 9,456 kW per year of capacity that is generated at Parker and Davis Dams and 34,381,632 kWh of firm energy. The SNWA's Parker-Davis contract with the CRC expires in 2028. Accordingly, the hydropower is considered a perpetual resource.

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Virgin River Water Rights Development

In 1994, the Board agreed to accept assignment of Nevada's Virgin River water rights from the LVVWD, subject to the SNWA reimbursing the LVVWD for all costs incurred related to the acquisition of those water rights. Additionally, the SNWA acquired 350 shares of the Bunkerville Irrigation Company (BIC) in September 2005. The shares represent 3,710 AF of Virgin River surface water rights. Under the terms of an agreement between the SNWA and the Virgin Valley Water District (VVWD) in 2000, the SNWA transferred 3,710 AF of its water rights to the VVWD to assist in the development of additional groundwater resources in the Virgin River Basin. Finally, in 2008 (amended 2011) the Board authorized the acquisition of additional shares of the BIC and the Mesquite Irrigation Company (MIC). The authorization, which includes the MVIC as described above, does not give a specific limit for acquisition. Instead, it establishes a \$57.1 million limit for post-2007 acquisitions or leases of the MVIC, BIC, and MIC. The SNWA has not exceeded this authorization.

As of June 30, 2018, the SNWA has capitalized \$39.6 million of costs associated with the acquisition of Virgin River water rights which includes all initial payments and any subsequent research and development costs.

Coyote Springs Water Rights

In 1997, the Board authorized the General Manager to initiate negotiations for the purchase of ground water rights and a well in the Coyote Springs Valley located about 60 miles northeast of Las Vegas. In 1998, the Board approved the purchase of 7,500 AF of groundwater rights and the well with associated real property including easements. In 2002, the SNWA purchased another 1,500 AF of water rights from Coyote Springs Investment, LLC.

As of June 30, 2018, the SNWA has capitalized \$30.9 million of costs associated with the acquisition and subsequent maintenance of Coyote Springs water rights.

In-State Water Projects

In 1989, the LVVWD filed applications to appropriate water from multiple hydrographic basins located in eastern Nevada. In 2003, the Board agreed to accept assignment of those applications from the LVVWD for a payment of \$9.9 million, which represented the LVVWD's costs to date of developing and perfecting those water rights.

As of June 30, 2018, the SNWA has capitalized \$10.1 million related to the acquisition of these water rights, which includes the initial payment to the LVVWD plus additional costs that have been incurred.

Cave Valley Hydrologic Basin Water Rights

In 2008, the State Engineer (SE) issued a ruling that granted the SNWA 18,755 AFY from Delamar, Dry Lake, and Cave Valley hydrologic basins. Cave Valley Ranch, LLC (CVR) filed protests to the applications which ultimately concluded with a settlement between CVR, the SE, and the SNWA. In 2009, a settlement agreement between the SNWA and CVR granted the SNWA 4,678 AFY in the Cave Valley Hydrologic Basin.

As of June 30, 2018, the SNWA and has capitalized \$4.0 million of costs associated with the water rights in the Cave Valley Hydrologic Basin.

Binational ICS

In November 2012, the SNWA and several U.S. federal and state agencies signed a series of agreements to implement Minute 319 to the 1944 Mexican Water Treaty. Minute 319 creates a new binational framework to address shortages and surpluses on the Colorado River, and allows Mexico to store water in Lake Mead for future use. The pilot project is instrumental in funding improvements to Mexico's water infrastructure and conservation measures. The

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agreement helps ensure the Colorado River system can meet the needs of both countries. The SNWA was credited with 23,750 AF of water, which is proportional to its capital contribution of \$2.5 million. This intentionally created surplus (ICS) is not available for delivery in a year in which a shortage condition has been determined by the U.S. Secretary of the Interior.

Other Water Rights

In 2010, the SNWA acquired the contractual rights to 400 AF of Colorado River water held by an outside corporation. The \$2.0 million purchase does not increase Nevada's 300,000 AF basic apportionment of Colorado River water, but will ensure that the SNWA is the sole entity authorized to receive this water.

Groundwater Management Program

In 1999, the Nevada Legislature directed the SNWA to establish a Groundwater Management Program (GMP) for the Las Vegas Valley. The GMP provided for the recharging of treated Colorado River water into the Las Vegas Valley Groundwater Basin (LVVGB) for the permanent benefit of the aquifer. Funds collected as part of the GMP are used for this recharge and other programs to benefit well owners.

As of June 30, 2018, the SNWA has capitalized \$1.2 million associated with the GMP.

The following table summarizes the amounts capitalized related to natural resource rights as of June 30, 2018 and 2017:

Type	June 30, 2018	June 30, 2017
Arizona Water Bank	\$ 136,967,571	\$ 135,958,571
Drop 2 / Brock Storage Reservoir Water Rights	99,797,437	99,797,437
Northern Resource Property and Rights	62,165,559	62,165,559
Muddy River Water Rights	65,946,976	65,946,976
Hydropower Rights	53,000,000	53,000,000
Virgin River Water Rights Development	39,556,880	39,556,880
Coyote Springs Water Rights	30,884,687	30,884,687
In-State Water Projects	10,134,854	10,134,854
Cave Valley Hydrographic Basin Water Rights	4,050,950	4,050,950
Binational ICS	2,502,076	-
Other Water Rights	2,000,000	2,000,000
Groundwater Management Program	1,158,430	1,158,430
Total Natural Resource Rights	<u>\$ 508,165,420</u>	<u>\$ 504,654,344</u>

NOTE 9. CONSTRUCTION WORK IN PROGRESS

The SNWA maintains two capital construction programs: (1) the Major Construction and Capital Plan (MCCP) which includes capital projects that expanded capacity of the SNWS from 400 million gallons per day (MGD) in 1996 to 1,015 MGD currently, building two additional intakes into Lake Mead, the acquisition of water and water rights, and other miscellaneous capital projects, and (2) the Las Vegas Wash Capital Improvements Plan (LVWCIP), which includes capital projects associated with improving water quality in the Las Vegas Wash, the natural channel that drains runoff water from the Las Vegas Valley into Lake Mead. Each of these capital projects are discussed in more detail later in this note.

Land costs, which include the costs of easements and other rights-of-way, are allocated to Property, Plant and Equipment (PP&E) when purchased. Land costs are not depreciated. The costs of constructing or developing a capital project that are incurred prior to that asset being put into service are recorded as Construction Work in Progress

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(CWIP). When a project is finished, an agenda item is brought before the Board to accept the project as complete. With the Board's acceptance, associated CWIP costs are closed out and allocated to capital asset categories within PP&E.

Major Construction and Capital Plan (MCCP)

In 1994, the SNWA began a capital improvements program (CIP) estimated to cost \$2.1 billion. The purpose of the CIP was to expand the capacity of the SNWS from 400 MGD to 900 MGD giving Nevada the capacity and reliability to access its entire 300,000 AF consumptive use allocation of the Colorado River, plus any banked, transferred, or purchased water that may be delivered to Nevada via the Colorado River. In 2008, the CIP was amended to add funds to construct Lake Mead Intake No. 3 bringing the gross authorized amount of the CIP to \$2.9 billion.

It was the express intent of the CIP to build improvements on a phased or as-needed basis. All costs associated with the CIP were capitalized. Direct costs included land costs, costs of construction, and engineering contracts. Indirect costs included items such as administration, planning and design, public information, program management, construction management, environmental mitigation, and interest.

In 2002, the SNWA created the MCCP to address the need for capital projects not directly related to the expansion of the SNWS. The original MCCP defined and authorized projects that were necessary to maintain facilities in a sound and functional condition, maintain or improve water quality, develop water resources, reduce operating costs, address environmental and safety issues, provide support facilities (including power), and meet other objectives defined by the Board. The original MCCP authorized \$328 million of capital projects. By the tenth amendment in December 2008, the MCCP's total authorization had risen over fivefold. In 2010, the CIP and MCCP were merged into one document. The MCCP is reviewed at least annually to determine if projects should be added or removed.

The most recent amended MCCP to be approved by the Board was on May 21, 2015, primarily to authorize design and construction of the new Low Lake Level Pumping Station at an estimated cost of \$650 million. This amended MCCP also updates costs and schedules for numerous other projects and includes details for \$2.6 billion of completed projects, \$2.6 billion of active projects, and \$0.1 billion of deferred projects. Costs may include design, engineering, land, construction, program management, construction management, environmental mitigation, and interest.

Las Vegas Wash Capital Improvements Plan (LVWCIP)

The Las Vegas Wash (Wash) is the primary urban runoff, wastewater, and floodwater outlet from the Las Vegas Valley into Lake Mead and the Colorado River. The Wash is considered a critical component of the many environmental and water resource issues facing Southern Nevada. The LVWCIP presents a summary of planned capital requirements necessary to support long-term enhancement and management of the Wash.

The LVWCIP was most recently revised and approved by the Board on May 31, 2018, includes future projects totaling approximately \$9.2 million. Of that amount, about \$6.3 million (68.4%) is for construction of facilities. The remaining \$2.9 million (31.6%) is for revegetation activities and miscellaneous programs. These projects will be funded by 4.0% of the gross sales tax the SNWA receives which has been designated for the Wash, as well as grants and contracts provided by various state and federal agencies.

Indirect Costs

Indirect costs are defined as capital costs that have not been specifically identified as being generated by a single capital project. Indirect costs are composed of three major categories – (1) capitalized interest, (2) capitalized labor, and (3) other costs.

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The SNWA calculates capitalized interest based on total CWIP, not by project. Previously, the SNWA segregated the indirect costs and allocated a percentage of the costs to projects as they were completed. At the beginning of fiscal year 2018, all indirect costs were allocated to ongoing projects and only capitalized interest expense and income were allocated to projects during the year. Labor and other costs that could not be traced to a specific project are now being expensed. The indirect pool of costs is now zero due to this methodology change.

Capitalization of Interest Income / Expense

The SNWA capitalizes the interest cost of restricted tax-exempt borrowings, less interest earned on temporary investment of the proceeds of those borrowings, from the date of borrowing until the assets acquired with those borrowings are ready for their intended use. These amounts are allocated to the various projects. The SNWA capitalized \$42.7 million and \$28.0 million of interest expense, which was partially offset by \$4.6 million and \$4.0 million of interest income, in the fiscal years ended June 30, 2018 and 2017, respectively.

The following shows the CWIP balance as of June 30, 2018 and 2017:

Type	June 30, 2018	June 30, 2017
Major Construction and Capital Plan	\$ 1,017,476,850	\$ 548,140,606
Las Vegas Wash Capital Improvements Plan	30,422,368	6,963,208
Indirect Costs	-	331,508,924
Total Construction Work in Progress	<u>\$ 1,047,899,218</u>	<u>\$ 886,612,738</u>

NOTE 10. WATER RECHARGE INVENTORY

In 1993, member agencies of the SNWA entered into a cooperative agreement for the banking of water (recharge) in the LVVGB. The purpose of this agreement was to allow the LVVWD to store water on behalf of the member agencies for future use. The SNWA was not a party to the 1993 agreement.

In 2006, the Board approved an agreement between the SNWA and the parties involved in the 1993 cooperative agreement for the sale and transfer of water banked in the LVVGB. The agreement centrally locates this water source with the SNWA for future use by all member agencies. In addition, the SNWA entered into a cooperative agreement with the LVVWD to allow the SNWA to store water in the LVVGB for the future use of the SNWA. As part of this agreement, the LVVWD agreed to continue its recharge of the LVVGB, with the SNWA reimbursing all related costs on a monthly basis. The agreement also allows the SNWA to manage the water stored in the LVVGB for supplemental use of the valley's water supply in future years, to operate a GMP as directed by NRS 572, and other uses as deemed necessary. As of June 30, 2018, the SNWA has paid \$85.9 million net of sales for 344,325 AF of storage.

NOTE 11. DEFERRED OUTFLOWS AND INFLOWS OF RESOURCES

As required by GASB Statement No. 23, *Accounting and Financial Reporting for Refundings of Debt Reported by Proprietary Activities*, the difference between the reacquisition price and the net carrying amount of old debt that is current or advance refunded is capitalized, shown as a deferred outflows of resources or deferred inflows of resources, and amortized to interest expense over the shorter of the remaining life of the old debt or the life of the new debt. The decision to refund bonds can be made because there is an economic gain to be realized from refunding, even though there may be an increase in the amount of debt outstanding. Economic gain is determined by comparing the present value of cash flow of the existing bond issue with that of the refunding bond issue. Typically, the economic gain comes from lower interest rates of the refunding bonds. Refundings can also occur as needed to provide cash flow relief. The balances on the deferred amount from bond refundings are being amortized over the life of the associated debt. As of June 30, 2018, deferred outflows and inflows of resources related to bond refundings was \$71.4 million and \$15.8 million, respectively.

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In fiscal year 2016, the LVVWD implemented GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, which resulted in the recognition of deferred amounts related to its pension. In fiscal year 2018, the LVVWD implemented GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which resulted in the recognition of deferred amounts related to its postemployment benefits other than pensions. The SNWA's deferred amounts are its recognition of its share of the LVVWD's deferrals described above. As of June 30, 2018, deferred outflows and inflows of resources due to related party was \$8.8 million and \$0.5 million, respectively.

The total deferred outflows of resources as of June 30, 2018 and 2017 were \$80.2 million and \$82.3 million, respectively. The net decrease of \$2.1 million resulted from two factors. First, a decrease of \$8.4 million attributable to normal amortization of deferred losses from bond refundings. Second, an increase of \$6.4 million due to a change in actuarial assumptions along with a difference between projected and actual investment earnings in the pension trust fund held by the LVVWD.

The total deferred inflows of resources as of June 30, 2018 and 2017 were \$16.3 million and \$16.8 million, respectively. The net decrease of \$0.5 million resulted from two factors. First, a decrease of \$0.9 million attributable to normal amortization of deferred gains from bond refundings. Second, an increase of \$0.4 million due to the SNWA recognizing its share of the LVVWD's implementation of GASB Statement No. 75, as described above.

NOTE 12. ACCOUNTS PAYABLE

Accounts payable balances by category as of June 30, 2018 and 2017 are as follows:

Type	June 30, 2018	June 30, 2017
Construction and Operations	\$ 16,167,737	\$ 15,710,919
Retention on Construction	8,457,267	9,016,222
Energy Related	3,423,718	2,854,933
Total Accounts Payable	<u>\$ 28,048,722</u>	<u>\$ 27,582,074</u>

The amounts payable to the LVVWD are netted against the amounts due from the LVVWD and the \$19.0 million advance. See Note 4 for more information.

NOTE 13. COMMITMENTS, RESERVES AND CONTINGENCIES

Construction Contracts

In connection with its two capital improvement plans, the SNWA makes commitments to pay contractors working on those projects. However, the SNWA only pays those contractors for the work they have completed. As of June 30, 2018, the SNWA had construction contract commitments totaling approximately \$205.5 million. This is the amount the SNWA will be obligated to pay if all contractors perform per their contracts. The SNWA could substantially reduce the amount of this commitment by notifying contractors to suspend further work and by paying for work completed to that point.

Operating Leases

Lease Obligations

In April 2008, the Board approved agreements allowing the SNWA to lease rights from shareholders of the MVIC, the BIC, and the MIC (Mesquite leases). The approval allows the Mesquite leases to be offered for any period of time that is agreeable to the SNWA and the water rights holder. Initial Mesquite leases began on October 1, 2008, were from one to ten years in duration, and had an annual escalation factor of 3%. In May 2014, the Board approved

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agreements extending expired leases through September 30, 2016. In 2016, the Board approved new ten-year lease agreements through September 30, 2026, which contain an annual escalation factor of 3%. The rates for the new leases are 48.39% - 59.01% lower per AF than the original leases.

In January 2017, the Board approved an agreement with the Moapa Band of Paiute Indians (Tribe) allowing the SNWA to sublease surface water rights for the creation of Tributary Conservation Intentionally Created Surplus. The ten-year lease agreement allows the SNWA to sublease 3,000 AF per year of the Tribe's MVIC water rights for \$119 per AF with an annual escalation factor of 3%.

In March 2009, the Board approved an agreement with the MVIC allowing the SNWA to lease winter irrigation water rights from the MVIC. The nineteen-year lease agreement allows the SNWA to lease 3,000 AF of water per winter season at \$442,801 per year for the first nine years and 1,000 AF of water per winter season at \$259,488 per year for the next ten years. Each of these amounts has an attached escalation factor of 3% annually after the first year of activation. The SNWA would also pay \$25 per AF (escalated annually) to the MVIC for conveying any of this water through the MVIC water distribution system to Lake Mead.

In March 2006, the Board approved an agreement between the Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter-day Saints (CPB) and the SNWA. The agreement allows the SNWA to lease up to 2,001 AF of water annually from the CPB. The initial lease is for a twenty-year period with the option to renew for two additional ten-year periods. The rate per AF is \$130 with an additional \$100 per AF surcharge if the water is used outside the Moapa Valley Water District (MVWD) service territory. The lease contains an escalation clause based on the Consumer Price Index for All Urban Customers All Items Unadjusted.

The SNWA owns office space at the Molasky Corporate Center, which is located at 100 City Parkway in downtown Las Vegas. The SNWA leases billboard space at the Molasky Corporate Center from Parkway Center, LLC (Molasky). The current lease agreement extends through November 30, 2022. In each of the fiscal years ended June 30, 2018 and 2017, the SNWA paid \$0.1 million to Molasky for the billboard space.

None of the leases listed above contain contingent rentals, which are rentals in which amounts are dependent upon some factor other than the passage of time.

The following table shows the remaining minimum rental payments due under the terms of the lease contracts described above.

Fiscal Year Ending June 30	Mesquite	Tribe	MVIC	CPB	Molasky	Total
2019	\$ 1,650,533	\$ 373,230	\$ 259,488	\$ 260,130	\$ 84,980	\$ 2,628,361
2020	1,700,049	384,435	267,273	260,130	86,680	2,698,567
2021	1,751,050	395,970	275,291	260,130	88,413	2,770,854
2022	1,803,582	407,850	283,550	260,130	90,181	2,845,293
2023	1,857,689	420,090	292,056	260,130	37,885	2,867,850
2024-2028	5,914,190	1,570,290	1,597,084	910,455	-	9,992,019
Total Payments	\$ 14,677,093	\$3,551,865	\$ 2,974,742	\$ 2,211,105	\$ 388,139	\$ 23,802,944

Lease Receivables

In 2006, the SNWA entered into an interlocal sublease agreement with the LVVWD to lease 34,898 square feet of office space that is either purchased or leased at the Molasky Corporate Center. The space that is being leased has an approximate carrying value of \$23.7 million, with \$9.2 million in accumulated depreciation having been taken through June 30, 2018. In addition, the LVVWD pays a share of leasehold improvements. The sublease assumes a twenty-year useful life on structural leasehold improvements and the LVVWD pays a pro-rated share of the amortized value of such improvements. The sublease contains no escalation clauses. In November 2015, the SNWA

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exercised its purchase option on floors twelve and fourteen, which converted the LVVWD's twenty-year sublease to a perpetual lease as long as the space is not required by the SNWA.

In March 2009, the Board approved three agreements with NV Energy Company (NVE). One agreement allows NVE to lease 1,050 AF of the SNWA water over a ten-year period for an annual price of \$83,721. This annual payment is required to be paid regardless of whether the water is utilized. The lease expires in 2052. The second agreement allows NVE to lease a maximum of 2,200 AF of Muddy River water per winter season for the first nine years and a maximum of 1,000 AF of Muddy River water per winter season for years 10 through 19. Payments will be made only on an as-used basis with a maximum pre-escalation payment of \$274,804 per year during the first nine years and a maximum pre-escalation payment of \$259,490 per year during the remaining term of the lease. The final lease allows NVE to option an additional 800 AF of water per year during the first nine-year winter season described above for a cost of \$291.83 per AF. All amounts described in this paragraph are subject to a 3% annual escalation. For the remaining period of the leases the SNWA anticipates receiving a minimum \$6.2 million of aggregate payments.

In 2012, the SNWA entered into an agreement with Faiss Foley Warren (Faiss) to lease 3,000 square feet of office space at the Molasky Corporate Center. In March 2018, the SNWA executed an amendment to renew the lease agreement for an additional two-year period ending in May 2020. The space being leased to Faiss has an approximate carrying value of \$2.0 million, with \$0.8 million in accumulated depreciation having been taken through June 30, 2018. The sublease contains no escalation clauses. For the remaining period of the lease, the SNWA anticipates receiving a minimum \$138,000 of aggregate sublease payments from Faiss.

Except as noted, none of the subleases listed above contain contingent rentals.

The following table shows the future minimum rental incomes for the next five years due under the terms of the lease contracts described above.

Fiscal Year Ending June 30	LVVWD	NVE	Faiss	Total
2019	\$ 1,564,869	\$ 112,514	\$ 72,000	\$ 1,749,383
2020	1,564,869	115,889	66,000	1,746,758
2021	1,564,869	119,366	-	1,684,235
2022	1,564,869	122,947	-	1,687,816
2023	1,564,869	126,636	-	1,691,505
Total Incomes	\$ 7,824,345	\$ 597,352	\$ 138,000	\$ 8,559,697

Forward Energy Contracts

Because Las Vegas is uphill from its major water supply, reliable electrical service is essential to the SNWA's ability to deliver water. To gain more control over energy reliability and costs, the SNWA manages most of its power supply rather than purchasing energy from the local regulated investor-owned utility under tariff rates approved by the Nevada Public Utilities Commission. This provides greater control of future prices and projected savings over the same commodity purchased from the investor owned utility.

The SNWA began purchasing over 95% of its power requirements from the Silver State Energy Association (SSEA) beginning April 1, 2013 under Project Services Agreement #3: Power Supply Management Services Agreement, Load Requirements Service (LRS). The SSEA is a joint powers association of public agencies (see Note 19) which was formed in 2007. Its members include the City of Boulder City, Overton Power District #5, Lincoln Power District #1, CRC, and the SNWA. The SNWA and CRC staff run the SSEA, which is governed by a Board of Directors with one representative of each member sitting on the Board.

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The SSEA buys and sells fixed price power with the SNWA for the upcoming five calendar years to balance the SNWA's total supplies with its total load and other obligations. The SSEA then purchases and sells physical power and other financial products from the market to best hedge its portfolio of forward energy contracts. All SSEA energy activity complies with established energy risk management procedures which were developed to fulfill the Energy Risk Management Policy adopted by the SSEA Board. Under LRS, the SNWA is responsible for a portion of gains and losses and prepaid energy expenses that may be realized in SSEA's energy portfolio each month.

Prior to taking service from the SSEA, the SNWA managed its own portfolio of energy resources consisting solely of forward electricity generation and transmission contracts as well as financial power and natural gas swaps. Among the forward electricity contracts are long-term contracts for the purchase of hydropower from federal dams along the Colorado River. Because this portfolio, as well as its energy contracts with the SSEA, exist solely for purposes of serving the SNWA's projected energy requirements over the next five years, the forward energy contracts are "normal purchases and sales contracts" and are outside the scope of GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*.

Although the SNWA is taking LRS Service from the SSEA it will continue to own existing energy assets and contracts and may add other energy assets or contracts in the future as part of its supply portfolio.

The primary risks associated with the SNWA's energy portfolio, as well as the SSEA's energy portfolio, are counterparty credit and termination risks, which are managed by policies and procedures that require careful financial evaluation of trading partners, trading limits and in some cases as specified by policy, the posting of collateral.

As of June 30, 2018, the SNWA had net energy contract commitments for the next ten fiscal years totaling approximately \$193.1 million, which includes its projected allocation of the SSEA net energy contract commitments.

Litigation

The SNWA is a defendant in various litigation matters. Although the outcome of these matters is not presently determinable based on information currently available, it is management's opinion based upon advice from legal counsel that the risk of financial losses to the SNWA from such litigation will not have a material adverse effect on its future financial position, results of operations or cash flows. Accordingly, no provision has been made for any such losses.

NOTE 14. SHORT-TERM DEBT

On March 10, 2004, the LVVWD began a Tax-Exempt Commercial Paper (TECP) program for the SNWA, authorizing up to \$400.0 million in TECP notes. The notes are LVVWD General Obligation (Limited Tax) and supported by SNWA revenues. Proceeds from the sale of the notes were used to fund capital expenditures of the SNWA including the purchase of water resources and a 25.0% interest in the Silverhawk Generation Station. The TECP program is supported by credit facilities, which were replaced on April 4, 2017. The 2004A \$250.0 million credit facility is provided by Sumitomo Mitsui Banking Corporation and will expire on April 2, 2021. The 2004B \$150.0 million credit facility is provided by U.S. Bank National Association and will expire on April 3, 2020. The TECP notes are subject to market fluctuations as they are traded on the open market. The entire balance is currently issued and outstanding.

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The following chart summarizes key components of the SNWA's short-term debt activity:

Type	June 30, 2018	June 30, 2017
Balance Beginning of Period	\$ 400,000,000	\$ 400,000,000
Additions	2,144,000,000	2,818,360,000
Retirements	(2,144,000,000)	(2,818,360,000)
Balance End of Period	<u>\$ 400,000,000</u>	<u>\$ 400,000,000</u>
Accrued Interest	\$ 737,659	\$ 429,021
Average Interest Rate	1.51%	0.92%
Number of Tranches	9	10
Smallest	\$ 22,000,000	\$ 500,000
Largest	\$ 50,000,000	\$ 50,000,000
Shortest Maturity, in days	31	33
Longest Maturity, in days	86	92

NOTE 15. DUE TO RELATED PARTY

Effective July 1, 2014, the LVVWD implemented the provisions of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – An Amendment of GASB Statement No. 27*. Because of this implementation, the LVVWD allocated a portion of the net pension liability to the SNWA. For the fiscal years ended June 30, 2018 and 2017, the allocated net pension liabilities were \$75.7 million and \$68.7 million, respectively.

Effective July 1, 2017, the LVVWD implemented the provisions of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pension*. This Statement replaced the requirements of Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended, and No. 57, *OPEB Measurements by Agent Employers and Agent Multi-Employer Plans*, for OPEB. Because of this implementation, the LVVWD allocated a portion of the liability related to postemployment benefits other than pensions (OPEB) to the SNWA. For the fiscal years ended June 30, 2018 and 2017, allocated OPEB liabilities were \$14.9 million and \$6.3 million, respectively.

As of June 30, 2018 and 2017, due to related party balances were \$90.6 million and \$75.0 million, respectively. Although the implementations of GASB Statements No. 75 and 68 were not applicable to the SNWA, the SNWA is liable to the LVVWD for its proportionate share of the OPEB and pension liabilities.

NOTE 16. LONG-TERM DEBT

Pursuant to the Transfer Act discussed in Note 1, the SNWA assumed responsibility for all CRC debt associated with the SNWS as of January 1, 1996. In 1997, the SNWA received authorization to sell its bonds directly to the Nevada State Bond Bank. In 1999, the SNWA received authorization to sell its bonds through a newly authorized Clark County Bond Bank. The SNWA also has bonds payable, which were issued by the LVVWD on the SNWA's behalf. The SNWA plans to use the LVVWD to sell long-term fixed-rate bonds whenever feasible in the near future.

Debt Creation and Reporting

To avoid the carrying costs of bond proceeds that will not be used for some time to fund capital projects, the SNWA generally issues bonds sufficient to fund about two years of estimated capital project expenditures. The SNWA also can use capital contributions as needed to fund capital project construction payments on a pay-as-you-go basis.

In compliance with NRS 350.013, the SNWA submits a Debt Management Policy to the Nevada Department of Taxation annually. That required filing includes a discussion of the affordability of debt, debt capacity, and how debt

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will be repaid. The Debt Management Policy is also provided to Clark County and is available for review by bonding agencies and the general public. In addition, the Debt Management Policy is included in the SNWA's annual Operating and Capital Budget document.

Debt Covenants

Management believes that the SNWA has complied with all legal requirements, limitations, and restrictions imposed by debt covenants. The SNWA is required to set charges for its purveyor members that when combined with unrestricted assets available for debt service create levels sufficient to cover all operating and maintenance expenses (excluding depreciation), all debt service requirements and amounts required to be deposited in reserve accounts, if any. Other requirements of long-term debt covenants include adequate insurance coverage for liability, property, and the LVVWD employees and an annual audit of the SNWA's basic financial statements by independent certified public accountants. Covenants are reviewed periodically by outside bond counsel to ensure adherence.

Defeasance of Debt

Some debt issued on behalf of the SNWA has been advance refunded. In those instances, proceeds from advance refunding bond issuances have been placed in escrow accounts to fund debt service requirements as they come due. As of June 30, 2018, two bond issues with \$23.3 million in prior year in-substance defeased debt remain outstanding. The assets in these escrow accounts, as well as the liabilities for those in-substance defeased debt issues, have been removed from the SNWA's financial statements. Furthermore, in accordance with GASB Statement No. 23, *Accounting and Financial Reporting for Refundings of Debt Reported by Proprietary Activities*, any accounting gain or loss resulting from these transactions has been deferred and is being amortized over the life of the related debt (Note 11).

Current Year Debt Issuance Activity

On March 6, 2018, LVVWD on behalf of the SNWA issued LVVWD 2018B refunding bonds in the original amount of \$79.1 million. Proceeds from the bonds along with the \$10.7 million of premiums were deposited into escrow to partially refund the LVVWD 2008B refunding bonds. The LVVWD 2018B refunding bonds pay semi-annual interest beginning June 1, 2018 continuing to June 1, 2026. At that time, the entire principal of \$79.1 million is scheduled to be paid in full. Interest on the new issue is paid semiannually on June 1 and December 1. The true interest cost is 2.12%. Over the life of the bond, the issue will reduce debt payment requirements by \$10.7 million. In present value terms, this equates to a \$9.7 million savings in debt requirements.

The following is a comprehensive summary of each of the outstanding long-term debt issues as of June 30, 2018.

Nevada Drinking Water State Revolving Fund Loan 1

Nevada law has created an account for the Nevada Drinking Water State Revolving Fund. This account finances the construction of public water system projects authorized by the federal Safe Drinking Water Act. This federally financed program requires that funds made available to each state must be committed and used each year; otherwise, future financing opportunities under the program are lost to the state. In 1999, the SNWA's CIP project to build ozone facilities to disinfect water at the Alfred Merritt Smith Water Treatment Facility qualified under the statutory and regulatory requirements. The SNWA applied for and received a loan from Nevada for the \$12.3 million in available funding to keep the money within Nevada. The interest rate on the loan is fixed at 3.61% and the term is 20 years. Constant semiannual payments of principal and interest are due on August 1 and February 1.

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Nevada Drinking Water State Revolving Fund Loan 2

On June 29, 2001, the SNWA received a second loan from the Nevada Drinking Water State Revolving Fund in the amount of \$10.0 million. The SNWA applied for this loan to help preserve Nevada's access to federal Safe Drinking Water Act funds that would otherwise be lost to the public water systems in Nevada. The funds were reserved to pay for CIP construction expenditures. The interest rate on the loan is fixed at 3.46%, and the term is 20 years. Constant semiannual payments of principal and interest are due on August 1 and February 1.

Clark County 1106 Refunding Bonds

These general obligation bonds in the original amount of \$604.1 million were sold on November 2, 2006. The proceeds of the bond sale were used to partially refund \$103.1 million of the Clark County 2001 series bonds, and \$97.5 million of the Clark County 2002 series bonds. The issue also generated \$392.8 million of new money which was reserved for capital expenditures. Interest on these bonds is payable semiannually on May 1 and November 1. The Clark County 1106 bonds mature annually on November 1 through 2036. \$61.3 million of the proceeds from the Clark County 2009 refunding issue, the LVVWD 2011B issue and the LVVWD 2011C issue were used to partially refund selected payments of the Clark County 1106 bonds. In addition, \$113.9 million of the proceeds from the Clark County 2016A and \$333.6 of the proceeds from the Clark County 2016B issues were also used to partially refund selected payments of the Clark County 1106 bonds. The interest rate is 2.50% to 5.00%.

SNWA Clean Renewable Energy 2008 Bonds

These Clean Renewable Energy (CRE) bonds in the original amount of \$6.9 million were sold on July 30, 2008. The proceeds of the bond sale reimbursed the SNWA for investments in clean energy capital projects. The SNWA Clean Renewable Energy 2008 bonds mature annually on December 15 through 2022. Interest on these bonds is payable quarterly on March 15, June 15, September 15, and December 15. The interest rate is 1.17%.

LVVWD 2009A Bonds

These taxable general obligation bonds in the original amount of \$90.0 million were issued on August 5, 2009. The proceeds of the bond sale were reserved to fund capital expenditures. The LVVWD 2009A bonds mature annually on June 1 through 2039. Interest on these bonds is payable semiannually on December 1 and June 1. Since the bonds were issued as Build America Bonds (BABs) as defined under the American Recovery and Reinvestment Act of 2009 (ARRA) the United States Treasury Department refunds 35.0% of all interest expense to the SNWA. On October 1, 2017, the Treasury Department lowered the refund to 32.69%. The interest rate is 7.10% before this Federal participation, and 4.78% after.

LVVWD 2009B Bonds

These general obligation bonds in the original amount of \$10.0 million were issued on August 5, 2009. The proceeds of the bond sale were reserved to fund capital expenditures. The original LVVWD 2009B bonds mature annually on June 1 through 2032. Interest on these bonds is payable semiannually on December 1 and June 1. During fiscal year 2017, \$7.7 million of the proceeds from the LVVWD 2017B refunding issue were used to partially refund selected payments of the LVVWD 2009B bonds, which it also shortened the final maturity date of the LVVWD 2009B through June 1, 2019. The interest rate is 4.00% to 5.25%.

Clark County 2009 Refunding Bonds

These general obligation bonds in the original amount of \$50.0 million were issued on October 22, 2009. The proceeds of the bond sale were used to partially refund the coupons from the following five bond series – Clark County 2000, Clark County 2001, Clark County 2002, Clark County 1106, and Clark County 2008. The Clark County

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2009 refunding bonds mature annually on June 1 through 2030. Interest on these bonds is payable semiannually on December 1 and June 1. The interest rate is 5.00%.

State of Nevada 2009 Bonds

These general obligation bonds were issued by the State of Nevada on behalf of the SNWA on October 22, 2009. The obligation as represented by the bond is \$2.2 million. Semi-annual payments will be due on January 1 and July 1 with the final payment occurring on July 1, 2029. The bonds are interest free.

LVVWD 2009D Bonds

These general obligation bonds in the original amount of \$72.0 million were sold on December 23, 2009. The proceeds of the bond sale were used to partially refund the LVVWD 2003B bonds with the remaining proceeds reserved for capital expenditures. The LVVWD 2009D bonds mature annually on June 1 through 2030. Interest on these bonds is payable semiannually on December 1 and June 1. During fiscal year 2017, \$15.6 million of the proceeds from the LVVWD 2017B refunding issue were used to partially refund selected payments of the LVVWD 2009D. The interest rate is 4.25% to 5.25%.

State of Nevada 2010B Bonds

These general obligation bonds in the original amount of \$7.4 million were sold on June 24, 2010. The proceeds of the bond sale were used to fully refund the State of Nevada 1997B bonds and partially refund the State of Nevada 2003C and State of Nevada 2006D bonds. These bonds mature annually on June 1 through 2020. Interest on these bonds is payable semiannually on December 1 and June 1. The interest rate is 3.70%.

LVVWD 2011A Refunding Bonds

These taxable general obligation bonds in the original amount of \$58.1 million were issued on May 24, 2011. Proceeds from the bonds were deposited into escrow to refund \$51.9 million of the LVVWD 2008B bonds. The LVVWD 2011A refunding bonds mature annually on June 1 beginning in 2015 and continuing through 2026. Interest on these bonds is payable semiannually on December 1 and June 1. The interest rate is 3.05% to 5.43%.

LVVWD 2011B Refunding Bonds

These taxable general obligation bonds in the original amount of \$129.7 million were issued on October 19, 2011. The proceeds of the bond sale were used to partially refund coupons from the following five bond series – State of Nevada 2005I, State of Nevada 2005F, State of Nevada 2006D, Clark County 2006 Refunding and Clark County 1106. The LVVWD 2011B refunding bonds mature annually on June 1 through 2027. Interest on these bonds is payable semiannually on December 1 and June 1. The interest rate is 2.79% to 4.96%.

LVVWD 2011C Refunding Bonds

These general obligation bonds in the original amount of \$267.8 million were issued on October 19, 2011. The proceeds of the bond sale were used to partially refund coupons from the following five bond series – State of Nevada 2005F, State of Nevada 2001, Clark County 2002, Clark County 1106, and Clark County 2008—as well as fully refunding LVVWD 2003B. The LVVWD 2011C refunding bonds mature annually on June 1 through 2038. Interest on these bonds is payable semiannually on December 1 and June 1. The interest rate is 2.00% to 5.00%.

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Clark County 2012 Refunding Bonds

These general obligation bonds in the original amount of \$85.0 million were issued on June 20, 2012. The proceeds of the bond sale were used to completely refund the Clark County 2001 and the Clark County 2002 bonds. The SNWA 2012 bonds mature annually beginning June 1, 2013 and continue through June 1, 2032. Interest on these bonds is paid semiannually on June 1 and December 1. The interest rate is 4.00% to 5.00%.

LVVWD 2012B Bonds

These general obligation bonds in the original amount of \$360.0 million were issued on July 31, 2012. The proceeds of the bond sale were reserved for capital expenditures. The LVVWD 2012B bonds will mature annually beginning June 1, 2015 through 2042. Interest on these bonds is payable semiannually on December 1 and June 1. The interest rate is 3.00% to 5.00%.

State of Nevada 2013 Refunding Bonds

These general obligation bonds in the original amount of \$21.7 million were issued on February 20, 2013. The proceeds of the bond sale were used to fully refund the State of Nevada 1998 bond. The State of Nevada 2013 refunding bonds have one principal payment scheduled for August 1, 2027. Interest on the bonds is payable semiannually on August 1 and February 1. The interest rate is 3.00%.

LVVWD 2015 Refunding Bonds

These general obligation bonds in the original amount of \$332.4 million were issued on January 13, 2015. The proceeds of the bond sale were used to completely refund the LVVWD 2009C Bonds. The LVVWD 2015 refunding bonds mature annually beginning June 1, 2031 and continue through June 1, 2039. Interest on these bonds is paid semiannually on December 1 and June 1. The interest rate is 4.00% to 5.00%.

LVVWD 2015B Refunding Bonds

These general obligation bonds in the original amount of \$177.6 million were issued on June 1, 2015. The proceeds of the bond sale were used to completely refund the State of Nevada 2005F and State of Nevada 2005H bonds. The LVVWD 2015B refunding bonds mature annually beginning December 1, 2016 and continue through December 1, 2027. Interest on these bonds is paid semiannually on December 1 and June 1. The interest rate is 4.00% to 5.00%.

LVVWD 2015C Refunding Bonds

These general obligation bonds in the original amount of \$42.1 million were issued on June 18, 2015. The proceeds of the bond sale were used to completely refund the State of Nevada 2005I bonds. The LVVWD 2015C refunding bonds mature annually beginning September 15, 2016 and continue through September 15, 2029. Interest on these bonds is paid semiannually on September 15 and March 15. The interest rate is 3.00% to 5.00%.

Clark County 2016A Refunding Bonds

These general obligation bonds in the original amount of \$264.0 million were issued on March 3, 2016. The proceeds of the bond sale were used to partially refund the Clark County 2006 and Clark County 1106 refunding bonds. The Clark County 2016A refunding bonds mature annually beginning November 1, 2016 and continue through November 1, 2029. Interest on these bonds is paid semiannually on May 1 and November 1. The interest rate 5.00%.

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LVVWD 2016A Refunding Bonds

These general obligation bonds in the original amount of \$497.8 million were issued on April 6, 2016. The proceeds of the bond sale were used to partially refund the State of Nevada 2006D refunding bonds. This issue also generated \$520.0 million of new money which was reserved for capital expenditures. The LVVWD 2016A refunding bonds mature annually beginning June 1, 2017 and continue through June 1, 2046. Interest on these bonds is paid semiannually on December 1 and June 1. The interest rate is 3.00% to 5.00%.

Clark County 2016B Refunding Bonds

These general obligation bonds in the original amount of \$271.7 million were issued on August 3, 2016. The proceeds of the bond sale were used to partially refund the Clark County 1106 refunding bonds. The Clark County 2016B refunding bonds mature annually beginning November 1, 2017 and continue through November 1, 2034. Interest on these bonds is paid semiannually on May 1 and November 1. The interest rate is 4.00% to 5.00%.

LVVWD 2017B Refunding Bonds

These general obligation bonds in the original amount of \$22.1 million were issued on March 14, 2017. The proceeds of the bond sale were used to partially refund the LVVWD 2009B and LVVWD 2009D refunding bonds. The LVVWD 2017B refunding bonds mature annually beginning June 1, 2020 and continue through June 1, 2032. Interest on these bonds is paid semiannually on June 1 and December 1. The interest rate is 3.00% to 5.00%.

Clark County 2017 Refunding Bonds

These general obligation bonds in the original amount of \$321.6 million were issued on March 22, 2017. The proceeds of the bond sale were used to partially refund the Clark County 2008 refunding bonds. The Clark County 2017 refunding bonds mature annually beginning June 1, 2019 and continue through June 1, 2038. Interest on these bonds is paid semiannually on June 1 and December 1. The interest rate is 4.00% to 5.00%.

LVVWD 2018B Refunding Bonds

These general obligation bonds in the original amount of \$79.1 million were issued on March 6, 2018. The proceeds of the bond sale were used to partially refund the LVVWD 2008B refunding bonds. The LVVWD 2018B refunding bonds mature annually beginning June 1, 2019 and continue through June 1, 2026. Interest on these bonds is paid semiannually on June 1 and December 1. The interest rate is 5.00%.

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The following schedules present changes in long-term debt issues and composition of outstanding debt for the fiscal years ended June 30, 2018 and June 30, 2017.

Outstanding Debt Activity, June 30, 2018

Debt Issue	Beginning Balance	Additions	Retirements	Ending Balance
Long-Term Debt				
State Revolving Fund Loan 1	\$ 2,443,330	\$ -	\$ (785,484)	\$ 1,657,846
State Revolving Fund Loan 2	2,881,305	-	(602,414)	2,278,891
Subtotal Notes Payable	5,324,635	-	(1,387,898)	3,936,737
Clark County 1106	69,545,000	-	-	69,545,000
LVVWD 2008B	97,470,000	-	(97,470,000)	-
Clark County 2008	9,635,000	-	(9,635,000)	-
SNWA CRE 2008	2,760,000	-	(460,000)	2,300,000
LVVWD 2009A	90,000,000	-	-	90,000,000
LVVWD 2009B	835,000	-	(410,000)	425,000
Clark County 2009	40,175,000	-	(2,270,000)	37,905,000
State of Nevada 2009	1,581,755	-	(126,540)	1,455,215
LVVWD 2009D	40,990,000	-	(3,550,000)	37,440,000
State of Nevada 2010B	3,405,000	-	(1,095,000)	2,310,000
LVVWD 2011A	49,355,000	-	(4,560,000)	44,795,000
LVVWD 2011B	110,955,000	-	(9,775,000)	101,180,000
LVVWD 2011C	220,825,000	-	(10,620,000)	210,205,000
Clark County 2012	79,515,000	-	-	79,515,000
LVVWD 2012B	339,555,000	-	(7,345,000)	332,210,000
State of Nevada 2013	21,720,000	-	-	21,720,000
LVVWD 2015	332,405,000	-	-	332,405,000
LVVWD 2015B	166,960,000	-	(11,165,000)	155,795,000
LVVWD 2015C	39,485,000	-	(2,730,000)	36,755,000
Clark County 2016A	250,200,000	-	(23,295,000)	226,905,000
LVVWD 2016A	492,255,000	-	(11,045,000)	481,210,000
Clark County 2016B	271,670,000	-	(3,785,000)	267,885,000
LVVWD 2017B	22,115,000	-	-	22,115,000
Clark County 2017	321,640,000	-	-	321,640,000
LVVWD 2018B	-	79,085,000	-	79,085,000
Subtotal Bonds Payable	3,075,051,755	79,085,000	(199,336,540)	2,954,800,215
Total Long-Term Debt				
Before Unamortized Discounts and Premiums	<u>\$ 3,080,376,390</u>	<u>\$ 79,085,000</u>	<u>\$ (200,724,438)</u>	2,958,736,952
Unamortized Discounts and Premiums				<u>323,704,467</u>
Net Debt				<u><u>\$ 3,282,441,419</u></u>

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements
For the fiscal years ended June 30, 2018 and 2017

Composition of Outstanding Debt, June 30, 2018

Debt Issue	Ending Balance	Current Portion	Long-Term Portion	Accrued Interest
Long-Term Debt				
State Revolving Fund Loan 1	\$ 1,657,846	\$ 814,096	\$ 843,750	\$ 24,799
State Revolving Fund Loan 2	2,278,891	623,438	1,655,453	32,672
Subtotal Notes Payable	3,936,737	1,437,534	2,499,203	57,471
Clark County 1106	69,545,000	-	69,545,000	325,791
SNWA CRE 2008	2,300,000	460,000	1,840,000	1,170
LVVWD 2009A	90,000,000	-	90,000,000	523,770
LVVWD 2009B	425,000	425,000	-	1,393
Clark County 2009	37,905,000	2,380,000	35,525,000	155,348
State of Nevada 2009	1,455,215	126,540	1,328,675	-
LVVWD 2009D	37,440,000	3,730,000	33,710,000	153,134
State of Nevada 2010B	2,310,000	1,135,000	1,175,000	6,996
LVVWD 2011A	44,795,000	4,745,000	40,050,000	181,383
LVVWD 2011B	101,180,000	10,000,000	91,180,000	359,354
LVVWD 2011C	210,205,000	11,260,000	198,945,000	862,784
Clark County 2012	79,515,000	-	79,515,000	260,705
LVVWD 2012B	332,210,000	7,690,000	324,520,000	1,304,586
State of Nevada 2013	21,720,000	-	21,720,000	270,000
LVVWD 2015	332,405,000	-	332,405,000	1,341,824
LVVWD 2015B	155,795,000	11,680,000	144,115,000	628,930
LVVWD 2015C	36,755,000	2,835,000	33,920,000	523,059
Clark County 2016A	226,905,000	24,505,000	202,400,000	1,880,599
LVVWD 2016A	481,210,000	11,995,000	469,215,000	1,949,480
Clark County 2016B	267,885,000	3,965,000	263,920,000	2,136,426
LVVWD 2017B	22,115,000	-	22,115,000	84,191
Clark County 2017	321,640,000	9,910,000	311,730,000	1,183,820
LVVWD 2018B	79,085,000	8,245,000	70,840,000	324,119
Subtotal Bonds Payable	2,954,800,215	115,086,540	2,839,713,675	14,458,862
Total Long-Term Debt				
Before Unamortized Discounts and Premiums	<u>\$ 2,958,736,952</u>	<u>\$ 116,524,074</u>	2,842,212,878	<u>\$ 14,516,333</u>
Unamortized Discounts and Premiums			<u>323,704,467</u>	
Net Long-Term Portion			<u><u>\$ 3,165,917,345</u></u>	

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements
For the fiscal years ended June 30, 2018 and 2017

Outstanding Debt Activity, June 30, 2017

Debt Issue	Beginning Balance	Additions	Retirements	Ending Balance
Long-Term Debt				
State Revolving Fund Loan 1	\$ 3,201,208	\$ -	\$ (757,878)	\$ 2,443,330
State Revolving Fund Loan 2	3,463,404	-	(582,099)	2,881,305
Subtotal Notes Payable	6,664,612	-	(1,339,977)	5,324,635
Clark County 1106	419,135,000	-	(349,590,000)	69,545,000
LVVWD 2008B	105,890,000	-	(8,420,000)	97,470,000
Clark County 2008	353,415,000	-	(343,780,000)	9,635,000
SNWA CRE 2008	3,220,000	-	(460,000)	2,760,000
LVVWD 2009A	90,000,000	-	-	90,000,000
LVVWD 2009B	8,905,000	-	(8,070,000)	835,000
Clark County 2009	42,335,000	-	(2,160,000)	40,175,000
State of Nevada 2009	1,708,295	-	(126,540)	1,581,755
LVVWD 2009D	59,975,000	-	(18,985,000)	40,990,000
State of Nevada 2010B	4,460,000	-	(1,055,000)	3,405,000
LVVWD 2011A	53,755,000	-	(4,400,000)	49,355,000
LVVWD 2011B	120,430,000	-	(9,475,000)	110,955,000
LVVWD 2011C	230,940,000	-	(10,115,000)	220,825,000
Clark County 2012	79,515,000	-	-	79,515,000
LVVWD 2012B	346,615,000	-	(7,060,000)	339,555,000
State of Nevada 2013	21,720,000	-	-	21,720,000
LVVWD 2015	332,405,000	-	-	332,405,000
LVVWD 2015B	177,635,000	-	(10,675,000)	166,960,000
LVVWD 2015C	42,125,000	-	(2,640,000)	39,485,000
Clark County 2016A	263,955,000	-	(13,755,000)	250,200,000
LVVWD 2016A	497,785,000	-	(5,530,000)	492,255,000
Clark County 2016B	-	271,670,000	-	271,670,000
LVVWD 2017B	-	22,115,000	-	22,115,000
Clark County 2017	-	321,640,000	-	321,640,000
Subtotal Bonds Payable	3,255,923,295	615,425,000	(796,296,540)	3,075,051,755
Total Long-Term Debt				
Before Unamortized Discounts and Premiums	<u>\$ 3,262,587,907</u>	<u>\$ 615,425,000</u>	<u>\$ (797,636,517)</u>	3,080,376,390
Unamortized Discounts and Premiums				<u>337,206,601</u>
Net Debt				<u><u>\$ 3,417,582,991</u></u>

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements
For the fiscal years ended June 30, 2018 and 2017

Composition of Outstanding Debt, June 30, 2017

Debt Issue	Ending Balance	Current Portion	Long-Term Portion	Accrued Interest
Long-Term Debt				
State Revolving Fund Loan 1	\$ 2,443,330	\$ 785,484	\$ 1,657,846	\$ 36,549
State Revolving Fund Loan 2	2,881,305	602,414	2,278,891	41,309
Subtotal Notes Payable	5,324,635	1,387,898	3,936,737	77,858
Clark County 1106	69,545,000	-	69,545,000	325,791
LVVWD 2008B	97,470,000	8,835,000	88,635,000	383,662
Clark County 2008	9,635,000	9,635,000	-	39,488
SNWA CRE 2008	2,760,000	460,000	2,300,000	1,404
LVVWD 2009A	90,000,000	-	90,000,000	523,770
LVVWD 2009B	835,000	410,000	425,000	2,738
Clark County 2009	40,175,000	2,270,000	37,905,000	164,652
State of Nevada 2009	1,581,755	126,540	1,455,215	-
LVVWD 2009D	40,990,000	3,550,000	37,440,000	167,683
State of Nevada 2010B	3,405,000	1,095,000	2,310,000	10,313
LVVWD 2011A	49,355,000	4,560,000	44,795,000	196,603
LVVWD 2011B	110,955,000	9,775,000	101,180,000	386,804
LVVWD 2011C	220,825,000	10,620,000	210,205,000	906,308
Clark County 2012	79,515,000	-	79,515,000	260,705
LVVWD 2012B	339,555,000	7,345,000	332,210,000	1,333,049
State of Nevada 2013	21,720,000	-	21,720,000	270,000
LVVWD 2015	332,405,000	-	332,405,000	1,341,824
LVVWD 2015B	166,960,000	11,165,000	155,795,000	674,689
LVVWD 2015C	39,485,000	2,730,000	36,755,000	555,107
Clark County 2016A	250,200,000	23,295,000	226,905,000	2,073,668
LVVWD 2016A	492,255,000	11,045,000	481,210,000	1,976,639
Clark County 2016B	271,670,000	3,785,000	267,885,000	2,167,796
LVVWD 2017B	22,115,000	-	22,115,000	84,191
Clark County 2017	321,640,000	-	321,640,000	1,183,820
Subtotal Bonds Payable	3,075,051,755	110,701,540	2,964,350,215	15,030,702
Total Long-Term Debt				
Before Unamortized Discounts and Premiums	<u>\$ 3,080,376,390</u>	<u>\$ 112,089,438</u>	2,968,286,952	<u>\$ 15,108,560</u>
Unamortized Discounts and Premiums			<u>337,206,601</u>	
Net Long-Term Portion			<u>\$ 3,305,493,553</u>	

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements
For the fiscal years ended June 30, 2018 and 2017

The SNWA total debt service requirements to maturity (excluding commercial paper) are as follows:

Fiscal Year Ending June 30	Principal	Interest ⁽¹⁾	Total
2019	\$ 116,524,074	\$ 141,507,551	\$ 258,031,625
2020	121,865,486	136,065,520	257,931,006
2021	127,684,253	130,266,350	257,950,603
2022	133,864,085	124,152,162	258,016,247
2023	140,416,540	117,540,676	257,957,216
2024-2028	741,022,702	477,954,056	1,218,976,758
2029-2033	548,324,812	321,441,125	869,765,937
2034-2038	644,060,000	192,588,113	836,648,113
2039-2043	302,220,000	54,748,090	356,968,090
2044-2046	82,755,000	8,410,000	91,165,000
Total Debt Service	<u>\$ 2,958,736,952</u>	<u>\$ 1,704,673,643</u>	<u>\$ 4,663,410,595</u>

⁽¹⁾ Gross interest, not reduced by anticipated BAB subsidy.

NOTE 17. CAPITAL CONTRIBUTIONS

Income restricted for capital improvement plans and other expansion programs are reported on the Statements of Revenues, Expenses and Changes in Net Position as capital contributions. This income is classified in compliance with paragraph 100 of GASB Statement No. 34, *Basic Financial Statements – and Management’s Discussion and Analysis – for State and Local Governments*. Capital contributions received for the fiscal years ended June 30, 2018 and 2017 are as follows:

Type	June 30, 2018	June 30, 2017
Regional Infrastructure Charge	\$ 151,907,841	\$ 132,471,445
Regional Connection Charge	76,343,260	57,024,817
Sales Tax	63,601,130	60,856,934
Regional Commodity Charge	70,552,575	65,382,163
Southern Nevada Public Lands Management Act	9,479,959	9,462,312
Regional Reliability Surcharge	5,555,189	5,268,565
Purveyor Member Debt Service Billings ⁽¹⁾	292,902	249,784
Contributed Capital - Cash and Equivalents	3,669,578	1,430,863
Total Capital Contributions	<u>\$ 381,402,434</u>	<u>\$ 332,146,883</u>

⁽¹⁾ Neither the City of Boulder City nor Nellis Air Force Base collect regional infrastructure charges, regional connection charges, regional commodity charges, or regional liability surcharges from their customers. Instead, they make payments to the SNWA in lieu of those collections, which are indicated above as purveyor member debt service billings.

Capital contributions presented in the Statements of Cash Flows differ somewhat from the amounts above because of accruals and use of some capital contributions for expenses related to expansion programs. The differences in capital contributions for the fiscal years ended June 30, 2018 and 2017 were as follows:

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements
For the fiscal years ended June 30, 2018 and 2017

Type	June 30, 2018	June 30, 2017
Capital Contributions per Statements of Revenues, Expenses, and Changes in Net Position	\$ 381,402,434	\$ 332,146,883
Expenses Related to Expansion Programs	(24,113,211)	(13,587,962)
Net Prior and Current Year Sales Tax Receivables	(939,682)	(845,259)
Net Prior and Current Year Sales Tax Payable to Clark County Water Purveyors Outside SNWA's Service Area	114,986	325,855
Net Prior and Current Year Connection, Commodity, Reliability, and Infrastructure Receivables	(2,018,470)	(6,208,188)
Net Prior and Current Year Southern Nevada Public Lands Management Act Receivable	(6,938,032)	1,550,382
Capital Contributions Per Statements of Cash Flows	<u>\$ 347,508,025</u>	<u>\$ 313,381,711</u>

NOTE 18. RISK MANAGEMENT

The SNWA is exposed to a variety of risks that may result in losses. These risks include possible losses related to torts; theft of, damage to, or destruction of assets; extra expense; errors and omissions; job-related illnesses or injuries to employees; product liability claims; and natural disasters. The SNWA manages these risks through a multifaceted approach, which includes transfer, elimination, avoidance, reduction, and/or assumption of risk of loss.

The SNWA purchases insurance from the commercial insurance market on real and personal property, including earthquake and flood, with common policy restrictions covering direct physical loss of, or damage to, buildings, fixtures, equipment, boilers, machinery, and supplies. The blanket limit of liability under the property insurance program is \$500.0 million with a deductible of \$1.0 million for all locations, except earthquake and flood which has a limit of \$100.0 million and \$50.0 million respectively and a deductible of \$0.1 million. This program also provides terrorism insurance for all locations with a blanket limit of \$500.0 million for all terrorist acts. The SNWA self-insures the first \$1.0 million for automobile and general liability exposure and purchases excess liability insurance in the amount of \$30.0 million. Employee fidelity insurance in the amount of \$3.0 million and other miscellaneous coverages are also purchased. For the fiscal year ended June 30, 2018, the SNWA had no significant reductions in insurance coverage from the prior fiscal year.

In contracts, the SNWA obtains indemnification and hold harmless agreements. These agreements require that contractors name the SNWA as an additional insured under the indemnitor's insurance coverage, usually in the amount of \$1.0 million to \$10.0 million for commercial general and automobile liability insurance. The SNWA provides builders risk insurance for all construction projects with a blanket limit of \$500.0 million per contract, with a \$50,000 deductible per occurrence, except earthquake and flood where the deductible is \$0.5 million per occurrence. This coverage is included under the property insurance policy. The SNWA has a separate Builders Risk policy to insure the Low Lake Level Pumping Station during construction. The limit on this policy is \$650.0 million with various deductibles.

GASB Statement No. 10, *Accounting and Financial Reporting for Risk Financing and Related Insurance Issues*, requires that for retained risks, a liability for claims be reported if information available prior to issuance of the financial statements indicates it is probable that a liability has been incurred at the date of the financial statements and the amount of the loss can be reasonably estimated. As of June 30, 2018, the SNWA had no significant retained risks and therefore has no accrued liability for retained risks. In addition, there are also situations in which incidents occur before the balance sheet date, but claims are not reported or asserted when the financial statements are prepared.

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements
For the fiscal years ended June 30, 2018 and 2017

NOTE 19. JOINT VENTURE

The SNWA is a member of the Silver State Energy Association (SSEA). The SSEA was established as a joint venture through an interlocal agreement among its members, which in addition to the SNWA, include the City of Boulder City, Lincoln Power District No. 1, Overton Power District No. 5, and the CRC (Members).

The SSEA is an association of public agencies with the common goal of jointly planning, developing, owning and operating power resources to meet their own needs and those of their customers. The economies of scale produced by the SSEA offer improved project development opportunities and power purchasing capabilities, the sharing of resources and expertise, and the opportunity for jointly managed energy needs.

As appropriate projects are selected for development, the Members involved in each project enter into a project service agreement indicating each participating Member's allocation of project costs and benefits.

The business and other affairs of the SSEA are conducted by a Board of Directors consisting of one director appointed by each Member. The appointed director may, but need not be, a member of the governing body of the Member.

Information regarding SSEA can be obtained from:

SSEA Manager
100 City Parkway, Suite 700, MS 115
Las Vegas, NV 89106
(702) 259-8168
www.silverstateenergy.org

NOTE 20. SUBSEQUENT EVENTS

On May 31, 2018, the SNWA's Board of Directors approved an increase to the Wholesale Delivery Charge to \$313 per acre-foot for treated water and \$238 per acre-foot for untreated water effective July 1, 2018, an additional increase of \$10 per acre-foot for treated water and \$6 per acre-foot for untreated water effective July 1, 2019, and annual adjustments of both rates thereafter in accordance with the Consumer Price Index.

Other Supplementary Information



SOUTHERN NEVADA WATER AUTHORITY

Other Supplementary Information
Budgetary Comparison - Statement of Revenues, Expenses, and Changes in Net Position
For the fiscal year ended June 30, 2018

	Budget ⁽¹⁾	Actual
OPERATING REVENUES		
Wholesale Delivery Charges	\$ 130,773,096	\$ 134,480,919
Groundwater Management Fees	906,481	878,647
Administration Costs Recoveries	612,600	695,443
Las Vegas Wash Revenues	429,845	429,845
Other Revenues	4,076,681	5,261,653
Total Operating Revenues	136,798,703	141,746,507
OPERATING EXPENSES		
Personnel and Related	52,657,549	73,687,225
Energy	36,987,491	36,244,051
Depreciation	115,000,000	109,196,145
Operating and Maintenance	54,711,097	58,603,873
Total Operating Expenses	259,356,137	277,731,294
OPERATING LOSS	(122,557,434)	(135,984,787)
NONOPERATING REVENUES (EXPENSES)		
Investment Income	1,936,085	1,722,807
Interest Expense (Net of BAB Subsidy)	(125,361,559)	(105,825,457)
Amortization of Refunding Costs	-	(4,092,768)
Bond Issue and Commercial Paper Costs	-	(2,018,097)
Amortization of Bond Premiums and Discounts	-	20,063,488
Gain on Sale of Assets	-	288,832
Total Nonoperating Revenues (Expenses)	(123,425,474)	(89,861,195)
LOSS BEFORE CAPITAL CONTRIBUTIONS	(245,982,908)	(225,845,982)
Capital Contributions	353,214,317	381,402,434
CHANGE IN NET POSITION	\$ 107,231,409	\$ 155,556,452

⁽¹⁾ According to Nevada Revised Statutes 354, the final budget approved by the SNWA's Board of Directors was converted to the Statement of Revenues, Expenses, and Changes in Net Position format for filing with the Nevada Department of Taxation.

SOUTHERN NEVADA WATER AUTHORITY

Other Supplementary Information
Budgetary Comparison - Statement of Cash Flows
For the fiscal year ended June 30, 2018

	Budget ⁽¹⁾	Actuals
CASH FLOWS FROM OPERATING ACTIVITIES:		
Wholesale Delivery Charges	\$ 130,773,096	\$ 134,350,122
Groundwater Management Fees	906,481	878,647
General and Administrative / Resource Charges	612,600	3,035,000
Las Vegas Wash Revenues	429,845	429,845
Other Revenues	4,076,681	2,684,995
Cash Payments to Suppliers of Goods and Services	(144,356,136)	(118,515,167)
Net Cash Provided by (Used In) Operating Activities	(7,557,433)	22,863,442
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Purchase or Construction of Capital Assets	(250,087,284)	(162,353,653)
Proceeds from Disposal of Property and Equipment	-	291,032
Proceeds of Debt Issuance	400,000,000	-
Principal Paid on Debt	(512,089,439)	(112,089,439)
Interest Paid on Debt (Net of BAB Subsidy)	(151,861,559)	(145,031,765)
Capital Contributions	353,214,317	347,508,025
Net Cash Used In Capital and Related Financing Activities	(160,823,965)	(71,675,800)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of Investment Securities	(1,134,762,479)	(856,929,242)
Proceeds from Sales or Maturities of Investment Securities	1,327,923,040	888,752,050
Investment Income	1,936,085	10,444,322
Net Cash Provided by Investing Activities	195,096,646	42,267,130
NET CHANGE IN CASH AND CASH EQUIVALENTS	26,715,248	(6,545,228)
Cash and Cash Equivalents, Beginning of Year	34,644,158	26,335,125
Cash and Cash Equivalents, End of Year	\$ 61,359,406	\$ 19,789,897

⁽¹⁾ According to Nevada Revised Statutes 354, the final budget approved by the SNWA's Board of Directors was converted to the Statement of Cash Flows format for filing with the Nevada Department of Taxation.

Statistical Section (Unaudited)

- Information on Financial Trends
- Information on Revenue Capacity
- Information on Debt Capacity
- Demographic and Economic Information
- Operating Information
- Other Information

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Introduction and Table of Contents
For the fiscal years ended June 30, 2018 and 2017

This part of the Comprehensive Annual Financial Report of the Southern Nevada Water Authority (SNWA) presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and other supplementary information says about the government's overall financial health.

<u>Contents</u>	<u>Page</u>
Information on Financial Trends	3-2 to 3-3
<i>These schedules contain information to help the reader understand how the SNWA's financial performance and well-being have changed over time.</i>	
Information on Revenue Capacity	3-4 to 3-13
<i>These schedules contain information to help the reader assess the SNWA's most significant local revenue sources.</i>	
Information on Debt Capacity	3-14 to 3-17
<i>These schedules present information to help the reader assess the affordability of the SNWA's current outstanding debt and its ability to issue additional debt in the future.</i>	
<i>Because the SNWA has only seven customers (the seven purveyor members as shown in the introductory section) ratios reflecting debt to the SNWA's customer base were deemed meaningless. Alternative comparisons have been made to give the reader a better sense of the SNWA's debt levels.</i>	
Demographic and Economic Information	3-18 to 3-21
<i>These schedules offer demographic and economic indicators to aid the reader in understanding the environment in which the SNWA's financial activities take place.</i>	
Operating Information	3-22 to 3-25
<i>These schedules contain service and infrastructure data to help the reader understand how the information in the SNWA's financial report relates to the services SNWA provides and the activities it performs.</i>	
Other Information	3-26 to 3-45
<i>These schedules include hydrologic data, debt history, and individual amortization schedules to help the reader understand the SNWA's debt position both historically and in the future.</i>	

SOUTHERN NEVADA WATER AUTHORITY

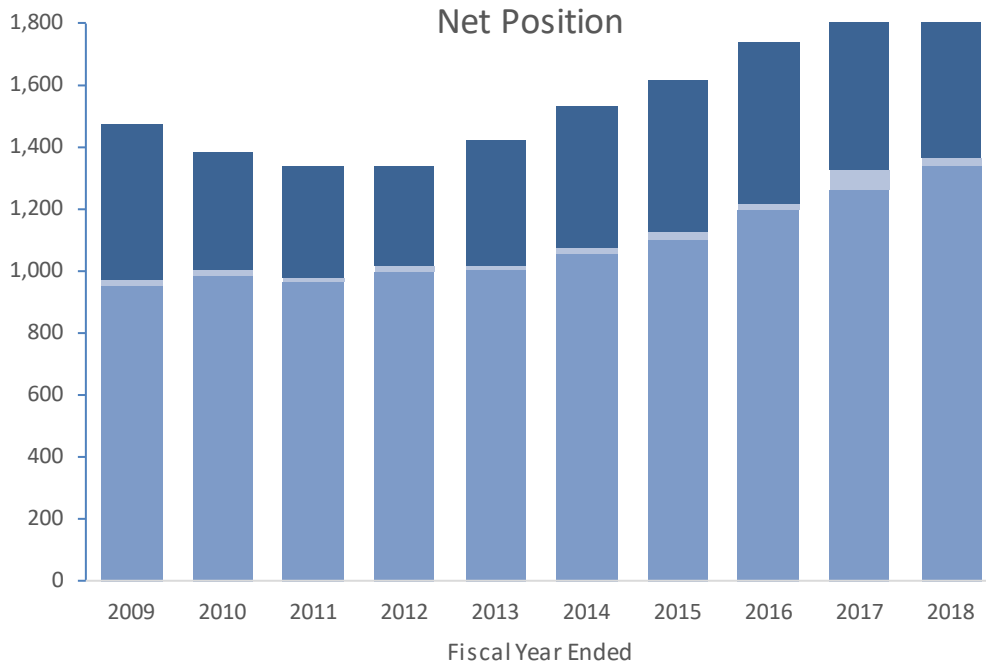
Statistical Section (Unaudited)

Net Position

Last Ten Fiscal Years

Fiscal Year Ended June 30	Net Investments in Capital Assets	Restricted for Debt Service / Capital Assets	Unrestricted	Total Net Position
2018	\$1,338,529,398	\$28,267,590	\$628,534,300	\$1,995,331,288
2017	1,258,221,454	65,386,843	524,542,743	1,848,151,040
2016	1,198,480,405	15,769,806	524,327,782	1,738,577,993
2015	1,101,533,047	21,491,395	493,734,379	1,616,758,821
2014	1,053,490,593	20,731,026	455,164,318	1,529,385,937
2013	1,002,302,170	15,122,934	406,887,453	1,424,312,557
2012	995,159,156	22,736,730	319,037,966	1,336,933,852
2011	962,800,479	13,049,575	364,557,366	1,340,407,420
2010	984,695,999	16,866,340	379,701,414	1,381,263,753
2009	953,273,244	15,178,151	506,480,038	1,474,931,433

\$ in Millions



■ Net Investments in Capital Assets
 ■ Restricted
 ■ Unrestricted

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

Changes in Net Position

Last Ten Fiscal Years

	Fiscal Year Ended June 30,				
	2018	2017	2016	2015	2014
	As Adjusted		As Adjusted		
Operating Revenues					
Wholesale Delivery Charges	\$ 134,480,919	\$ 130,115,594	\$ 125,054,059	\$ 121,100,263	\$ 121,045,154
Other	7,265,588	7,258,539	51,094,426	5,298,453	5,508,753
Total Operating Revenues	<u>141,746,507</u>	<u>137,374,133</u>	<u>176,148,485</u>	<u>126,398,716</u>	<u>126,553,907</u>
Total Operating Expenses	<u>277,731,294</u>	<u>263,881,897</u>	<u>225,760,441</u>	<u>203,269,593</u>	<u>213,963,946</u>
Operating Loss	<u>(135,984,787)</u>	<u>(126,507,764)</u>	<u>(49,611,956)</u>	<u>(76,870,877)</u>	<u>(87,410,039)</u>
Nonoperating Revenues (Expenses)					
Investment Income	1,722,807	955,013	3,852,256	1,592,657	2,309,538
Interest Expense (Net of BAB Subsidy)	(105,825,457)	(124,651,755)	(134,359,904)	(54,939,795)	(45,253,209)
Amortization of Refunding Costs	(4,092,768)	(3,737,630)	(4,581,254)	(3,492,409)	(2,921,604)
Bond Issue and Commercial Paper Costs ⁽¹⁾	(2,018,097)	(5,569,998)	(4,378,509)	(3,299,596)	(3,314,554)
Amortization of Bond Issue Costs, Premiums and Discounts ⁽²⁾	20,063,488	18,002,315	10,008,610	4,868,091	3,780,080
Other	288,832	18,935,983	198,903	94,294	44,132
Total Nonoperating Revenues (Expenses)	<u>(89,861,195)</u>	<u>(96,066,072)</u>	<u>(129,259,898)</u>	<u>(55,176,758)</u>	<u>(45,355,617)</u>
Loss Before Capital Contributions	<u>(225,845,982)</u>	<u>(222,573,836)</u>	<u>(178,871,854)</u>	<u>(132,047,635)</u>	<u>(132,765,656)</u>
Capital Contributions	381,402,434	332,146,883	300,691,026	281,927,406	237,839,036
Cumulative effect of change in accounting principle ⁽³⁾	(8,376,204)	-	-	(62,506,887)	-
Changes in Net Position	<u>\$ 147,180,248</u>	<u>\$ 109,573,047</u>	<u>\$ 121,819,172</u>	<u>\$ 87,372,884</u>	<u>\$ 105,073,380</u>

	Fiscal Year Ended June 30,				
	2013	2012	2011	2010	2009
	As Adjusted				
Operating Revenues					
Wholesale Delivery Charges	\$ 117,534,578	\$ 119,239,660	\$ 119,457,411	\$ 110,097,368	\$ 112,551,974
Other	5,170,435	4,289,754	4,604,785	4,477,070	5,765,790
Total Operating Revenues	<u>122,705,013</u>	<u>123,529,414</u>	<u>124,062,196</u>	<u>114,574,438</u>	<u>118,317,764</u>
Total Operating Expenses	<u>183,114,310</u>	<u>200,582,201</u>	<u>187,243,701</u>	<u>199,756,584</u>	<u>220,322,860</u>
Operating Loss	<u>(60,409,297)</u>	<u>(77,052,787)</u>	<u>(63,181,505)</u>	<u>(85,182,146)</u>	<u>(102,005,096)</u>
Nonoperating Revenues (Expenses)					
Investment Income	740,407	869,505	1,024,158	1,374,146	10,709,321
Interest Expense (Net of BAB Subsidy)	(53,694,055)	(56,700,015)	(69,064,101)	(68,926,378)	(69,887,704)
Amortization of Refunding Costs	(2,926,272)	(2,254,389)	(1,079,554)	(969,032)	(1,118,050)
Bond Issue and Commercial Paper Costs ⁽¹⁾	(5,606,185)	(7,264,123)	(5,153,406)	(5,473,902)	(2,249,341)
Amortization of Bond Issue Costs, Premiums and Discounts ⁽²⁾	3,291,755	3,211,357	3,452,151	3,537,813	2,877,933
Other	63,295	37,112	53,733	(5,051)	(753,735)
Total Nonoperating Revenues (Expenses)	<u>(58,131,055)</u>	<u>(62,100,553)</u>	<u>(70,767,019)</u>	<u>(70,462,404)</u>	<u>(60,421,576)</u>
Loss Before Capital Contributions	<u>(118,540,352)</u>	<u>(139,153,340)</u>	<u>(133,948,524)</u>	<u>(155,644,550)</u>	<u>(162,426,672)</u>
Capital Contributions	205,919,057	135,679,772	93,092,191	75,876,870	94,647,515
Cumulative effect of change in accounting principle ⁽³⁾	-	-	-	(13,900,000)	-
Changes in Net Position	<u>\$ 87,378,705</u>	<u>\$ (3,473,568)</u>	<u>\$ (40,856,333)</u>	<u>\$ (93,667,680)</u>	<u>\$ (67,779,157)</u>

⁽¹⁾ Per GASB 65, bond issue costs must be expensed in the year they occur. SNWA adopted GASB 65 with the fiscal 2010 financial information.

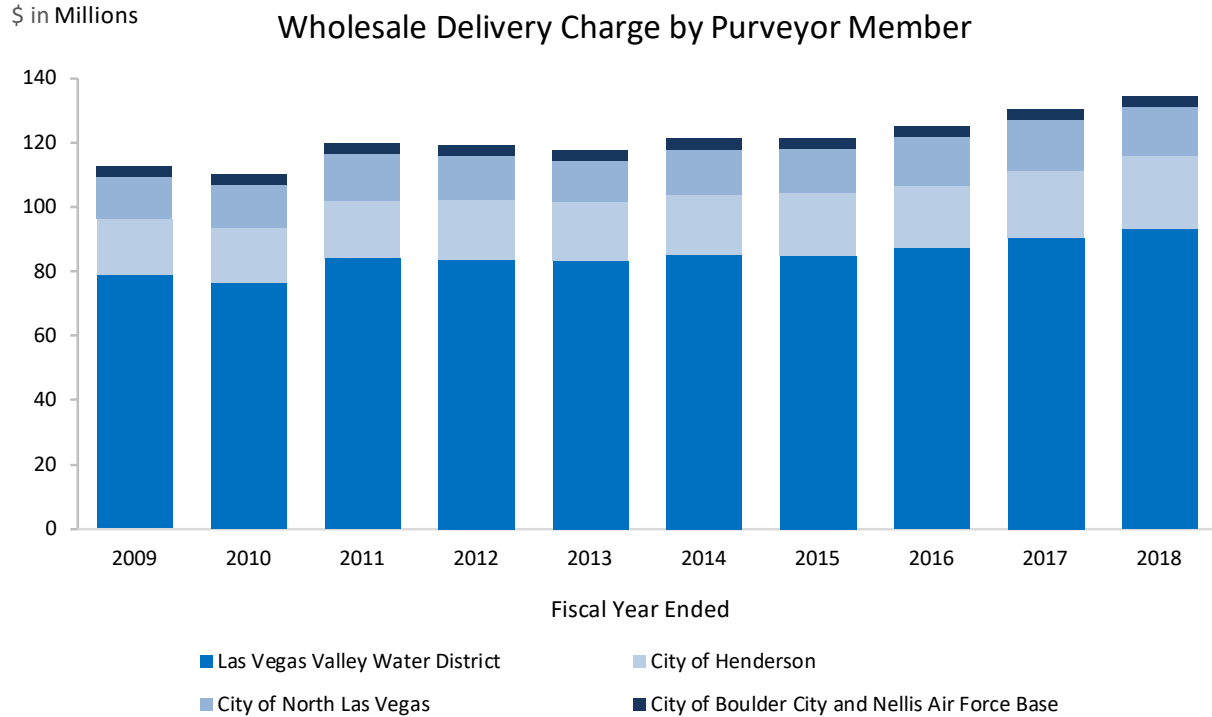
⁽²⁾ Fiscal years 2009 and earlier contain the amortization of bond issue costs.

⁽³⁾ In 2010, the SNWA adopted GASB 65 eliminating the unamortized bond issue cost asset from SNWA's books. In 2015, the SNWA recognized its share of the Las Vegas Valley Water District's (LVVWD) implementation of GASB 68, *Accounting and Financial Reporting for Pensions*. In 2018, the SNWA recognized its share of the LVVWD's implementation of GASB 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*.

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Wholesale Delivery Charge by Purveyor Member
Last Ten Fiscal Years

Fiscal Year Ended June 30,	Las Vegas Valley Water District	City of Henderson	City of North Las Vegas	City of Boulder City	Nellis Air Force Base	Total
2018	\$92,809,534	\$22,800,183	\$15,591,044	\$3,000,262	\$279,896	\$134,480,919
2017	90,327,325	20,974,863	15,597,261	2,933,871	282,274	130,115,594
2016	87,074,255	19,780,955	15,019,401	2,934,716	244,732	125,054,059
2015	84,899,076	19,442,746	13,615,054	2,906,510	236,877	121,100,263
2014	84,966,339	18,752,543	14,077,113	2,992,594	256,564	121,045,154
2013	83,269,369	18,203,343	13,013,158	2,795,461	253,247	117,534,578
2012	83,406,085	18,590,766	14,099,100	2,876,584	267,125	119,239,660
2011	83,958,256	18,186,274	14,222,462	2,779,302	311,117	119,457,411
2010	76,424,085	17,034,887	13,581,423	2,706,123	350,850	110,097,368
2009	79,085,752	16,928,183	13,442,152	2,675,997	419,890	112,551,974

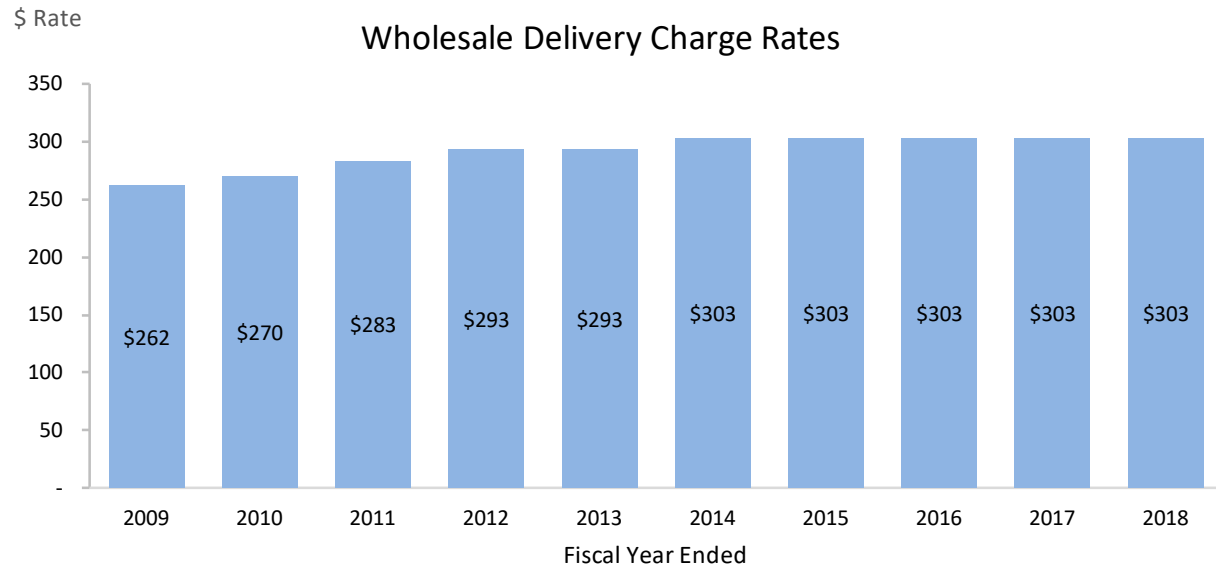


SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Wholesale Delivery Charge Rates
Last Ten Fiscal Years

Fiscal Year Ended June 30,	Rate per Acre-Foot ⁽¹⁾
2018	\$303
2017	303
2016	303
2015	303
2014	303
2013	293
2012	293
2011	283
2010	270
2009	262

⁽¹⁾ The City of Boulder City pays a slightly lower Wholesale Delivery Charge for non-potable water. Nellis Air Force Base pays a modified Wholesale Delivery Charge plus a portion of debt service. Revenues from both these charges account for less than 1% of total Wholesale Delivery Charge revenues.



SOUTHERN NEVADA WATER AUTHORITY
 Statistical Section (Unaudited)
 Regional Infrastructure Charge by Purveyor Member ⁽¹⁾
 Inception to June 30, 2018

Fiscal Year Ended June 30,	Las Vegas Valley Water District	City of Henderson	City of North Las Vegas	City of Boulder City ⁽³⁾	Big Bend Water District ⁽³⁾	Total
2018	\$ 108,194,046	\$21,487,256	\$20,921,390	\$ 1,237,524	\$ 67,625	\$151,907,841
2017	94,278,922	18,439,116	18,450,250	1,237,524	65,633	132,471,445
2016	75,898,495	14,390,670	14,959,443	1,072,250	138,826	106,459,684
2015	62,202,122	11,596,876	12,613,144	484,286	150,428	87,046,856
2014	57,375,876	10,450,969	11,656,022	576,858	185,156	80,244,881
2013	56,810,256	9,916,987	11,643,459	546,637	196,939	79,114,278
2012 ⁽²⁾	12,659,145	1,248,412	2,285,573	-	-	16,193,130

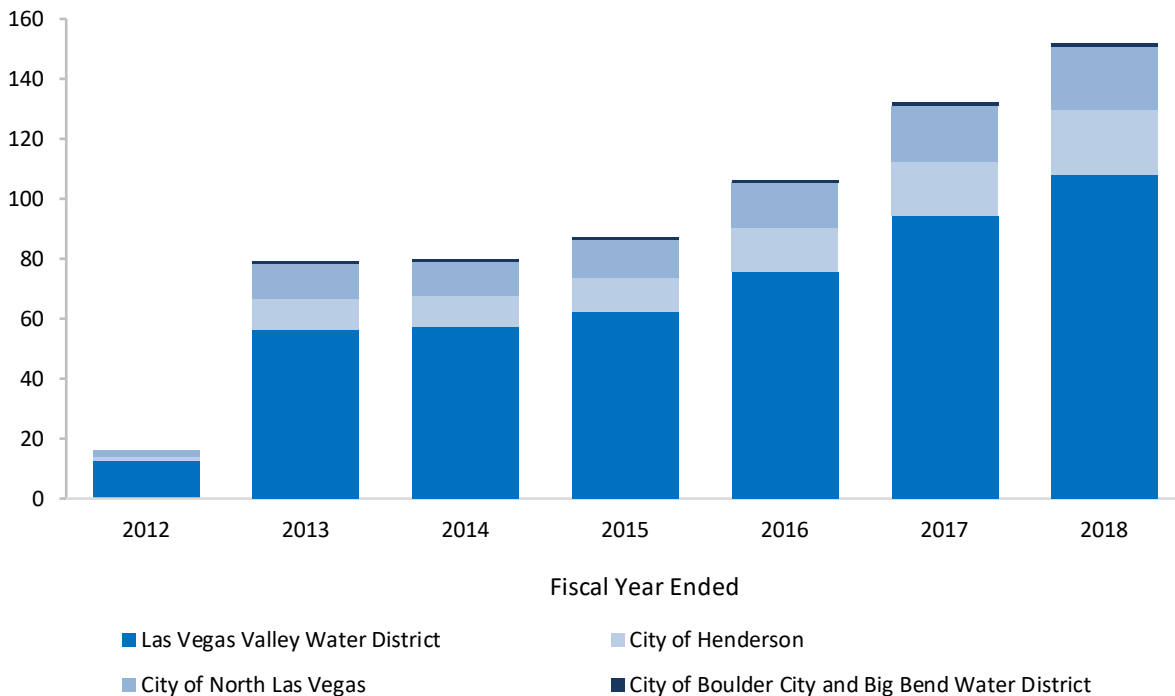
⁽¹⁾ Regional Infrastructure Charges are a component of Capital Contributions as displayed on the Statements of Revenues, Expenses, and Changes in Net Position. See Notes 1 and 17 to the Basic Financial Statements.

⁽²⁾ The Regional Infrastructure Charge was implemented in Fiscal Year 2012.

⁽³⁾ These purveyor members pay fees in lieu of collecting the Regional Infrastructure Charges from their customers.

\$ in Millions

Regional Infrastructure Charge by Purveyor Member



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Regional Infrastructure Charge Rates
Inception to June 30, 2018

Page 1 of 2

	Daily Charge Per Meter			
	Jan 17 to <u>June 18</u>	Jan 16 to <u>Dec 16</u>	Jan 15 to <u>Dec 15</u>	Jan 14 to <u>Dec 14</u>
<u>Residential Meters</u>				
5/8" & 3/4" meter sizes	\$ 0.3906	\$ 0.3196	\$ 0.2120	\$ 0.1880
1" meter size	1.0646	0.9300	0.7263	0.6806
1.5" meter size	2.1287	1.8599	1.4520	1.3610
2" meter size	3.4063	2.9760	2.3233	2.1780
3" meter size	6.8120	5.9510	4.6460	4.3553
4" meter size	10.6433	9.2986	7.2596	6.8050
6" meter size	21.2863	18.5973	14.5190	13.6096
8" meter size	34.0580	29.7550	23.2296	21.7753
10" and larger meter sizes	37.2487	31.8850	23.2296	21.7753
 <u>Non-Residential Meters</u>				
5/8" & 3/4" meter sizes	0.8589	0.7879	0.6803	0.6563
1" meter size	1.6270	1.4923	1.2886	1.2430
1.5" meter size	3.2537	2.9849	2.5770	2.4860
2" meter size	5.2059	4.7756	4.1230	3.9776
3" meter size	10.4120	9.5510	8.2460	7.9553
4" meter size	16.2686	14.9239	12.8850	12.4303
6" meter size	32.5370	29.8480	25.7696	24.8603
8" meter size	52.0590	47.7560	41.2306	39.7763
10" and larger meter sizes	74.8350	68.6490	59.2690	57.1783
 <u>Non-Residential Fire Meters</u>				
5/8" & 3/4" meter sizes	0.1113	0.1113	0.1113	0.1113
1" meter size	0.2106	0.2106	0.2106	0.2106
1.5" meter size	0.4210	0.4210	0.4210	0.4210
2" meter size	0.6736	0.6736	0.6736	0.6736
3" meter size	1.3470	1.3470	1.3470	1.3470
4" meter size	2.1046	2.1046	2.1046	2.1046
6" meter size	4.2093	4.2093	4.2093	4.2093
8" meter size	6.7346	6.7346	6.7346	6.7346
10" and larger meter sizes	9.6810	9.6810	9.6810	9.6810

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Regional Infrastructure Charge Rates
Inception to June 30, 2018

Page 2 of 2

	Daily Charge Per Meter		
	Jul 13 to <u>Dec 13</u>	Sep 12 to <u>Jun 13</u>	Feb 12 to <u>Aug 12</u>
<u>Residential Meters</u>			
5/8" & 3/4" meter sizes	\$ 0.1667	\$ 0.1667	\$ 0.1667
1" meter size	0.6403	0.6403	0.6403
1.5" meter size	1.2803	1.2803	1.2803
2" meter size	2.0486	2.0486	2.0487
3" meter size	4.0966	4.0966	4.0967
4" meter size	6.4010	6.4010	6.4010
6" meter size	12.8016	12.8016	12.8017
8" meter size	20.4823	20.4823	20.4823
10" and larger meter sizes	20.4823	20.4823	20.4823
<u>Non-Residential Meters</u>			
5/8" & 3/4" meter sizes	0.6350	0.6350	0.6350
1" meter size	1.2026	1.2026	1.2027
1.5" meter size	2.4053	2.4053	2.4053
2" meter size	3.8483	3.8483	3.8483
3" meter size	7.6966	7.6966	7.6967
4" meter size	12.0263	12.0263	12.0263
6" meter size	24.0523	24.0523	24.0523
8" meter size	38.4833	38.4833	38.4833
10" and larger meter sizes	55.3196	55.3196	55.3197
<u>Non-Residential Fire Meters</u>			
5/8" & 3/4" meter sizes	0.1113	0.1063	0.2223
1" meter size	0.2106	0.2017	0.4210
1.5" meter size	0.4210	0.4030	0.8420
2" meter size	0.6736	0.6447	1.3470
3" meter size	1.3470	1.2890	2.6940
4" meter size	2.1046	2.0140	4.2093
6" meter size	4.2093	4.0276	8.4183
8" meter size	6.7346	6.4443	13.4693
10" and larger meter sizes	9.6810	9.2636	19.3620

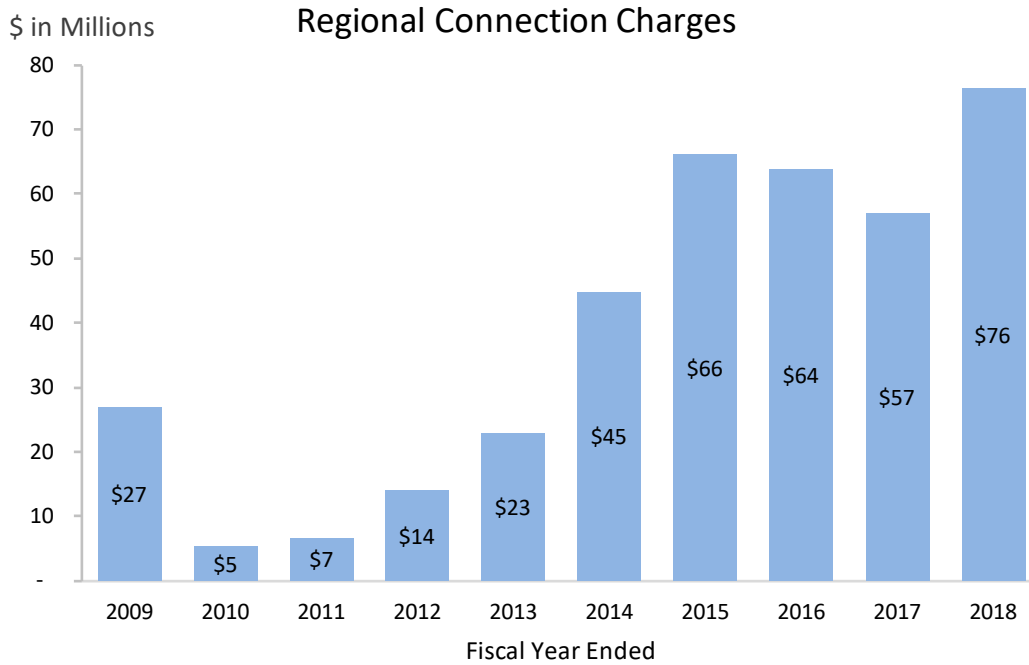
SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Regional Connection Charge by Purveyor Member ⁽¹⁾
Last Ten Fiscal Years

Fiscal Year Ended June 30,	Las Vegas Valley Water District	City of Henderson	City of North Las Vegas	Adjustment to Pending Refund Contingency ⁽²⁾	Total
2018	\$ 46,415,820	\$ 17,395,310	\$12,532,130	\$ -	\$ 76,343,260
2017	41,373,197	11,723,700	3,927,920	-	57,024,817
2016	42,742,896	16,687,440	2,930,630	1,420,210	63,781,176
2015	47,125,630	16,954,760	1,649,490	286,047	66,015,927
2014	26,284,180	13,185,770	2,012,861	3,336,858	44,819,669
2013	16,232,230	1,581,160	1,228,630	3,873,396	22,915,416
2012	10,265,102	3,195,930	330,050	101,774	13,892,856
2011	7,504,785	3,529,771	(258,942)	(4,172,886)	6,602,728
2010	(581,358)	2,008,270	2,117,669	1,764,966	5,309,547
2009	17,943,571	4,855,790	4,607,510	(617,716)	26,789,155

⁽¹⁾ Regional Connection Charges are a component of Capital Contributions as displayed on the Statements of Revenues, Expenses, and Changes in Net Position. See Notes 1 and 17 to the Basic Financial Statements.

⁽²⁾ Beginning in fiscal year 2007, annual net cash collections of connection charges were modified by a pending refund contingency. The pending refund contingency was discontinued in fiscal year 2016.



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Regional Connection Charge Rates
Last Ten Fiscal Years

Residential (8 or fewer units per acre⁽¹⁾) <i>(Plans approved for construction and fees paid)</i>		
Meter Size	Charge	
	Nov 08 to Jun 18	May 08 to Oct 08
5/8"	\$ 4,870	\$ 4,710
3/4"	4,870	4,710
1"	9,610	9,300
1 1/2"	19,170	18,560
2"	30,680	29,700

⁽¹⁾ "Units per Acre means "Gross Acre," which represents an acre of land, including all interior streets, publicly dedicated land, and adjacent streets or rights-of-way to the street centerline, not to exceed a distance of 50 feet.

Non-Residential (Hotels, Motels, Golf Courses and Laundries Excluded) <i>(Plans approved for construction and fees paid)</i>		
Meter Size	Charge	
	Nov 08 to Jun 18	May 08 to Oct 08
5/8"	\$ 4,870	\$ 4,710
3/4"	4,870	4,710
1"	9,610	9,300
1 1/2"	19,170	18,560
2"	64,260	60,060
3"	237,900	216,610
4"	353,100	326,310
6"	See table for "Rates Based on Factors other than Meter Size"	
8"		
10"		

Industrial Laundries <i>(Plans approved for construction and fees paid)</i>		
Meter Size	Charge	
	Nov 08 to Jun 18	May 08 to Oct 08
5/8"	\$ 76,800	\$ 74,350
3/4"	76,800	74,350
1"	151,460	146,620
1 1/2"	302,950	293,270
2"	484,700	469,220
3"	969,400	938,430
4"	1,514,690	1,466,300
6"	3,029,360	2,932,580
8"	4,846,980	4,692,140
10"	6,967,540	6,744,960

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Regional Connection Charge Rates
Last Ten Fiscal Years

Rates Based on Factors other than Meter Size <i>(Plans approved for construction and fees paid)</i>			
Customer Class	Connection Charge Based On	Charge Per Unit	
		Nov 08 to Jun 18	May 08 to Oct 08
Residential - Individually Metered more than 8 Units per acre ⁽¹⁾ & Mobile Homes	Dwelling Unit	\$ 3,400	\$ 3,210
Residential - Master Metered more than 8 Units per acre ⁽¹⁾ & Mobile Homes ⁽²⁾	Dwelling Unit	3,400	3,210
Non-Residential, 6" and Larger - Excluding Hotels, Motels, Golf Courses, and Laundries ⁽³⁾	Annual Usage (1,000 Gal.)	29.20	26.50
Hotels & Motels	Hotel Room	2,780	2,690
Golf Courses (Irrigated Acres) ⁽⁴⁾	Acre	45,640	43,870
RV Parks	Space	1,380	1,340

⁽¹⁾ "Units per Acre" means "Gross Acre," which represents an acre of land, including all interior streets, publicly dedicated land, and adjacent streets or rights-of-way to the street centerline, not to exceed a distance of 50 feet.

⁽²⁾ Master metered mobile homes are not authorized in Clark County in accordance with NRS 461A.230.

⁽³⁾ SNWA regional connection charge based on audit and confirmation of annual water usage of the facility within the first three years of operation. Based on that audit, the connection charge may be adjusted accordingly.

⁽⁴⁾ The SNWA regional connection charge is based on the potable irrigated acres of the golf course, which includes all playing areas, such as fairways, roughs, lakes, ponds, golf cart paths, sand traps, etc. The potable irrigated acres for this calculation does not include non-playing areas, although minimal potable irrigation may be required.

SOUTHERN NEVADA WATER AUTHORITY

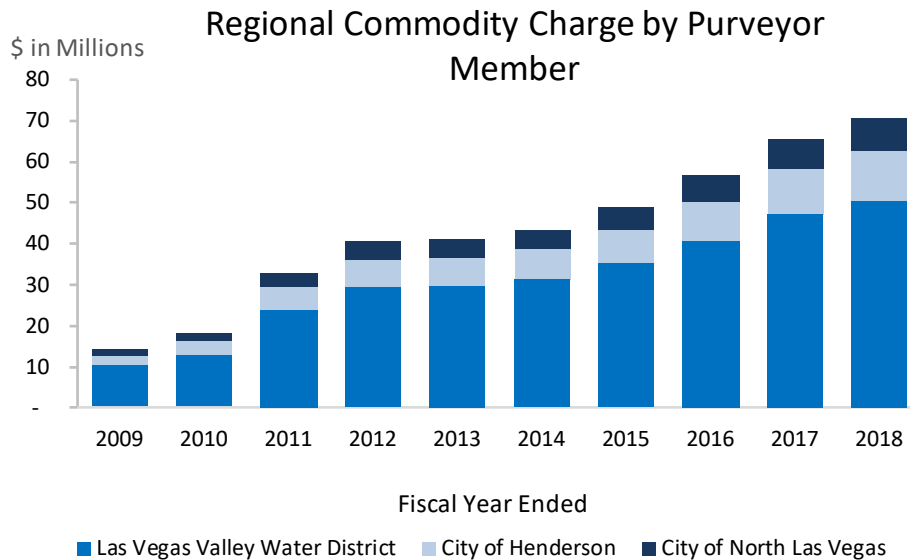
Statistical Section (Unaudited)

Regional Commodity Charge by Purveyor Member ⁽¹⁾

Last Ten Fiscal Years

Fiscal Year Ended June 30,	Las Vegas Valley Water District	City of Henderson	City of North Las Vegas	Total
2018	\$ 50,547,095	\$ 12,016,747	\$ 7,988,733	\$ 70,552,575
2017	47,122,474	11,059,260	7,200,429	65,382,163
2016	40,842,592	9,415,053	6,363,871	56,621,516
2015	35,116,226	8,264,405	5,505,351	48,885,982
2014	31,340,928	7,329,885	4,755,148	43,425,961
2013	29,550,946	6,821,823	4,618,727	40,991,496
2012	29,327,883	6,825,773	4,512,536	40,666,192
2011	23,768,273	5,453,396	3,632,107	32,853,776
2010	13,205,610	3,110,815	2,118,237	18,434,662
2009	10,561,664	2,238,650	1,682,955	14,483,269

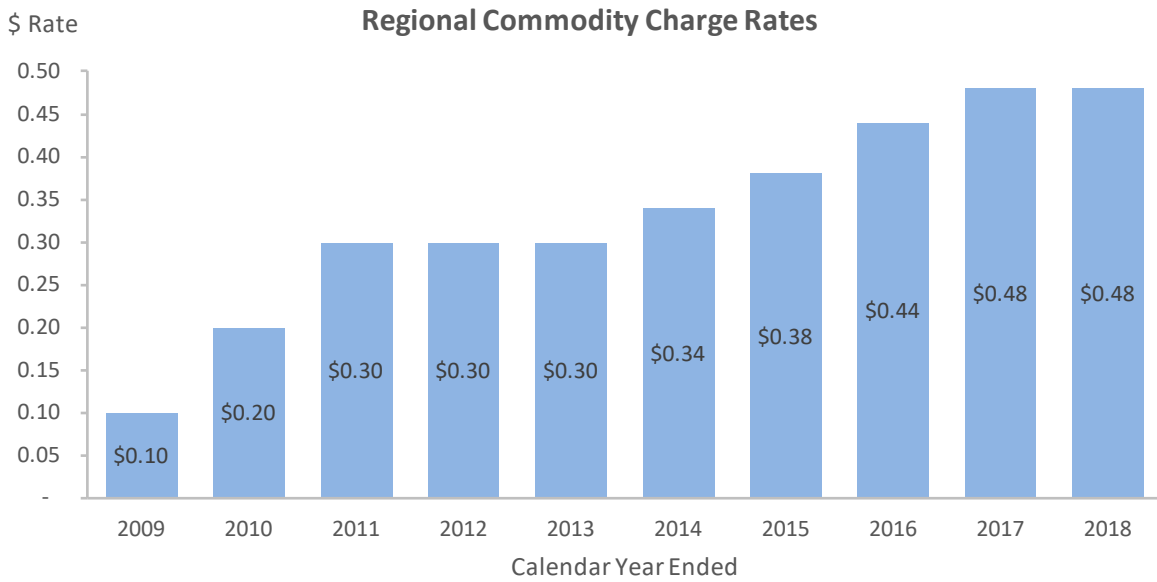
⁽¹⁾ Regional Commodity Charges are a component of Capital Contributions as displayed on the Statements of Revenues, Expenses, and Changes in Net Position. See Notes 1 and 17 to the Basic Financial Statements.



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Regional Commodity Charge Rates
Last Ten Calendar Years

<u>Calendar Year</u>	<u>Rate (per 1,000 gallons)</u>
2018	\$0.48
2017	0.48
2016	0.44
2015	0.38
2014	0.34
2013	0.30
2012	0.30
2011	0.30
2010	0.20
2009	0.10



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Ratios of Outstanding Debt ⁽¹⁾
Last Ten Fiscal Years

Fiscal Year Ended June 30	In Million Dollars			Debt as a Percent of Personal Income ⁽⁴⁾	Debt per Capita In Dollars ⁽⁵⁾
	General Obligation Bonds ⁽²⁾	Notes Payable/ Repayment Contracts	Total Debt ⁽³⁾		
2018	\$3,278.5	\$3.9	\$3,282.4	3.5%	\$1,507.3
2017	3,412.3	5.3	3,417.6	3.7%	1,569.4
2016	3,521.8	6.7	3,528.5	3.9%	1,651.8
2015	3,088.1	8.0	3,096.1	3.5%	1,488.5
2014	3,087.7	9.2	3,096.9	3.8%	1,521.1
2013	3,107.1	10.4	3,117.5	4.0%	1,556.4
2012	2,755.2	11.6	2,766.8	3.6%	1,422.3
2011	2,737.5	12.7	2,750.2	3.8%	1,446.0
2010	2,756.7	13.8	2,770.5	4.0%	1,415.8
2009	2,285.5	21.3	2,306.8	3.4%	1,190.1

⁽¹⁾ Details of the SNWA's outstanding long-term and short-term debt can be found in the Notes to the Basic Financial Statements and in this Statistical Section.

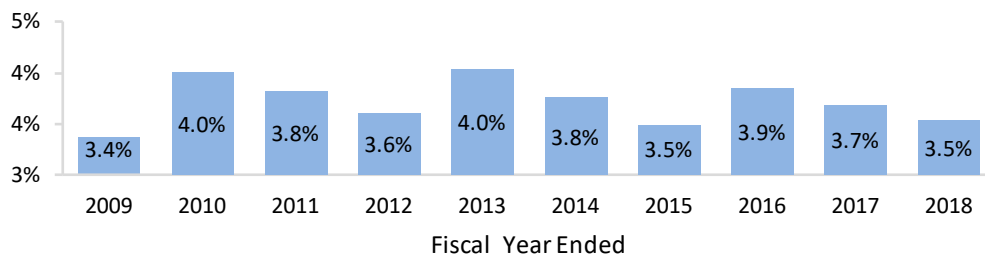
⁽²⁾ Net of related premiums and discounts as required per GASB Comprehensive Implementation Guide 9.24.6.

⁽³⁾ All SNWA bond and note debt is general obligation debt issued on behalf of the SNWA by the State of Nevada, LVVWD, and Clark County, additionally secured by pledged revenue. For more information, see Pledged Revenue Coverage information in this Statistical Section.

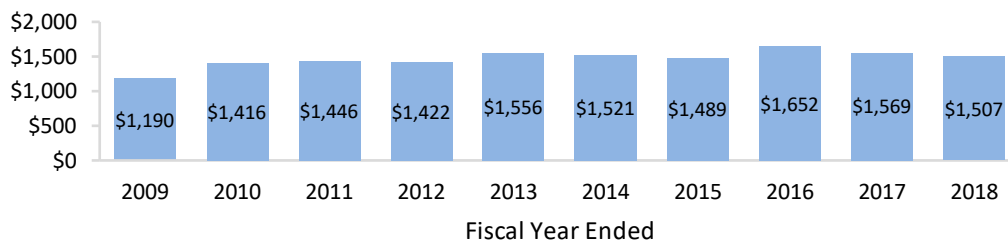
⁽⁴⁾ Total debt divided by personal income in Clark County, which is indicated in the demographic and economic information table in this Statistical Section.

⁽⁵⁾ Total debt divided by the population in SNWA's service area.

Debt as Percentage of Personal Income



Debt Per Capita



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited) Ratios of General Bonded Debt ⁽¹⁾ Last Ten Fiscal Years

In Million Dollars							
Fiscal Year Ended June 30	G.O. Debt Additionally Secured with SNWA Pledged Revenues ⁽²⁾	Debt Secured with Sales Tax Pledge ^{(2) (3)}	Total General Bonded Debt	Following Fiscal Year's Principal Payments ⁽⁴⁾	Net General Bonded Debt	Total Debt as Percent of Annual Applied Revenues ^{(5) (6)}	Annual Debt Service as Percent of Annual Applied Revenues ^{(5) (7)}
2018	\$3,280.1	\$2.3	\$3,282.4	(116.5)	\$3,165.9	630.1%	52.3%
2017	3,414.8	2.8	3,417.6	(112.1)	3,305.5	732.7%	58.8%
2016	3,525.3	3.2	3,528.5	(106.2)	3,422.3	824.4%	53.7%
2015	3,092.4	3.7	3,096.1	(84.0)	3,012.1	784.7%	43.7%
2014	3,092.8	4.1	3,096.9	(24.3)	3,072.6	886.4%	42.2%
2013	3,112.9	4.6	3,117.5	(16.9)	3,100.6	987.3%	46.7%
2012	2,761.7	5.1	2,766.8	(15.1)	2,751.7	1142.7%	60.9%
2011	2,744.7	5.5	2,750.2	(31.9)	2,718.3	1313.3%	75.0%
2010	2,764.6	6.0	2,770.6	(31.2)	2,739.4	1523.8%	90.6%
2009	2,300.4	6.4	2,306.8	(55.8)	2,251.0	1100.9%	83.0%

⁽¹⁾ Details of the SNWA's outstanding debt can be found in the Notes 14 and 16 to the Basic Financial Statements and in the Other Information section of the Statistical Section. As described in Note 1, SNWA has only seven customers, making per-customer ratios meaningless. Therefore, alternate ratios have been provided.

⁽²⁾ All SNWA bond and note debt is general obligation debt issued on behalf of the SNWA by the State of Nevada, Las Vegas Valley Water District, and Clark County, additionally secured by pledged revenue. Please see "Pledged Revenue Coverage" tables immediately following this schedule.

⁽³⁾ Only one debt issue (SNWA CRE 2008) has sales tax specifically pledged to it. All other issues are general obligation bonds with additional security of SNWA pledged revenues.

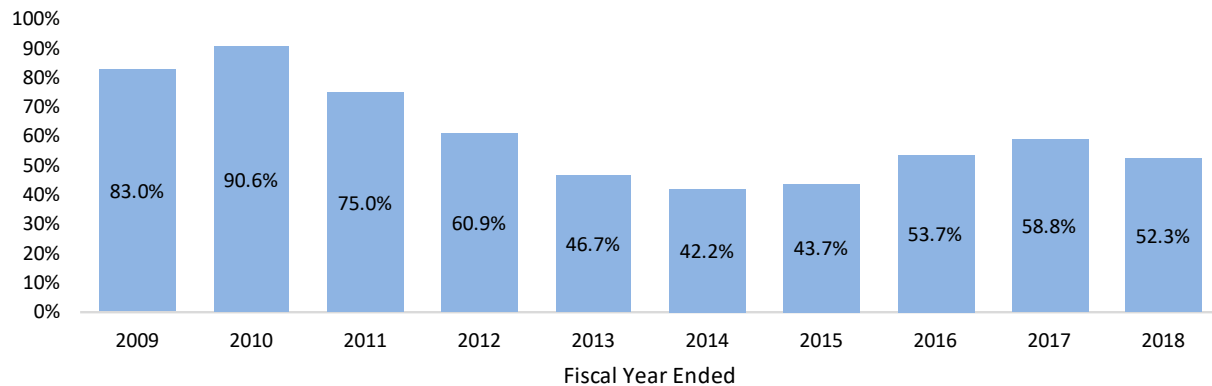
⁽⁴⁾ Principal portion of debt service payments for the following fiscal year, excluding commercial paper.

⁽⁵⁾ The SNWA cannot levy property taxes. Although the entities issuing debt on its behalf can, the SNWA does not expect that to occur. Therefore, alternate ratios have been provided.

⁽⁶⁾ Total debt divided by total applied revenues. Applied revenues are revenues which are used to pay debt service. These revenues consist of Sales Tax, Wholesale Delivery Charge, Regional Connection Charge, Regional Commodity Charge, Regional Reliability Surcharge, and Regional Infrastructure Charge. Regional Connection Charges are adjusted by a refund contingency for fiscal year 2009 to 2015.

⁽⁷⁾ Total annual debt service (principal and interest) divided into total applied revenues as defined in ⁽⁶⁾ above.

Annual Debt Service as Percent of Annual Applied Revenues



SOUTHERN NEVADA WATER AUTHORITY
 Statistical Section (Unaudited)
 Information About Debt Limitations and Pledged Revenue Coverage

DEBT LIMITATIONS

The SNWA does not have a dollar amount of debt limit. The SNWA's ability to issue and pay its debt is a function of its capital needs and revenues generated from its facilities.

PLEGGED REVENUE COVERAGE

Fiscal Year Ended June 30	Pledged Revenue Sales Tax ⁽¹⁾	Bonds with Sales Tax Pledge ⁽²⁾	Coverage Ratio
2018	\$63,601,130	\$2,300,000	27.7
2017	60,856,934	2,760,000	22.0
2016	58,152,408	3,220,000	18.1
2015	55,933,316	3,680,000	15.2
2014	52,308,926	4,140,000	12.6
2013	48,847,306	4,600,000	10.6
2012	46,222,883	5,060,000	9.1
2011	43,577,390	5,520,000	7.9
2010	41,833,183	5,980,000	7.0
2009	46,333,942	6,440,000	7.2

⁽¹⁾ Sales tax collections are restricted by law to be used only for capital acquisition and retirement of debt.

⁽²⁾ Only one debt issue (SNWA CRE 2008) has sales tax specifically pledged to it. All other issues are general obligation bonds with additional security of SNWA pledged revenue.

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

Pledged Revenue Coverage

Last Ten Fiscal Years

Fiscal Year Ended June 30	Gross Revenues ⁽¹⁾	Less Operating Expense ⁽²⁾	Net Available Revenue	Add Beginning Unrestricted Funds ⁽³⁾	Net Available for Debt Service	Total Debt Service ⁽⁴⁾	Debt Coverage Ratio ⁽⁵⁾
2018	\$ 525,797,942	\$ 168,535,148	\$ 357,262,794	\$ 480,331,301	\$ 837,594,095	\$ 262,918,858	3.19
2017	473,007,416	166,458,183	306,549,233	422,030,778	728,580,011	265,380,836	2.75
2016	480,743,470	134,936,152	345,807,318	382,138,848	727,946,166	222,812,922	3.27
2015	402,439,702	127,494,786	274,944,916	322,928,812	597,873,728	167,810,691	3.56
2014	360,059,198	138,110,567	221,948,631	308,634,591	530,583,222	146,324,785	3.63
2013	323,304,876	108,170,994	215,133,882	236,252,384	451,386,266	146,773,353	3.08
2012	251,265,209	125,663,412	125,601,797	305,553,937	431,155,734	146,624,017	2.94
2011	213,230,601	112,862,482	100,368,119	366,951,904	467,320,023	155,206,052	3.01
2010	187,790,238	120,391,880	67,398,358	438,885,842	506,284,200	162,911,866	3.11
2009	223,916,735	153,354,898	70,561,837	335,975,548	406,537,385	169,717,981	2.40

⁽¹⁾ Gross revenues are comprised of wholesale delivery charge, regional connection charge (net of pending refund contingency, which was discontinued in fiscal year 2016), regional water charge (comprised of commodity and reliability), regional infrastructure charge, sales tax, groundwater management fees, Las Vegas wash revenues, investment income (including capitalized portion), and other revenues. Other revenues includes receipts from Southern Nevada Public Lands Management Act (SNPLMA), raw water facilities charge and minor billings to purveyor members (Big Bend Water District, City of Las Vegas, and Clark County Water Reclamation District).

⁽²⁾ Operating expense are comprised of energy, personnel and related, and operating and maintenance.

⁽³⁾ Unrestricted funds include unrestricted cash and investments as shown on the Statements of Net Position and sales tax proceeds on hand regardless of classification.

⁽⁴⁾ Includes interest paid on the commercial paper notes. Also, payments for the 2009A and 2009C bonds are net of the BAB

⁽⁵⁾ Debt coverage ratio is calculated by dividing the net available for debt service amount by the total debt service amount.

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Demographic and Economic Information in Clark County, Nevada ⁽¹⁾
Last Ten Calendar Years

Calendar Year	Population ⁽²⁾	Per Capita Income ⁽³⁾	Median Household Income ⁽⁴⁾	School Enrollment ⁽⁵⁾	Total Labor Force Thousands ⁽⁶⁾	U.S. Unemployment Rate ⁽⁷⁾
2017	2,193,818	N/A	N/A	321,187	1,072.6	4.4%
2016	2,166,181	\$ 42,284	\$ 52,629	320,186	1,050.6	4.9%
2015	2,118,353	41,915	51,552	317,759	1,038.7	5.3%
2014	2,069,450	39,860	51,214	314,598	1,019.5	6.2%
2013	2,031,723	38,028	51,057	311,218	1,004.3	7.4%
2012	1,988,195	38,562	49,546	308,377	999.5	8.1%
2011	1,967,722	36,531	48,215	309,899	995.1	8.9%
2010	1,951,269	35,476	51,437	309,442	984.0	9.6%
2009	1,952,040	35,075	53,505	311,221	967.7	9.3%
2008	1,967,716	38,378	56,696	308,745	980.2	5.8%

⁽¹⁾ All figures are subject to revision.

⁽²⁾ Population as of July 1.

Source: 2010 figure from the U.S. Bureau of the Census; all other figures from the Nevada State Demographer.

⁽³⁾ The abbreviation "N/A" means not available.

Source: U.S. Bureau of Economic Analysis as reported for the Las Vegas-Paradise MSA (which is comprised of Clark County). Years 2010 - 2016 updated November 16, 2017.

⁽⁴⁾ The abbreviation "N/A" means not available.

Source: U.S. Census Bureau, American Community Survey.

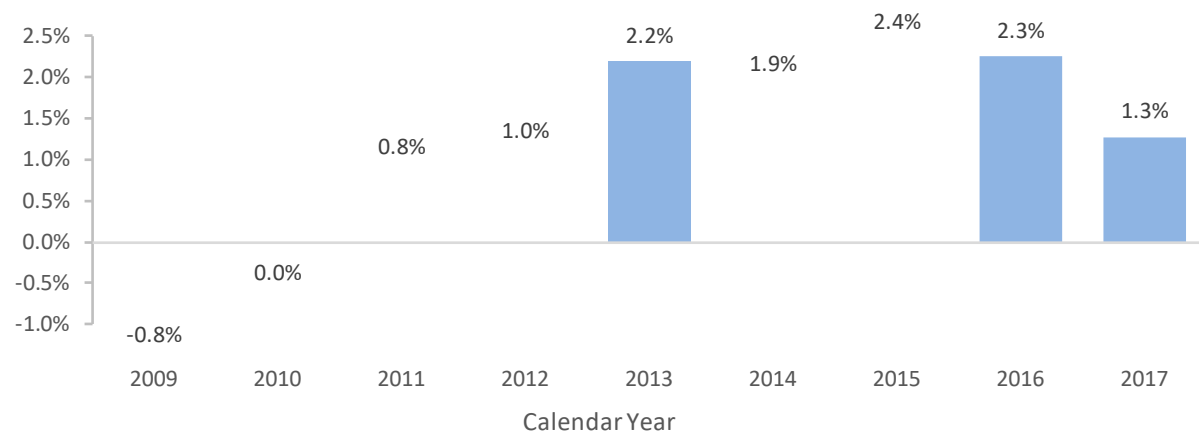
⁽⁵⁾ School enrollment in fall.

Source: Clark County School District.

⁽⁶⁾ Source: State of Nevada - Department of Employment, Training & Rehabilitation.

⁽⁷⁾ Source: Bureau of Labor Statistics (annual averages).

Change in Population From Prior Year



SOUTHERN NEVADA WATER AUTHORITY

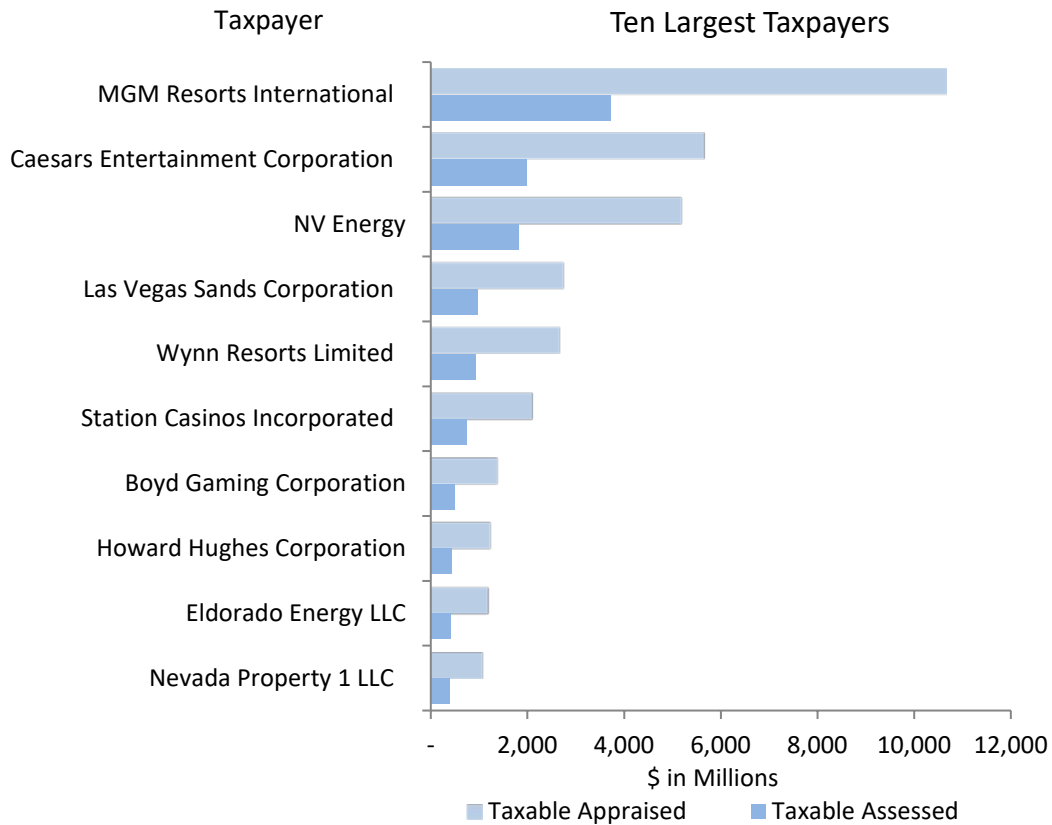
Statistical Section (Unaudited)
 Ten Largest Property-Owning Taxpayers in Clark County, Nevada ⁽¹⁾
 Fiscal year ended June 30, 2018

Taxpayer ⁽²⁾	Taxable Assessed	Taxable Appraised
1. MGM Resorts International	\$ 3,729,884,054	\$ 10,656,811,583
2. Caesars Entertainment Corporation	1,980,576,639	5,658,790,397
3. NV Energy	1,814,717,852	5,184,908,149
4. Las Vegas Sands Corporation	963,349,099	2,752,425,997
5. Wynn Resorts Limited	935,228,090	2,672,080,257
6. Station Casinos Incorporated	738,555,229	2,110,157,797
7. Boyd Gaming Corporation	484,665,011	1,384,757,174
8. Howard Hughes Corporation	435,626,875	1,244,648,214
9. Eldorado Energy LLC	417,745,527	1,193,558,649
10. Nevada Property 1 LLC	379,172,394	1,083,349,697

⁽¹⁾ Includes the five incorporated cities.

⁽²⁾ Some taxpayers are hotel/casinos that may have multiple properties.

Source: Clark County Assessor's Report dated October 31, 2017.



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
 Top Ten Employers in Clark County, Nevada ⁽¹⁾
 December 31, 2017 and 2008 ⁽²⁾

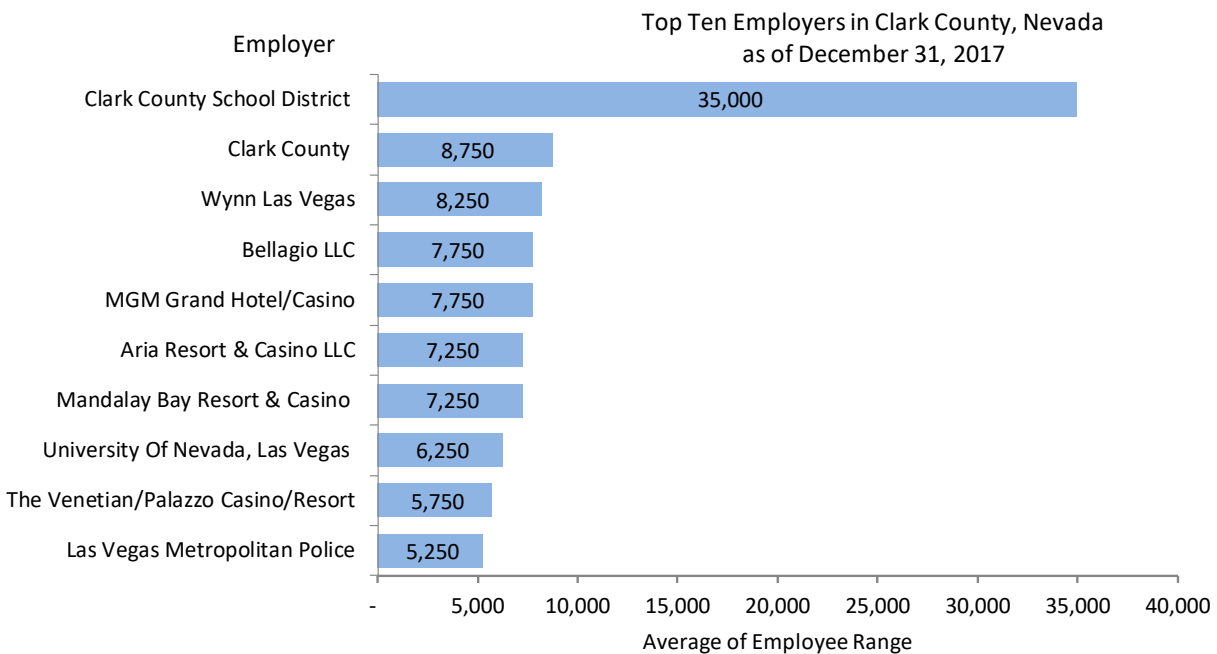
Employer	December 31, 2017			December 31, 2008		
	Employee Range ⁽³⁾	Rank	Percentage of Total Labor Force ⁽⁴⁾	Employee Range ⁽³⁾	Rank	Percentage of Total Labor Force ⁽⁴⁾
Clark County School District	30,000 to 39,999	1	3.2%	30,000 to 39,999	1	3.6%
Clark County	8,500 to 8,999	2	0.8%	9,500 to 9,999	2	1.0%
Wynn Las Vegas	8,000 to 8,499	3	0.8%	9,000 to 9,499	3	1.0%
Bellagio LLC	7,500 to 7,999	4	0.7%	8,500 to 8,999	4	0.9%
MGM Grand Hotel/Casino	7,500 to 7,999	5	0.7%	8,000 to 8,499	5	0.8%
Aria Resort & Casino LLC	7,000 to 7,499	6	0.7%	-	-	-
Mandalay Bay Resort & Casino	7,000 to 7,499	7	0.6%	6,500 to 6,999	6	0.7%
University Of Nevada, Las Vegas	6,000 to 6,499	8	0.6%	5,500 to 5,999	7	0.6%
The Venetian/Palazzo Casino/Resort	5,500 to 5,999	9	0.6%	-	-	-
Las Vegas Metropolitan Police	5,000 to 5,499	10	0.5%	5,500 to 5,999	8	0.6%
Ceasars Palace	-	-	-	5,000 to 5,499	9	0.5%
The Mirage Casino/Hotel	-	-	-	4,500 to 4,999	10	0.5%
Total Labor Force						
	1,082,372			978,549		

⁽¹⁾ Source: State of Nevada - Department of Employment, Training & Rehabilitation.

⁽²⁾ December 31, 2017 is the latest date information is available.

⁽³⁾ Nevada law prohibits the disclosure of exact employee counts.

⁽⁴⁾ Average employee range divided by total labor force.



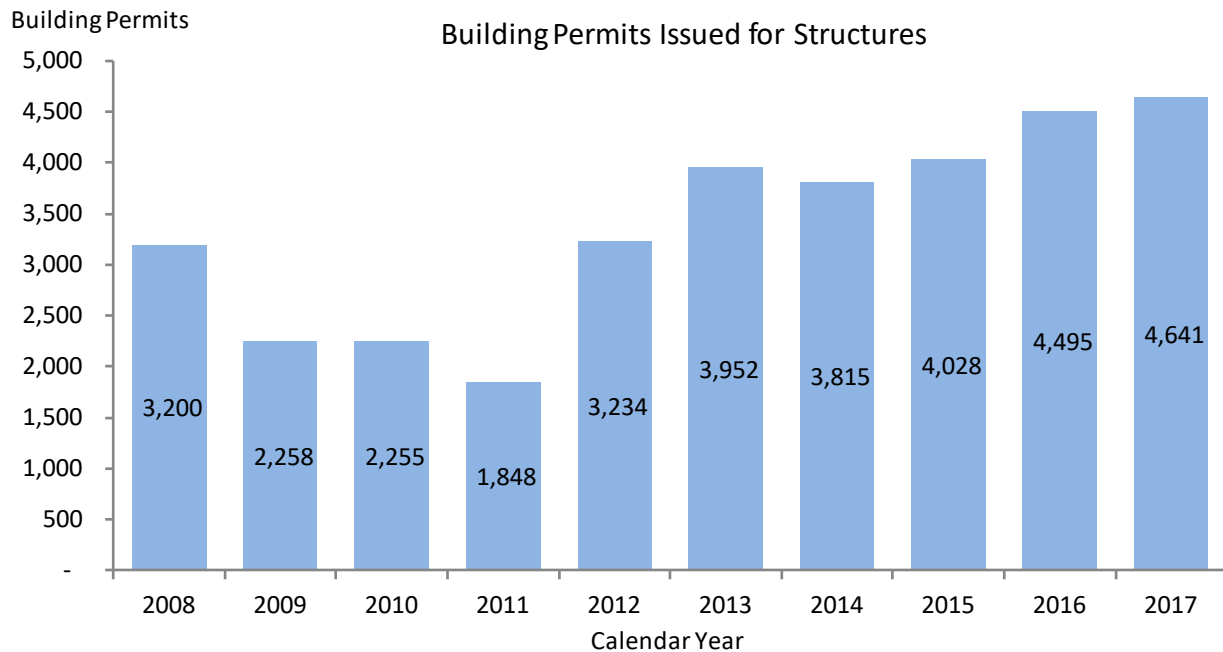
SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
 Building Permits Issued in Clark County, Nevada
 Last Ten Calendar Years

Building Permit Type	Calendar Year Ended ⁽¹⁾									
	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Single Family Residential	4,186	3,956	3,550	3,375	3,515	2,966	1,599	2,023	1,930	2,451
Townhouses	76	79	26	39	50	-	-	6	-	11
Condominiums	60	13	17	14	28	18	13	54	89	115
Duplex/Apartment Buildings	33	133	162	122	104	20	40	8	19	99
Hotels and Motels	8	4	2	4	-	3	-	-	3	38
Mobile Home Parks	-	-	-	-	-	-	-	-	3	1
Guest Houses	55	60	64	57	36	52	23	29	28	46
Buildings	223	250	207	204	219	175	173	135	186	439
Structures Total ⁽²⁾	4,641	4,495	4,028	3,815	3,952	3,234	1,848	2,255	2,258	3,200

⁽¹⁾ Source: Clark County Development Services, Building Department.

⁽²⁾ Structure permits are important to SNWA as they are most likely to generate Regional Connection Charge revenue.



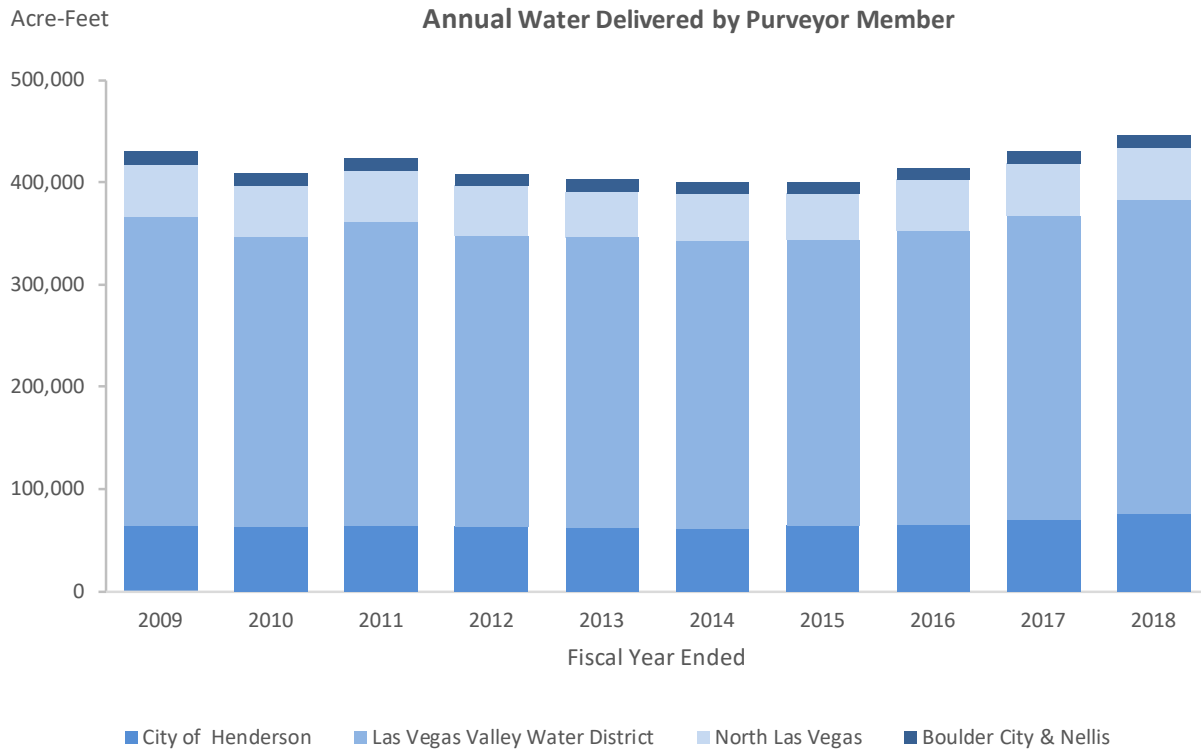
SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

Annual Water Delivered by the Southern Nevada Water System in Acre-Feet
Last Ten Fiscal Years

Fiscal Year Ended June 30	City of Boulder City	City of Henderson	Las Vegas Valley Water District	Nellis Air Force Base	North Las Vegas	Total Delivered
2018	10,731	75,248	306,302	1,202	51,456	444,939
2017	10,496	69,224	298,110	1,213	51,476	430,519
2016	10,458	65,284	287,374	1,044	49,569	413,729
2015	10,378	64,167	280,195	1,008	44,934	400,682
2014	10,688	61,890	280,417	1,097	46,459	400,551
2013	10,280	62,127	284,196	1,088	44,414	402,105
2012	10,514	63,450	284,662	1,069	48,120	407,815
2011	10,534	64,262	296,672	1,334	50,256	423,058
2010	10,845	63,092	283,052	1,511	50,302	408,802
2009	11,121	64,611	301,854	1,800	51,306	430,692

Source: The SNWA's Operations Department



SOUTHERN NEVADA WATER AUTHORITY

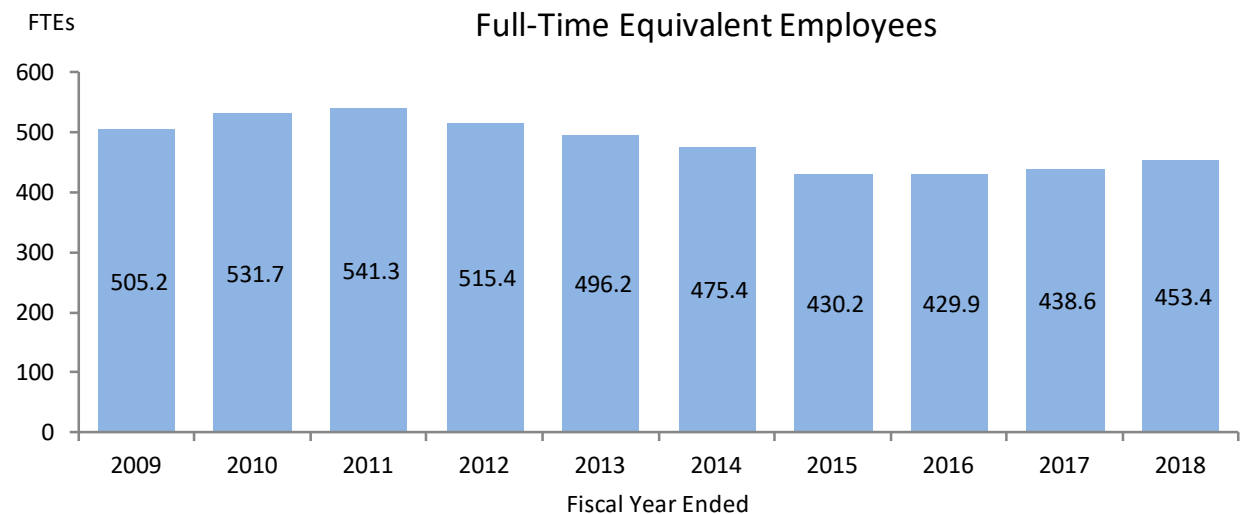
Statistical Section (Unaudited)
Full-Time Equivalent Employees (FTEs) by Department / Function ⁽¹⁾
Last Ten Fiscal Years

Department / Function	Fiscal Year Ended June 30,									
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Administrative Support ⁽²⁾	-	-	-	128.5	137.6	113.6	108.8	124.7	152.7	119.2
Customer Care & Field Services	2.9	3.0	1.3	-	-	-	-	-	-	-
Energy Management	6.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0	7.0
Engineering	24.8	30.3	32.9	38.7	51.5	70.8	77.8	78.9	66.0	64.0
Environmental, Health, Safety, & Corporate Security	18.6	16.8	15.8	-	-	-	-	-	-	-
Executive Management	5.0	5.0	5.0	-	-	-	-	-	-	-
Finance	23.0	32.0	33.2	-	-	-	-	-	-	-
Human Resources	3.5	4.1	-	-	-	-	-	-	-	-
Information Technology	39.6	34.5	34.4	-	-	-	-	-	-	-
Infrastructure Management	24.6	19.2	16.0	14.7	-	-	-	-	-	-
Legal Services	8.0	13.9	11.0	-	-	-	-	-	-	-
Operations	54.0	57.4	56.7	56.7	89.0	-	-	-	-	-
Public Services	40.3	30.1	31.9	-	-	-	-	-	-	-
Resources & Facilities	75.8	97.0	98.5	101.8	-	-	-	-	-	-
SNWA Groundwater Resources	-	-	-	-	-	48.1	51.0	63.0	64.5	59.0
SNWA Surface Water Resources	-	-	-	-	-	14.0	25.0	24.0	20.0	35.0
Southern Nevada Water Systems	-	-	-	-	-	195.9	192.6	199.7	188.5	190.0
Water & Environmental Resources	-	-	-	-	98.4	48.8	55.2	46.0	35.0	31.0
Water Quality & Treatment	85.8	89.3	87.2	84.8	93.9	-	-	-	-	-
Water Resources	41.5	-	-	-	-	-	-	-	-	-
TOTAL	453.4	438.6	429.9	430.2	475.4	496.2	515.4	541.3	531.7	505.2

Source: The SNWA's annual budget documents, which are approved by the Board of Directors

⁽¹⁾ The SNWA has no employees of its own. FTEs in this table are employed by LVVWD because the LVVWD is the operating agent for the SNWA. See Note 1 to the Basic Financial Statements for more details on this relationship. FTE numbers are estimates as they come from the annual budget process. Organizational changes are made periodically to better align the organization with its objectives and activities.

⁽²⁾ Starting in the fiscal year ended June 30, 2016, the "Administrative Support" departments were displayed separately in the budget process.



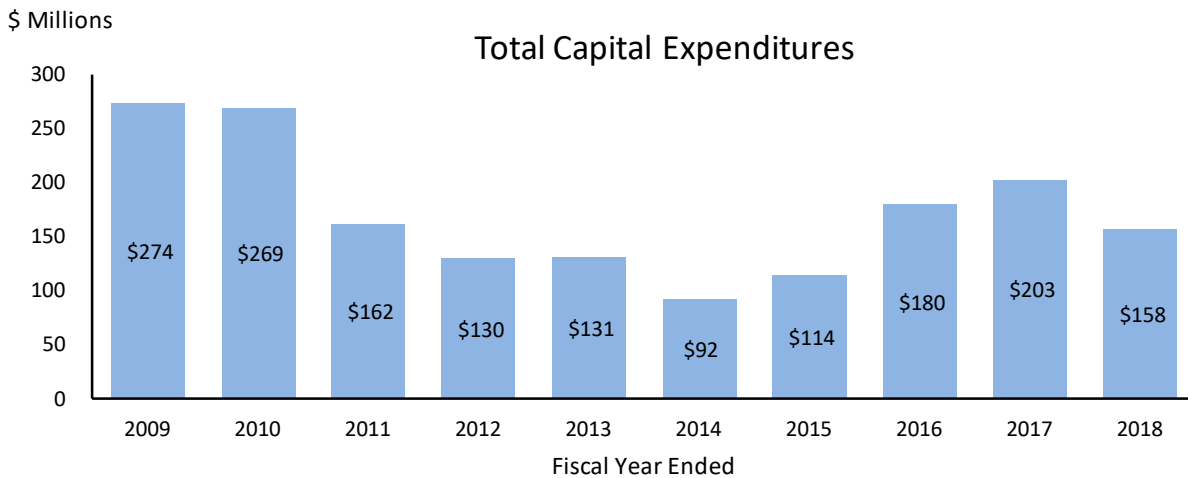
SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

Capital Expenditures

Last Ten Fiscal Years

Fiscal Year Ended June 30	Capital Expenditures				Total Capital Expenditures
	Major Construction and Capital Plan	Las Vegas Wash Capital Improvements Plan	Capital Outside of Capital Improvement Plans		
2018	\$ 131,099,993	\$ 16,590,597	\$ 9,899,286		\$157,589,876
2017	192,961,627	3,518,951	6,383,511		202,864,089
2016	172,109,188	1,113,383	6,384,113		179,606,684
2015	94,914,794	15,694,463	3,764,784		114,374,041
2014	78,826,736	9,448,938	3,660,439		91,936,113
2013	120,480,080	9,429,731	1,399,339		131,309,150
2012	118,981,628	9,819,269	925,631		129,726,528
2011	156,948,614	4,865,554	414,594		162,228,762
2010	262,219,878	6,385,472	342,315		268,947,665
2009	268,177,049	4,910,470	558,640		273,646,159



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Capital Asset Statistics by Function
Last Ten Fiscal Years

Fiscal Year Ended June 30	Miles of Pipeline	Ozone Treatment Capacity ⁽¹⁾	Ozone Treatment Facilities	Pumping Plants	Reservoirs & Forebays	Metering Stations	Rechlorination Facilities	Plant Facilities
2018	175	1,000	2	28	38	35	8	3
2017	175	1,000	2	28	38	35	8	3
2016	175	1,000	2	28	38	35	8	3
2015	175	1,000	2	27	38	35	8	3
2014	175	1,000	2	27	38	35	8	3
2013	175	1,000	2	27	38	35	8	3
2012	175	1,000	2	27	38	35	8	3
2011	175	1,000	2	27	38	35	8	3
2010	175	1,000	2	27	38	35	8	3
2009	175	1,000	2	27	38	35	8	2

Source: The SNWA's Operations Department

⁽¹⁾ Capacity in million gallons per day.

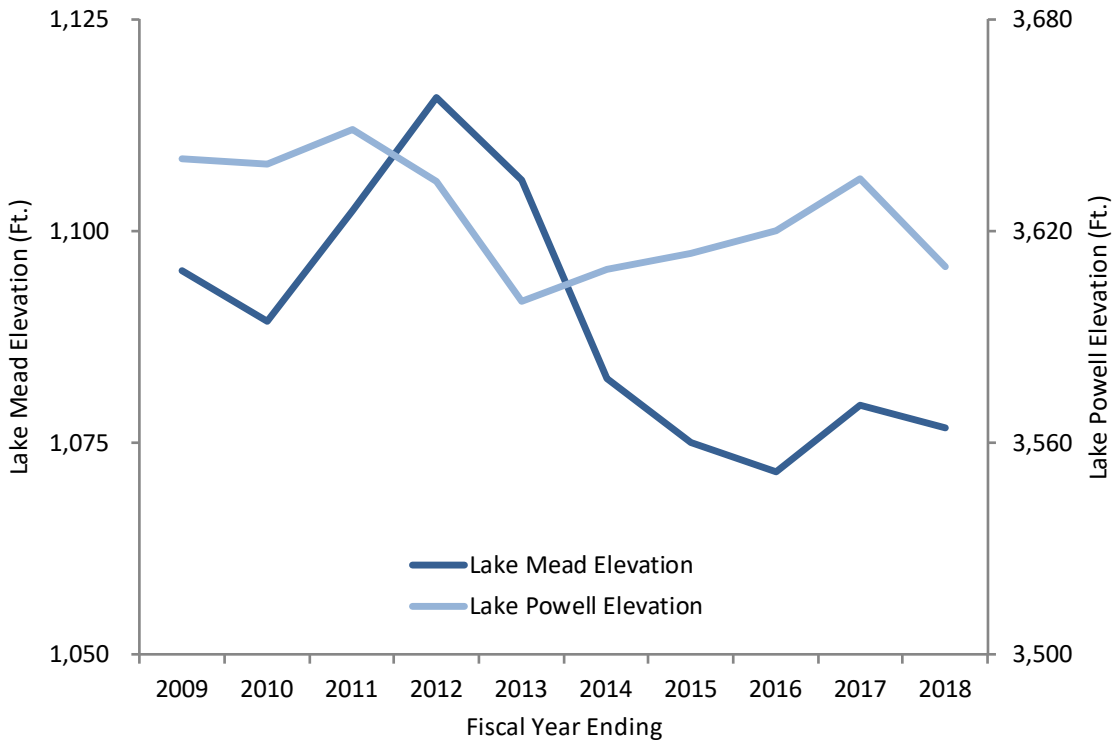
SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
 Lake Elevations by Quarter Measured in Feet at the Dams
 Last Ten Fiscal Years

	Lake Mead ⁽¹⁾	Lake Powell ⁽¹⁾		Lake Mead ⁽¹⁾	Lake Powell ⁽¹⁾
09/30/08	1,105.8	3,626.9	09/30/13	1,106.9	3,591.3
12/31/08	1,111.0	3,617.9	12/31/13	1,106.7	3,584.4
03/31/09	1,107.4	3,610.4	03/31/14	1,101.7	3,574.8
06/30/09	1,095.3	3,640.5	06/30/14	1,082.7	3,609.2
09/30/09	1,093.7	3,635.4	09/30/14	1,081.3	3,605.5
12/31/09	1,096.3	3,626.2	12/31/14	1,087.8	3,597.8
03/31/10	1,100.7	3,619.4	03/31/15	1,084.9	3,591.0
06/30/10	1,089.3	3,638.8	06/30/15	1,075.1	3,613.5
09/30/10	1,083.8	3,633.7	09/30/15	1,078.1	3,606.0
12/31/10	1,086.3	3,626.5	12/31/15	1,080.9	3,600.8
03/31/11	1,096.4	3,610.7	03/31/16	1,080.5	3,592.2
06/30/11	1,102.4	3,649.0	06/30/16	1,071.6	3,620.0
09/30/11	1,116.0	3,653.0	09/30/16	1,075.2	3,610.9
12/31/11	1,132.8	3,639.8	12/31/16	1,080.8	3,600.5
03/31/12	1,129.4	3,635.3	03/31/17	1,088.3	3,595.9
06/30/12	1,115.8	3,633.9	06/30/17	1,079.5	3,634.9
09/30/12	1,115.2	3,621.6	09/30/17	1,082.1	3,628.3
12/31/12	1,120.4	3,609.8	12/31/17	1,082.5	3,622.9
03/31/13	1,118.6	3,599.0	03/31/18	1,088.1	3,612.2
06/30/13	1,106.0	3,600.1	06/30/18	1,076.8	3,610.0

⁽¹⁾ Source: US Department of Interior, Bureau of Reclamation.

Comparison of Fiscal Year End Lake Mead and Lake Powell Elevations



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

Debt History

As of June 30, 2018

Page 1 of 5

Issued By	Debt Name	Issue Date	Funds Used For	Original Amount \$	Refunded Amount \$	Refund Source	Principal Paid \$	Balance at 6/30/2018 (\$)
State of Nevada	State of Nevada 1967 Debenture #1	Sep 1967	Interim Water Acquisition Planning & Design	10,000	10,000	State of Nevada 1968 Bonds		
State of Nevada	State of Nevada 1967 Debenture #2	Oct 1967	Interim Water Acquisition Planning & Design	25,000	25,000	State of Nevada 1968 Bonds		
State of Nevada	State of Nevada 1967 Debenture #3	Nov 1967	Interim Water Acquisition Planning & Design	365,000	365,000	State of Nevada 1968 Bonds		
State of Nevada	State of Nevada 1968 Bonds	Jun 1968	First Stage of the State Facilities AMS Treatment Plant	8,900,000	5,580,000	State of Nevada 1994 Bonds	3,320,000	
State of Nevada	State of Nevada Federal Replacement Contract #1	Mar 1973	First Stage of the Federal Facilities Transmission	51,558,293	39,636,913	Clark County 0601 Bonds	11,921,380	
State of Nevada	State of Nevada 1978A Bonds	Jan 1979	Second Stage of the State Facilities Design & Equipment Purchase	13,000,000	9,125,000	State of Nevada 1994 Bonds	3,875,000	
State of Nevada	State of Nevada 1978B Bonds	Feb 1979	Second Stage of the State Facilities Construction	47,000,000	36,220,000	State of Nevada 1993 Bonds	10,780,000	
State of Nevada	State of Nevada 1982 Debenture	Jul 1982	New Computer System for the Second Stage State Facilities	3,000,000	3,000,000	State of Nevada 1978C Bonds		
State of Nevada	State of Nevada Federal Repayment Contract #2	Mar 1983	Second Stage of the Federal Facilities Transmission	131,480,402	122,617,366	Clark County 0601 Bonds	8,863,036	
State of Nevada	State of Nevada 1978C Bonds	Jul 1984	Refund the 1982 Debenture	3,000,000	2,595,000	State of Nevada 1990 Bonds	405,000	
State of Nevada	State of Nevada 1978D Bonds	Aug 1986	Relocate the Las Vegas Lateral Under the Las Vegas Wash	11,000,000	8,550,000	State of Nevada 1993 Bonds	2,450,000	
State of Nevada	State of Nevada 1990 Bonds	Aug 1990	Refund the 1978C Bond & Begin the Communications Project	6,550,000	3,340,000	State of Nevada 1993 Bonds	3,210,000	
State of Nevada	State of Nevada 1992 Bonds	Nov 1992	Lab Equipment Improvements Maintenance & Operations Facility	9,815,000	5,125,000	State of Nevada 1997B Bonds	4,690,000	

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Debt History

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Issued By	Debt Name	Issue Date	Funds Used For	Original Amount \$	Refunded Amount \$	Refund Source	Principal Paid \$	Balance at 6/30/2018 (\$)
State of Nevada	State of Nevada 1993 Bonds	Nov 1993	Refund the 1978B, 1978D and 1990 Bonds	46,805,000	23,125,000	State of Nevada 2003C Bonds	23,680,000	
State of Nevada	State of Nevada 1994 Bonds	Nov 1994	Refund the 1968 & 1978A Bonds & Begin Construction on the SNWA CIP	170,380,000	141,610,000	State of Nevada 1995, 2005H Bonds	28,770,000	
LVVWD	LVVWD Mar 1995 Bonds	Mar 1995	SNWA CIP Construction	20,000,000	12,775,000	LVVWD Apr 1998, 2005B Bonds	7,225,000	
LVVWD	LVVWD Jul 1995 Bonds	Jul 1995	SNWA CIP Construction	30,000,000	18,675,000	LVVWD Apr 1998, 2005B Bonds	11,325,000	
State of Nevada	State of Nevada 1995 Bonds	Dec 1995	Partially Refund the State of Nevada 1994 Bonds	118,590,000	118,590,000	State of Nevada 2006D Refunding Bonds		
LVVWD	LVVWD Jul 1996 Bonds	Jul 1996	SNWA CIP Construction	180,000,000	168,300,000	LVVWD Apr 1998, 2005B Bonds	11,700,000	
State of Nevada	State of Nevada 1997A Bonds	Sep 1997	Phase I of the Power Delivery Project	49,270,000	41,550,000	State of Nevada 2005I Bonds	7,720,000	
State of Nevada	State of Nevada 1997B Bonds	Sep 1997	Partially Refund the State of Nevada 1992 Bonds	5,545,000	2,210,000	State of Nevada 2010B Bonds	3,335,000	
LVVWD	LVVWD Commercial Paper	Jan 1998	SNWA CIP Construction	250,000,000	250,000,000	LVVWD Commercial Paper Payoff (2003)		
LVVWD	LVVWD Apr 1998 Bonds	Apr 1998	Partially Refund the LVVWD 0395, 0795, & 0796 Bonds	190,255,000	183,420,000	LVVWD 2008B Bonds	6,835,000	
State of Nevada	State of Nevada 0798 Bonds	Jul 1998	SNWA CIP Construction	300,000,000	275,750,000	State of Nevada 2005F, 2013 Bonds	24,250,000	
State of Nevada	State of Nevada 1999A Bonds	Sep 1999	Phase II of the Power Delivery Project	25,730,000	22,295,000	State of Nevada 2005I Bonds	3,435,000	
State of Nevada	Nevada Drinking Water State Revolving Fund Loan 1	Dec 1999	SNWA CIP Construction	12,269,695			10,611,849	1,657,846

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Issued By	Debt Name	Issue Date	Funds Used For	Original Amount \$	Refunded Amount \$	Refund Source	Principal Paid \$	Balance at 6/30/2018 (\$)
Clark County	Clark County 0700 Bonds	Jul 2000	SNWA CIP Construction	200,000,000	175,105,000	Clark County 2006, 2009 Refunding Bonds	24,895,000	
Clark County	Clark County 0601 Bonds	Jun 2001	SNWA CIP Construction & Repay Federal Contracts	250,000,000	222,095,000	Clark County 2006, 1106, 2009 LVVWD 2011C, 2012A Refunding Bonds	27,905,000	
State of Nevada	Nevada Drinking Water State Revolving Fund Loan 2	Jun 2001	SNWA CIP Construction	10,000,000			7,721,109	2,278,891
Clark County	Clark County 1102 Bonds	Nov 2002	SNWA CIP Construction	200,000,000	180,790,000	Clark County 1106, 2009 LVVWD 2011C, 2012A Refunding Bonds	19,210,000	
LVVWD	LVVWD Commercial Paper Payoff	Jan 2003	Refund Jan 1998 LVVWD Commercial Paper Program	250,000,000	212,265,000	LVVWD 2009D, 2011C Refunding Bonds	37,735,000	
State of Nevada	State of Nevada 2003C Bonds	Sep 2003	Partially Refund State of Nevada 1993 Bonds	21,515,000	455,000	State of Nevada 2010B Bonds	21,060,000	
LVVWD	LVVWD Commercial Paper	Mar 2004	SNWA CIP Construction & Silverhawk Purchase	400,000,000				400,000,000
LVVWD	LVVWD 2005B Refunding Bonds	May 2005	Partially Refund LVVWD 0395, 0795, and 0796 Bonds	27,925,000			27,925,000	
State of Nevada	State of Nevada 2005F Refunding Bonds	May 2005	Partially Refund State of Nevada 0798 Bonds	249,365,000	225,855,000	LVVWD 2011B, 2011C, 2015B Refunding Bonds	23,510,000	
State of Nevada	State of Nevada 2005H Refunding Bonds	Apr 2005	Partially Refund State of Nevada 1994 Bonds	36,130,000	31,620,000	LVVWD 2015C Refunding Bonds	4,510,000	
State of Nevada	State of Nevada 2005I Refunding Bonds	Apr 2005	Partially Refund State of Nevada 1997A, 1999A Bonds	65,300,000	58,060,000	LVVWD 2011B, 2015C Refunding Bonds	7,240,000	
Clark County	Clark County 2006 Refunding Bonds	May 2006	Partially Refund of Clark County 0700, 0601 Bonds	242,880,000	220,920,000	LVVWD 2011B Clark County 2016A Refunding Bonds	21,960,000	
State of Nevada	State of Nevada 2006D Refunding Bonds	Jul 2006	Refund State of Nevada 1995 Bonds	111,840,000	86,045,000	State of Nevada 2010B LVVWD 2011B, 2016A Refunding Bonds	25,795,000	

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Issued By	Debt Name	Issue Date	Funds Used For	Original Amount \$	Refunded Amount \$	Refund Source	Principal Paid \$	Balance at 6/30/2018 (\$)
Clark County	Clark County 1106 Refunding Bonds	Nov 2006	SNWA CIP Construction & Partial Refund of Clark County 0601, 1102 Bonds	604,140,000	501,829,167	Clark County 2009, LVVWD 2011B, LVVWD 2011C, & Clark County 2016A Clark County 2016B Refunding Bonds	32,765,833	69,545,000
LVVWD	LVVWD 2008B Refunding Bonds	Feb 2008	Refund LVVWD April 1998 Bond	171,720,000	140,565,000	LVVWD 2011A & LVVWD 2018B Refunding Bonds	31,155,000	-
Clark County	Clark County 2008 Bonds	Jul 2008	SNWA CIP Construction	400,000,000	372,445,000	Clark County 2009 & LVVWD 2011C Clark County 2017 Refunding Bonds	27,555,000	-
SNWA	SNWA Clean Renewable Energy 2008 Bonds	Jul 2008	SNWA CIP Construction	6,900,000			4,600,000	2,300,000
LVVWD	LVVWD 2009A Bonds	Aug 2009	SNWA CIP Construction	90,000,000				90,000,000
LVVWD	LVVWD 2009B Bonds	Aug 2009	SNWA CIP Construction	10,000,000	7,675,000	LVVWD 2017B Refunding Bonds	1,900,000	425,000
Clark County	Clark County 2009 Refunding Bonds	Nov 2009	Partial Refund of Clark County 0700, 0601, 1102 1106, 2008 Bonds	50,000,000			12,095,000	37,905,000
State of Nevada	State of Nevada 2009 Bonds	Dec 2009	SNWA CIP Construction	2,214,457			759,242	1,455,215
LVVWD	LVVWD 2009C Bonds	Dec 2009	SNWA CIP Construction	348,115,000	348,115,000	LVVWD 2015 Refunding Bonds		
LVVWD	LVVWD 2009D Bonds	Dec 2009	Partial Refund of LVVWD Commercial Paper Payoff (Jan 03)	71,965,000	15,600,000	LVVWD 2017B Refunding Bonds	18,925,000	37,440,000
State of Nevada	State of Nevada 2010B Refunding Bonds	Jun 2010	Refund of State of Nevada 1997B & Partial Refund of State of Nevada 2003C & 2006D Bonds	7,405,000			5,095,000	2,310,000
LVVWD	LVVWD 2011A Refunding Bonds	May 2011	Partial Refund of LVVWD 2008B Bonds	58,110,000			13,315,000	44,795,000
LVVWD	LVVWD 2011B Refunding Bonds	Oct 2011	Partial Refund of the State of Nevada 2005I, 2006D, 2005F & Clark County 1106 Bonds	129,650,000			28,470,000	101,180,000

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Debt History

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Issued By	Debt Name	Issue Date	Funds Used For	Original Amount \$	Refunded Amount \$	Refund Source	Principal Paid \$	Balance at 6/30/2018 (\$)
LVVWD	LVVWD 2011C Refunding Bonds	Oct 2011	Partial Refund of Clark County 0601, 1102, 1106, 2008, State of Nevada 2005F Bonds & LVVWD Commercial Paper Payoff	267,815,000			57,610,000	210,205,000
Clark County	Clark County 2012 Refunding Bonds	Jun 2012	Refund of Clark County 0601, 1102 Bonds	85,015,000			5,500,000	79,515,000
LVVWD	LVVWD 2012B Bonds	Jul 2012	SNWA CIP Construction	360,000,000			27,790,000	332,210,000
State of Nevada	State of Nevada 2013 Refunding Bonds	Feb 2013	Refunding of State of Nevada 0798 Bonds	21,720,000				21,720,000
LVVWD	LVVWD 2015 Refunding Bonds	Jan 2015	Refunding of LVVWD 2009C Bonds	332,405,000				332,405,000
LVVWD	LVVWD 2015B Refunding Bonds	Jun 2015	Refunding of State of Nevada 2005F Bonds	177,635,000			21,840,000	155,795,000
LVVWD	LVVWD 2015C Refunding Bonds	Jun 2015	Refunding State of Nevada 2005H, 2005I Bonds	42,125,000			5,370,000	36,755,000
Clark County	Clark County 2016A Refunding Bonds	Mar 2016	Partial Refunding of Clark County 2006 & Clark County 1106 Bonds	263,955,000			37,050,000	226,905,000
LVVWD	LVVWD 2016A Refunding Bonds	Apr 2016	Partial Refunding of State of Nevada 2006D Bonds & New Money	497,785,000			16,575,000	481,210,000
Clark County	Clark County 2016B Refunding Bonds	Aug 2016	Refunding of Clark County 1106 Bonds	271,670,000			3,785,000	267,885,000
LVVWD	LVVWD 2017B Refunding Bonds	Mar 2017	Refunding of LVVWD 2009B LVVWD 2009D Bonds	22,115,000				22,115,000
Clark County	Clark County 2017 Refunding Bonds	Mar 2017	Refunding of Clark County 2008 Bonds	321,640,000				321,640,000
LVVWD	LVVWD 2018B Refunding Bonds	Mar 2018	Refunding of LVVWD 2008B Bonds	79,085,000				79,085,000
				\$ 8,442,687,847	\$ 4,293,928,446		\$ 790,022,449	\$ 3,358,736,952

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2018

Fiscal Year	Nevada Drinking Water State Revolving Fund Loan 1			Nevada Drinking Water State Revolving Fund Loan 2		
	Principal	Interest	Total	Principal	Interest	Total
2019	\$ 814,096	\$ 52,567	\$ 866,663	\$ 623,438	\$ 73,503	\$ 696,941
2020	843,750	22,913	866,663	645,196	51,746	696,941
2021	-	-	-	667,712	29,229	696,941
2022	-	-	-	342,545	5,926	348,471
2023	-	-	-	-	-	-
2024	-	-	-	-	-	-
2025	-	-	-	-	-	-
2026	-	-	-	-	-	-
2027	-	-	-	-	-	-
2028	-	-	-	-	-	-
2029	-	-	-	-	-	-
2030	-	-	-	-	-	-
2031	-	-	-	-	-	-
2032	-	-	-	-	-	-
2033	-	-	-	-	-	-
2034	-	-	-	-	-	-
2035	-	-	-	-	-	-
2036	-	-	-	-	-	-
2037	-	-	-	-	-	-
2038	-	-	-	-	-	-
2039	-	-	-	-	-	-
2040	-	-	-	-	-	-
2041	-	-	-	-	-	-
2042	-	-	-	-	-	-
2043	-	-	-	-	-	-
2044	-	-	-	-	-	-
2045	-	-	-	-	-	-
2046	-	-	-	-	-	-
Totals	\$ 1,657,846	\$ 75,479	\$ 1,733,325	\$ 2,278,891	\$ 160,403	\$ 2,439,294

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2018

Fiscal Year	LVVWD Commercial Paper			Clark County 1106 Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2019	\$ 400,000,000	\$ 8,580,000	\$ 408,580,000	\$ -	\$ 1,965,425	\$ 1,965,425
2020	-	-	-	-	1,965,425	1,965,425
2021	-	-	-	-	1,965,425	1,965,425
2022	-	-	-	-	1,965,425	1,965,425
2023	-	-	-	-	1,965,425	1,965,425
2024	-	-	-	-	1,965,425	1,965,425
2025	-	-	-	-	1,965,425	1,965,425
2026	-	-	-	-	1,965,425	1,965,425
2027	-	-	-	-	1,965,425	1,965,425
2028	-	-	-	-	1,965,425	1,965,425
2029	-	-	-	-	1,965,425	1,965,425
2030	-	-	-	-	1,965,425	1,965,425
2031	-	-	-	-	1,965,425	1,965,425
2032	-	-	-	-	1,965,425	1,965,425
2033	-	-	-	-	1,965,425	1,965,425
2034	-	-	-	21,830,000	1,637,975	23,467,975
2035	-	-	-	-	1,310,525	1,310,525
2036	-	-	-	23,530,000	957,575	24,487,575
2037	-	-	-	24,185,000	302,313	24,487,313
2038	-	-	-	-	-	-
2039	-	-	-	-	-	-
2040	-	-	-	-	-	-
2041	-	-	-	-	-	-
2042	-	-	-	-	-	-
2043	-	-	-	-	-	-
2044	-	-	-	-	-	-
2045	-	-	-	-	-	-
2046	-	-	-	-	-	-
Totals	\$ 400,000,000	\$ 8,580,000	\$ 408,580,000	\$ 69,545,000	\$ 33,689,763	\$ 103,234,763

(Totals may not add due to rounding)

⁽¹⁾ The SNWA intends to fund the \$400 million of maturing commercial paper principal by issuing new commercial paper.

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2018

Fiscal Year	SNWA Clean Renewable Energy 2008 Bonds			LVVWD 2009A Bonds		
	Principal	Interest	Total	Principal	Interest*	Total
2019	\$ 460,000	\$ 24,219	\$ 484,219	\$ -	\$ 6,390,000	\$ 6,390,000
2020	460,000	18,837	478,837	-	6,390,000	6,390,000
2021	460,000	13,455	473,455	-	6,390,000	6,390,000
2022	460,000	8,073	468,073	-	6,390,000	6,390,000
2023	460,000	2,691	462,691	-	6,390,000	6,390,000
2024	-	-	-	-	6,390,000	6,390,000
2025	-	-	-	-	6,390,000	6,390,000
2026	-	-	-	-	6,390,000	6,390,000
2027	-	-	-	-	6,390,000	6,390,000
2028	-	-	-	-	6,390,000	6,390,000
2029	-	-	-	-	6,390,000	6,390,000
2030	-	-	-	-	6,390,000	6,390,000
2031	-	-	-	-	6,390,000	6,390,000
2032	-	-	-	-	6,390,000	6,390,000
2033	-	-	-	1,620,000	6,390,000	8,010,000
2034	-	-	-	1,700,000	6,274,980	7,974,980
2035	-	-	-	1,775,000	6,154,280	7,929,280
2036	-	-	-	1,855,000	6,028,255	7,883,255
2037	-	-	-	1,940,000	5,896,550	7,836,550
2038	-	-	-	26,520,000	5,758,810	32,278,810
2039	-	-	-	54,590,000	3,875,890	58,465,890
2040	-	-	-	-	-	-
2041	-	-	-	-	-	-
2042	-	-	-	-	-	-
2043	-	-	-	-	-	-
2044	-	-	-	-	-	-
2045	-	-	-	-	-	-
2046	-	-	-	-	-	-
Totals	\$ 2,300,000	\$ 67,275	\$ 2,367,275	\$ 90,000,000	\$ 129,838,765	\$ 219,838,765

(Totals may not add due to rounding)

* Interest shown is gross of Build America Bond Subsidy.

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Individual Debt Service Schedules
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Fiscal Year	LVVWD 2009B Bonds			Clark County 2009 Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2019	\$ 425,000	\$ 17,000	\$ 442,000	\$ 2,380,000	\$ 1,895,250	\$ 4,275,250
2020	-	-	-	2,500,000	1,776,250	4,276,250
2021	-	-	-	2,625,000	1,651,250	4,276,250
2022	-	-	-	2,755,000	1,520,000	4,275,000
2023	-	-	-	2,895,000	1,382,250	4,277,250
2024	-	-	-	3,040,000	1,237,500	4,277,500
2025	-	-	-	3,190,000	1,085,500	4,275,500
2026	-	-	-	3,350,000	926,000	4,276,000
2027	-	-	-	3,520,000	758,500	4,278,500
2028	-	-	-	3,695,000	582,500	4,277,500
2029	-	-	-	3,880,000	397,750	4,277,750
2030	-	-	-	4,075,000	203,750	4,278,750
2031	-	-	-	-	-	-
2032	-	-	-	-	-	-
2033	-	-	-	-	-	-
2034	-	-	-	-	-	-
2035	-	-	-	-	-	-
2036	-	-	-	-	-	-
2037	-	-	-	-	-	-
2038	-	-	-	-	-	-
2039	-	-	-	-	-	-
2040	-	-	-	-	-	-
2041	-	-	-	-	-	-
2042	-	-	-	-	-	-
2043	-	-	-	-	-	-
2044	-	-	-	-	-	-
2045	-	-	-	-	-	-
2046	-	-	-	-	-	-
Totals	\$ 425,000	\$ 17,000	\$ 442,000	\$ 37,905,000	\$ 13,416,500	\$ 51,321,500

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
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Fiscal Year	State of Nevada 2009 Bonds			LVVWD 2009D Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2019	\$ 126,540	\$ -	\$ 126,540	\$ 3,730,000	\$ 1,868,238	\$ 5,598,238
2020	126,540	-	126,540	2,675,000	1,681,738	4,356,738
2021	126,540	-	126,540	2,810,000	1,547,988	4,357,988
2022	126,540	-	126,540	2,950,000	1,407,488	4,357,488
2023	126,540	-	126,540	3,095,000	1,259,988	4,354,988
2024	126,540	-	126,540	3,250,000	1,105,238	4,355,238
2025	126,540	-	126,540	3,385,000	967,113	4,352,113
2026	126,540	-	126,540	3,560,000	797,863	4,357,863
2027	126,540	-	126,540	3,740,000	619,863	4,359,863
2028	126,540	-	126,540	2,610,000	432,863	3,042,863
2029	126,540	-	126,540	2,745,000	295,838	3,040,838
2030	63,270	-	63,270	2,890,000	151,725	3,041,725
2031	-	-	-	-	-	-
2032	-	-	-	-	-	-
2033	-	-	-	-	-	-
2034	-	-	-	-	-	-
2035	-	-	-	-	-	-
2036	-	-	-	-	-	-
2037	-	-	-	-	-	-
2038	-	-	-	-	-	-
2039	-	-	-	-	-	-
2040	-	-	-	-	-	-
2041	-	-	-	-	-	-
2042	-	-	-	-	-	-
2043	-	-	-	-	-	-
2044	-	-	-	-	-	-
2045	-	-	-	-	-	-
2046	-	-	-	-	-	-
Totals	\$ 1,455,215	\$ -	\$ 1,455,215	\$ 37,440,000	\$ 12,135,938	\$ 49,575,938

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

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Individual Debt Service Schedules
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Fiscal Year	State of Nevada 2010B Refunding Bonds			LVVWD 2011A Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2019	\$ 1,135,000	\$ 85,355	\$ 1,220,355	\$ 4,745,000	\$ 2,212,867	\$ 6,957,867
2020	1,175,000	43,416	1,218,416	4,950,000	2,007,219	6,957,219
2021	-	-	-	5,175,000	1,783,776	6,958,776
2022	-	-	-	5,415,000	1,542,414	6,957,414
2023	-	-	-	5,680,000	1,279,028	6,959,028
2024	-	-	-	5,960,000	995,937	6,955,937
2025	-	-	-	6,270,000	689,951	6,959,951
2026	-	-	-	6,600,000	358,644	6,958,644
2027	-	-	-	-	-	-
2028	-	-	-	-	-	-
2029	-	-	-	-	-	-
2030	-	-	-	-	-	-
2031	-	-	-	-	-	-
2032	-	-	-	-	-	-
2033	-	-	-	-	-	-
2034	-	-	-	-	-	-
2035	-	-	-	-	-	-
2036	-	-	-	-	-	-
2037	-	-	-	-	-	-
2038	-	-	-	-	-	-
2039	-	-	-	-	-	-
2040	-	-	-	-	-	-
2041	-	-	-	-	-	-
2042	-	-	-	-	-	-
2043	-	-	-	-	-	-
2044	-	-	-	-	-	-
2045	-	-	-	-	-	-
2046	-	-	-	-	-	-
Totals	\$ 2,310,000	\$ 128,771	\$ 2,438,771	\$ 44,795,000	\$ 10,869,837	\$ 55,664,837

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2018

Fiscal Year	LVVWD 2011B Refunding Bonds			LVVWD 2011C Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2019	\$ 10,000,000	\$ 4,384,115	\$ 14,384,115	\$ 11,260,000	\$ 10,525,963	\$ 21,785,963
2020	10,490,000	4,013,315	14,503,315	11,710,000	9,962,963	21,672,963
2021	10,900,000	3,603,366	14,503,366	12,295,000	9,377,463	21,672,463
2022	11,335,000	3,168,674	14,503,674	12,910,000	8,762,713	21,672,713
2023	11,805,000	2,699,631	14,504,631	13,555,000	8,117,213	21,672,213
2024	12,320,000	2,185,170	14,505,170	14,240,000	7,439,463	21,679,463
2025	12,870,000	1,629,784	14,499,784	14,950,000	6,727,463	21,677,463
2026	13,475,000	1,030,299	14,505,299	15,695,000	5,979,963	21,674,963
2027	7,985,000	395,896	8,380,896	22,625,000	5,168,475	27,793,475
2028	-	-	-	14,370,000	4,037,225	18,407,225
2029	-	-	-	15,090,000	3,318,725	18,408,725
2030	-	-	-	15,845,000	2,564,225	18,409,225
2031	-	-	-	3,745,000	1,771,975	5,516,975
2032	-	-	-	3,920,000	1,595,750	5,515,750
2033	-	-	-	4,115,000	1,399,750	5,514,750
2034	-	-	-	4,320,000	1,194,000	5,514,000
2035	-	-	-	4,540,000	978,000	5,518,000
2036	-	-	-	4,765,000	751,000	5,516,000
2037	-	-	-	5,000,000	512,750	5,512,750
2038	-	-	-	5,255,000	262,750	5,517,750
2039	-	-	-	-	-	-
2040	-	-	-	-	-	-
2041	-	-	-	-	-	-
2042	-	-	-	-	-	-
2043	-	-	-	-	-	-
2044	-	-	-	-	-	-
2045	-	-	-	-	-	-
2046	-	-	-	-	-	-
Totals	\$ 101,180,000	\$ 23,110,250	\$ 124,290,250	\$ 210,205,000	\$ 90,447,825	\$ 300,652,825

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2018

Fiscal Year	Clark County 2012 Refunding Bonds			LVVWD 2012B Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2019	\$ -	\$ 3,180,600	\$ 3,180,600	\$ 7,690,000	\$ 15,915,950	\$ 23,605,950
2020	-	3,180,600	3,180,600	8,055,000	15,551,450	23,606,450
2021	-	3,180,600	3,180,600	8,440,000	15,168,700	23,608,700
2022	-	3,180,600	3,180,600	8,690,000	14,915,500	23,605,500
2023	-	3,180,600	3,180,600	9,120,000	14,486,750	23,606,750
2024	-	3,180,600	3,180,600	9,565,000	14,044,750	23,609,750
2025	-	3,180,600	3,180,600	10,040,000	13,566,500	23,606,500
2026	-	3,180,600	3,180,600	10,545,000	13,064,500	23,609,500
2027	-	3,180,600	3,180,600	11,070,000	12,537,250	23,607,250
2028	-	3,180,600	3,180,600	11,625,000	11,983,750	23,608,750
2029	11,000,000	3,180,600	14,180,600	12,205,000	11,402,500	23,607,500
2030	27,370,000	2,740,600	30,110,600	12,815,000	10,792,250	23,607,250
2031	28,395,000	1,645,800	30,040,800	13,455,000	10,151,500	23,606,500
2032	12,750,000	510,000	13,260,000	14,130,000	9,478,750	23,608,750
2033	-	-	-	14,835,000	8,772,250	23,607,250
2034	-	-	-	15,580,000	8,030,500	23,610,500
2035	-	-	-	16,315,000	7,290,450	23,605,450
2036	-	-	-	17,095,000	6,515,450	23,610,450
2037	-	-	-	17,905,000	5,703,450	23,608,450
2038	-	-	-	18,755,000	4,853,000	23,608,000
2039	-	-	-	19,640,000	3,969,600	23,609,600
2040	-	-	-	20,565,000	3,044,600	23,609,600
2041	-	-	-	21,530,000	2,076,000	23,606,000
2042	-	-	-	22,545,000	1,061,900	23,606,900
2043	-	-	-	-	-	-
2044	-	-	-	-	-	-
2045	-	-	-	-	-	-
2046	-	-	-	-	-	-
Totals	\$ 79,515,000	\$ 39,883,000	\$ 119,398,000	\$ 332,210,000	\$ 234,377,300	\$ 566,587,300

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2018

Fiscal Year	State of Nevada 2013 Refunding Bonds			LVVWD 2015 Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2019	\$ -	\$ 651,600	\$ 651,600	\$ -	\$ 16,370,250	\$ 16,370,250
2020	-	651,600	651,600	-	16,370,250	16,370,250
2021	-	651,600	651,600	-	16,370,250	16,370,250
2022	-	651,600	651,600	-	16,370,250	16,370,250
2023	-	651,600	651,600	-	16,370,250	16,370,250
2024	-	651,600	651,600	-	16,370,250	16,370,250
2025	-	651,600	651,600	-	16,370,250	16,370,250
2026	-	651,600	651,600	-	16,370,250	16,370,250
2027	-	651,600	651,600	-	16,370,250	16,370,250
2028	21,720,000	325,800	22,045,800	-	16,370,250	16,370,250
2029	-	-	-	-	16,370,250	16,370,250
2030	-	-	-	-	16,370,250	16,370,250
2031	-	-	-	6,440,000	16,370,250	22,810,250
2032	-	-	-	23,245,000	16,048,250	39,293,250
2033	-	-	-	37,245,000	14,886,000	52,131,000
2034	-	-	-	39,100,000	13,023,750	52,123,750
2035	-	-	-	41,055,000	11,068,750	52,123,750
2036	-	-	-	43,065,000	9,061,350	52,126,350
2037	-	-	-	45,175,000	6,955,650	52,130,650
2038	-	-	-	47,380,000	4,746,800	52,126,800
2039	-	-	-	49,700,000	2,430,100	52,130,100
2040	-	-	-	-	-	-
2041	-	-	-	-	-	-
2042	-	-	-	-	-	-
2043	-	-	-	-	-	-
2044	-	-	-	-	-	-
2045	-	-	-	-	-	-
2046	-	-	-	-	-	-
Totals	\$ 21,720,000	\$ 6,190,200	\$ 27,910,200	\$ 332,405,000	\$ 291,033,900	\$ 623,438,900

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2018

Fiscal Year	LVVWD 2015B Refunding Bonds			LVVWD 2015C Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2019	\$ 11,680,000	\$ 7,439,350	\$ 19,119,350	\$ 2,835,000	\$ 1,725,575	\$ 4,560,575
2020	12,215,000	6,900,375	19,115,375	2,960,000	1,594,875	4,554,875
2021	12,840,000	6,274,000	19,114,000	3,105,000	1,443,250	4,548,250
2022	13,500,000	5,615,500	19,115,500	3,260,000	1,284,125	4,544,125
2023	14,195,000	4,923,125	19,118,125	3,420,000	1,117,125	4,537,125
2024	14,920,000	4,195,250	19,115,250	3,590,000	941,875	4,531,875
2025	15,680,000	3,430,250	19,110,250	3,765,000	758,000	4,523,000
2026	25,040,000	2,412,250	27,452,250	3,950,000	565,125	4,515,125
2027	26,310,000	1,128,500	27,438,500	4,145,000	362,750	4,507,750
2028	9,415,000	235,375	9,650,375	4,355,000	150,250	4,505,250
2029	-	-	-	1,150,000	24,125	1,174,125
2030	-	-	-	220,000	3,438	223,438
2031	-	-	-	-	-	-
2032	-	-	-	-	-	-
2033	-	-	-	-	-	-
2034	-	-	-	-	-	-
2035	-	-	-	-	-	-
2036	-	-	-	-	-	-
2037	-	-	-	-	-	-
2038	-	-	-	-	-	-
2039	-	-	-	-	-	-
2040	-	-	-	-	-	-
2041	-	-	-	-	-	-
2042	-	-	-	-	-	-
2043	-	-	-	-	-	-
2044	-	-	-	-	-	-
2045	-	-	-	-	-	-
2046	-	-	-	-	-	-
Totals	\$ 155,795,000	\$ 42,553,975	\$ 198,348,975	\$ 36,755,000	\$ 9,970,513	\$ 46,725,513

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2018

Fiscal Year	Clark County 2016A Refunding Bonds			LVVWD 2016A Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2019	\$ 24,505,000	\$ 10,732,625	\$ 35,237,625	\$ 11,995,000	\$ 23,783,650	\$ 35,778,650
2020	25,755,000	9,476,125	35,231,125	12,470,000	23,303,850	35,773,850
2021	27,075,000	8,155,375	35,230,375	15,070,000	22,805,050	37,875,050
2022	28,460,000	6,767,000	35,227,000	16,250,000	22,051,550	38,301,550
2023	18,625,000	5,589,875	24,214,875	17,325,000	21,239,050	38,564,050
2024	19,635,000	4,633,375	24,268,375	18,185,000	20,372,800	38,557,800
2025	20,700,000	3,625,000	24,325,000	9,600,000	19,463,550	29,063,550
2026	21,835,000	2,561,625	24,396,625	1,610,000	18,983,550	20,593,550
2027	9,215,000	1,785,375	11,000,375	11,455,000	18,935,250	30,390,250
2028	9,770,000	1,310,750	11,080,750	12,025,000	18,362,500	30,387,500
2029	10,350,000	807,750	11,157,750	12,625,000	17,761,250	30,386,250
2030	10,980,000	274,500	11,254,500	13,260,000	17,130,000	30,390,000
2031	-	-	-	13,920,000	16,467,000	30,387,000
2032	-	-	-	14,615,000	15,771,000	30,386,000
2033	-	-	-	15,350,000	15,040,250	30,390,250
2034	-	-	-	16,115,000	14,272,750	30,387,750
2035	-	-	-	16,920,000	13,467,000	30,387,000
2036	-	-	-	17,770,000	12,621,000	30,391,000
2037	-	-	-	18,655,000	11,732,500	30,387,500
2038	-	-	-	19,590,000	10,799,750	30,389,750
2039	-	-	-	20,570,000	9,820,250	30,390,250
2040	-	-	-	21,595,000	8,791,750	30,386,750
2041	-	-	-	22,675,000	7,712,000	30,387,000
2042	-	-	-	23,810,000	6,578,250	30,388,250
2043	-	-	-	25,000,000	5,387,750	30,387,750
2044	-	-	-	26,250,000	4,137,750	30,387,750
2045	-	-	-	27,565,000	2,825,250	30,390,250
2046	-	-	-	28,940,000	1,447,000	30,387,000
Totals	\$ 226,905,000	\$ 55,719,375	\$ 282,624,375	\$ 481,210,000	\$ 401,063,300	\$ 882,273,300

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2018

Fiscal Year	Clark County 2016B Refunding Bonds			LVVWD 2017B Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2019	\$ 3,965,000	\$ 12,789,475	\$ 16,754,475	\$ -	\$ 1,027,125	\$ 1,027,125
2020	4,160,000	12,586,350	16,746,350	1,605,000	1,027,125	2,632,125
2021	4,370,000	12,373,100	16,743,100	1,695,000	946,875	2,641,875
2022	4,590,000	12,149,100	16,739,100	1,775,000	862,125	2,637,125
2023	16,140,000	11,630,850	27,770,850	1,865,000	773,375	2,638,375
2024	16,935,000	10,803,975	27,738,975	1,955,000	680,125	2,635,125
2025	17,765,000	9,936,475	27,701,475	2,055,000	582,375	2,637,375
2026	18,635,000	9,026,475	27,661,475	2,155,000	479,625	2,634,625
2027	35,660,000	7,669,100	43,329,100	2,270,000	371,875	2,641,875
2028	37,435,000	5,841,725	43,276,725	1,770,000	258,375	2,028,375
2029	27,870,000	4,209,100	32,079,100	1,855,000	169,875	2,024,875
2030	14,525,000	3,149,225	17,674,225	1,935,000	95,675	2,030,675
2031	15,270,000	2,404,350	17,674,350	580,000	37,625	617,625
2032	15,970,000	1,703,200	17,673,200	600,000	19,500	619,500
2033	16,625,000	1,051,300	17,676,300	-	-	-
2034	-	718,800	718,800	-	-	-
2035	17,970,000	359,400	18,329,400	-	-	-
2036	-	-	-	-	-	-
2037	-	-	-	-	-	-
2038	-	-	-	-	-	-
2039	-	-	-	-	-	-
2040	-	-	-	-	-	-
2041	-	-	-	-	-	-
2042	-	-	-	-	-	-
2043	-	-	-	-	-	-
2044	-	-	-	-	-	-
2045	-	-	-	-	-	-
2046	-	-	-	-	-	-
Totals	\$ 267,885,000	\$ 118,402,000	\$ 386,287,000	\$ 22,115,000	\$ 7,331,675	\$ 29,446,675

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2018

Fiscal Year	Clark County 2017 Refunding Bonds			LVVWD 2018B Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2019	\$ 9,910,000	\$ 14,442,600	\$ 24,352,600	\$ 8,245,000	\$ 3,954,250	\$ 12,199,250
2020	10,405,000	13,947,100	24,352,100	8,665,000	3,542,000	12,207,000
2021	10,920,000	13,426,850	24,346,850	9,110,000	3,108,750	12,218,750
2022	11,470,000	12,880,850	24,350,850	9,575,000	2,653,250	12,228,250
2023	12,045,000	12,307,350	24,352,350	10,065,000	2,174,500	12,239,500
2024	12,645,000	11,705,100	24,350,100	10,580,000	1,671,250	12,251,250
2025	13,275,000	11,072,850	24,347,850	11,125,000	1,142,250	12,267,250
2026	13,940,000	10,409,100	24,349,100	11,720,000	586,000	12,306,000
2027	14,635,000	9,712,100	24,347,100	-	-	-
2028	15,370,000	8,980,350	24,350,350	-	-	-
2029	16,140,000	8,211,850	24,351,850	-	-	-
2030	16,945,000	7,404,850	24,349,850	-	-	-
2031	17,790,000	6,557,600	24,347,600	-	-	-
2032	18,505,000	5,846,000	24,351,000	-	-	-
2033	19,245,000	5,105,800	24,350,800	-	-	-
2034	20,010,000	4,336,000	24,346,000	-	-	-
2035	20,815,000	3,535,600	24,350,600	-	-	-
2036	21,650,000	2,703,000	24,353,000	-	-	-
2037	22,515,000	1,837,000	24,352,000	-	-	-
2038	23,410,000	936,400	24,346,400	-	-	-
2039	-	-	-	-	-	-
2040	-	-	-	-	-	-
2041	-	-	-	-	-	-
2042	-	-	-	-	-	-
2043	-	-	-	-	-	-
2044	-	-	-	-	-	-
2045	-	-	-	-	-	-
2046	-	-	-	-	-	-
Totals	\$ 321,640,000	\$ 165,358,350	\$ 486,998,350	\$ 79,085,000	\$ 18,832,250	\$ 97,917,250

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2018

Fiscal Year	GRAND TOTAL		
	Principal	Interest	Total
2019	\$ 516,524,074	\$ 150,087,551	\$ 666,611,625 ⁽¹⁾
2020	121,865,486	136,065,520	257,931,006
2021	127,684,253	130,266,350	257,950,603
2022	133,864,085	124,152,162	258,016,247
2023	140,416,540	117,540,676	257,957,216
2024	146,946,540	110,569,682	257,516,222
2025	144,796,540	103,234,935	248,031,475
2026	152,236,540	95,738,893	247,975,434
2027	152,756,540	88,002,809	240,759,349
2028	144,286,540	80,407,738	224,694,278
2029	115,036,541	74,505,038	189,541,579
2030	120,923,270	69,235,913	190,159,183
2031	99,595,000	63,761,525	163,356,525
2032	103,735,000	59,327,875	163,062,875
2033	109,035,000	54,610,775	163,645,775
2034	118,655,000	49,488,755	168,143,755
2035	119,390,000	44,164,005	163,554,005
2036	129,730,000	38,637,630	168,367,630
2037	135,375,000	32,940,213	168,315,213
2038	140,910,000	27,357,510	168,267,510
2039	144,500,000	20,095,840	164,595,840
2040	42,160,000	11,836,350	53,996,350
2041	44,205,000	9,788,000	53,993,000
2042	46,355,000	7,640,150	53,995,150
2043	25,000,000	5,387,750	30,387,750
2044	26,250,000	4,137,750	30,387,750
2045	27,565,000	2,825,250	30,390,250
2046	28,940,000	1,447,000	30,387,000
Totals	\$ 3,358,736,952	\$ 1,713,253,642	\$ 5,071,990,595

(Totals may not add due to rounding)

⁽¹⁾ Includes commercial paper. The SNWA intends to fund the \$400 million of maturing commercial paper by issuing new commercial paper.

**Independent Auditors'
Report on
Internal Control
and Compliance**

**INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL
OVER FINANCIAL REPORTING AND ON COMPLIANCE AND
OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL
STATEMENTS PERFORMED IN ACCORDANCE WITH
GOVERNMENT AUDITING STANDARDS**

Board of Directors
Southern Nevada Water Authority
Las Vegas, NV

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Southern Nevada Water Authority (SNWA) as of and for the fiscal year ended June 30, 2018, and the related notes to the financial statements, which collectively comprise SNWA's basic financial statements as listed in the table of contents, and have issued our report thereon dated October 25, 2018.

Internal Control over Financial Reporting. In planning and performing our audit of the basic financial statements, we considered SNWA's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the basic financial statements, but not for the purpose of expressing an opinion on the effectiveness of SNWA's internal control. Accordingly, we do not express an opinion on the effectiveness of SNWA's internal control.

A *deficiency* in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of SNWA's basic financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters. As part of obtaining reasonable assurance about whether SNWA's basic financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of basic financial statement amounts, including whether the funds established by SNWA, as listed in Nevada Revised Statutes (NRS) 354.624 (5)(a)(1 through 5), complied with the express purposes required by NRS 354.6241. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

We noted certain matters that we reported to SNWA in a separate letter dated October 25, 2018.

Purpose of this Report. The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of SNWA's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering SNWA internal control and compliance. Accordingly, this communication is not suitable for any other purpose.



Las Vegas, Nevada
October 25, 2018



SOUTHERN NEVADA WATER AUTHORITY™
**COMPREHENSIVE ANNUAL
FINANCIAL REPORT**

For Fiscal Years Ended June 30, 2019 and 2018



Since most of Southern Nevada's water is used outdoors, water-efficient landscaping is critical to community conservation. Southern Nevada residents and businesses have replaced more than 190 million square feet of grass, saving nearly 130 billion gallons annually, through the SNWA's Water Smart Landscapes rebate program. Much of the remaining non-functional turf in our community can be found in commercial and public properties. Communities, such as The Gardens in Summerlin, are demonstrating that water-efficient landscaping is functional and beautiful.



Comprehensive Annual Financial Report

**For the Fiscal Years Ended
June 30, 2019 and 2018**

John J. Entsminger
General Manager

E. Kevin Bethel
Chief Financial Officer

Prepared by the SNWA Accounting Division of the Finance Department
Richard Snelding, SNWA Controller
1001 South Valley View Boulevard, Las Vegas, Nevada 89153
(702) 258-3124 snwa.com

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- Letter of Transmittal
- Map of Service Area
- Organizational Chart
- List of Principal Officials
- Certificate of Achievement for Excellence in Financial Reporting

SOUTHERN NEVADA WATER AUTHORITY
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1001 South Valley View Boulevard • Las Vegas, NV 89153
702-258-3939 • snwa.com

October 24, 2019

To the Board of Directors,
Member Agencies,
and Citizens of Southern Nevada

We are pleased to present the Comprehensive Annual Financial Report (CAFR) of the Southern Nevada Water Authority (SNWA) for the fiscal year ended June 30, 2019. Nevada Revised Statute (NRS) 354.624 and bond covenants require an annual audit of the SNWA's basic financial statements conducted in accordance with generally accepted auditing standards in the United States. The presentation of this CAFR is intended to satisfy those requirements.

Management is responsible for the contents of this CAFR, which conforms with generally accepted accounting principles in the United States (GAAP). Management has established a comprehensive framework of internal controls to provide a reasonable basis for asserting that the basic financial statements are presented fairly and free of material misstatement. Because the cost of internal controls should not outweigh their anticipated benefits, they are designed to provide reasonable, rather than absolute, assurance.

The basic financial statements were audited by the independent public accounting firm of Piercy Bowler Taylor & Kern, Certified Public Accountants and Business Advisors. Based on the audit, the independent auditor concluded that there was a reasonable basis for rendering an unmodified ("clean") opinion that the basic financial statements are fairly presented in conformity with GAAP. The independent auditor's report is located as the first component of the financial section of this report.

The independent audit of the financial statements is part of a broader, federally-mandated "Single Audit" designed to meet the special needs of federal grantor agencies. The regulatory provisions governing Single Audit engagements require the independent auditor to report not only on the fair presentation of the basic financial statements, but also on the governmental entity's internal controls and compliance with legal requirements involving administration of federal awards. This report is available in a separate Single Audit Compliance Report.

Management's Discussion and Analysis (MD&A) immediately follows the independent auditor's report and provides a narrative introduction, overview, and analysis to accompany the basic financial statements. This letter of transmittal is intended to complement the MD&A and should be read in conjunction with it.

PROFILE OF THE SNWA

The SNWA treats and delivers wholesale water to its purveyor members that serve the major metropolitan areas of Clark County, Nevada. This includes the world-famous Las Vegas Strip known for its concentration of resort hotels and casinos. In 2018, the SNWA's service area population was 2,211,770. This service area is arid desert characterized by small amounts of precipitation, little snow, low humidity, abundant sunshine, short and relatively mild winters, long hot summers, and wide extremes in daily temperatures.

The SNWA is a political subdivision of the State of Nevada (State), created in 1991 by a cooperative agreement among the SNWA's member agencies. The SNWA addresses Southern Nevada's unique water needs on a regional basis and is charged with acquiring and managing current and future resources for Southern Nevada, constructing and managing regional water facilities, and promoting water conservation. The SNWA is governed by a seven-member Board of Directors (Board) comprised of one director from each of its seven-member agencies. The SNWA has no employees of its own as the Las Vegas Valley Water District (LVVWD) serves as the

SNWA MEMBER AGENCIES

Big Bend Water District • Boulder City • Clark County Water Reclamation District • City of Henderson • City of Las Vegas • City of North Vegas • Las Vegas Valley Water District

operating agent for the SNWA. The General Manager and officers of the SNWA are appointed by the Board and are the same as the LVVWD. Because its operations are autonomous from its member agencies and the State, the SNWA's financial statements are not included in the financial statements of any other entity. The SNWA's mission statement is to:

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

The annual budget serves as the foundation of the SNWA's financial planning and control systems. As required by NRS 354, the Board approves the SNWA's budget annually following a public hearing. A copy of the approved budget is then submitted to the Nevada Department of Taxation. The State requires budgets to be submitted on a fund basis; the SNWA has only one fund, an enterprise fund. Although the legal level of budgetary control is at the fund level, the SNWA exercises budgetary control at the department and division levels.

FACTORS AFFECTING FINANCIAL CONDITION

Local Economy – The economic environment for Las Vegas and Clark County has improved steadily over the past several years. According to the State of Nevada, the unemployment level in Clark County was 4.8 percent at the end of June 2019, which is a significant improvement over the 13.8 percent at the end of June 2010. Although higher than the June 2019 national U.S. unemployment rate of 3.7 percent, Clark County's unemployment rate continues to improve.

According to the U.S. Bureau of Census, Clark County's population increased from 1.4 million in 2000 to 2.0 million in 2010, which is an increase of 36.6 percent. By the end of 2018, Clark County's population was 2.3 million, according to the Nevada State Demographer.

The Las Vegas Convention and Visitors Authority reported that from calendar year 2017 to 2018 visitor count in Clark County decreased by 0.2 percent to 42.1 million; citywide hotel/motel occupancy decreased 0.6 percent to 88.2 percent; convention attendance decreased by 2.2 percent to 6.5 million; and gaming revenue in Clark County rose by 2.7 percent to \$10.2 billion.

The Nevada Department of Taxation reported taxable sales in Clark County were \$4.1 billion in June 2019, which is a year-over-year increase of 7.4 percent.

The housing market in Clark County remains healthy. The median price for a new home was \$391,350, which is a 3.1 percent increase year-over-year. The existing median home price was \$275,000, which is a 5.8 percent increase year-over-year.

Long-Term Financial Planning – The SNWA's mission is to manage the region's water resources and develop solutions that will ensure adequate future water supplies for its members. To accomplish this, comprehensive capital plans are developed in conjunction with financial plans that utilize practical methods of paying future capital expenditures and debt service obligations.

Capital projects for the SNWA are initiated in response to identified needs for improvements to the facilities that provide for treatment and delivery of water supplies to the members of the SNWA. These improvements include (1) new facilities to expand or enhance treatment and distribution capabilities; (2) new water resources to expand or extend available water supplies; and (3) the repair, upgrade or replacement of existing facilities.

The Engineering Department develops capital plans as needed, which the Board reviews and approves. The capital plans identify projects and initiatives for new facilities, acquisition of water and energy resources, and other capital related activities. They also identify estimated costs and schedules for all approved projects and initiatives. The Finance Department models these costs to project the size and timing of future bond issuances as well as probable revenue enhancements that would be needed to pay for future costs.

As of June 30, 2019, the SNWA has \$3.5 billion in outstanding debt (see Notes 14 and 16 for a discussion of outstanding debt). The SNWA is required to set rates and charges at levels sufficient to cover all operating costs and debt service when combined with accumulated funds. The SNWA remains in compliance with its bond covenants.

The SNWA has four options to sell debt:

- LVVWD may issue debt on behalf of the SNWA under the Master Bond Repayment Agreement;
- Borrow through the State Bond Bank, in which the SNWA issues a bond to the State and the State in turn issues State General Obligation bonds (pursuant to 1997 Nevada legislation);
- Borrow through the Clark County Bond Bank, in which the SNWA issues a bond to the County and the County in turn issues County General Obligation bonds (pursuant to 1999 Nevada legislation); or
- Issue revenue bonds in its own name, recognizing that the SNWA does not have the power to levy property taxes and issue general obligation bonds.

The credit ratings as of June 30, 2019, are listed below.

	Moody's	Standard & Poor's
LVVWD	Aa1	AA+
State of Nevada Bond Bank	Aa2	AA
Clark County Bond Bank	Aa1	AA+
LVVWD Commercial Paper	P-1	A-1+

Relevant Financial Policies – Budgets are developed to maintain balance between revenues and expenditures. Budgets are the financial road maps that assist engineering, operational, and administrative departments in performing their daily duties in a financially prudent manner and support the Finance Department in providing finance plans that can generate sufficient revenues to pay for projected expenditures.

The SNWA regards its cash reserves as a critical component of its fiscal health and one of the most important metrics supporting its strong credit ratings. Cash reserves are monitored regularly, and revenue shortfalls are managed through a combination of methods. User fees and charges are adjusted to maintain required debt service coverage ratios and sufficient working capital. Financial reserves are used sparingly. When used, the reserves are compared to long-range projections of reserve levels, and modifications to revenue and expense streams are made as needed.

Cash reserves and unspent bond proceeds are invested whenever practical in obligations of the U.S. government, obligations of government-sponsored agencies, certificates of deposit, money market accounts, and commercial paper in accordance with the investment policy. Investments are purchased through recognized and regulated brokers dealing in government securities. All investments are held by a third-party custodian in the SNWA's name or are insured or collateralized with securities held by a third party in the SNWA's name.

The SNWA's reserve policy provides guidance for maintaining adequate reserves. Maintaining adequate 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. Maintaining adequate reserves helps to ensure stable services and fees and allows the SNWA to better respond to unforeseen negative changes in the local economy while providing a high quality and reliable water supply to purveyor members. In addition, prudent reserves, along with a formal reserve policy, are a key factor rating agencies consider in their evaluation of creditworthiness.

Major Initiatives – The Colorado River system has experienced below average runoff for much of the last decade. As a result, the total volume of water stored in Lake Mead has been reduced to approximately 40 percent of capacity at the end of June 2019.

The SNWA remains focused on its responsibility to ensure the acquisition, treatment, and delivery of a reliable and high-quality water supply to the region. To this end, major activities in the next fiscal year will include:

- Operation of facilities to treat and deliver water;
- Continuation of conservation education and incentive programs to maximize available water supplies;
- Continuation of work with federal, state, and local agencies to develop and operate joint facilities that provide regional solutions to water quality, supply, and environmental issues on the Colorado River;
- Construction of the Low Lake Level Pumping Station (L3PS) to ensure access to Lake Mead water at the lowest elevations accessible by Intake No. 3; and
- Maintenance efforts on the existing water infrastructure system.

Existing pumping stations associated with Intake No. 1 and Intake No. 2 are currently drawing water from Intake No. 3. Intake No. 1 becomes inoperable at elevation 1,050 feet and Intake No. 2 does the same at elevation 1,000 feet. Because current and forecasted conditions project a high probability of lake levels continuing to decline, potentially to 1,000 feet or lower within the next decade, a new pumping station (L3PS) is currently being constructed. Once complete and connected to Intake No. 3, the L3PS will be capable of drawing water from as low as 875 feet above sea level. The L3PS remains an important priority for protecting Southern Nevada's primary water supply and represents the majority of the SNWA's capital commitments for the next fiscal year.

CONTINUING DISCLOSURE

On November 10, 1994, the Securities and Exchange Commission amended the Securities Exchange Act of 1934, Rule 15c2-12, regarding continuing disclosure by issuers of municipal securities for the benefit of holders of such securities. The amendments require, among other things, that certain annual financial information be provided to various information repositories for bond issues sold on or after July 3, 1995. The annual financial information must include an update of the same financial statements, except for forecasts, that were included in the final official statement issued at the time of the bond sale. The required annual financial information for the SNWA is available on the Electronic Municipal Market Access website, the Municipal Securities Rulemaking Board's central repository.

AWARDS AND ACKNOWLEDGMENTS

CAFR – The GFOA awarded a Certificate of Achievement for Excellence in Financial Reporting to the SNWA for its CAFR for the fiscal year ended June 30, 2018. This was the twenty-third consecutive year that the SNWA has achieved this award. To be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized CAFR. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current CAFR continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

Budget – In addition, the SNWA also received the GFOA's Distinguished Budget Presentation Award for its annual budget document for the fiscal year beginning July 1, 2018. To qualify for this award, a government must publish a budget document that meets program criteria as a policy document, operations guide, financial plan, and communications device.

Water Treatment – The River Mountains Water Treatment Facility earned the 2018 Partnership for Safe Water's Excellence in Water Treatment Award. The SNWA is only the fourteenth community water system out of 50,000 nationwide to earn the water industry's most exclusive designation. This award process measures the extent to which water utilities optimize both water quality and efficiency of their facilities.

The Alfred Merritt Smith Water Treatment Facility earned the 2019 Partnership for Safe Water's Excellence in Water Treatment Award.

Cyber Security – The SNWA was a finalist for SC Magazine's 2019 Best IT Security-related Training Program.

Other Acknowledgments – We express our appreciation to all members of the SNWA's administrative staff and the independent certified public accounting firm of Piercy Bowler Taylor & Kern. Additionally, we recognize the SNWA's accounting staff for their efforts in preparing this report, especially Richard Snelding, SNWA Controller; Cheryl Styck, Senior Accountant; Osvaldo Hernandez, Senior Accountant; and Shera Miyashiro, Accountant. We also thank the members of the Board for their continued support in the planning, implementation, and oversight of the SNWA's financial affairs.

Sincerely,

A handwritten signature in blue ink, reading "John J. Entsminger", written over a horizontal line.

John J. Entsminger
General Manager

A handwritten signature in blue ink, reading "E. Kevin Bethel", written over a horizontal line.

E. Kevin Bethel
Chief Financial Officer

Board of Directors



Marilyn Kirkpatrick, Chair
Las Vegas Valley Water District



Dan Stewart, Vice Chair
City of Henderson



Claudia Bridges
City of Boulder City



Cedric Crear
City of Las Vegas



James Gibson
Big Bend Water District



Justin Jones
Clark County Water
Reclamation District



John Lee
City of North
Las Vegas

Executive Management



John J. Entsminger
General Manager



Julie A. Wilcox
Deputy General Manager
Administration



David L. Johnson
Deputy General Manager
Engineering/Operations

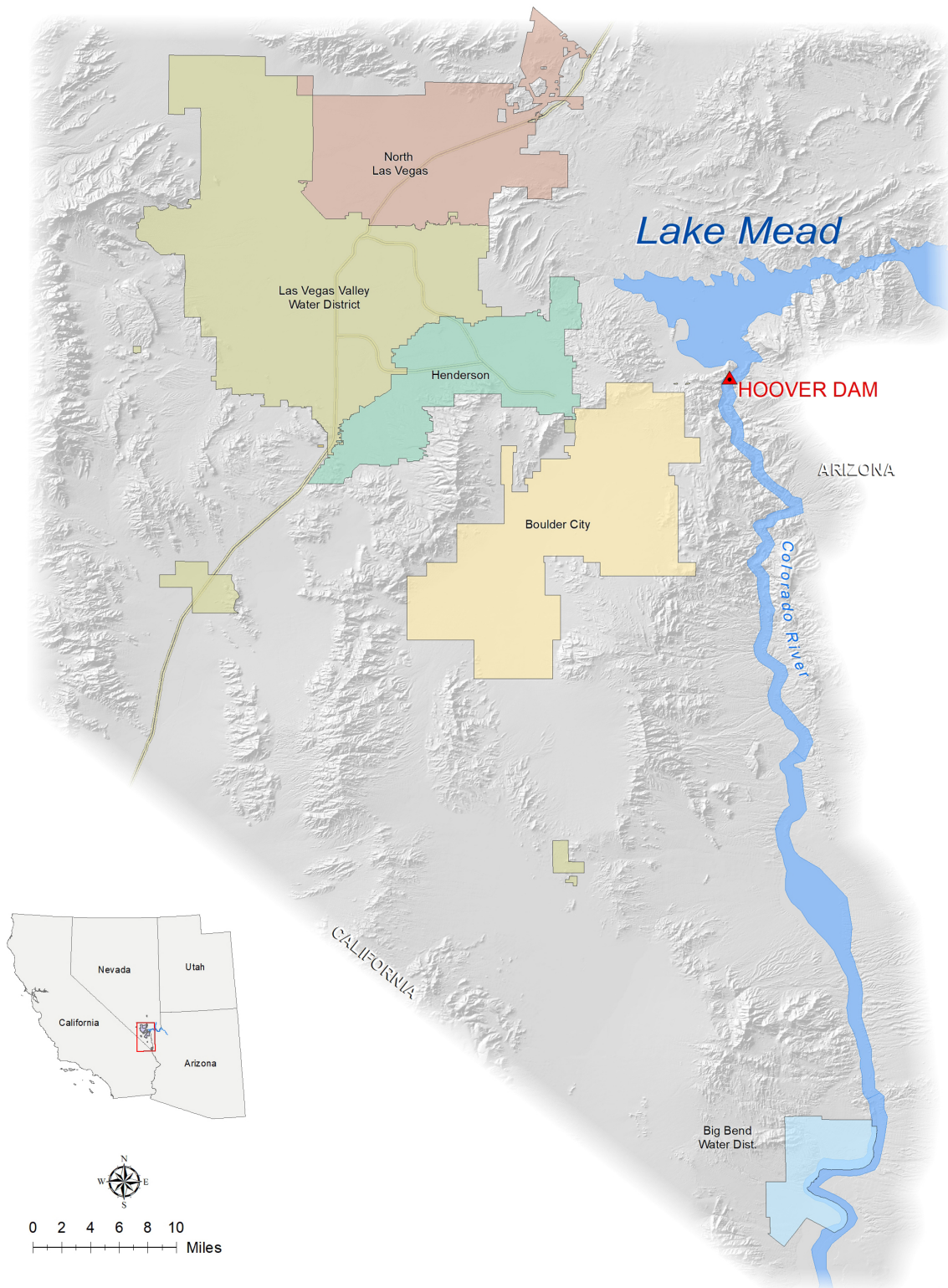


E. Kevin Bethel
Chief Financial
Officer

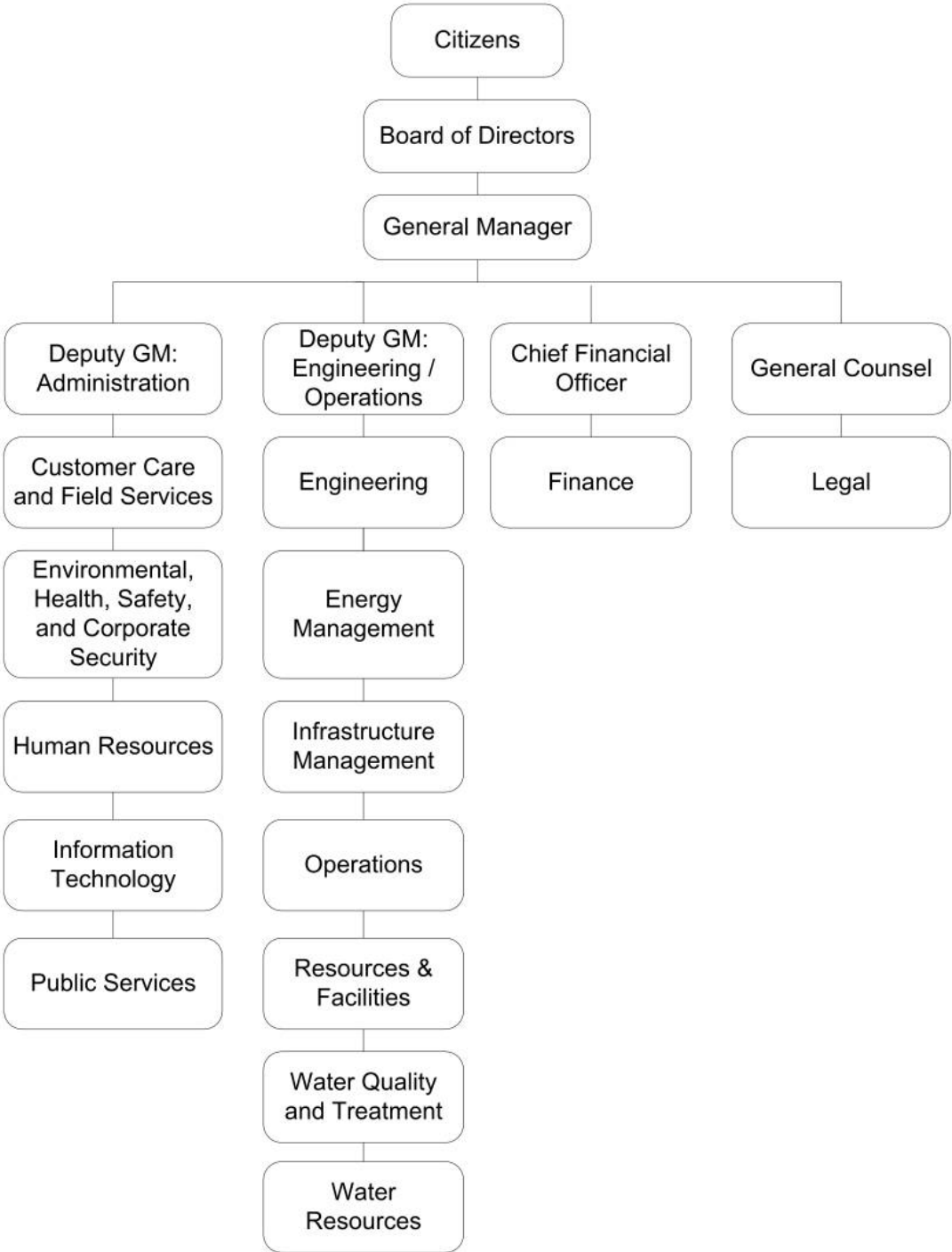


Gregory J. Walch
General Counsel

Map of SNWA Service Area



Southern Nevada Water Authority
 Organizational Chart
 As of June 30, 2019





Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

Southern Nevada Water Authority

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2018

Christopher P. Morill

Executive Director/CEO

Financial Section

- Independent Auditors' Report
- Management's Discussion and Analysis
- Basic Financial Statements
- Notes to Basic Financial Statements
- Other Supplementary Information

INDEPENDENT AUDITORS' REPORT ON FINANCIAL STATEMENTS AND SUPPLEMENTARY INFORMATION

Board of Directors
Southern Nevada Water Authority
Las Vegas, NV

We have audited the accompanying financial statements of the Southern Nevada Water Authority (SNWA) as of and for the fiscal years ended June 30, 2019 and 2018 and the related notes to the financial statements, which collectively comprise SNWA's basic financial statements as listed in the table of contents.

An audit performed in accordance with applicable professional standards is a process designed to obtain reasonable assurance about whether SNWA's basic financial statements are free from material misstatement. This process involves performing procedures to obtain audit evidence about the amounts and disclosures in the basic financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the basic financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal controls relevant to SNWA's preparation and fair presentation of the basic financial statements to enable the design of audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of SNWA's internal controls. Accordingly, we express no such opinion. An audit includes evaluating the appropriateness of the accounting policies used and the reasonableness of significant accounting estimates made by management, as well as the overall presentation of the basic financial statements.

Management's Responsibility for the Financial Statements. Management is responsible for the preparation and fair presentation of the basic financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of basic financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility. Our responsibility is to express an opinion on the basic financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the basic financial statements are free from material misstatement.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion. In our opinion, the basic financial statements referred to above present fairly, in all material respects, the financial position of SNWA as of June 30, 2019 and 2018, and the changes in financial position and cash flows for the fiscal years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters. Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 2 - 3 through 2 - 7 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by

the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management's about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statement, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information. Our audit was conducted for the purpose of forming our opinion on the financial statements that collectively comprise SNWA's basic financial statements. The introductory section, other supplementary information, as listed in the table of contents, and statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The other supplementary information, as listed in the table of contents, is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information as listed in the table of contents is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory section and statistical section have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by *Government Auditing Standards*. In accordance with *Government Auditing Standard*, we have also issued our report dated October 24, 2019, on our consideration of SNWA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contract, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing or internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering SNWA's internal control over financial reporting and compliance.



Las Vegas, Nevada
October 24, 2019

SOUTHERN NEVADA WATER AUTHORITY

Management's Discussion and Analysis
For the fiscal years ended June 30, 2019 and 2018

As management of the Southern Nevada Water Authority (SNWA), we offer readers of the SNWA's financial statements this narrative overview and analysis of the financial activities of the SNWA for the fiscal year ended June 30, 2019. We encourage readers to consider the information presented here in conjunction with the basic financial statements and accompanying notes, which follow this section.

Financial Highlights for 2019

- Total Assets increased \$26.4 million to \$5.8 billion, which was an increase of 0.5 percent.
- Total Liabilities decreased \$140.7 million to \$3.7 billion, which was a decrease of 3.7 percent.
- Net Position increased by \$160.1 million to \$2.2 billion, which was an increase of 8.0 percent.
- Construction Work In Progress increased by \$117.8 million to \$1.2 billion, which was an increase of 11.2 percent. The increase was primarily due to continued work on the Low Lake Level Pumping Station (L3PS).

Overview of the Financial Statements

This discussion and analysis serves as an introduction to the SNWA's basic financial statements, which are comprised of two components: (1) enterprise fund financial statements and (2) notes to the basic financial statements. This Comprehensive Annual Financial Report (CAFR) also contains other supplementary and statistical information in addition to the basic financial statements.

Enterprise fund financial statements. The SNWA's operations are accounted for as a single enterprise fund using the full accrual basis of accounting. In this regard, the SNWA's operations are accounted for like a private business enterprise. Within this fund, the SNWA segregates revenues and expenses in its financial statements for various purposes such as operations, debt service, and capital improvements. This segregation is an internal discipline and does not create physically separate funds.

Notes to the financial statements. The notes provide additional information that is essential for a full understanding of the data provided in the basic financial statements. While the information included in this discussion and analysis is a summary, a review of the notes to the basic financial statements are necessary to achieve a full understanding of the SNWA's financial position.

Other supplementary information. The statement of revenues, expenses, and changes in net position as well as the statement of cash flows are presented on a budget-to-actual comparison in compliance with Nevada Revised Statute 354.

Statistical information. This statistical information provides financial trends, revenue capacity, debt capacity, demographic and economic condition, and operational trends to enhance the reader's understanding of the SNWA's economic position in a broader context.

Financial analysis. One indication of the financial health of the SNWA is net position, which is the difference between assets and liabilities.

SOUTHERN NEVADA WATER AUTHORITY

Management's Discussion and Analysis
For the fiscal years ended June 30, 2019 and 2018

The following table summarizes the Statements of Net Position as of June 30, 2019, 2018, and 2017:

Condensed Statements of Net Position (In Millions)

	2019	Change	2018	Change	2017
Assets and Deferred Outflows					
Capital Assets	\$ 4,760.2	\$ 75.8	\$ 4,684.4	\$ 77.3	\$ 4,607.1
Other Assets	1,014.0	(49.4)	1,063.4	(47.8)	1,111.2
Total Assets	5,774.2	26.4	5,747.8	29.5	5,718.3
Deferred Outflows of Resources	77.4	(2.8)	80.2	(2.1)	82.3
Total Assets and Deferred Outflows	\$ 5,851.6	\$ 23.6	\$ 5,828.0	\$ 27.4	\$ 5,800.6
Liabilities and Deferred Inflows					
Current Liabilities	567.1	7.3	559.8	4.6	555.2
Noncurrent Liabilities	3,108.6	(148.0)	3,256.6	(123.8)	3,380.4
Total Liabilities	3,675.7	(140.7)	3,816.4	(119.2)	3,935.6
Deferred Inflows of Resources	20.5	4.2	16.3	(0.5)	16.8
Total Liabilities and Deferred Inflows	3,696.2	(136.5)	3,832.7	(119.7)	3,952.4
Net Position					
Net Investments in Capital Assets	1,394.1	55.6	1,338.5	80.2	1,258.3
Restricted for Debt Service / Capital Assets	56.6	28.3	28.3	(37.1)	65.4
Unrestricted	704.7	76.2	628.5	104.0	524.5
Total Net Position	2,155.4	160.1	1,995.3	147.1	1,848.2
Total Liabilities, Deferred Inflows, and Net Position	\$ 5,851.6	\$ 23.6	\$ 5,828.0	\$ 27.4	\$ 5,800.6

Capital Assets increased by \$75.8 million (1.6%) and \$77.3 million (1.7%) in fiscal years 2019 and 2018, respectively. The increases were mainly due to continued progress on the capital improvement plans, primarily the L3PS. Other Assets decreased \$49.4 million (4.6%) and \$47.8 million (4.3%) in fiscal years 2019 and 2018, respectively. The decreases were primarily due to uses of resources on capital assets.

Deferred Outflows of Resources decreased \$2.8 million (3.5%) and \$2.1 million (2.5%) in fiscal years 2019 and 2018, respectively. The decreases were due to a combination of normal amortization of the deferred loss on bond refundings, bond refunding activities, and investment returns and other activities within the LVVWD's pension plan.

Current Liabilities increased \$7.3 million (1.3%) and \$4.6 million (0.8%) in fiscal years 2019 and 2018, respectively. The increases were attributable to more principal due on debt service. Noncurrent Liabilities decreased \$148.0 million (4.5%) and \$123.8 million (3.7%) in fiscal years 2019 and 2018, respectively. The decreases were mainly a result of paying debt.

Deferred Inflows of Resources increased \$4.2 million (26.0%) and decreased \$0.5 million (3.0%) in fiscal years 2019 and 2018, respectively. The net increase in fiscal year 2019, was due to multiple factors. First, the Deferred Amount - Related Party changed significantly after the LVVWD set up and funded a trust for the postemployment benefits other than pension. Second, a combination of other changes in actuarial assumptions, normal amortization of deferred gains from bond refundings, and bond refunding activities. In fiscal year 2018, the net decrease resulted from normal amortization of deferred gains on bond refundings, bond refunding activities, and the addition of the SNWA's liability as a result of their share of the LVVWD's implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*.

SOUTHERN NEVADA WATER AUTHORITY

Management's Discussion and Analysis
For the fiscal years ended June 30, 2019 and 2018

The following table summarizes the Statements of Revenues, Expenses, and Changes in Net Position for the fiscal years ended June 30, 2019, 2018 and 2017:

Condensed Statements of Revenues, Expenses, and Changes in Net Position (In Millions)

	2019	Change	2018	Change	2017
Operating Revenues					
Wholesale Delivery Charges	\$ 133.3	\$ (1.1)	\$ 134.4	\$ 4.3	\$ 130.1
Other Revenues	7.9	0.6	7.3	—	7.3
Total Operating Revenues	141.2	(0.5)	141.7	4.3	137.4
Operating Expenses					
Personnel and Related	78.5	4.8	73.7	17.7	56.0
Energy	36.4	0.2	36.2	(0.4)	36.6
Depreciation	96.1	(13.1)	109.2	11.7	97.5
Operating and Maintenance	58.3	(0.3)	58.6	(15.2)	73.8
Total Operating Expenses	269.3	(8.4)	277.7	13.8	263.9
Nonoperating Revenues (Expenses)					
Nonoperating Revenues	31.2	29.2	2.0	(17.9)	19.9
Nonoperating Expenses	(131.2)	(39.3)	(91.9)	24.1	(116.0)
Total Nonoperating Revenues (Expenses)	(100.0)	(10.1)	(89.9)	6.2	(96.1)
Capital Contributions	388.2	6.8	381.4	49.2	332.2
Change in Net Position	\$ 160.1	\$ 4.6	\$ 155.5	\$ 45.9	\$ 109.6
Net Position					
Beginning, as Previously Reported	\$ 1,995.3		\$ 1,848.2		\$ 1,738.6
Prior Period Adjustment	—		(8.4)		—
Beginning, as Adjusted	1,995.3		1,839.8		1,738.6
Change in Net Position	160.1		155.5		109.6
Ending	<u>\$ 2,155.4</u>		<u>\$ 1,995.3</u>		<u>\$ 1,848.2</u>

Wholesale Delivery Charge revenues decreased \$1.1 million (0.8%) and increased \$4.3 million (3.3%) in fiscal years 2019 and 2018, respectively. The decrease in fiscal year 2019, was due to a combination of lower usage due to more precipitation and successful conservation efforts. The increase in fiscal year 2018, was due to modest population growth in the SNWA's service area.

Personnel and Related expenses increased \$4.8 million (6.5%) and \$17.7 million (31.6%) in fiscal years 2019 and 2018, respectively. The increase in fiscal year 2019, was consistent with expected changes in payroll. The increase in fiscal year 2018, was primarily attributable to a change in methodology for capitalizing indirect labor as well as a shift in labor allocation from the LVVWD as staff worked more on SNWA related activities.

Energy expenses increased \$0.2 million (0.6%) and decreased \$0.4 million (1.1%) in fiscal years 2019 and 2018, respectively. These changes are a result of modest changes in energy prices coupled with modest changes in demand.

Depreciation expense decreased \$13.1 million (12.0%) and increased \$11.7 million (12.0%) in fiscal years 2019 and 2018, respectively. The depreciation expense in fiscal year 2019 was as expected when compared to the one-time adjustment in fiscal year 2018.

SOUTHERN NEVADA WATER AUTHORITY

Management's Discussion and Analysis
For the fiscal years ended June 30, 2019 and 2018

Operating and Maintenance expenses decreased by \$0.3 million (0.5%) and \$15.2 million (20.6%) in fiscal year 2019 and 2018, respectively. The decrease in fiscal year 2018 was mainly attributable to the reclassification of capital projects that were deemed to be more operating in nature.

Nonoperating Revenues increased \$29.2 million (1,460.0%) in fiscal year 2019, and decreased \$17.9 million (89.9%) in fiscal year 2018. In fiscal year 2019, the increase was primarily due to implementation of GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, which caused the SNWA to no longer capitalize interest income. The SNWA sold its 25% stake in the Silverhawk Generation Station in fiscal year 2017, which explains the decrease from fiscal year 2017 to 2018.

Nonoperating Expenses increased \$39.3 million (42.8%) and decreased \$24.1 million (20.8%) fiscal years 2019 and 2018, respectively. In fiscal year 2019, the increase was due to the implementation of GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, which caused the SNWA to no longer capitalize interest expense. In fiscal year 2018, the decrease was due to continued payment of debt, debt refunding activities, and changes in the amount of capitalized interest expense.

Capital Contributions increased \$6.8 million (1.8%) and \$49.2 million (14.8%) in fiscal years 2019 and 2018, respectively. The increases in both years were due to population growth and growth in development within the SNWA's service area.

The prior period adjustment in fiscal year 2018 is due to the LVVWD's implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*.

Capital Asset and Long-Term Debt Activity

Capital Assets. As of June 30, 2019, the SNWA had net capital assets of \$4.8 billion, which included transmission and distribution lines, pumping stations and equipment, treatment facilities, water and other natural resources rights, and land. In fiscal year 2019, the SNWA made capital asset expenditures of \$171.9 million. Most of these expenditures were for projects within the Major Construction and Capital Plan. The largest project within that plan was the L3PS. See Note 7 to the basic financial statements for additional information on the types and values of the SNWA's capital assets. See Note 9 to the basic financial statements for additional information on the SNWA's capital improvement plans and the L3PS.

Long-Term Debt. As of June 30, 2019, the SNWA had long-term debt of \$3.1 billion. In fiscal year 2019, the SNWA did not issue any new long-term debt, but it had one bond refunding dated March 13, 2019, which resulted in an estimated net present value savings of \$17.9 million. See Note 16 to the basic financial statements for additional information on the SNWA's long-term debt.

Economic Factors and Next Year's Goals

The SNWA's financial outlook remains favorable. The economic environment of the SNWA's service area, Las Vegas and Clark County, has improved steadily over the past several years. The 2008 recession was the first time in decades that the Las Vegas area experienced a sustained period of little or no growth. Since then, growth has returned to the area, but at a more reasonable pace than Las Vegas experienced in the 1990s and early 2000s. Management continues to review the financial conditions of the area and actively take steps to ensure the SNWA's financial stability.

One of the greatest challenges currently facing Southern Nevada continues to be the multi-year drought affecting the Colorado River Basin. The amount of water in Lake Mead has declined substantially since the year 2000. As of June 30, 2019, the lake level was 1,085 feet, which is 40.0% of capacity. While this level is above the SNWA's three intakes, drawing water closer to the surface creates water quality challenges. In response, the SNWA is working within Nevada and with other Colorado River Basin states to develop solutions to mitigate impacts of the drought. The SNWA completed the third intake into Lake Mead and is currently constructing the L3PS to help ensure continued access to its Colorado River allocation should lake levels continue to decline.

In 2014, the SNWA engaged a citizens advisory committee to review drought conditions on the Colorado River and their impact on Southern Nevada's water supply. That committee made formal recommendations to the Board in November 2014. On December 10, 2014, the Board adopted those recommendations. Among those recommendations were (1) to construct a L3PS and (2) increase the Regional Infrastructure Charge rates to fund the L3PS, projected to cost \$650.0 million. This project is scheduled to be completed in the spring of 2020 and constitutes a significant portion of next year's goals.

SOUTHERN NEVADA WATER AUTHORITY

Management's Discussion and Analysis
For the fiscal years ended June 30, 2019 and 2018

In addition, conservation will remain a focus for next year's goals. Since its formation, the SNWA and its members have worked collaboratively to establish and achieve water conservation goals. Conservation is achieved through four primary areas: education, incentives, regulation, and water pricing. The SNWA has invested \$236.6 million in incentive programs like the Water Smart Landscapes program where customers receive rebates for converting water-thirsty turf to water-efficient landscaping. Conservation has proven to be a cost-effective option for meeting southern Nevada's water needs.

Requests for Information

This financial report is designed to provide a general overview of the SNWA's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Chief Financial Officer, Southern Nevada Water Authority, 1001 South Valley View Boulevard, Mail Stop 480, Las Vegas, Nevada, 89153.

The CAFR can also be viewed at snwa.com. The website contains other financial and operational information pertaining to the SNWA as well as helpful information concerning conservation and water issues.

SOUTHERN NEVADA WATER AUTHORITY
ENTERPRISE FUND
STATEMENTS OF NET POSITION
AS OF JUNE 30, 2019 AND 2018

ASSETS	2019	2018
CURRENT ASSETS		
Current Assets - Restricted		
Investments	\$ 166,699,967	\$ 325,475,872
Sales Tax Receivable	19,533,145	18,235,587
Total Current Assets - Restricted	186,233,112	343,711,459
Current Assets - Unrestricted		
Cash and Cash Equivalents	6,645,517	19,789,897
Investments	658,732,776	531,946,591
Due From Member Agencies	33,329,899	34,096,447
Other Receivables	8,279,407	9,905,431
Other Current Assets	34,997,979	38,058,009
Total Current Assets - Unrestricted	741,985,578	633,796,375
Total Current Assets	928,218,690	977,507,834
NONCURRENT ASSETS		
Capital Assets		
Capital Assets Subject to Depreciation		
Property, Plant and Equipment	4,342,702,481	4,301,804,645
Accumulated Depreciation	(1,433,939,392)	(1,339,429,475)
Net Capital Assets Subject to Depreciation	2,908,763,089	2,962,375,170
Capital Assets Not Subject to Depreciation		
Land and Land Rights	177,557,073	165,934,322
Natural Resource Rights	508,165,420	508,165,420
Construction Work In Progress	1,165,698,965	1,047,899,218
Net Capital Assets Not Subject to Depreciation	1,851,421,458	1,721,998,960
Total Net Capital Assets	4,760,184,547	4,684,374,130
Other Noncurrent Assets		
Water Recharge Inventory	85,826,949	85,919,996
Total Noncurrent Assets	4,846,011,496	4,770,294,126
TOTAL ASSETS	5,774,230,186	5,747,801,960
DEFERRED OUTFLOWS OF RESOURCES		
Deferred Loss on Bond Refundings	66,126,631	71,418,560
Deferred Amount - Related Party	11,234,505	8,784,099
Total Deferred Outflows of Resources	77,361,136	80,202,659
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	\$ 5,851,591,322	\$ 5,828,004,619

The accompanying notes are an integral part of these financial statements.

SOUTHERN NEVADA WATER AUTHORITY
ENTERPRISE FUND
STATEMENTS OF NET POSITION
AS OF JUNE 30, 2019 AND 2018

LIABILITIES AND NET POSITION	2019	2018
CURRENT LIABILITIES		
Accounts Payable	\$ 30,902,731	\$ 28,048,722
Accrued Interest Payable	14,568,728	15,253,990
Current Portion of Notes Payable	1,488,946	1,437,534
Current Portion of Bonds Payable	120,116,540	115,086,540
Short-Term Debt Payable	400,000,000	400,000,000
Total Current Liabilities	<u>567,076,945</u>	<u>559,826,786</u>
NONCURRENT LIABILITIES		
Due to Related Party	83,473,845	90,614,914
Notes Payable, Net of Current Portion	1,010,257	2,499,203
Bonds Payable, Net of Current Portion, and Unamortized Premiums and Discounts	<u>3,024,154,826</u>	<u>3,163,418,142</u>
Total Noncurrent Liabilities	<u>3,108,638,928</u>	<u>3,256,532,259</u>
TOTAL LIABILITIES	<u>3,675,715,873</u>	<u>3,816,359,045</u>
DEFERRED INFLOWS OF RESOURCES		
Deferred Gain on Bond Refundings	15,095,901	15,832,512
Deferred Amount - Related Party	5,366,127	481,774
Total Deferred Inflows of Resources	<u>20,462,028</u>	<u>16,314,286</u>
NET POSITION		
Net Investments in Capital Assets	1,394,041,563	1,338,529,398
Restricted for Debt Service / Capital Assets	56,636,255	28,267,590
Unrestricted	<u>704,735,603</u>	<u>628,534,300</u>
Total Net Position	<u>2,155,413,421</u>	<u>1,995,331,288</u>
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES, AND NET POSITION	<u><u>\$ 5,851,591,322</u></u>	<u><u>\$ 5,828,004,619</u></u>

The accompanying notes are an integral part of these financial statements.

SOUTHERN NEVADA WATER AUTHORITY
ENTERPRISE FUND
STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
FOR THE FISCAL YEARS ENDED JUNE 30, 2019 AND 2018

	<u>2019</u>	<u>2018</u>
OPERATING REVENUES		
Wholesale Delivery Charges	\$ 133,258,094	\$ 134,480,919
Groundwater Management Fees	888,571	878,647
Administration Costs Recoveries	797,268	695,443
Las Vegas Wash Revenues	440,727	429,845
Other Revenues	5,855,969	5,261,653
Total Operating Revenues	<u>141,240,629</u>	<u>141,746,507</u>
OPERATING EXPENSES		
Personnel and Related	78,516,987	73,687,225
Energy	36,366,008	36,244,051
Depreciation	96,091,468	109,196,145
Operating and Maintenance	58,311,354	58,603,873
Total Operating Expenses	<u>269,285,817</u>	<u>277,731,294</u>
OPERATING LOSS	<u>(128,045,188)</u>	<u>(135,984,787)</u>
NONOPERATING REVENUES (EXPENSES)		
Investment Income	31,036,983	1,722,807
Interest Expense (Net of BAB Subsidy of \$1,399,303 and \$2,092,295)	(145,081,067)	(105,825,457)
Amortization of Refunding Costs	(3,525,674)	(4,092,768)
Bond Issue and Commercial Paper Costs	(2,468,614)	(2,018,097)
Amortization of Bond Premiums and Discounts	19,895,176	20,063,488
Gain on Sale of Assets	116,341	288,832
Total Nonoperating Revenues (Expenses)	<u>(100,026,855)</u>	<u>(89,861,195)</u>
LOSS BEFORE CAPITAL CONTRIBUTIONS	(228,072,043)	(225,845,982)
Capital Contributions	388,154,176	381,402,434
CHANGE IN NET POSITION	<u>160,082,133</u>	<u>155,556,452</u>
NET POSITION - BEGINNING OF THE YEAR	1,995,331,288	1,839,774,836
NET POSITION - END OF THE YEAR	<u><u>\$ 2,155,413,421</u></u>	<u><u>\$ 1,995,331,288</u></u>

The accompanying notes are an integral part of these financial statements.

SOUTHERN NEVADA WATER AUTHORITY
ENTERPRISE FUND
STATEMENTS OF CASH FLOWS
FOR THE FISCAL YEARS ENDED JUNE 30, 2019 AND 2018

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES:		
General and Administrative / Resources Charges	\$ 3,374,875	\$ 3,035,000
Groundwater Management Fees	888,571	878,647
Las Vegas Wash Revenues	440,727	429,845
Wholesale Delivery Charges	131,182,012	134,350,122
Other Revenues	3,172,714	2,684,995
Cash Payments to Suppliers of Goods and Services	(136,927,623)	(118,515,167)
Net Cash Provided by (Used In) Operating Activities	2,131,276	22,863,442
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Purchase or Construction of Capital Assets	(174,804,156)	(162,353,653)
Proceeds from Disposal of Property and Equipment	116,341	291,032
Principal Paid on Debt	(112,794,074)	(112,089,439)
Interest Paid on Debt (Net of BAB Subsidy of \$1,573,378 and \$2,088,891)	(145,841,196)	(145,031,765)
Capital Contributions	355,695,177	347,508,025
Net Cash Provided by (Used In) Capital and Related Financing Activities	(77,627,908)	(71,675,800)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of Investment Securities	(711,842,878)	(856,929,242)
Proceeds from Sales or Maturities of Investment Securities	759,498,625	888,752,050
Investment Income	14,696,505	10,444,322
Net Cash Provided by (Used In) Investing Activities	62,352,252	42,267,130
NET DECREASE IN CASH AND CASH EQUIVALENTS	(13,144,380)	(6,545,228)
Cash and Cash Equivalents, Beginning of Year	19,789,897	26,335,125
Cash and Cash Equivalents, End of Year	\$ 6,645,517	\$ 19,789,897
RECONCILIATION OF OPERATING LOSS TO NET CASH PROVIDED BY		
OPERATING ACTIVITIES:		
Operating Loss	\$ (128,045,188)	\$ (135,984,787)
Depreciation	96,091,468	109,196,145
Expenses Related to Expansion Programs	33,627,523	24,113,212
(Increase) decrease in operating assets		
Due from Member Agencies	1,099,379	14,743,908
Other Receivables	34,240	363,698
Other Current Assets	3,060,030	(53,643)
Water Recharge Inventory	93,048	132,730
Deferred Amount - Related Party	2,433,948	(5,872,783)
Increase (decrease) in operating liabilities		
Accounts Payable	877,897	568,785
Due to Related Party	(7,141,069)	15,656,177
Net Cash Provided by (Used In) Operating Activities	\$ 2,131,276	\$ 22,863,442
NONCASH INVESTING, AND CAPITAL AND RELATED FINANCING ACTIVITIES:		
Changes in Fair Value of Investments	\$ 2,213,559	\$ (10,066,537)
Deferred Gain on Refunded Bonds	422,969	286,429
Refunding Bonds Issued	107,975,000	79,085,000
Bonds Refunded	(127,440,000)	(88,635,000)

The accompanying notes are an integral part of these financial statements.

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements

For the fiscal years ended June 30, 2019 and 2018

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity

The Southern Nevada Water Authority (SNWA) is a political subdivision of the State of Nevada (State) and is the reporting entity. The SNWA was created on July 25, 1991, pursuant to Nevada Revised Statutes (NRS) Chapter 277.080 to 277.180, inclusive, by a cooperative agreement and a facilities and operations agreement among its member agencies. These agencies include the Big Bend Water District, City of Boulder City, City of Henderson, City of Las Vegas, City of North Las Vegas, Clark County Water Reclamation District, and the Las Vegas Valley Water District (LVVWD). The cooperative agreement was last amended in 2005. The facilities and operations agreement was last amended in 2012.

The SNWA was created to secure additional supplies of water for Southern Nevada and to effectively manage existing supplies of water through the cooperative action of its member agencies. A seven-member Board of Directors (Board) comprised of one Director from each member agency governs the SNWA equally. The SNWA operations are autonomous from its member agencies and the State, and its financial statements are not included in the financial statements of any other entity.

The Board has the power to periodically assess its member agencies directly for operating expenses and capital expenditures and for the satisfaction of any liabilities imposed against the SNWA. Assessments for funds needed by the SNWA, in accordance with approved operating and capital budgets, have been apportioned to its member agencies based on water deliveries to those agencies. Funding received by the SNWA from its member agencies for operations is recorded as operating revenue, while funding received for capital improvement programs and other expansion related programs are recorded as capital contributions. Member agencies that are not potable water purveyors (the City of Las Vegas and the Clark County Water Reclamation District) each contribute \$35,000 annually to the SNWA.

Operating Agent / Related Party Disclosure

The Board has the responsibility to appoint a General Manager. The Board designated the LVVWD's General Manager as the General Manager of the SNWA in 1993. Simultaneously, the LVVWD was named the operating agent for the SNWA.

The LVVWD allocates a portion of its payroll costs to the SNWA for the LVVWD employees who are utilized on SNWA-related matters and pays certain costs and operating expenses on behalf of the SNWA. The SNWA has no employees of its own. Consequently, any financial reporting requirements regarding employees utilized by the SNWA, including but not limited to reporting on pension and other postemployment benefits, can be found in the LVVWD's Comprehensive Annual Financial Report (CAFR).

During the mid-1990s, the LVVWD paid substantially all operating and capital expenses on behalf of the SNWA, and the SNWA reimbursed the LVVWD monthly. In the late 1990s, to mitigate potential cash flow demands on the LVVWD under this arrangement, the SNWA began paying construction contracts directly, assumed responsibility for paying construction contract retention and paid most of the cost of power required to operate the Southern Nevada Water System. In 2008, the SNWA advanced \$19.0 million to the LVVWD to fund future SNWA-related operating expenses made on its behalf. The advance is replenished monthly and will be applicable throughout the SNWA's and LVVWD's operating agent relationship. The SNWA also pays other large recurring expenses that it deems would be detrimental to the LVVWD's cash flow.

The SNWA is autonomous from the LVVWD. The SNWA's operations and finances are separate from that of the LVVWD. The SNWA does not include the LVVWD's information within its financial statements, nor is the SNWA's information included in the LVVWD's financial statements.

The LVVWD is a quasi-municipal corporation created under a special act of the Nevada State Legislature in 1947 for obtaining and distributing water primarily in the Las Vegas Valley, which includes the City of Las Vegas and certain portions of the metropolitan area of Clark County. The LVVWD's CAFR can be found at lvvwd.com or can be obtained by mailing a request to the SNWA.

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements

For the fiscal years ended June 30, 2019 and 2018

Southern Nevada Water System

Effective January 1996, pursuant to Assembly Bill No. 542, approved by the Nevada Legislature in 1995 (the Transfer Act), the assets of the Southern Nevada Water System (SNWS), as well as certain liabilities and responsibility for operation of the SNWS, were transferred from the Colorado River Commission (CRC) to the SNWA. Along with the transfer of these assets, the CRC transferred all books and records in its possession relating to the SNWS and its facilities.

Fund Accounting

The accompanying basic financial statements are reported on the basis of fund accounting. A fund is a fiscal and accounting entity with a set of self-balancing accounts that comprise its assets, liabilities, net position, revenues, and expenses.

Enterprise Fund

The SNWA operations have been accounted for as a single enterprise fund, which is a type of proprietary fund. A fund is an accounting entity with a self-balancing set of accounts established to record the financial position and changes in financial position of a specific governmental activity. Enterprise fund operations are presented using the full accrual basis of accounting wherein revenues are recognized in the accounting period in which they are earned, and expenses are recognized in the period incurred, regardless of when revenues are received or expenses are paid. In this regard, the SNWA operations are accounted for in a manner like a private business enterprise, where the intent of the governing body is that the costs of providing goods and services to customers on a continuing basis are financed or recovered primarily through user charges, and its financial measurement focus is on determination of net income, financial position, and cash flows. The SNWA's financial statements comply with pronouncements of the Governmental Accounting Standards Board (GASB).

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires the use of estimates by management. Such estimates primarily relate to unsettled transactions and events as of the date of the basic financial statements. Actual results could differ significantly from those estimates.

Cash and Cash Equivalents

Cash and cash equivalents include currency on hand, demand deposits with financial institutions, and other highly liquid investments with original maturity of three months or less from date of acquisition.

Investments

The investment policy is designed to ensure compliance with NRS 355, minimize the loss of principal, provide sufficient liquidity, and earn a market rate of return. The SNWA's investments are held in its own name and are reported at fair value. Some of the security types that the SNWA is authorized to invest in include obligations of the U.S. Treasury, obligations of U.S. agencies, commercial paper, certificates of deposit, obligations of Nevada local governments, money market funds, and the Nevada Local Government Investment Pool. The Local Government Investment Pool is an unrated external investment pool administered by the State Treasurer with oversight by the State of Nevada Board of Finance. The value of the SNWA's investment in the pool is the same as its proportionate share of the pool's fair value.

Restricted Assets

Restricted assets include unused bond proceeds and sales tax proceeds which are externally restricted by bond covenants and Nevada Revised Statutes, respectively.

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements

For the fiscal years ended June 30, 2019 and 2018

Inventories

Inventories of supplies are recorded at cost, whereas inventories held for resale are recorded at lower of cost or market based on periodic reviews. Reduction of inventory is recorded using the first-in, first-out accounting method. Inventories are included in other current assets (Note 6).

Capital Assets

Property, plant, equipment, and land (Note 7) are carried at historical cost if purchased, estimated fair value if donated, or acquisition value if received in a service concession arrangement. Expenditures for improvements and betterments are capitalized. Generally, the SNWA capitalizes assets with a cost greater than \$10,000 and a useful life greater than three years.

Depreciation of property, plant and equipment is computed using the straight-line method over the estimated service life of the respective asset. Major utility plant categories and their estimated service lives are as follows:

<u>Category</u>	<u>Estimated Service Life in Years</u>
Structures and Improvements	10 to 20
Pumping Stations and Wells	40
Transmission, Distribution, and Mains	50 to 75
Office Furniture and Related Equipment	5 to 15
Transportation and Related Equipment	5 to 10
Northern Resource Assets	5 to 27.5

Revenues

Operating revenues include Wholesale Delivery Charges, Groundwater Management Fees, Administration Cost Recoveries, Las Vegas Wash Fees, and other ancillary revenues. During the fiscal year ended June 30, 2019, the Wholesale Delivery Charge was \$313 per acre-foot (AF) of potable water. The Wholesale Delivery Charge is designed to fund operation and maintenance of the SNWS, as well as the SNWA administration. The SNWA also charged \$238 per AF for non-potable water delivered to the City of Boulder City for use on golf courses. For the fiscal year ended 2019, Groundwater Management Fees consist of an annual fee of \$13 per AF of permitted groundwater rights or \$13 per domestic well. Administration Cost Recoveries are amounts charged to member agencies of the SNWA that do not physically take potable water from the SNWS. These costs vary by purveyor and are designed to defray the administration costs associated with their membership. Las Vegas Wash Fees consist of contributions from other local governments to fund operating and maintenance costs on the Las Vegas Wash. Other revenues consist primarily of sales made from the SNWA's northern resource properties.

Nonoperating revenues consist of investment income and a minimal amount of other miscellaneous items. Investment income was presented net of amounts capitalized until July 1, 2018, when the SNWA implemented GASB Statement 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, and stopped capitalizing portions of investment income.

Expenses

Operating expenses include payroll and related allocations from the LVVWD, energy, costs associated with the operation and maintenance of the SNWS, administrative costs, and depreciation. Nonoperating expenses include interest expense, amortization of deferred amounts from bond refundings, bond issue and commercial paper costs, and amortization of bond premiums and discounts. Interest expense was presented net of amounts capitalized until July 1, 2018, when the SNWA implemented GASB Statement 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, and stopped capitalizing portions of interest expense.

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Notes to Basic Financial Statements

For the fiscal years ended June 30, 2019 and 2018

Capital Contributions

Capital contributions include various monies that the SNWA receives which are restricted for use in the capital improvement programs and other expansion related programs (Note 17).

Litigation Defense Costs

The SNWA does not accrue estimated future legal and defense costs, if any, to be incurred in connection with outstanding or threatened litigation and other disputed matters. Instead, the SNWA records actual costs in the period incurred. See Note 13 for further information.

Water Rights Holding Company

In 1999, the Board established the Muddy River Water Holdings, Inc., a non-profit corporation authorized to facilitate the acquisition and holding of water rights stock and stock options. This corporation holds any stock purchased by the SNWA that represents water rights.

Reclassifications

Certain minor reclassifications have been made to the fiscal year 2018 basic financial statements to conform to the fiscal year 2019 presentation.

New Accounting Pronouncements

In June 2017, the GASB issued Statement No. 87, *Leases*, which is effective for fiscal years beginning after December 15, 2019. The objective of this Statement is to better meet the information needs of financial statement users by improving accounting and financial reporting for leases; enhancing the comparability of financial statements between governments; and enhancing the relevance, reliability (representational faithfulness), and consistency of information about the leasing activities of governments. The SNWA is currently evaluating how the adoption of Statement No. 87 will affect the SNWA's financial position, results of operation, or cash flow.

In May 2019, the GASB issued Statement No. 91, *Conduit Debt Obligations*, which is effective for fiscal years beginning after December 15, 2020. The primary objectives of this Statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. It achieves those objectives by clarifying the existing definition of a conduit debt obligation; establishing that a conduit debt obligation is not a liability of the issuer; establishing standards for accounting and financial reporting of additional commitments and voluntary commitments extended by issuers and arrangements associated with conduit debt obligations; and improving required note disclosures. The SNWA is currently evaluating how the adoption of Statement No. 91 will affect the SNWA's financial position, results of operation, or cash flow.

Other recent accounting standards issued by the GASB are not believed to have an effect on the SNWA's present or future financial position, results of operations, or cash flows.

NOTE 2. CASH AND CASH EQUIVALENTS

Cash and cash equivalents consist of demand deposit accounts containing restricted and unrestricted cash. Cash balances as of June 30, 2019 and 2018, were \$6.6 million and \$19.8 million, respectively. The SNWA bank balances as of June 30, 2019 and 2018, were \$8.2 million and \$20.6 million, respectively.

On July 22, 2003, the Nevada State Assembly approved an amendment to NRS 356.020 establishing a Nevada State Treasurer's Pooled Collateral Program for local governments. The primary objective of the collateral pool is to reduce the risk for government agencies, while at the same time decrease the overall collateral requirement for depositories. By centralizing the administration and reporting functions through the State Treasurer's Office, both government agencies and depositories realize cost savings in terms of operational support and collateral efficiency. The bank utilized by the SNWA participates in the pool by pledging securities

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Notes to Basic Financial Statements

For the fiscal years ended June 30, 2019 and 2018

for the SNWA monies on deposit. The collateral pool for public fund deposits administered and monitored by the Nevada State Treasurer's Pooled Collateral Office requires depository banks to place acceptable securities of no less than 102% of the market value of the aggregate total deposits of public entities in Nevada with a third-party custodian.

NOTE 3. INVESTMENTS

The SNWA's investments by fair value were as follows:

Investment Type	June 30, 2019	June 30, 2018
U.S. Agency Non-Callable Bonds	\$ 512,903,167	\$ 517,866,221
U.S. Treasury Notes	133,010,070	91,227,290
Local Government Investment Pool	82,124,184	—
U.S. Agency Callable Bonds	42,144,200	19,620,500
Commercial Paper	34,198,402	111,778,172
Negotiable Certificates of Deposit	21,052,720	106,930,280
Commercial Paper Floater	—	10,000,000
Total	\$ 825,432,743	\$ 857,422,463

Credit Risk

As of June 30, 2019, the SNWA's investment ratings and fair values were as follows:

Investment Type	S&P	Moody's	Fair Value
U.S. Agency Non-Callable Bonds	AA+	Aaa	\$ 457,862,667
Local Government Investment Pool	Unrated	Unrated	82,124,184
U.S. Agency Non-Callable Bonds	Unrated	Unrated	55,040,500
U.S. Agency Callable Bonds	AA+	Aaa	42,144,200
Commercial Paper	A-1	P-1	34,198,402
Negotiable Certificates of Deposit	A-1+	P-1	16,050,720
Negotiable Certificates of Deposit	A-1	P-1	5,002,000

As of June 30, 2018, the SNWA's investment ratings and fair values were as follows:

Investment Type	S&P	Moody's	Fair Value
U.S. Agency Non-Callable Bonds	AA+	Aaa	\$ 468,620,971
Commercial Paper	A-1+	P-1	38,411,661
Negotiable Certificates of Deposit	A-1	P-1	47,998,000
Negotiable Certificates of Deposit	A-1+	P-1	39,926,200
U.S. Agency Non-Callable Bonds	Unrated	Unrated	49,245,250
Commercial Paper	A-1	P-1	73,366,511
U.S. Agency Callable Bonds	AA+	Aaa	19,620,500
Commercial Paper Floater	A-1+	P-1	10,000,000
Negotiable Certificates of Deposit	Unrated	Unrated	19,006,080

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Notes to Basic Financial Statements
For the fiscal years ended June 30, 2019 and 2018

Concentration of Credit Risk

As of June 30, 2019, the following investments individually comprise 5% or more of the SNWA's total investment portfolio:

Issuer	Investment Type	Percentage of Investments
Federal Farm Credit Bank	U.S. Agency Bonds	23%
Federal Home Loan Bank	U.S. Agency Bonds	18%
Federal Home Loan Mortgage Corporation	U.S. Agency Bonds	10%
Federal National Mortgage Association	U.S. Agency Bonds	10%
Federal Agricultural Mortgage Corporation	U.S. Agency Bonds	7%

As of June 30, 2018, the following investments individually comprise 5% or more of the SNWA's total investment portfolio:

Issuer	Investment Type	Percentage of Investments
Federal Farm Credit Bank	U.S. Agency Bonds	18%
Federal Home Loan Mortgage Corporation	U.S. Agency Bonds	15%
Federal Home Loan Bank	U.S. Agency Bonds	14%
Federal National Mortgage Association	U.S. Agency Bonds	9%
Federal Agricultural Mortgage Corporation	U.S. Agency Bonds	6%

Interest Rate Risk

As of June 30, 2019, the SNWA's investments were as follows:

Investment Type	Fair Value	Weighted Average Maturity in Days
U.S. Agency Non-Callable Bonds	\$ 512,903,167	604
U.S. Treasury Notes	133,010,070	539
Local Government Investment Pool	82,124,184	115
U.S. Agency Callable Bonds	42,144,200	1,716
Commercial Paper	34,198,402	95
Negotiable Certificates of Deposit	21,052,720	187
Total Fair Value	<u>\$ 825,432,743</u>	
Portfolio Weighted Average Maturity		571

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Notes to Basic Financial Statements

For the fiscal years ended June 30, 2019 and 2018

As of June 30, 2018, the SNWA's investments were as follows:

Investment Type	Fair Value	Weighted Average Maturity in Days
U.S. Agency Non-Callable Bonds	\$ 517,866,221	565
Commercial Paper	111,778,172	111
Negotiable Certificates of Deposit	106,930,280	210
U.S. Treasury Notes	91,227,290	700
U.S. Agency Callable Bonds	19,620,500	1,955
Commercial Paper Floater	10,000,000	233
Total Fair Value	<u>\$ 857,422,463</u>	
Portfolio Weighted Average Maturity		505

Fair Value Measurement

GASB Statement No. 72, *Fair Value Measurement and Application*, defines fair value, establishes a framework for measuring fair value, and provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The three levels of the fair value hierarchy are as follows:

- Level 1. Inputs are unadjusted quoted prices for identical assets or liabilities in active markets.
- Level 2. Inputs are other observable inputs.
- Level 3. Inputs are unobservable.

The fair value measurement level within the hierarchy is based on the lowest level of any input that is deemed significant to the fair value measurement. Valuation techniques used maximize the use of observable inputs and minimize the use of unobservable inputs.

The SNWA's Level 1 investments were valued based on quoted market prices provided by recognized broker dealers and its Level 2 investments were valued by recognized broker dealers based on a matrix pricing model that maximizes the uses of observable inputs for similar securities.

At June 30, 2019, the SNWA had the following fair value classifications by investment level:

Investment Type	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)
U.S. Agency Non-Callable Bonds	\$ 512,903,167	\$ —	\$ 512,903,167	\$ —
U.S. Treasury Notes	133,010,070	133,010,070	—	—
U.S. Agency Callable Bonds	42,144,200	—	42,144,200	—
Commercial Paper	34,198,402	—	34,198,402	—
Negotiable Certificates of Deposit	21,052,720	—	21,052,720	—
Total Investments	<u>\$ 743,308,559</u>	<u>\$ 133,010,070</u>	<u>\$ 610,298,489</u>	<u>\$ —</u>

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Notes to Basic Financial Statements

For the fiscal years ended June 30, 2019 and 2018

At June 30, 2018, the SNWA had the following fair value classifications by investment level:

Investment Type	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)
U.S. Agency Non-Callable Bonds	\$ 517,866,221	\$ —	\$ 517,866,221	\$ —
Commercial Paper	111,778,172	—	111,778,172	—
Negotiable Certificates of Deposit	106,930,280	—	106,930,280	—
U.S. Treasury Notes	91,227,290	91,227,290	—	—
U.S. Agency Callable Bonds	19,620,500	—	19,620,500	—
Commercial Paper Floater	10,000,000	—	10,000,000	—
Total Investments	\$ 857,422,463	\$ 91,227,290	\$ 766,195,173	\$ —

NOTE 4. DUE FROM MEMBER AGENCIES

The SNWA bills its member agencies for Wholesale Delivery Charges for water delivered to purveyor members, and/or reimbursement of general, administrative, and other charges. In addition to these billings, purveyor members collect Regional Infrastructure Charges, Regional Connection Charges, Regional Commodity Charges, and Regional Reliability Surcharges (the latter two known collectively as Regional Water Charges). Revenue from billings and collections are remitted to the SNWA monthly.

Also, the SNWA has advanced funds to the LVVWD that are used to fund daily operating costs paid by the LVVWD. The LVVWD sends the SNWA monthly detailed bills for expenses the LVVWD incurred on the SNWA's behalf and the SNWA pays these billings when received. At year end, the SNWA nets any outstanding amounts owed to the LVVWD against the advance and shows the unused balance of advanced funds in the Due from Member Agencies account. As of June 30, 2019 and 2018, the entire advance was applied against SNWA-related expenses.

Based on historical collection experience, management believes all accounts are collectible, and therefore no allowance has been provided for bad debts. At June 30, 2019 and 2018, the following amounts were due from the SNWA's member agencies and Nellis Air Force Base, which the SNWA serves:

Member Agency	June 30, 2019	June 30, 2018
Las Vegas Valley Water District	\$ 13,824,009	\$ 16,935,233
City of North Las Vegas	11,303,791	9,303,451
City of Henderson	7,584,247	7,249,424
City of Boulder City	445,361	479,626
Big Bend Water District	64,604	50,850
Nellis Air Force Base	37,887	42,863
Clark County Water Reclamation District	70,000	35,000
Total Due from Member Agencies	\$ 33,329,899	\$ 34,096,447

NOTE 5. RECEIVABLES

Receivables include amounts due from the State of Nevada, grantors and businesses, as well as accrued interest from investments. Based on historical collection experience, management believes all amounts are collectible, and therefore no allowance has been provided for bad debts.

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Notes to Basic Financial Statements

For the fiscal years ended June 30, 2019 and 2018

The following amounts were due as of June 30, 2019 and 2018:

Type	June 30, 2019	June 30, 2018
Current Receivables - Restricted		
State of Nevada - Department of Taxation	\$ 19,533,145	\$ 18,235,587
Current Receivables - Unrestricted		
Southern Nevada Public Lands Management Act	4,845,872	6,938,032
Accrued Interest from Investments	3,070,861	2,396,411
Grants Receivable	99,032	196,099
Build America Bonds (BAB) Subsidy Receivable	—	174,074
Other Receivable	263,642	200,815
Total Current Receivables - Unrestricted	8,279,407	9,905,431
Total Current Receivables	\$ 27,812,552	\$ 28,141,018

NOTE 6. OTHER CURRENT ASSETS

Other current assets consist of prepaid expenses, inventory, and miscellaneous current assets located at the SNWA's northern resource property locations. The \$3.1 million (8.0%) decrease in other current assets is due primarily to a decrease in inventory and prepaid power offset by an increase in prepaid professional services. The SNWA prepays power to secure future power (electricity and natural gas) contracts.

The following items are included in Other Current Assets as of June 30, 2019 and 2018:

Type	June 30, 2019	June 30, 2018
Prepaid Power	\$ 25,927,420	\$ 29,751,808
Inventory	6,516,637	6,975,246
Other Prepays	2,553,922	1,330,955
Total Other Current Assets	\$ 34,997,979	\$ 38,058,009

NOTE 7. CAPITAL ASSETS

The following capital assets schedules summarize changes in major categories of capital assets for fiscal years ended June 30, 2019 and 2018. Natural resource rights and Construction Work In Progress are described in more detail in Note 8 and Note 9.

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements

For the fiscal years ended June 30, 2019 and 2018

Capital Assets June 30, 2019

Capital Assets Category	Balance at June 30, 2018	Additions	Deletions	Transfers	Balance at June 30, 2019
Capital Assets Subject to Depreciation					
Structures and Improvements	\$ 809,517,410	\$ 3,761,953	\$ —	\$ 29,508,020	\$ 842,787,383
Pumping Stations and Wells	640,405,492	250,382	—	—	640,655,874
Transmission/Distribution/Mains	2,685,141,119	—	—	—	2,685,141,119
Office Furniture and Equipment	130,466,726	4,918,116	(1,134,179)	—	134,250,663
Transportation/Work/Equipment	8,148,612	1,773,142	(323,273)	—	9,598,481
Northern Resources Assets	28,125,286	2,267,774	(124,099)	—	30,268,961
Total Capital Assets Subject to Depreciation	4,301,804,645	12,971,367	(1,581,551)	29,508,020	4,342,702,481
Accumulated Depreciation					
Structures and Improvements	477,228,994	36,295,022	—	—	513,524,016
Pumping Stations and Wells	234,404,474	15,555,179	—	—	249,959,653
Transmission/Distribution/Mains	499,448,747	37,559,130	—	—	537,007,877
Office Furniture and Equipment	105,034,132	3,866,267	(1,134,179)	—	107,766,220
Transportation/Work/Equipment	5,375,498	877,743	(323,273)	—	5,929,968
Northern Resources Assets	17,937,630	1,938,127	(124,099)	—	19,751,658
Total Accumulated Depreciation	1,339,429,475	96,091,468	(1,581,551)	—	1,433,939,392
Net Capital Assets Subject to Depreciation	2,962,375,170	(83,120,101)	—	29,508,020	2,908,763,089
Capital Assets Not Subject to Depreciation					
Land and Land Rights	165,934,322	11,622,751	—	—	177,557,073
Natural Resource Rights	508,165,420	—	—	—	508,165,420
Construction Work In Progress	1,047,899,218	147,323,842	(16,075)	(29,508,020)	1,165,698,965
Net Capital Assets Not Subject to Depreciation	1,721,998,960	158,946,593	(16,075)	(29,508,020)	1,851,421,458
Total Net Capital Assets	\$ 4,684,374,130	\$ 75,826,492	\$ (16,075)	\$ —	\$ 4,760,184,547

Capital Assets June 30, 2018

Capital Assets Category	Balance at June 30, 2017	Additions	Deletions	Transfers	Balance at June 30, 2018
Capital Assets Subject to Depreciation					
Structures and Improvements	\$ 806,110,229	\$ 1,784,600	\$ (27,904)	\$ 1,650,485	\$ 809,517,410
Pumping Stations and Wells	639,373,049	1,046,265	(13,822)	—	640,405,492
Transmission/Distribution/Mains	2,697,192,477	—	—	(12,051,358)	2,685,141,119
Office Furniture and Equipment	126,330,047	6,736,927	(2,698,962)	98,714	130,466,726
Transportation/Work/Equipment	7,132,380	1,697,663	(681,431)	—	8,148,612
Northern Resources Assets	25,334,976	2,977,188	(187,654)	776	28,125,286
Total Capital Assets Subject to Depreciation	4,301,473,158	14,242,643	(3,609,773)	(10,301,383)	4,301,804,645
Accumulated Depreciation					
Structures and Improvements	441,394,066	35,862,834	(27,906)	—	477,228,994
Pumping Stations and Wells	218,872,478	15,545,818	(13,822)	—	234,404,474
Transmission/Distribution/Mains	447,842,496	51,606,251	—	—	499,448,747
Office Furniture and Equipment	104,046,841	3,686,253	(2,698,962)	—	105,034,132
Transportation/Work/Equipment	5,349,757	704,972	(679,231)	—	5,375,498
Northern Resources Assets	16,335,267	1,790,017	(187,654)	—	17,937,630
Total Accumulated Depreciation	1,233,840,905	109,196,145	(3,607,575)	—	1,339,429,475
Net Capital Assets Subject to Depreciation	3,067,632,253	(94,953,502)	(2,198)	(10,301,383)	2,962,375,170
Capital Assets Not Subject to Depreciation					
Land and Land Rights	148,162,139	5,720,825	—	12,051,358	165,934,322
Natural Resource Rights	504,654,344	1,009,000	—	2,502,076	508,165,420
Construction Work In Progress	886,612,738	170,529,664	(4,991,133)	(4,252,051)	1,047,899,218
Net Capital Assets Not Subject to Depreciation	1,539,429,221	177,259,489	(4,991,133)	10,301,383	1,721,998,960
Total Net Capital Assets	\$ 4,607,061,474	\$ 82,305,987	\$ (4,993,331)	\$ —	\$ 4,684,374,130

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements

For the fiscal years ended June 30, 2019 and 2018

NOTE 8. NATURAL RESOURCE RIGHTS

Arizona Water Bank

In 1993, the Board approved a cooperative agreement among its member agencies for funding and participation in the Arizona Underground Storage Demonstration Project (Project). The Project was originally an agreement between the Central Arizona Water Conservation District (CAWCD) and the Metropolitan Water District of Southern California to store water from the Colorado River in underground aquifers in Arizona. The SNWA agreed to participate in the Project and pay CAWCD to store Colorado River water in Arizona. In the event of either a flood release or an anticipatory release of Colorado River water, water stored in Arizona would then become the property of the States of California and Nevada. In 1996 and 1997, the United States Secretary of Interior declared a surplus, and 50,000 AF of water stored in Arizona were assigned to the SNWA. Under the Project, the SNWA purchased the 50,000 AF of water available for future use and funded the expenditure through capital contributions from the SNWA's member agencies.

In 2001, the SNWA and CRC approved an Agreement for Interstate Water Banking (Banking Agreement) with the Arizona Water Banking Authority (AWBA). The AWBA agreed to use its best efforts to store 1.2 million AF of Colorado River water underground in Arizona for the SNWA under the Banking Agreement, and two related agreements that were executed in 2002. Also in 2002, the SNWA and the CRC entered into an agreement with the AWBA to allow the SNWA to store water in Arizona during that year while the remaining agreements were being negotiated. Under the 2002 agreement, the SNWA stored 66,595 AF of Colorado River water in Arizona. In 2004, as part of a subsequent agreement, the AWBA agreed to store an extra 10,000 AF of Nevada's unused Colorado River water for the SNWA.

In 2004, the Board approved an amendment to the 2001 Banking Agreement that guarantees Nevada 1.25 million AF of water storage in aggregate (approximately 1.13 million AF of additional storage plus utilization of the roughly 120,000 AF of water previously stored) in Arizona. In exchange for the water stored, the SNWA agreed to make an initial payment of \$100.0 million and payments of \$23.0 million per year for a ten-year period beginning in 2009. Additionally, the SNWA agreed to pay the AWBA's actual cost to recover the stored water.

After several mutually agreed upon deferrals of payment, the AWBA and the SNWA approved an amendment to the 2001 Banking Agreement in May 2013 that relieved the SNWA from its obligation to pay the AWBA \$217.3 million in remaining annual payments. In exchange, the AWBA will complete any additional storage of Colorado River water on a pay-as-you-go basis. Also, the SNWA will pay a \$20,000 annual administrative fee for maintenance of the SNWA's storage credits.

Drop 2 / Brock Storage Reservoir Water Rights

In 2005, the Bureau of Reclamation completed a study of potential alternatives for replacing lost storage capacity, reducing excess deliveries to Mexico, and improving lower river operational control. It was determined that building a small reservoir near the All-American Canal was the best alternative.

In return for funding \$99.8 million to design and construct the Drop 2 Reservoir, the SNWA would receive the right to 400,000 AF of System Efficiency Intentionally Created Surplus. This water would be able to be utilized by the SNWA through 2036 at a maximum rate of 40,000 acre-feet per year (AFY).

Northern Resource Properties and Related Rights

In 2006 and 2007, the Board approved the purchase of seven properties in Spring Valley, Nevada. In addition to its land holdings of over 23,000 acres, the SNWA also acquired surface and groundwater rights associated with the properties. Through June 30, 2012, the SNWA acquired more than 33,000 AFY of surface water rights, more than 6,000 AFY of groundwater rights, and more than 23,000 AFY of supplemental water rights. Additional negligible water rights were acquired in 2010. The SNWA intends to use the surface water rights to help manage the groundwater basin and support other environmental management activities associated with its Clark, Lincoln, and White Pine Counties Groundwater Development Project.

The Bureau of Land Management (BLM) and United States Forest Service (USFS) issue permits allowing livestock to graze on lands in districts formed primarily under the Taylor Grazing Act. These grazing permits specify grazing preference and the terms and conditions under which permittees may graze these lands during the term of the permit. They are issued by land units called

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Notes to Basic Financial Statements

For the fiscal years ended June 30, 2019 and 2018

allotments with units known as Animal Unit Months (AUM). An AUM is defined as the amount of forage needed by an animal unit grazing for one month (approximately 1,000 pounds of dry forage). Permits issued by the BLM and USFS are effective for ten years and are subject to renewal. As of June 30, 2019, the SNWA owned permits equivalent to 46,180 AUMs. The SNWA has verified through a third party that the AUMs have not been impeded or decreased in value by any legal actions.

Muddy River Water Rights

In 1996, the Board authorized the General Manager to request proposals for acquisition of up to 5,600 AF of Muddy River Water Rights from shareholders of the Muddy Valley Irrigation Company (MVIC). In 1999, the SNWA purchased 3,662 AF of water rights from several shareholders. In 2000, the SNWA exercised all options possible and obtained the permanent water rights associated with those options totaling 1,764 AF. The Board authorized and executed an additional purchase of shares in 2001, representing a total of 188 AF of water. In 2002 and 2004, the Board authorized the acquisition of an additional 3,300 AF and 600 AF, respectively, of Muddy River Water Rights bringing the total authorized for purchase to 9,500 AF. Finally, in 2008 (amended 2011) the Board authorized the acquisition of additional shares of the MVIC, along with additional shares of other northeastern Clark County rural irrigation companies. The authorization does not give a specific limit for the MVIC acquisition but instead establishes a \$57.1 million limit for post 2007 acquisitions or leases of the MVIC and two other rural irrigation companies. The SNWA has not exceeded this authorization.

Hydropower Rights

The CRC was created in 1935 for securing and distributing Nevada's right to Colorado River water and hydroelectric power. The CRC delivers Nevada's allocation of Colorado River hydroelectric power to various municipal and non-municipal customers in Southern Nevada.

The SNWA's hydropower portfolio consists of power that is generated at Hoover, Parker, and Davis Dams. The SNWA receives an allocation of Hoover power from the CRC of 17,146 kW of contingent capacity and 79,349,211 kWh per year of firm energy. This contract is effective from October 1, 2017 through September 30, 2067. The SNWA also receives a maximum of 9,456 kW per year of capacity that is generated at Parker and Davis Dams and 34,381,632 kWh of firm energy. The SNWA's Parker-Davis contract with the CRC expires in 2028. Accordingly, the hydropower is considered a perpetual resource.

Virgin River Water Rights Development

In 1994, the Board agreed to accept assignment of Nevada's Virgin River water rights from the LVVWD, subject to the SNWA reimbursing the LVVWD for all costs incurred related to the acquisition of those water rights. Additionally, the SNWA acquired 350 shares of the Bunkerville Irrigation Company (BIC) in September 2005. The shares represent 3,710 AF of Virgin River surface water rights. Under the terms of an agreement between the SNWA and the Virgin Valley Water District (VVWD) in 2000, the SNWA transferred 3,710 AF of its water rights to the VVWD to assist in the development of additional groundwater resources in the Virgin River Basin. Finally, in 2008 (amended 2011) the Board authorized the acquisition of additional shares of the BIC and the Mesquite Irrigation Company (MIC). The authorization, which includes the MVIC as described above, does not give a specific limit for acquisition. Instead, it establishes a \$57.1 million limit for post-2007 acquisitions or leases of the MVIC, BIC, and MIC. The SNWA has not exceeded this authorization.

Coyote Springs Water Rights

In 1997, the Board authorized the General Manager to initiate negotiations for the purchase of groundwater rights and a well in the Coyote Springs Valley located about 60 miles northeast of Las Vegas. In 1998, the Board approved the purchase of 7,500 AF of groundwater rights and the well with associated real property including easements. In 2002, the SNWA purchased another 1,500 AF of water rights from Coyote Springs Investment, LLC.

In-State Water Projects

In 1989, the LVVWD filed applications to appropriate water from multiple hydrographic basins located in eastern Nevada. In 2003, the Board agreed to accept assignment of those applications from the LVVWD for a payment of \$9.9 million, which represented the LVVWD's costs to date of developing and perfecting those water rights.

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Cave Valley Hydrologic Basin Water Rights

In 2008, the State Engineer (SE) issued a ruling that granted the SNWA 18,755 AFY from Delamar, Dry Lake, and Cave Valley Hydrologic Basins. Cave Valley Ranch, LLC (CVR) filed protests to the applications which ultimately concluded with a settlement between CVR, the SE, and the SNWA. In 2009, a settlement agreement between the SNWA and CVR granted the SNWA 4,678 AFY in the Cave Valley Hydrologic Basin.

Binational ICS

In November 2012, the SNWA and several U.S. federal and state agencies signed a series of agreements to implement Minute 319 to the 1944 Mexican Water Treaty. Minute 319 creates a new binational framework to address shortages and surpluses on the Colorado River, and allows Mexico to store water in Lake Mead for future use. The pilot project is instrumental in funding improvements to Mexico's water infrastructure and conservation measures. The agreement helps ensure the Colorado River system can meet the needs of both countries. The SNWA was credited with 23,750 AF of water, which is proportional to its capital contribution of \$2.5 million. This intentionally created surplus (ICS) is not available for delivery in a year in which a shortage condition has been determined by the U.S. Secretary of the Interior.

Other Water Rights

In 2010, the SNWA acquired the contractual rights to 400 AF of Colorado River water held by an outside corporation. The \$2.0 million purchase does not increase Nevada's 300,000 AF basic apportionment of Colorado River water, but will ensure that the SNWA is the sole entity authorized to receive this water.

Groundwater Management Program

In 1999, the Nevada Legislature directed the SNWA to establish a Groundwater Management Program (GMP) for the Las Vegas Valley. The GMP provided for the recharging of treated Colorado River water into the Las Vegas Valley Groundwater Basin (LVVGB) for the permanent benefit of the aquifer. Funds collected as part of the GMP are used for this recharge and other programs to benefit well owners.

The following table summarizes the amounts capitalized related to natural resource rights as of June 30, 2019 and 2018:

<u>Type</u>	<u>June 30, 2019</u>	<u>June 30, 2018</u>
Arizona Water Bank	\$ 136,967,571	\$ 136,967,571
Drop 2 / Brock Storage Reservoir Water Rights	99,797,437	99,797,437
Northern Resource Property and Rights	62,165,559	62,165,559
Muddy River Water Rights	65,946,976	65,946,976
Hydropower Rights	53,000,000	53,000,000
Virgin River Water Rights Development	39,556,880	39,556,880
Coyote Springs Water Rights	30,884,687	30,884,687
In-State Water Projects	10,134,854	10,134,854
Cave Valley Hydrographic Basin Water Rights	4,050,950	4,050,950
Binational ICS	2,502,076	2,502,076
Other Water Rights	2,000,000	2,000,000
Groundwater Management Program	1,158,430	1,158,430
Total Natural Resource Rights	<u>\$ 508,165,420</u>	<u>\$ 508,165,420</u>

NOTE 9. CONSTRUCTION WORK IN PROGRESS

The SNWA maintains two capital construction programs: (1) the Major Construction and Capital Plan (MCCP) which includes capital projects that expanded capacity of the SNWS from 400 million gallons per day (MGD) in 1996 to 1,015 MGD currently, building two additional intakes into Lake Mead, the acquisition of water and water rights, and other miscellaneous capital projects, and (2) the

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Las Vegas Wash Capital Improvements Plan (LVWCIP), which includes capital projects associated with improving water quality in the Las Vegas Wash, the natural channel that drains runoff water from the Las Vegas Valley into Lake Mead. Each of these capital projects are discussed in more detail later in this note.

Land costs, which include the costs of easements and other rights-of-way, are allocated to Property, Plant and Equipment (PP&E) when purchased. Land costs are not depreciated. The costs of constructing or developing a capital project that are incurred prior to that asset being put into service are recorded as Construction Work in Progress (CWIP). When a project is finished, an agenda item is brought before the Board to accept the project as complete. With the Board's acceptance, associated CWIP costs are closed out and allocated to capital asset categories within PP&E.

Major Construction and Capital Plan (MCCP)

In 1994, the SNWA began a capital improvements program (CIP) estimated to cost \$2.1 billion. The purpose of the CIP was to expand the capacity of the SNWS from 400 MGD to 900 MGD giving Nevada the capacity and reliability to access its entire 300,000 AF consumptive use allocation of the Colorado River, plus any banked, transferred, or purchased water that may be delivered to Nevada via the Colorado River. In 2008, the CIP was amended to add funds to construct Lake Mead Intake No. 3 bringing the gross authorized amount of the CIP to \$2.9 billion.

It was the express intent of the CIP to build improvements on a phased or as-needed basis. All costs associated with the CIP were capitalized. Direct costs included land costs, costs of construction, and engineering contracts. Indirect costs included items such as administration, planning and design, public information, program management, construction management, environmental mitigation, and interest.

In 2002, the SNWA created the MCCP to address the need for capital projects not directly related to the expansion of the SNWS. The original MCCP defined and authorized projects that were necessary to maintain facilities in a sound and functional condition, maintain or improve water quality, develop water resources, reduce operating costs, address environmental and safety issues, provide support facilities (including power), and meet other objectives defined by the Board. The original MCCP authorized \$328 million of capital projects. By the tenth amendment in December 2008, the MCCP's total authorization had risen over fivefold. In 2010, the CIP and MCCP were merged into one document. The MCCP is reviewed at least annually to determine if projects should be added or removed.

The most recent amended MCCP to be approved by the Board was on May 21, 2015, primarily to authorize design and construction of the Low Lake Level Pumping Station at an estimated cost of \$650 million. This amended MCCP also updates costs and schedules for numerous other projects and includes details for \$2.6 billion of completed projects, \$2.6 billion of active projects, and \$0.1 billion of deferred projects. Costs may include design, engineering, land, construction, program management, construction management, environmental mitigation, and interest.

Las Vegas Wash Capital Improvements Plan (LVWCIP)

The Las Vegas Wash (Wash) is the primary urban runoff, wastewater, and floodwater outlet from the Las Vegas Valley into Lake Mead and the Colorado River. The Wash is considered a critical component of the many environmental and water resource issues facing Southern Nevada. The LVWCIP presents a summary of planned capital requirements necessary to support long-term enhancement and management of the Wash.

The LVWCIP was most recently revised and approved by the Board on May 23, 2019, and includes future projects totaling approximately \$12.5 million. Of that amount, about \$7.7 million (61.4%) is for construction of facilities. The remaining \$4.8 million (38.6%) is for revegetation activities and miscellaneous programs. These projects will be funded by 4.0% of the gross sales tax the SNWA receives which has been designated for the Wash, as well as grants and contracts provided by various state and federal agencies.

Capitalization of Interest Expense / Income

At the beginning of fiscal year 2019, the SNWA implemented GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*. Consequently, the SNWA no longer capitalizes interest expense and interest income. Prior to that,

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the SNWA capitalized the interest cost of borrowings to fund its capital expenditures, less interest earned on temporary investment of the proceeds of those borrowings, from the date of borrowing until the assets acquired with those borrowings were placed into operation. These amounts were allocated to the various projects. In fiscal year 2018, the SNWA capitalized \$42.7 million of interest expense, which was partially offset by \$4.6 million of interest income.

The following shows the CWIP balance as of June 30, 2019 and 2018:

Type	June 30, 2019	June 30, 2018
Major Construction and Capital Plan	\$ 1,158,231,991	\$ 1,017,476,850
Las Vegas Wash Capital Improvements Plan	7,466,974	30,422,368
Total Construction Work in Progress	<u>\$ 1,165,698,965</u>	<u>\$ 1,047,899,218</u>

NOTE 10. WATER RECHARGE INVENTORY

In 1993, member agencies of the SNWA entered into a cooperative agreement for the banking of water (recharge) in the LVVGB. The purpose of this agreement was to allow the LVVWD to store water on behalf of the member agencies for future use. The SNWA was not a party to the 1993 agreement.

In 2006, the Board approved an agreement between the SNWA and the parties involved in the 1993 cooperative agreement for the sale and transfer of water banked in the LVVGB. The agreement centrally locates this water source with the SNWA for future use by all member agencies. In addition, the SNWA entered into a cooperative agreement with the LVVWD to allow the SNWA to store water in the LVVGB for the future use of the SNWA. As part of this agreement, the LVVWD agreed to continue its recharge of the LVVGB, with the SNWA reimbursing all related costs on a monthly basis. The agreement also allows the SNWA to manage the water stored in the LVVGB for supplemental use of the valley's water supply in future years, to operate a GMP as directed by NRS 572, and other uses as deemed necessary. As of June 30, 2019, the SNWA has paid \$85.8 million net of sales for 343,917 AF of storage.

NOTE 11. DEFERRED OUTFLOWS AND INFLOWS OF RESOURCES

As required by GASB Statement No. 23, *Accounting and Financial Reporting for Refundings of Debt Reported by Proprietary Activities*, the difference between the reacquisition price and the net carrying amount of old debt that is current or advance refunded is capitalized, shown as deferred outflows of resources or deferred inflows of resources, and amortized to interest expense over the shorter of the remaining life of the old debt or the life of the new debt. The decision to refund bonds can be made because there is an economic gain to be realized from refunding, even though there may be an increase in the amount of debt outstanding. Economic gain is determined by comparing the present value of cash flow of the existing bond issue with that of the refunding bond issue. Typically, the economic gain comes from lower interest rates of the refunding bonds. Refundings can also occur as needed to provide cash flow relief. The balances on the deferred amount from bond refundings are being amortized over the life of the associated debt. As of June 30, 2019, deferred outflows and inflows of resources related to bond refundings was \$66.1 million and \$15.1 million, respectively.

In fiscal year 2016, the LVVWD implemented GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, which resulted in the recognition of deferred amounts related to its pension. In fiscal year 2018, the LVVWD implemented GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which resulted in the recognition of deferred amounts related to its postemployment benefits other than pensions. The SNWA's deferred amounts are its recognition of its share of the LVVWD's deferrals described above. As of June 30, 2019, deferred outflows and inflows of resources due to related party was \$11.2 million and \$5.4 million, respectively.

The total deferred outflows of resources as of June 30, 2019 and 2018, were \$77.4 million and \$80.2 million, respectively. The net decrease of \$2.8 million resulted from three factors. First, a decrease of \$4.7 million attributable to normal amortization of deferred losses from bond refundings. Second, a decrease of \$0.6 million resulting from bond refunding activities in fiscal year 2019. Third, an increase of \$2.5 million due to changes in the actuarial assumptions along with a difference between projected and actual investment earnings in the pension trust fund held by the LVVWD.

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The total deferred inflows of resources as of June 30, 2019 and 2018, were \$20.5 million and \$16.3 million, respectively. The net increase of \$4.2 million resulted from three factors. First, a decrease of \$1.2 million attributable to normal amortization of deferred gains from bond refundings. Second, an increase of \$0.4 million resulting from bond refunding activities in fiscal year 2019. Third, an increase of \$5.0 million due to changes in the actuarial assumptions along with the LVVWD setting up a trust for the postemployment benefits other than pension and the SNWA's initial contribution of \$7.3 million to fund its share of that trust.

NOTE 12. ACCOUNTS PAYABLE

Accounts payable balances by category as of June 30, 2019 and 2018, are as follows:

Type	June 30, 2019	June 30, 2018
Construction and Operations	\$ 18,440,543	\$ 16,167,737
Retention on Construction	9,171,879	8,457,267
Energy Related	3,290,309	3,423,718
Total Accounts Payable	<u>\$ 30,902,731</u>	<u>\$ 28,048,722</u>

The amounts payable to the LVVWD are netted against the amounts due from the LVVWD and the \$19.0 million advance. See Note 4 for more information.

NOTE 13. COMMITMENTS, RESERVES, AND CONTINGENCIES

Construction Contracts

In connection with its two capital improvement plans, the SNWA makes commitments to pay contractors working on those projects. However, the SNWA only pays those contractors for the work they have completed. As of June 30, 2019, the SNWA had construction contract commitments totaling approximately \$130.2 million. This is the amount the SNWA will be obligated to pay if all contractors perform per their contracts. The SNWA could substantially reduce the amount of this commitment by notifying contractors to suspend further work and by paying for work completed to that point.

Operating Leases

Lease Obligations

In April 2008, the Board approved agreements allowing the SNWA to lease rights from shareholders of the MVIC, the BIC, and the MIC (Mesquite leases). The approval allows the Mesquite leases to be offered for any period of time that is agreeable to the SNWA and the water rights holder. Initial Mesquite leases, which began on October 1, 2008, were from one to ten years in duration, and had an annual escalation factor of 3%. In May 2014, the Board approved agreements extending expired leases through September 30, 2016. In 2016, the Board approved new ten-year lease agreements through September 30, 2026, which contain an annual escalation factor of 3%. The rates for the new leases are 48.39% - 59.01% lower per AF than the original leases.

In January 2017, the Board approved an agreement with the Moapa Band of Paiute Indians (Tribe) allowing the SNWA to sublease surface water rights for the creation of Tributary Conservation Intentionally Created Surplus. The ten-year lease agreement allows the SNWA to sublease 3,000 AF per year of the Tribe's MVIC water rights for \$119 per AF with an annual escalation factor of 3%.

In March 2009, the Board approved an agreement with the MVIC allowing the SNWA to lease winter irrigation water rights from the MVIC. The nineteen-year lease agreement allows the SNWA to lease 3,000 AF of water per winter season at \$442,801 per year for the first nine years and 1,000 AF of water per winter season at \$259,488 per year for the next ten years. Each of these amounts has an attached escalation factor of 3% annually after the first year of activation. The SNWA would also pay \$25 per AF (escalated annually) to the MVIC for conveying any of this water through the MVIC water distribution system to Lake Mead.

In March 2006, the Board approved an agreement between the Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter-day Saints (CPB) and the SNWA. The agreement allows the SNWA to lease up to 2,001 AF of water annually from the CPB. The initial lease is for a twenty-year period with the option to renew for two additional ten-year periods. The rate per AF is \$130

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with an additional \$100 per AF surcharge if the water is used outside the Moapa Valley Water District (MVWD) service territory. The lease contains an escalation clause based on the Consumer Price Index for All Urban Customers All Items Unadjusted.

The SNWA owns office space at the Molasky Corporate Center, which is located at 100 City Parkway in downtown Las Vegas. The SNWA leases billboard space at the Molasky Corporate Center from Parkway Center, LLC (Molasky). The current lease agreement extends through November 30, 2022. In each of the fiscal years ended June 30, 2019 and 2018, the SNWA paid \$0.1 million to Molasky for the billboard space.

None of the leases listed above contain contingent rentals, which are rentals in which amounts are dependent upon some factor other than the passage of time.

The following table shows the remaining minimum rental payments due under the terms of the lease contracts described above:

Fiscal Year Ending June 30	Mesquite	Tribe	MVIC	CPB	Molasky	Total
2020	\$ 1,730,435	\$ 384,435	\$ 267,273	\$ 260,130	\$ 86,680	\$ 2,728,953
2021	1,782,348	395,970	275,291	260,130	88,413	2,802,152
2022	1,835,819	407,850	283,550	260,130	90,181	2,877,530
2023	1,890,893	420,090	292,056	260,130	37,885	2,901,054
2024	1,947,620	432,690	300,818	260,130	—	2,941,258
2025-2028	4,072,279	1,137,600	1,296,266	650,325	—	7,156,470
Total Payments	<u>\$ 13,259,394</u>	<u>\$ 3,178,635</u>	<u>\$ 2,715,254</u>	<u>\$ 1,950,975</u>	<u>\$ 303,159</u>	<u>\$ 21,407,417</u>

Lease Receivables

In 2006, the SNWA entered into an interlocal sublease agreement with the LVVWD to lease 34,898 square feet of office space that is either purchased or leased at the Molasky Corporate Center. The space that is being leased has an approximate carrying value of \$23.7 million, with \$10.4 million in accumulated depreciation having been taken through June 30, 2019. In addition, the LVVWD pays a share of leasehold improvements. The sublease assumes a twenty-year useful life on structural leasehold improvements and the LVVWD pays a pro-rated share of the amortized value of such improvements. The sublease contains no escalation clauses. In November 2015, the SNWA exercised its purchase option on floors twelve and fourteen, which converted the LVVWD's twenty-year sublease to a perpetual lease as long as the space is not required by the SNWA.

In March 2009, the Board approved three agreements with NV Energy Company (NVE). One agreement allows NVE to lease 1,050 AF of the SNWA water over a ten-year period for an annual price of \$83,721. This annual payment is required to be paid regardless of whether the water is utilized. The lease expires in 2052. The second agreement allows NVE to lease a maximum of 2,200 AF of Muddy River water per winter season for the first nine years and a maximum of 1,000 AF of Muddy River water per winter season for years 10 through 19. Payments will be made only on an as-used basis with a maximum pre-escalation payment of \$274,804 per year during the first nine years and a maximum pre-escalation payment of \$259,490 per year during the remaining term of the lease. The final lease allows NVE to option an additional 800 AF of water per year during the first nine-year winter season described above for a cost of \$291.83 per AF. All amounts described in this paragraph are subject to a 3% annual escalation. For the remaining period of the leases the SNWA anticipates receiving a minimum \$6.1 million of aggregate payments.

In 2012, the SNWA entered into an agreement with Faiss Foley Warren (Faiss) to lease 3,000 square feet of office space at the Molasky Corporate Center. In March 2018, the SNWA executed an amendment to renew the lease agreement for an additional two-year period ending in May 2020. The space being leased to Faiss has an approximate carrying value of \$2.0 million, with \$0.9 million in accumulated depreciation having been taken through June 30, 2019. The sublease contains no escalation clauses. For the remaining period of the lease, the SNWA anticipates receiving a minimum \$66,000 of aggregate sublease payments from Faiss.

Except as noted, none of the subleases listed above contain contingent rentals.

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The following table shows the future minimum rental incomes for the next five years due under the terms of the lease contracts described above:

Fiscal Year Ending June 30	LVVWD	NVE	Faiss	Total
2020	\$ 1,564,869	\$ 115,889	\$ 66,000	\$ 1,746,758
2021	1,564,869	119,366	—	1,684,235
2022	1,564,869	122,947	—	1,687,816
2023	1,564,869	126,636	—	1,691,505
2024	1,564,869	130,435	—	1,695,304
Total Incomes	<u>\$ 7,824,345</u>	<u>\$ 615,273</u>	<u>\$ 66,000</u>	<u>\$ 8,505,618</u>

Forward Energy Contracts

Because Las Vegas is uphill from its major water supply, reliable electrical service is essential to the SNWA's ability to deliver water. To gain more control over energy reliability and costs, the SNWA manages most of its power supply rather than purchasing energy from the local regulated investor-owned utility under tariff rates approved by the Nevada Public Utilities Commission. This provides greater control of future prices and projected savings over the same commodity purchased from the investor owned utility.

The SNWA began purchasing over 95% of its power requirements from the Silver State Energy Association (SSEA) beginning April 1, 2013, under Project Services Agreement No. 3: Power Supply Management Services Agreement, Load Requirements Service (LRS). The SSEA is a joint powers association of public agencies (see Note 19) which was formed in 2007. Its members include the City of Boulder City, Overton Power District No. 5, Lincoln Power District No. 1, CRC, and the SNWA. The SNWA and CRC staff run the SSEA, which is governed by a Board of Directors with one representative of each member sitting on the Board.

The SSEA buys and sells fixed price power with the SNWA for the upcoming five calendar years to balance the SNWA's total supplies with its total load and other obligations. The SSEA then purchases and sells physical power and other financial products from the market to best hedge its portfolio of forward energy contracts. All SSEA energy activity complies with established energy risk management procedures which were developed to fulfill the Energy Risk Management Policy adopted by the SSEA Board. Under LRS, the SNWA is responsible for a portion of gains and losses and prepaid energy expenses that may be realized in SSEA's energy portfolio each month.

Prior to taking service from the SSEA, the SNWA managed its own portfolio of energy resources consisting solely of forward electricity generation and transmission contracts as well as financial power and natural gas swaps. Among the forward electricity contracts are long-term contracts for the purchase of hydropower from federal dams along the Colorado River. Because this portfolio, as well as its energy contracts with the SSEA, exist solely for purposes of serving the SNWA's projected energy requirements over the next five years, the forward energy contracts are "normal purchases and sales contracts" and are outside the scope of GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*.

Although the SNWA is taking LRS Service from the SSEA it will continue to own existing energy assets and contracts and may add other energy assets or contracts in the future as part of its supply portfolio.

The primary risks associated with the SNWA's energy portfolio, as well as the SSEA's energy portfolio, are counter-party credit and termination risks, which are managed by policies and procedures that require careful financial evaluation of trading partners, trading limits and in some cases as specified by policy, the posting of collateral.

As of June 30, 2019, the SNWA had net energy contract commitments for the next ten fiscal years totaling approximately \$200.8 million, which includes its projected allocation of the SSEA net energy contract commitments.

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Litigation

The SNWA is a defendant in various litigation matters. Although the outcome of these matters is not presently determinable based on information currently available, it is management's opinion based upon advice from legal counsel that the risk of financial losses to the SNWA from such litigation will not have a material adverse effect on its future financial position, results of operations or cash flows. Accordingly, no provision has been made for any such losses.

NOTE 14. SHORT-TERM DEBT

On March 10, 2004, the LVVWD began a Tax-Exempt Commercial Paper (TECP) program for the SNWA, authorizing up to \$400.0 million in TECP notes. The notes are LVVWD General Obligation (Limited Tax) and supported by SNWA revenues. Proceeds from the sale of the notes were used to fund capital expenditures of the SNWA including the purchase of water resources and a 25.0% interest in the Silverhawk Generation Station. The TECP program is supported by credit facilities, which were replaced on April 4, 2017. The 2004A \$250.0 million credit facility is provided by Sumitomo Mitsui Banking Corporation and will expire on April 2, 2021. The 2004B \$150.0 million credit facility is provided by U.S. Bank National Association and will expire on April 3, 2020. The TECP notes are subject to market fluctuations as they are traded on the open market. The entire balance is currently issued and outstanding.

The following chart summarizes key components of the SNWA's short-term debt activity:

Type	June 30, 2019	June 30, 2018
Balance Beginning of Period	\$ 400,000,000	\$ 400,000,000
Additions	2,278,000,000	2,144,000,000
Retirements	(2,278,000,000)	(2,144,000,000)
Balance End of Period	<u>\$ 400,000,000</u>	<u>\$ 400,000,000</u>
Accrued Interest	\$ 867,260	\$ 737,659
Average Interest Rate	1.56%	1.51%
Number of Traunches	8	9
Smallest	\$ 50,000,000	\$ 22,000,000
Largest	\$ 50,000,000	\$ 50,000,000
Shortest Maturity, in days	63	31
Longest Maturity, in days	126	86

NOTE 15. DUE TO RELATED PARTY

Effective July 1, 2014, the LVVWD implemented the provisions of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – An Amendment of GASB Statement No. 27*. Because of this implementation, the LVVWD allocated a portion of the net pension liability to the SNWA. For the fiscal years ended June 30, 2019 and 2018, the allocated net pension liabilities were \$79.0 million and \$75.7 million, respectively.

Effective July 1, 2017, the LVVWD implemented the provisions of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pension*. This Statement replaced the requirements of Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended, and No. 57, *OPEB Measurements by Agent Employers and Agent Multi-Employer Plans*, for OPEB. Because of this implementation, the LVVWD allocated a portion of the liability related to postemployment benefits other than pensions (OPEB) to the SNWA. For the fiscal years ended June 30, 2019 and 2018, allocated OPEB liabilities were \$4.5 million and \$14.9 million, respectively.

As of June 30, 2019 and 2018, due to related party balances were \$83.5 million and \$90.6 million, respectively. Although the implementations of GASB Statements No. 75 and 68 were not applicable to the SNWA, the SNWA is liable to the LVVWD for its proportionate share of the OPEB and pension liabilities.

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NOTE 16. LONG-TERM DEBT

Pursuant to the Transfer Act discussed in Note 1, the SNWA assumed responsibility for all CRC debt associated with the SNWS as of January 1, 1996. In 1997, the SNWA received authorization to sell its bonds directly to the Nevada State Bond Bank. In 1999, the SNWA received authorization to sell its bonds through a newly authorized Clark County Bond Bank. The SNWA also has bonds payable, which were issued by the LVVWD on the SNWA's behalf. The SNWA plans to use the LVVWD to sell long-term fixed-rate bonds whenever feasible in the near future.

Debt Creation and Reporting

To avoid the carrying costs of bond proceeds that will not be used for some time to fund capital projects, the SNWA generally issues bonds sufficient to fund about two years of estimated capital project expenditures. The SNWA also can use capital contributions as needed to fund capital project construction payments on a pay-as-you-go basis.

In compliance with NRS 350.013, the SNWA submits a Debt Management Policy to the Nevada Department of Taxation annually. That required filing includes a discussion of the affordability of debt, debt capacity, and how debt will be repaid. The Debt Management Policy is also provided to Clark County and is available for review by bonding agencies and the general public. In addition, the Debt Management Policy is included in the SNWA's annual Operating and Capital Budget document.

Debt Covenants

Management believes that the SNWA has complied with all legal requirements, limitations, and restrictions imposed by debt covenants. The SNWA is required to set charges for its purveyor members that when combined with unrestricted assets available for debt service create levels sufficient to cover all operating and maintenance expenses (excluding depreciation), all debt service requirements, and amounts required to be deposited in reserve accounts, if any. Other requirements of long-term debt covenants include adequate insurance coverage for liability, property, and the LVVWD employees and an annual audit of the SNWA's basic financial statements by independent certified public accountants. Covenants are reviewed periodically by outside bond counsel to ensure adherence.

Direct Borrowings and Direct Placements

All of the SNWA's outstanding notes and bonds are direct borrowings or direct placements. The SNWA does not have any unused lines of credit. The SNWA does not have assets pledged as collateral. The SNWA does not have terms specified in its debt agreements related to significant (1) events of default with finance-related consequences, (2) termination events with finance-related consequences, or (3) subjective acceleration clauses.

In-Substance Defeasance of Debt

Occasionally debt issued on the SNWA's behalf is refunded, which is usually done for savings. Usually, the refunding debt is issued before the redemption date of the refunded debt. In those instances, proceeds from the refunding issuance are placed in an irrevocable trust to fund the remaining debt service on the refunded debt. When this occurs, neither the assets in the irrevocable trust nor the liabilities for those in-substance defeased debt are included in the SNWA's financial statements. As of June 30, 2019, the SNWA had no outstanding in-substance defeased debt. Furthermore, in accordance with GASB Statement No. 23, *Accounting and Financial Reporting for Refundings of Debt Reported by Proprietary Activities*, any accounting gain or loss resulting from these transactions has been deferred and is being amortized over the life of the related debt (Note 11).

Current Year Debt Issuance Activity

On March 13, 2019, LVVWD on behalf of the SNWA issued LVVWD 2019A refunding bonds in the original amount of \$108.0 million. Proceeds from the bonds along with the \$18.4 million of premiums were deposited into escrow to partially refund the LVVWD 2009A Build America Bonds (BAB) and 2009D refunding bonds. The LVVWD 2019A refunding bonds pay semi-annual interest beginning June 1, 2019, continuing to June 1, 2039. At that time, the entire principal of \$108.0 million is scheduled to be paid in full. Interest on the new issue is paid semiannually on June 1 and December 1. The true interest cost is 3.58%. Over the life of the

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bond, the issue will reduce debt payment requirements by \$24.7 million. In present value terms, this equates to a \$17.9 million savings in debt requirements.

The following is a comprehensive summary of each of the outstanding long-term debt issues as of June 30, 2019:

Nevada Drinking Water State Revolving Fund Loan 1

Nevada law has created an account for the Nevada Drinking Water State Revolving Fund. This account finances the construction of public water system projects authorized by the federal Safe Drinking Water Act. This federally financed program requires that funds made available to each state must be committed and used each year; otherwise, future financing opportunities under the program are lost to the state. In 1999, the SNWA's CIP project to build ozone facilities to disinfect water at the Alfred Merritt Smith Water Treatment Facility qualified under the statutory and regulatory requirements. The SNWA applied for and received a loan from Nevada for the \$12.3 million in available funding to keep the money within Nevada. The interest rate on the loan is fixed at 3.61% and the term is 20 years. Constant semiannual payments of principal and interest are due on August 1 and February 1.

Nevada Drinking Water State Revolving Fund Loan 2

On June 29, 2001, the SNWA received a second loan from the Nevada Drinking Water State Revolving Fund in the amount of \$10.0 million. The SNWA applied for this loan to help preserve Nevada's access to federal Safe Drinking Water Act funds that would otherwise be lost to the public water systems in Nevada. The funds were reserved to pay for CIP construction expenditures. The interest rate on the loan is fixed at 3.46%, and the term is 20 years. Constant semiannual payments of principal and interest are due on August 1 and February 1.

Clark County 1106 Refunding Bonds

These general obligation bonds in the original amount of \$604.1 million were sold on November 2, 2006. The proceeds of the bond sale were used to partially refund \$103.1 million of the Clark County 2001 series bonds, and \$97.5 million of the Clark County 2002 series bonds. The issue also generated \$392.8 million of new money which was reserved for capital expenditures. Interest on these bonds is payable semiannually on May 1 and November 1. The Clark County 1106 bonds mature annually on November 1 through 2036. \$61.3 million of the proceeds from the Clark County 2009 refunding issue, the LVVWD 2011B issue and the LVVWD 2011C issue were used to partially refund selected payments of the Clark County 1106 bonds. In addition, \$113.9 million of the proceeds from the Clark County 2016A and \$333.6 of the proceeds from the Clark County 2016B issues were also used to partially refund selected payments of the Clark County 1106 bonds. The interest rate is 2.50% to 5.00%.

SNWA Clean Renewable Energy 2008 Bonds

These Clean Renewable Energy (CRE) bonds in the original amount of \$6.9 million were sold on July 30, 2008. The proceeds of the bond sale reimbursed the SNWA for investments in clean energy capital projects. The SNWA Clean Renewable Energy 2008 bonds mature annually on December 15 through 2022. Interest on these bonds is payable quarterly on March 15, June 15, September 15, and December 15. The interest rate is 1.17%.

Clark County 2009 Refunding Bonds

These general obligation bonds in the original amount of \$50.0 million were issued on October 22, 2009. The proceeds of the bond sale were used to partially refund the coupons from the following five bond series – Clark County 2000, Clark County 2001, Clark County 2002, Clark County 1106, and Clark County 2008. The Clark County 2009 refunding bonds mature annually on June 1 through 2030. Interest on these bonds is payable semiannually on December 1 and June 1. The interest rate is 5.00%.

State of Nevada 2009 Bonds

These general obligation bonds were issued by the State of Nevada on behalf of the SNWA on October 22, 2009. The obligation as represented by the bond is \$2.2 million. Semi-annual payments will be due on January 1 and July 1 with the final payment occurring on July 1, 2029. The bonds are interest free.

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Notes to Basic Financial Statements

For the fiscal years ended June 30, 2019 and 2018

State of Nevada 2010B Bonds

These general obligation bonds in the original amount of \$7.4 million were sold on June 24, 2010. The proceeds of the bond sale were used to fully refund the State of Nevada 1997B bonds and partially refund the State of Nevada 2003C and State of Nevada 2006D bonds. These bonds mature annually on June 1 through 2020. Interest on these bonds is payable semiannually on December 1 and June 1. The interest rate is 3.70%.

LVVWD 2011A Refunding Bonds

These taxable general obligation bonds in the original amount of \$58.1 million were issued on May 24, 2011. Proceeds from the bonds were deposited into escrow to refund \$51.9 million of the LVVWD 2008B bonds. The LVVWD 2011A refunding bonds mature annually on June 1 beginning in 2015 and continuing through 2026. Interest on these bonds is payable semiannually on December 1 and June 1. The interest rate is 3.05% to 5.43%.

LVVWD 2011B Refunding Bonds

These taxable general obligation bonds in the original amount of \$129.7 million were issued on October 19, 2011. The proceeds of the bond sale were used to partially refund coupons from the following five bond series – State of Nevada 2005I, State of Nevada 2005F, State of Nevada 2006D, Clark County 2006 Refunding and Clark County 1106. The LVVWD 2011B refunding bonds mature annually on June 1 through 2027. Interest on these bonds is payable semiannually on December 1 and June 1. The interest rate is 2.79% to 4.96%.

LVVWD 2011C Refunding Bonds

These general obligation bonds in the original amount of \$267.8 million were issued on October 19, 2011. The proceeds of the bond sale were used to partially refund coupons from the following five bond series – State of Nevada 2005F, State of Nevada 2001, Clark County 2002, Clark County 1106, and Clark County 2008—as well as fully refunding LVVWD 2003B. The LVVWD 2011C refunding bonds mature annually on June 1 through 2038. Interest on these bonds is payable semiannually on December 1 and June 1. The interest rate is 2.00% to 5.00%.

Clark County 2012 Refunding Bonds

These general obligation bonds in the original amount of \$85.0 million were issued on June 20, 2012. The proceeds of the bond sale were used to completely refund the Clark County 2001 and the Clark County 2002 bonds. The SNWA 2012 bonds mature annually beginning June 1, 2013, and continue through June 1, 2032. Interest on these bonds is paid semiannually on June 1 and December 1. The interest rate is 4.00% to 5.00%.

LVVWD 2012B Bonds

These general obligation bonds in the original amount of \$360.0 million were issued on July 31, 2012. The proceeds of the bond sale were reserved for capital expenditures. The LVVWD 2012B bonds will mature annually beginning June 1, 2015 through 2042. Interest on these bonds is payable semiannually on December 1 and June 1. The interest rate is 3.00% to 5.00%.

State of Nevada 2013 Refunding Bonds

These general obligation bonds in the original amount of \$21.7 million were issued on February 20, 2013. The proceeds of the bond sale were used to fully refund the State of Nevada 1998 bond. The State of Nevada 2013 refunding bonds have one principal payment scheduled for August 1, 2027. Interest on the bonds is payable semiannually on August 1 and February 1. The interest rate is 3.00%.

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LVVWD 2015 Refunding Bonds

These general obligation bonds in the original amount of \$332.4 million were issued on January 13, 2015. The proceeds of the bond sale were used to completely refund the LVVWD 2009C Bonds. The LVVWD 2015 refunding bonds mature annually beginning June 1, 2031, and continue through June 1, 2039. Interest on these bonds is paid semiannually on December 1 and June 1. The interest rate is 4.00% to 5.00%.

LVVWD 2015B Refunding Bonds

These general obligation bonds in the original amount of \$177.6 million were issued on June 1, 2015. The proceeds of the bond sale were used to completely refund the State of Nevada 2005F and State of Nevada 2005H bonds. The LVVWD 2015B refunding bonds mature annually beginning December 1, 2016, and continue through December 1, 2027. Interest on these bonds is paid semiannually on December 1 and June 1. The interest rate is 4.00% to 5.00%.

LVVWD 2015C Refunding Bonds

These general obligation bonds in the original amount of \$42.1 million were issued on June 18, 2015. The proceeds of the bond sale were used to completely refund the State of Nevada 2005I bonds. The LVVWD 2015C refunding bonds mature annually beginning September 15, 2016, and continue through September 15, 2029. Interest on these bonds is paid semiannually on September 15 and March 15. The interest rate is 3.00% to 5.00%.

Clark County 2016A Refunding Bonds

These general obligation bonds in the original amount of \$264.0 million were issued on March 3, 2016. The proceeds of the bond sale were used to partially refund the Clark County 2006 and Clark County 1106 refunding bonds. The Clark County 2016A refunding bonds mature annually beginning November 1, 2016, and continue through November 1, 2029. Interest on these bonds is paid semiannually on May 1 and November 1. The interest rate 5.00%.

LVVWD 2016A Refunding Bonds

These general obligation bonds in the original amount of \$497.8 million were issued on April 6, 2016. The proceeds of the bond sale were used to partially refund the State of Nevada 2006D refunding bonds. This issue also generated \$520.0 million of new money which was reserved for capital expenditures. The LVVWD 2016A refunding bonds mature annually beginning June 1, 2017, and continue through June 1, 2046. Interest on these bonds is paid semiannually on December 1 and June 1. The interest rate is 3.00% to 5.00%.

Clark County 2016B Refunding Bonds

These general obligation bonds in the original amount of \$271.7 million were issued on August 3, 2016. The proceeds of the bond sale were used to partially refund the Clark County 1106 refunding bonds. The Clark County 2016B refunding bonds mature annually beginning November 1, 2017, and continue through November 1, 2034. Interest on these bonds is paid semiannually on May 1 and November 1. The interest rate is 4.00% to 5.00%.

LVVWD 2017B Refunding Bonds

These general obligation bonds in the original amount of \$22.1 million were issued on March 14, 2017. The proceeds of the bond sale were used to partially refund the LVVWD 2009B and LVVWD 2009D refunding bonds. The LVVWD 2017B refunding bonds mature annually beginning June 1, 2020, and continue through June 1, 2032. Interest on these bonds is paid semiannually on June 1 and December 1. The interest rate is 3.00% to 5.00%.

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Clark County 2017 Refunding Bonds

These general obligation bonds in the original amount of \$321.6 million were issued on March 22, 2017. The proceeds of the bond sale were used to partially refund the Clark County 2008 refunding bonds. The Clark County 2017 refunding bonds mature annually beginning June 1, 2019, and continue through June 1, 2038. Interest on these bonds is paid semiannually on June 1 and December 1. The interest rate is 4.00% to 5.00%.

LVVWD 2018B Refunding Bonds

These general obligation bonds in the original amount of \$79.1 million were issued on March 6, 2018. The proceeds of the bond sale were used to partially refund the LVVWD 2008B refunding bonds. The LVVWD 2018B refunding bonds mature annually beginning June 1, 2019, and continue through June 1, 2026. Interest on these bonds is paid semiannually on June 1 and December 1. The interest rate is 5.00%.

LVVWD 2019A Refunding Bonds

These general obligation bonds in the original amount of \$108.0 million were issued on March 13, 2019. The proceeds of the bond sale were used to completely refund the LVVWD 2009A BAB and LVVWD 2009D refunding bonds. The LVVWD 2019A refunding bonds mature annually beginning June 1, 2020, and continue through June 1, 2039. Interest on these bonds is paid semiannually on June 1 and December 1. The interest rate is 5.00%.

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For the fiscal years ended June 30, 2019 and 2018

The following schedules present changes in long-term debt issues and composition of outstanding debt for the fiscal years ended June 30, 2019 and June 30, 2018:

Outstanding Debt Activity, June 30, 2019

Debt Issue	Beginning Balance	Additions	Retirements	Ending Balance
Long-Term Debt				
State Revolving Fund Loan 1	\$ 1,657,846	\$ —	\$ (814,096)	\$ 843,750
State Revolving Fund Loan 2	2,278,891	—	(623,438)	1,655,453
Subtotal of notes from direct borrowings	3,936,737	—	(1,437,534)	2,499,203
Clark County 1106	69,545,000	—	—	69,545,000
SNWA CRE 2008	2,300,000	—	(460,000)	1,840,000
LVVWD 2009A	90,000,000	—	(90,000,000)	—
LVVWD 2009B	425,000	—	(425,000)	—
Clark County 2009	37,905,000	—	(2,380,000)	35,525,000
State of Nevada 2009	1,455,215	—	(126,541)	1,328,674
LVVWD 2009D	37,440,000	—	(37,440,000)	—
State of Nevada 2010B	2,310,000	—	(1,135,000)	1,175,000
LVVWD 2011A	44,795,000	—	(4,745,000)	40,050,000
LVVWD 2011B	101,180,000	—	(10,000,000)	91,180,000
LVVWD 2011C	210,205,000	—	(11,260,000)	198,945,000
Clark County 2012	79,515,000	—	—	79,515,000
LVVWD 2012B	332,210,000	—	(7,690,000)	324,520,000
State of Nevada 2013	21,720,000	—	—	21,720,000
LVVWD 2015	332,405,000	—	—	332,405,000
LVVWD 2015B	155,795,000	—	(11,680,000)	144,115,000
LVVWD 2015C	36,755,000	—	(2,835,000)	33,920,000
Clark County 2016A	226,905,000	—	(24,505,000)	202,400,000
LVVWD 2016A	481,210,000	—	(11,995,000)	469,215,000
Clark County 2016B	267,885,000	—	(3,965,000)	263,920,000
LVVWD 2017B	22,115,000	—	—	22,115,000
Clark County 2017	321,640,000	—	(9,910,000)	311,730,000
LVVWD 2018B	79,085,000	—	(8,245,000)	70,840,000
LVVWD 2019A	—	107,975,000	—	107,975,000
Subtotal of bonds from direct placements	2,954,800,215	107,975,000	(238,796,541)	2,823,978,674
Total Long-Term Debt				
Before Unamortized Discounts and Premiums	<u>\$ 2,958,736,952</u>	<u>\$ 107,975,000</u>	<u>\$ (240,234,075)</u>	2,826,477,877
Unamortized Discounts and Premiums				320,292,692
Net Debt				<u>\$ 3,146,770,569</u>

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Notes to Basic Financial Statements

For the fiscal years ended June 30, 2019 and 2018

Composition of Outstanding Debt, June 30, 2019

Debt Issue	Ending Balance	Current Portion	Long-Term Portion	Accrued Interest
Long-Term Debt				
State Revolving Fund Loan 1	\$ 843,750	\$ 843,750	\$ —	\$ 12,621
State Revolving Fund Loan 2	1,655,453	645,196	1,010,257	23,734
Subtotal of notes from direct borrowings	<u>2,499,203</u>	<u>1,488,946</u>	<u>1,010,257</u>	<u>36,355</u>
Clark County 1106	69,545,000	—	69,545,000	325,791
SNWA CRE 2008	1,840,000	460,000	1,380,000	936
Clark County 2009	35,525,000	2,500,000	33,025,000	145,594
State of Nevada 2009	1,328,674	126,540	1,202,134	—
State of Nevada 2010B	1,175,000	1,175,000	—	3,559
LVVWD 2011A	40,050,000	4,950,000	35,100,000	164,526
LVVWD 2011B	91,180,000	10,490,000	80,690,000	328,960
LVVWD 2011C	198,945,000	11,710,000	187,235,000	816,636
Clark County 2012	79,515,000	—	79,515,000	260,705
LVVWD 2012B	324,520,000	8,055,000	316,465,000	1,274,709
State of Nevada 2013	21,720,000	—	21,720,000	270,000
LVVWD 2015	332,405,000	—	332,405,000	1,341,824
LVVWD 2015B	144,115,000	12,215,000	131,900,000	590,635
LVVWD 2015C	33,920,000	2,960,000	30,960,000	489,779
Clark County 2016A	202,400,000	25,755,000	176,645,000	1,677,500
LVVWD 2016A	469,215,000	12,470,000	456,745,000	1,910,152
Clark County 2016B	263,920,000	4,160,000	259,760,000	2,103,563
LVVWD 2017B	22,115,000	1,605,000	20,510,000	84,191
Clark County 2017	311,730,000	10,405,000	301,325,000	1,143,205
LVVWD 2018B	70,840,000	8,665,000	62,175,000	290,328
LVVWD 2019A	107,975,000	2,415,000	105,560,000	442,520
Subtotal of bonds from direct placements	<u>2,823,978,674</u>	<u>120,116,540</u>	<u>2,703,862,134</u>	<u>13,665,113</u>
Total Long-Term Debt				
Before Unamortized Discounts and Premiums	<u>\$ 2,826,477,877</u>	<u>\$ 121,605,486</u>	2,704,872,391	<u>\$ 13,701,468</u>
Unamortized Discounts and Premiums			<u>320,292,692</u>	
Net Long-Term Portion			<u>\$ 3,025,165,083</u>	

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Outstanding Debt Activity, June 30, 2018

Debt Issue	Beginning Balance	Additions	Retirements	Ending Balance
Long-Term Debt				
State Revolving Fund Loan 1	\$ 2,443,330	\$ —	\$ (785,484)	\$ 1,657,846
State Revolving Fund Loan 2	2,881,305	—	(602,414)	2,278,891
Subtotal of notes from direct borrowings	5,324,635	—	(1,387,898)	3,936,737
Clark County 1106	69,545,000	—	—	69,545,000
LVVWD 2008B	97,470,000	—	(97,470,000)	—
Clark County 2008	9,635,000	—	(9,635,000)	—
SNWA CRE 2008	2,760,000	—	(460,000)	2,300,000
LVVWD 2009A	90,000,000	—	—	90,000,000
LVVWD 2009B	835,000	—	(410,000)	425,000
Clark County 2009	40,175,000	—	(2,270,000)	37,905,000
State of Nevada 2009	1,581,755	—	(126,540)	1,455,215
LVVWD 2009D	40,990,000	—	(3,550,000)	37,440,000
State of Nevada 2010B	3,405,000	—	(1,095,000)	2,310,000
LVVWD 2011A	49,355,000	—	(4,560,000)	44,795,000
LVVWD 2011B	110,955,000	—	(9,775,000)	101,180,000
LVVWD 2011C	220,825,000	—	(10,620,000)	210,205,000
Clark County 2012	79,515,000	—	—	79,515,000
LVVWD 2012B	339,555,000	—	(7,345,000)	332,210,000
State of Nevada 2013	21,720,000	—	—	21,720,000
LVVWD 2015	332,405,000	—	—	332,405,000
LVVWD 2015B	166,960,000	—	(11,165,000)	155,795,000
LVVWD 2015C	39,485,000	—	(2,730,000)	36,755,000
Clark County 2016A	250,200,000	—	(23,295,000)	226,905,000
LVVWD 2016A	492,255,000	—	(11,045,000)	481,210,000
Clark County 2016B	271,670,000	—	(3,785,000)	267,885,000
LVVWD 2017B	22,115,000	—	—	22,115,000
Clark County 2017	321,640,000	—	—	321,640,000
LVVWD 2018B	—	79,085,000	—	79,085,000
Subtotal of bonds from direct placements	3,075,051,755	79,085,000	(199,336,540)	2,954,800,215
Total Long-Term Debt				
Before Unamortized Discounts and Premiums	<u>\$3,080,376,390</u>	<u>\$ 79,085,000</u>	<u>\$ (200,724,438)</u>	2,958,736,952
Unamortized Discounts and Premiums				323,704,467
Net Debt				<u>\$3,282,441,419</u>

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For the fiscal years ended June 30, 2019 and 2018

Composition of Outstanding Debt, June 30, 2018

Debt Issue	Ending Balance	Current Portion	Long-Term Portion	Accrued Interest
Long-Term Debt				
State Revolving Fund Loan 1	\$ 1,657,846	\$ 814,096	\$ 843,750	\$ 24,799
State Revolving Fund Loan 2	2,278,891	623,438	1,655,453	32,672
Subtotal of notes from direct borrowings	3,936,737	1,437,534	2,499,203	57,471
Clark County 1106	69,545,000	—	69,545,000	325,791
SNWA CRE 2008	2,300,000	460,000	1,840,000	1,170
LVVWD 2009A	90,000,000	—	90,000,000	523,770
LVVWD 2009B	425,000	425,000	—	1,393
Clark County 2009	37,905,000	2,380,000	35,525,000	155,348
State of Nevada 2009	1,455,215	126,540	1,328,675	—
LVVWD 2009D	37,440,000	3,730,000	33,710,000	153,134
State of Nevada 2010B	2,310,000	1,135,000	1,175,000	6,996
LVVWD 2011A	44,795,000	4,745,000	40,050,000	181,383
LVVWD 2011B	101,180,000	10,000,000	91,180,000	359,354
LVVWD 2011C	210,205,000	11,260,000	198,945,000	862,784
Clark County 2012	79,515,000	—	79,515,000	260,705
LVVWD 2012B	332,210,000	7,690,000	324,520,000	1,304,586
State of Nevada 2013	21,720,000	—	21,720,000	270,000
LVVWD 2015	332,405,000	—	332,405,000	1,341,824
LVVWD 2015B	155,795,000	11,680,000	144,115,000	628,930
LVVWD 2015C	36,755,000	2,835,000	33,920,000	523,059
Clark County 2016A	226,905,000	24,505,000	202,400,000	1,880,599
LVVWD 2016A	481,210,000	11,995,000	469,215,000	1,949,480
Clark County 2016B	267,885,000	3,965,000	263,920,000	2,136,426
LVVWD 2017B	22,115,000	—	22,115,000	84,191
Clark County 2017	321,640,000	9,910,000	311,730,000	1,183,820
LVVWD 2018B	79,085,000	8,245,000	70,840,000	324,119
Subtotal of bonds from direct placements	2,954,800,215	115,086,540	2,839,713,675	14,458,862
Total Long-Term Debt				
Before Unamortized Discounts and Premiums	<u>\$ 2,958,736,952</u>	<u>\$ 116,524,074</u>	2,842,212,878	<u>\$ 14,516,333</u>
Unamortized Discounts and Premiums			323,704,467	
Net Long-Term Portion			<u>\$ 3,165,917,345</u>	

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For the fiscal years ended June 30, 2019 and 2018

The SNWA total debt service requirements to maturity (excluding commercial paper) are as follows:

Notes and Bonds from Direct Borrowings and Direct Placements

Fiscal Year Ending June 30	Principal	Interest	Total
2020	\$ 121,605,486	\$ 133,392,533	\$ 254,998,019
2021	127,409,253	127,606,363	255,015,616
2022	133,574,085	121,505,924	255,080,009
2023	140,116,540	114,908,938	255,025,478
2024	146,631,540	107,952,944	254,584,484
2025-2029	707,397,703	428,931,874	1,136,329,577
2030-2034	548,433,270	284,014,388	832,447,658
2035-2039	660,835,000	153,601,163	814,436,163
2040-2044	183,970,000	38,790,000	222,760,000
2045-2046	56,505,000	4,272,250	60,777,250
Total Debt Service	\$ 2,826,477,877	\$ 1,514,976,377	\$ 4,341,454,254

NOTE 17. CAPITAL CONTRIBUTIONS

Income restricted for capital improvement plans and other expansion programs are reported on the Statements of Revenues, Expenses and Changes in Net Position as capital contributions. This income is classified in compliance with paragraph 100 of GASB Statement No. 34, *Basic Financial Statements – and Management’s Discussion and Analysis – for State and Local Governments*. Capital contributions received for the fiscal years ended June 30, 2019 and 2018 are as follows:

Type	June 30, 2019	June 30, 2018
Regional Infrastructure Charge	\$ 162,936,993	\$ 151,907,841
Regional Connection Charge	75,567,401	76,343,260
Sales Tax	67,970,379	63,601,130
Regional Commodity Charge	69,601,286	70,552,575
Southern Nevada Public Lands Management Act	5,307,367	9,479,959
Regional Reliability Surcharge	5,677,424	5,555,189
Purveyor Member Debt Service Billings ⁽¹⁾	293,287	292,902
Contributed Capital - Cash and Equivalents	800,039	3,669,578
Total Capital Contributions	\$ 388,154,176	\$ 381,402,434

⁽¹⁾ Neither the City of Boulder City nor Nellis Air Force Base collect regional infrastructure charges, regional connection charges, regional commodity charges, or regional reliability surcharges from their customers. Instead, they make payments to the SNWA in lieu of those collections, which are indicated above as purveyor member debt service billings.

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For the fiscal years ended June 30, 2019 and 2018

Capital contributions presented in the Statements of Cash Flows differ somewhat from the amounts above because of accruals and use of some capital contributions for expenses related to expansion programs. The differences in capital contributions for the fiscal years ended June 30, 2019 and 2018 were as follows:

Type	June 30, 2019	June 30, 2018
Capital Contributions per Statements of Revenues, Expenses, and Changes in Net Position	\$ 388,154,176	\$ 381,402,434
Expenses Related to Expansion Programs	(33,627,523)	(24,113,211)
Net Prior and Current Year Sales Tax Receivables	(1,297,558)	(939,682)
Net Prior and Current Year Sales Tax Payable to Clark County Water Purveyors Outside SNWA's Service Area	706,753	114,986
Net Prior and Current Year Connection, Commodity, Reliability, and Infrastructure Receivables	(332,831)	(2,018,470)
Net Prior and Current Year Southern Nevada Public Lands Management Act Receivable	2,092,160	(6,938,032)
Capital Contributions Per Statements of Cash Flows	<u>\$ 355,695,177</u>	<u>\$ 347,508,025</u>

NOTE 18. RISK MANAGEMENT

The SNWA is exposed to a variety of risks that may result in losses. These risks include possible losses related to torts; theft of, damage to, or destruction of assets; extra expense; errors and omissions; job-related illnesses or injuries to employees; product liability claims; and natural disasters. The SNWA manages these risks through a multifaceted approach, which includes transfer, elimination, avoidance, reduction, and/or assumption of risk of loss.

The SNWA purchases insurance from the commercial insurance market on real and personal property, including earthquake and flood, with common policy restrictions covering direct physical loss of, or damage to, buildings, fixtures, equipment, boilers, machinery, and supplies. The blanket limit of liability under the property insurance program is \$500.0 million with a deductible of \$1.0 million for all locations, except earthquake and flood which has a limit of \$100.0 million and \$50.0 million respectively and a deductible of \$0.1 million. This program also provides terrorism insurance for all locations with a blanket limit of \$500.0 million for all terrorist acts. The SNWA self-insures the first \$1.0 million for automobile and general liability exposure and purchases excess liability insurance in the amount of \$30.0 million. Employee fidelity insurance in the amount of \$3.0 million and other miscellaneous coverages are also purchased. For the fiscal year ended June 30, 2019, the SNWA had no significant reductions in insurance coverage from the prior fiscal year.

In contracts, the SNWA obtains indemnification and hold harmless agreements. These agreements require that contractors name the SNWA as an additional insured under the indemnitor's insurance coverage, usually in the amount of \$1.0 million to \$10.0 million for commercial general and automobile liability insurance. The SNWA provides builders risk insurance for certain construction projects with a blanket limit of \$500.0 million per contract, with a \$50,000 deductible per occurrence, except earthquake and flood where the deductible is \$0.5 million per occurrence. This coverage is included under the property insurance policy. The SNWA has a separate Builders Risk policy to insure the Low Lake Level Pumping Station during construction. The limit on this policy is \$650.0 million with various deductibles.

GASB Statement No. 10, *Accounting and Financial Reporting for Risk Financing and Related Insurance Issues*, requires that for retained risks, a liability for claims be reported if information available prior to issuance of the financial statements indicates it is probable that a liability has been incurred at the date of the financial statements and the amount of the loss can be reasonably estimated. As of June 30, 2019, the SNWA had no significant retained risks and therefore has no accrued liability for retained risks. In addition, there are also situations in which incidents occur before the balance sheet date, but claims are not reported or asserted when the financial statements are prepared.

SOUTHERN NEVADA WATER AUTHORITY

Notes to Basic Financial Statements

For the fiscal years ended June 30, 2019 and 2018

NOTE 19. JOINT VENTURE

The SNWA is a member of the Silver State Energy Association (SSEA). The SSEA was established as a joint venture through an interlocal agreement among its members, which in addition to the SNWA, include the City of Boulder City, Lincoln Power District No. 1, Overton Power District No. 5, and the CRC (Members).

The SSEA is an association of public agencies with the common goal of jointly planning, developing, owning and operating power resources to meet their own needs and those of their customers. The economies of scale produced by the SSEA offer improved project development opportunities and power purchasing capabilities, the sharing of resources and expertise, and the opportunity for jointly managed energy needs.

As appropriate projects are selected for development, the Members involved in each project enter into a project service agreement indicating each participating Member's allocation of project costs and benefits.

The business and other affairs of the SSEA are conducted by a Board of Directors consisting of one director appointed by each Member. The appointed director may, but need not be, a member of the governing body of the Member.

Information regarding SSEA can be obtained from:

SSEA Manager
100 City Parkway, Suite 700, MS 115
Las Vegas, NV 89106
(702) 691-5240
silverstateenergy.org

NOTE 20. SUBSEQUENT EVENTS

In 1997, the Nevada Legislature created NRS 377B, which allows counties to impose a tax for water and wastewater infrastructure. In 1998, 72% of Clark County voters approved the Clark County Water and Wastewater Infrastructure Sales Tax, which increased the sales tax rate in Clark County by 0.25%. The sales tax is collected by the Nevada Department of Taxation and remitted to the SNWA monthly with a two-month lag. The first collection month was April 1999. The SNWA shares this revenue with wastewater agencies in Clark County, water purveyors in Clark County that are not served by the SNWS, and for capital projects on the Las Vegas Wash. This sales tax was originally scheduled to sunset on June 30, 2025, or when \$2.3 billion had been collected, whichever occurs first. However, legislation extending the sales tax sunset provisions was enacted during the 2011 Legislative session, subject to approval from the County Board of Commissioners. On September 3, 2019, the Board of County Commissioners of Clark County adopted an ordinance determining that the cessation of the sales tax was not advisable and that it would remain in place beyond the statutorily prescribed sunset provisions. Therefore, unless such ordinance is repealed by the Board of County Commissioners, the sales tax will remain in place indefinitely. As indicated in Note 17, the SNWA received sales tax of \$68.0 million and \$63.6 million in fiscal years 2019 and 2018, respectively.

On October 16, 2019, the LVVWD issued the 2019B refunding bonds in the original amount of \$90,280,000. This issuance refunded the 2011A and 2011B bonds, which were issued on the SNWA's behalf. The first principal payment due on the LVVWD 2019B bonds is scheduled for June 1, 2022, with maturities continuing through 2027. Interest on these bonds will be paid semi-annually on December 1 and June 1. The coupon rate for all maturities is 5.00% with a true interest cost of 1.31%. The refunding generated savings of \$11.4 million with a net present value savings of \$10.7 million.

Other Supplementary Information



SOUTHERN NEVADA WATER AUTHORITY™

SOUTHERN NEVADA WATER AUTHORITY

Other Supplementary Information

Budgetary Comparison - Statement of Revenues, Expenses, and Changes in Net Position For the fiscal year ended June 30, 2019

	Budget ⁽¹⁾	Actuals
OPERATING REVENUES		
Wholesale Delivery Charges	\$ 141,151,263	\$ 133,258,094
Groundwater Management Fees	896,494	888,571
Administration Costs Recoveries	712,323	797,268
Las Vegas Wash Revenues	426,040	440,727
Other Revenues	4,724,043	5,855,969
Total Operating Revenues	147,910,163	141,240,629
OPERATING EXPENSES		
Personnel and Related	62,920,299	78,516,987
Energy	35,727,002	36,366,008
Depreciation	130,000,000	96,091,468
Operating and Maintenance	88,280,645	58,311,354
Total Operating Expenses	316,927,946	269,285,817
OPERATING LOSS	(169,017,783)	(128,045,188)
NONOPERATING REVENUES (EXPENSES)		
Investment Income	2,958,035	31,036,983
Interest Expense (Net of BAB Subsidy)	(129,379,325)	(145,081,067)
Amortization of Refunding Costs	—	(3,525,674)
Bond Issue and Commercial Paper Costs	—	(2,468,614)
Amortization of Bond Premiums and Discounts	—	19,895,176
Gain on Sale of Assets	—	116,341
Total Nonoperating Revenues (Expenses)	(126,421,290)	(100,026,855)
LOSS BEFORE CAPITAL CONTRIBUTIONS	(295,439,073)	(228,072,043)
Capital Contributions	362,173,437	388,154,176
CHANGE IN NET POSITION	\$ 66,734,364	\$ 160,082,133

⁽¹⁾ According to Nevada Revised Statutes 354, the final budget approved by the SNWA's Board of Directors was converted to the Statement of Revenues, Expenses, and Changes in Net Position format for filing with the Nevada Department of Taxation.

SOUTHERN NEVADA WATER AUTHORITY
Other Supplementary Information
Budgetary Comparison - Statement of Cash Flows
For the fiscal year ended June 30, 2019

	Budget ⁽¹⁾	Actuals
CASH FLOWS FROM OPERATING ACTIVITIES:		
Wholesale Delivery Charges	\$ 141,151,263	\$ 131,182,012
Groundwater Management Fees	896,494	888,571
General and Administrative / Resource Charges	712,323	3,374,875
Las Vegas Wash Revenues	426,040	440,727
Other Revenues	4,724,043	3,172,714
Cash Payments to Suppliers of Goods and Services	(186,927,946)	(136,927,623)
Net Cash Provided by (Used In) Operating Activities	(39,017,783)	2,131,276
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Purchase or Construction of Capital Assets	(208,404,905)	(174,804,156)
Proceeds from Disposal of Property and Equipment	—	116,341
Principal Paid on Debt	(116,524,074)	(112,794,074)
Interest Paid on Debt (Net of BAB Subsidy)	(150,087,551)	(145,841,196)
Capital Contributions	362,173,436	355,695,177
Net Cash Provided by (Used In) Capital and Related Financing Activities	(112,843,094)	(77,627,908)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of Investment Securities	(1,286,905,059)	(711,842,878)
Proceeds from Sales or Maturities of Investment Securities	1,399,376,082	759,498,625
Investment Income	5,880,785	14,696,505
Net Cash Provided by (Used In) Investing Activities	118,351,808	62,352,252
NET DECREASE IN CASH AND CASH EQUIVALENTS	(33,509,069)	(13,144,380)
Cash and Cash Equivalents, Beginning of Year	53,050,373	19,789,897
Cash and Cash Equivalents, End of Year	\$ 19,541,304	\$ 6,645,517

⁽¹⁾ According to Nevada Revised Statutes 354, the final budget approved by the SNWA's Board of Directors was converted to the Statement of Cash Flows format for filing with the Nevada Department of Taxation.

Statistical Section (Unaudited)

- Information on Financial Trends
- Information on Revenue Capacity
- Information on Debt Capacity
- Demographic and Economic Information
- Operating Information
- Other Information

SOUTHERN NEVADA WATER AUTHORITY
Statistical Section (Unaudited)
Introduction and Table of Contents
For the fiscal years ended June 30, 2019 and 2018

This part of the Comprehensive Annual Financial Report of the Southern Nevada Water Authority (SNWA) presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and other supplementary information says about the government's overall financial health.

<u>Contents</u>	<u>Page</u>
Information on Financial Trends	3-2
<i>These schedules contain information to help the reader understand how the SNWA's financial performance and well-being have changed over time.</i>	
Information on Revenue Capacity	3-4
<i>These schedules contain information to help the reader assess the SNWA's most significant local revenue sources.</i>	
Information on Debt Capacity	3-14
<i>These schedules present information to help the reader assess the affordability of the SNWA's current outstanding debt and its ability to issue additional debt in the future.</i>	
<i>Because the SNWA has only seven customers (the seven purveyor members as shown in the introductory section) ratios reflecting debt to the SNWA's customer base were deemed meaningless. Alternative comparisons have been made to give the reader a better sense of the SNWA's debt levels.</i>	
Demographic and Economic Information	3-18
<i>These schedules offer demographic and economic indicators to aid the reader in understanding the environment in which the SNWA's financial activities take place.</i>	
Operating Information	3-22
<i>These schedules contain service and infrastructure data to help the reader understand how the information in the SNWA's financial report relates to the services SNWA provides and the activities it performs.</i>	
Other Information	3-26
<i>These schedules include hydrologic data, debt history, and individual amortization schedules to help the reader understand the SNWA's debt position both historically and in the future.</i>	

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

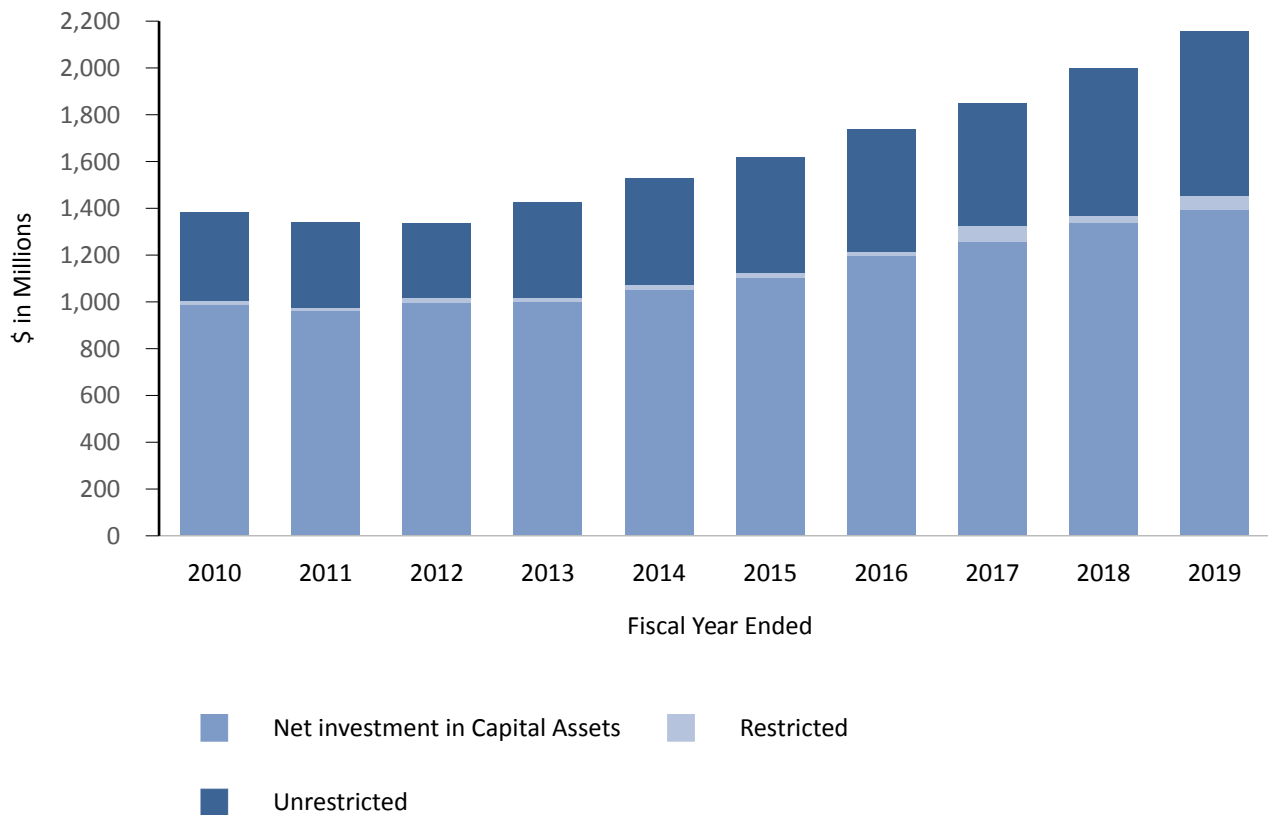
Net Position

Last Ten Fiscal Years

Fiscal Year Ended June 30	Net Investments in Capital Assets	Restricted for Debt Services / Capital Assets	Unrestricted	Total Net Position
2019	\$ 1,394,041,563	\$ 56,636,255 ⁽¹⁾	\$ 704,735,603	\$ 2,155,413,421
2018	1,338,529,398	28,267,590	628,534,300	1,995,331,288
2017	1,258,221,454	65,386,843	524,542,743	1,848,151,040
2016	1,198,480,405	15,769,806	524,327,782	1,738,577,993
2015	1,101,533,047	21,491,395	493,734,379	1,616,758,821
2014	1,053,490,593	20,731,026	455,164,318	1,529,385,937
2013	1,002,302,170	15,122,934	406,887,453	1,424,312,557
2012	995,159,156	22,736,730	319,037,966	1,336,933,852
2011	962,800,479	13,049,575	364,557,366	1,340,407,420
2010	984,695,999	16,866,340	379,701,414	1,381,263,753

⁽¹⁾ In fiscal year 2019, the debt service sinking fund amount was added to the Restricted for Debt Service / Capital Assets category of Net Position.

Net Position



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

Changes in Net Position

Last Ten Fiscal Years

	Fiscal Year ended June 30,				
	2019	2018 As Adjusted	2017	2016	2015 As Adjusted
Operating Revenues					
Wholesale Delivery Charges	\$ 133,258,094	\$ 134,480,919	\$ 130,115,594	\$ 125,054,059	\$ 121,100,263
Other	7,982,535	7,265,588	7,258,539	51,094,426	5,298,453
Total Operating Revenues	<u>141,240,629</u>	<u>141,746,507</u>	<u>137,374,133</u>	<u>176,148,485</u>	<u>126,398,716</u>
Total Operating Expenses	<u>269,285,817</u>	<u>277,731,294</u>	<u>263,881,897</u>	<u>225,760,441</u>	<u>203,269,593</u>
Operating Loss	<u>(128,045,188)</u>	<u>(135,984,787)</u>	<u>(126,507,764)</u>	<u>(49,611,956)</u>	<u>(76,870,877)</u>
Nonoperating Revenues (Expenses)					
Investment Income	31,036,983	1,722,807	955,013	3,852,256	1,592,657
Interest Expense (Net of BAB Subsidy)	(145,081,067)	(105,825,457)	(124,651,755)	(134,359,904)	(54,939,795)
Amortization of Refunding Costs	(3,525,674)	(4,092,768)	(3,737,630)	(4,581,254)	(3,492,409)
Bond Issue and Commercial Paper Costs ⁽¹⁾	(2,468,614)	(2,018,097)	(5,569,998)	(4,378,509)	(3,299,596)
Amortization of Bond Issue Costs, Premiums and Discounts ⁽²⁾	19,895,176	20,063,488	18,002,315	10,008,610	4,868,091
Other	116,341	288,832	18,935,983	198,903	94,294
Total Nonoperating Revenues (Expenses)	<u>(100,026,855)</u>	<u>(89,861,195)</u>	<u>(96,066,072)</u>	<u>(129,259,898)</u>	<u>(55,176,758)</u>
Loss Before Capital Contributions	<u>(228,072,043)</u>	<u>(225,845,982)</u>	<u>(222,573,836)</u>	<u>(178,871,854)</u>	<u>(132,047,635)</u>
Capital Contributions	388,154,176	381,402,434	332,146,883	300,691,026	281,927,406
Cumulative effect of change in accounting principle ⁽³⁾	—	(8,376,204)	—	—	(62,506,887)
Changes in Net Position	<u>\$ 160,082,133</u>	<u>\$ 147,180,248</u>	<u>\$ 109,573,047</u>	<u>\$ 121,819,172</u>	<u>\$ 87,372,884</u>

	Fiscal Year ended June 30,				
	2014	2013	2012	2011	2010 As Adjusted
Operating Revenues					
Wholesale Delivery Charges	\$ 121,045,154	\$ 117,534,578	\$ 119,239,660	\$ 119,457,411	\$ 110,097,368
Other	5,508,753	5,170,435	4,289,754	4,604,785	4,477,070
Total Operating Revenues	<u>126,553,907</u>	<u>122,705,013</u>	<u>123,529,414</u>	<u>124,062,196</u>	<u>114,574,438</u>
Total Operating Expenses	<u>213,963,946</u>	<u>183,114,310</u>	<u>200,582,201</u>	<u>187,243,701</u>	<u>199,756,584</u>
Operating Loss	<u>(87,410,039)</u>	<u>(60,409,297)</u>	<u>(77,052,787)</u>	<u>(63,181,505)</u>	<u>(85,182,146)</u>
Nonoperating Revenues (Expenses)					
Investment Income	2,309,538	740,407	869,505	1,024,158	1,374,146
Interest Expense (Net of BAB Subsidy)	(45,253,209)	(53,694,055)	(56,700,015)	(69,064,101)	(68,926,378)
Amortization of Refunding Costs	(2,921,604)	(2,926,272)	(2,254,389)	(1,079,554)	(969,032)
Bond Issue and Commercial Paper Costs ⁽¹⁾	(3,314,554)	(5,606,185)	(7,264,123)	(5,153,406)	(5,473,902)
Amortization of Bond Issue Costs, Premiums and Discounts ⁽²⁾	3,780,080	3,291,755	3,211,357	3,452,151	3,537,813
Other	44,132	63,295	37,112	53,733	(5,051)
Total Nonoperating Revenues (Expenses)	<u>(45,355,617)</u>	<u>(58,131,055)</u>	<u>(62,100,553)</u>	<u>(70,767,019)</u>	<u>(70,462,404)</u>
Loss Before Capital Contributions	<u>(132,765,656)</u>	<u>(118,540,352)</u>	<u>(139,153,340)</u>	<u>(133,948,524)</u>	<u>(155,644,550)</u>
Capital Contributions	237,839,036	205,919,057	135,679,772	93,092,191	75,876,870
Cumulative effect of change in accounting principle ⁽³⁾	—	—	—	—	(13,900,000)
Changes in Net Position	<u>\$ 105,073,380</u>	<u>\$ 87,378,705</u>	<u>\$ (3,473,568)</u>	<u>\$ (40,856,333)</u>	<u>\$ (93,667,680)</u>

⁽¹⁾ Per GASB 65, bond issue costs must be expensed in the year they occur. SNWA adopted GASB 65 with the fiscal 2010 financial information.

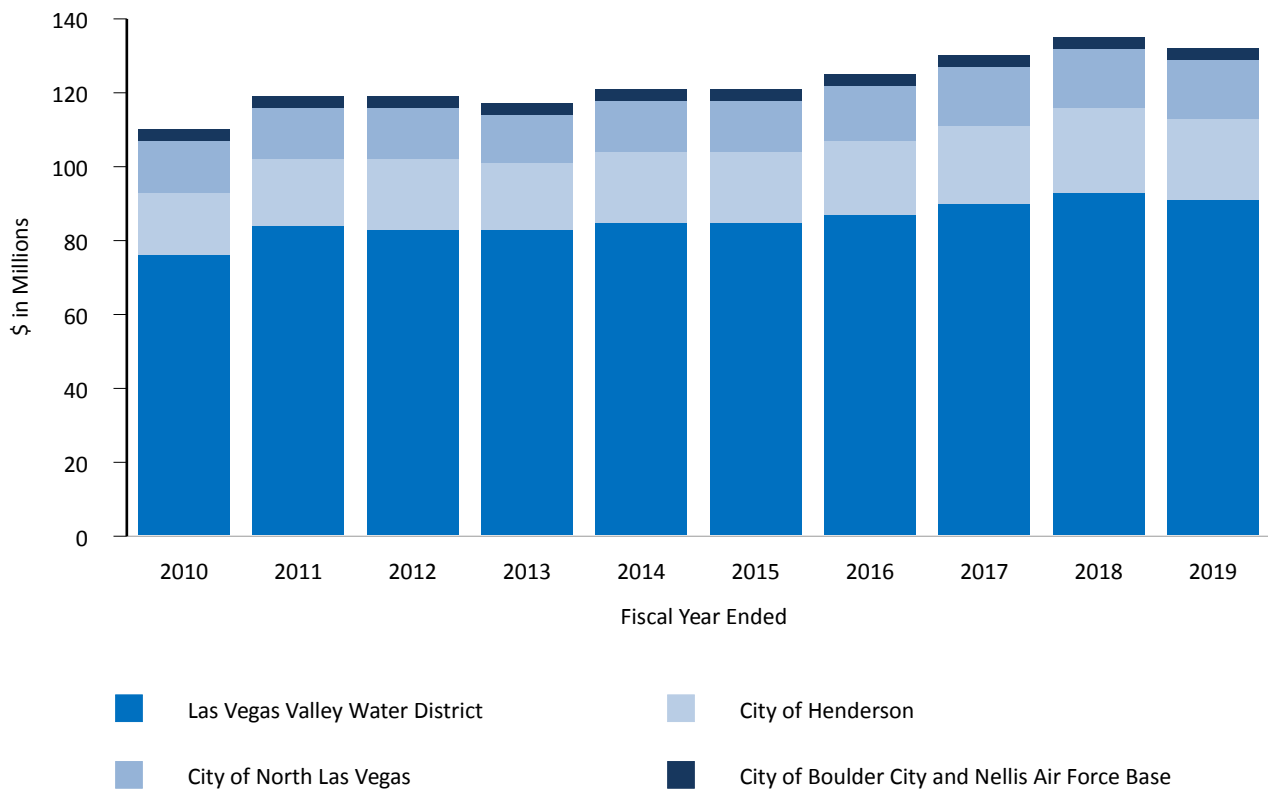
⁽²⁾ Fiscal years 2009 and earlier contain the amortization of bond issue costs.

⁽³⁾ In 2010, the SNWA adopted GASB 65 eliminating the unamortized bond issue cost asset from SNWA's books. In 2015, the SNWA recognized its share of the Las Vegas Valley Water District's (LWVD) implementation of GASB 68, *Accounting and Financial Reporting for Pensions*. In 2018, the SNWA recognized its share of the LVVWD's implementation of GASB 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. As a result of these implementations, beginning net position was adjusted accordingly on the Statements of Revenues, Expenses, and Changes in Net Position in the respective years.

SOUTHERN NEVADA WATER AUTHORITY
 Statistical Section (Unaudited)
 Wholesale Delivery Charge by Purveyor Member
 Last Ten Fiscal Years

Fiscal Year Ended June 30,	Las Vegas Valley Water District	City of Henderson	City of North Las Vegas	City of Boulder City	Nellis Air Force Base	Total
2019	\$ 91,481,393	\$ 22,426,610	\$ 16,235,128	\$ 2,831,869	\$ 261,133	\$ 133,236,133
2018	92,809,534	22,800,183	15,591,044	3,000,262	279,896	134,480,919
2017	90,327,325	20,974,863	15,597,261	2,933,871	282,274	130,115,594
2016	87,074,255	19,780,955	15,019,401	2,934,716	244,732	125,054,059
2015	84,899,076	19,442,746	13,615,054	2,906,510	236,877	121,100,263
2014	84,966,339	18,752,543	14,077,113	2,992,594	256,564	121,045,153
2013	83,269,369	18,203,343	13,013,158	2,795,461	253,247	117,534,578
2012	83,406,085	18,590,766	14,099,100	2,876,584	267,125	119,239,660
2011	83,958,256	18,186,274	14,222,462	2,779,302	311,117	119,457,411
2010	76,424,085	17,034,887	13,581,423	2,706,123	350,850	110,097,368

Wholesale Delivery Charge by Purveyor Member



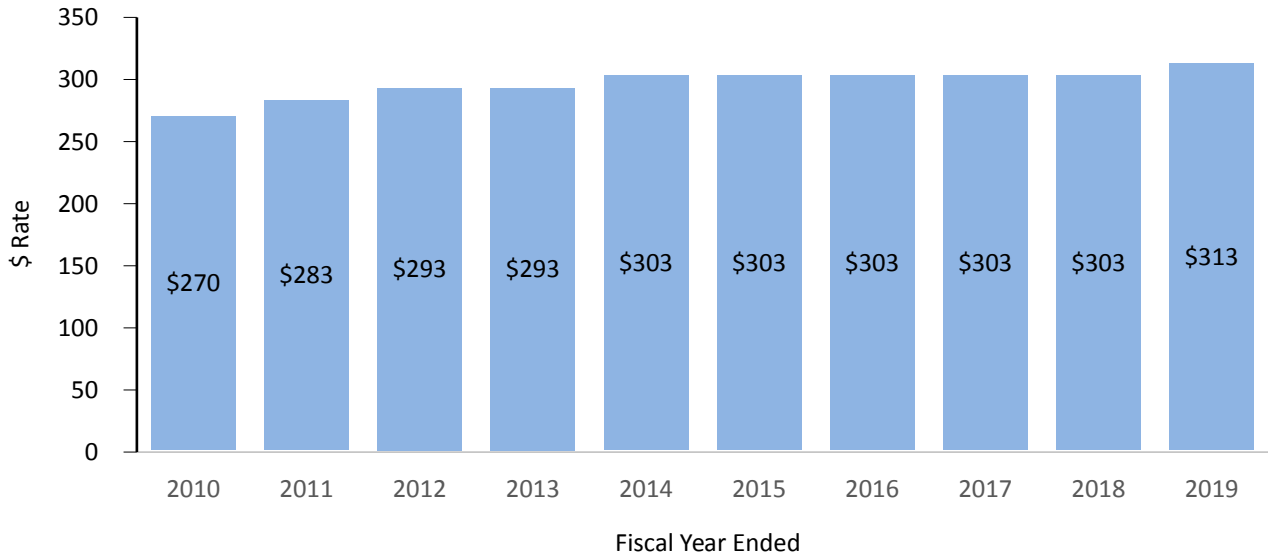
SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
 Wholesale Delivery Charge Rates
 Last Ten Fiscal Years

Fiscal Year Ended June 30,	Rate per Acre-Foot ⁽¹⁾
2019	\$313
2018	303
2017	303
2016	303
2015	303
2014	303
2013	293
2012	293
2011	283
2010	270

⁽¹⁾ The City of Boulder City pays a slightly lower Wholesale Delivery Charge for non-potable water. Nellis Air Force Base pays a modified Wholesale Delivery Charge plus a portion of debt service. Revenues from both these charges account for less than 1% of total Wholesale Delivery Charge revenues.

Wholesale Delivery Charge Rates



SOUTHERN NEVADA WATER AUTHORITY
 Statistical Section (Unaudited)
 Regional Infrastructure Charge by Purveyor Member ⁽¹⁾
 Inception to June 30, 2019

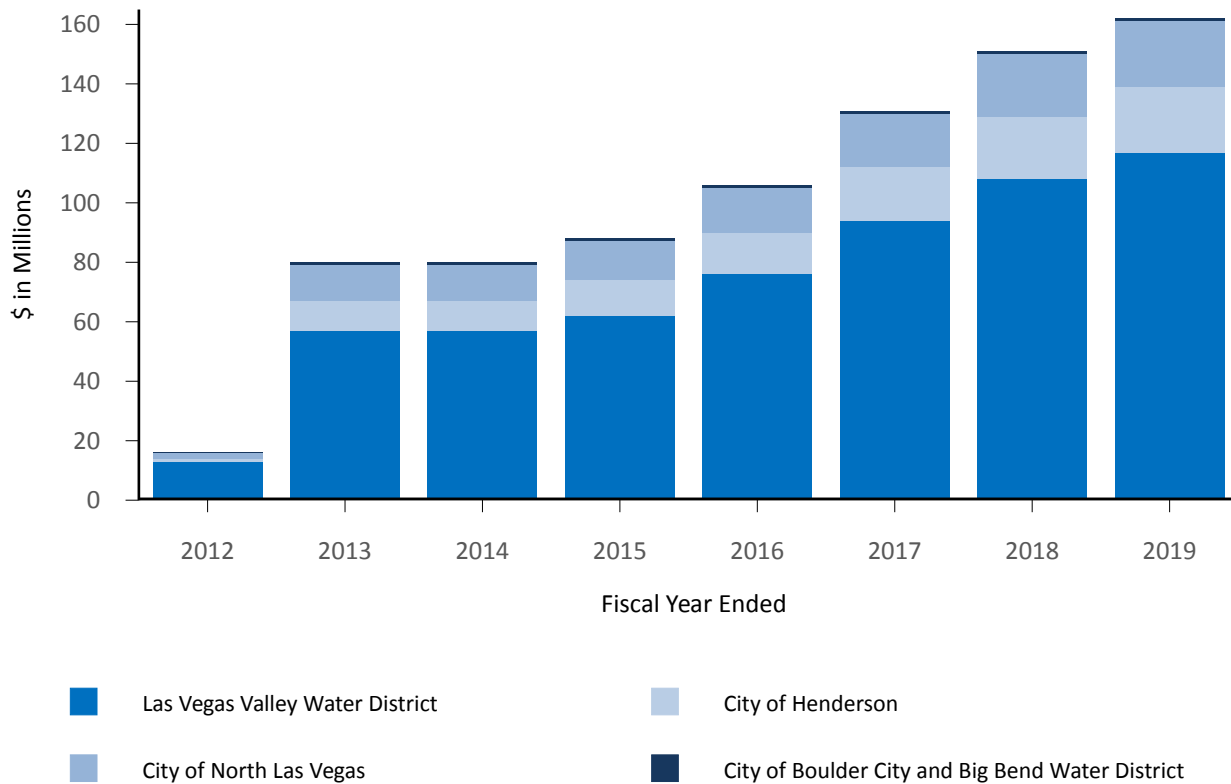
Fiscal Year Ended June 30,	Las Vegas Valley Water	City of Henderson	City of North Las Vegas	City of Boulder City ⁽³⁾	Big Bend Water District ⁽³⁾	Total
2019	\$ 116,950,650	\$ 22,425,044	\$ 22,184,949	\$ 1,237,524	\$ 138,826	\$ 162,936,993
2018	108,194,046	21,487,256	20,921,390	1,237,524	67,625	151,907,841
2017	94,278,922	18,439,116	18,450,250	1,237,524	65,633	132,471,445
2016	75,898,495	14,390,670	14,959,443	1,072,250	138,826	106,459,684
2015	62,202,122	11,596,876	12,613,144	484,286	150,428	87,046,856
2014	57,375,876	10,450,969	11,656,022	576,858	185,156	80,244,881
2013	56,810,256	9,916,987	11,643,459	546,637	196,939	79,114,278
2012 ⁽²⁾	12,659,145	1,248,412	2,285,573	—	—	16,193,130

⁽¹⁾ Regional Infrastructure Charges are a component of Capital Contributions as displayed on the Statements of Revenues, Expenses, and Changes in Net Position. See Notes 1 and 17 to the Basic Financial Statements.

⁽²⁾ The Regional Infrastructure Charge was implemented in Fiscal Year 2012.

⁽³⁾ These purveyor members pay fees in lieu of collecting the Regional Infrastructure Charges from their customers.

Regional Infrastructure Charge by Purveyor Member



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Regional Infrastructure Charge Rates
Inception to June 30, 2018

Page 1 of 2

	Daily Charge Per Meter			
	<u>Jan 18 to</u> <u>Jun 19</u>	<u>Jan 17 to</u> <u>Dec 17</u>	<u>Jan 16 to</u> <u>Dec 16</u>	<u>Jan 15 to</u> <u>Dec 15</u>
<u>Residential Meters</u>				
5/8" & 3/4" meter sizes	\$ 0.4306	\$ 0.3906	\$ 0.3196	\$ 0.2120
1" meter size	1.1403	1.0646	0.9300	0.7263
1.5" meter size	2.2803	2.1287	1.8599	1.4520
2" meter size	3.6487	3.4063	2.9760	2.3233
3" meter size	7.2966	6.8120	5.9510	4.6460
4" meter size	11.4010	10.6433	9.2986	7.2596
6" meter size	22.8016	21.2863	18.5973	14.5190
8" meter size	36.4823	34.0580	29.7550	23.2296
10" and larger meter sizes	40.7333	37.2487	31.8850	23.2296
 <u>Non-Residential Meters</u>				
5/8" & 3/4" meter sizes	0.8989	0.8589	0.7879	0.6803
1" meter size	1.7027	1.6270	1.4923	1.2886
1.5" meter size	3.4053	3.2537	2.9849	2.5770
2" meter size	5.4483	5.2059	4.7756	4.1230
3" meter size	10.8966	10.4120	9.5510	8.2460
4" meter size	17.0263	16.2686	14.9239	12.8850
6" meter size	34.0523	32.5370	29.8480	25.7696
8" meter size	54.4833	52.0590	47.7560	41.2306
10" and larger meter sizes	78.3196	74.8350	68.6490	59.2690
 <u>Non-Residential Fire Meters</u>				
5/8" & 3/4" meter sizes	0.1113	0.1113	0.1113	0.1113
1" meter size	0.2106	0.2106	0.2106	0.2106
1.5" meter size	0.4210	0.4210	0.4210	0.4210
2" meter size	0.6736	0.6736	0.6736	0.6736
3" meter size	1.3470	1.3470	1.3470	1.3470
4" meter size	2.1046	2.1046	2.1046	2.1046
6" meter size	4.2093	4.2093	4.2093	4.2093
8" meter size	6.7346	6.7346	6.7346	6.7346
10" and larger meter sizes	9.6810	9.6810	9.6810	9.6810

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Regional Infrastructure Charge Rates
Inception to June 30, 2018

	Daily Charge Per Meter			
	<u>Jan 14 to</u> <u>Dec 14</u>	<u>Jul 13 to</u> <u>Dec 13</u>	<u>Sep 12 to</u> <u>Jul 13</u>	<u>Feb 12 to</u> <u>Aug 12</u>
<u>Residential Meters</u>				
5/8" & 3/4" meter sizes	\$ 0.1880	\$ 0.1667	\$ 0.1667	\$ 0.1667
1" meter size	0.6806	0.6403	0.6403	0.6403
1.5" meter size	1.3610	1.2803	1.2803	1.2803
2" meter size	2.1780	2.0486	2.0486	2.0487
3" meter size	4.3553	4.0966	4.0966	4.0967
4" meter size	6.8050	6.4010	6.4010	6.4010
6" meter size	13.6096	12.8016	12.8016	12.8017
8" meter size	21.7753	20.4823	20.4823	20.4823
10" and larger meter sizes	21.7753	20.4823	20.4823	20.4823
 <u>Non-Residential Meters</u>				
5/8" & 3/4" meter sizes	0.6563	0.6350	0.6350	0.6350
1" meter size	1.2430	1.2026	1.2026	1.2027
1.5" meter size	2.4860	2.4053	2.4053	2.4053
2" meter size	3.9776	3.8483	3.8483	3.8483
3" meter size	7.9553	7.6966	7.6966	7.6967
4" meter size	12.4303	12.0263	12.0263	12.0263
6" meter size	24.8603	24.0523	24.0523	24.0523
8" meter size	39.7763	38.4833	38.4833	38.4833
10" and larger meter sizes	57.1783	55.3196	55.3196	55.3197
 <u>Non-Residential Fire Meters</u>				
5/8" & 3/4" meter sizes	0.1113	0.1113	0.1063	0.2223
1" meter size	0.2106	0.2106	0.2017	0.4210
1.5" meter size	0.4210	0.4210	0.4030	0.8420
2" meter size	0.6736	0.6736	0.6447	1.3470
3" meter size	1.3470	1.3470	1.2890	2.6940
4" meter size	2.1046	2.1046	2.0140	4.2093
6" meter size	4.2093	4.2093	4.0276	8.4183
8" meter size	6.7346	6.7346	6.4443	13.4693
10" and larger meter sizes	9.6810	9.6810	9.2636	19.3620

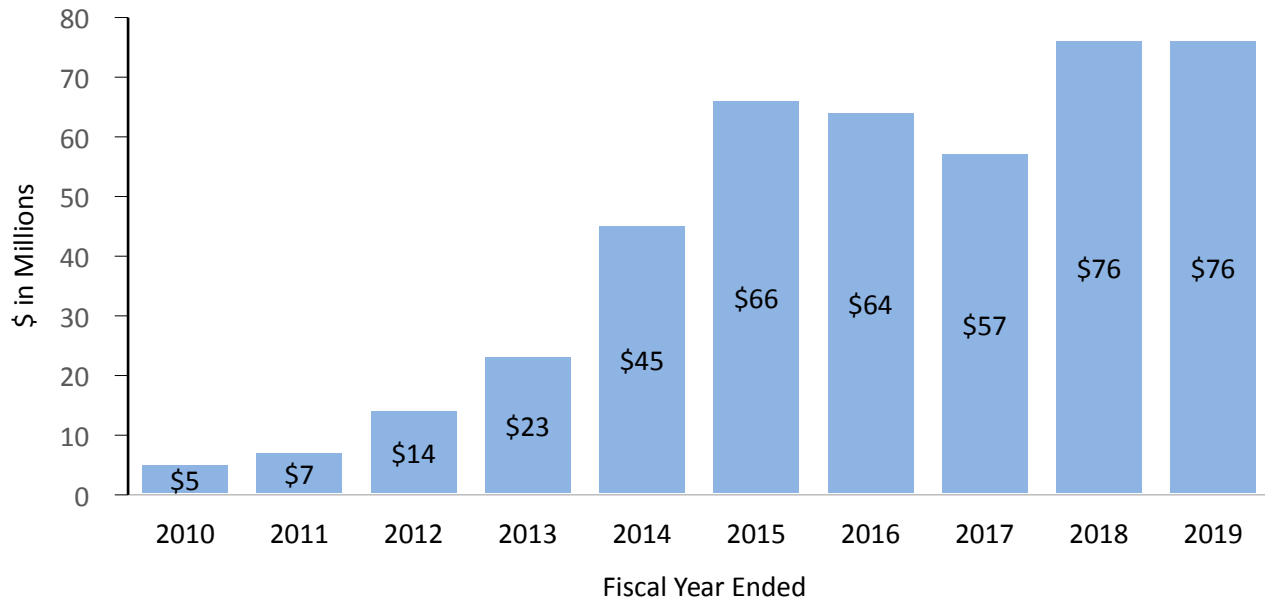
SOUTHERN NEVADA WATER AUTHORITY
 Statistical Section (Unaudited)
 Regional Connection Charge by Purveyor Member ⁽¹⁾
 Last Ten Fiscal Years

Fiscal Year Ended June 30,	Las Vegas Valley Water District	City of Henderson	City of North Las Vegas	Adjustment to Pending Refund Contingency ⁽²⁾	Total
2019	\$ 46,474,600	\$ 19,483,421	\$ 9,609,380	\$ —	\$ 75,567,401
2018	46,415,820	17,395,310	12,532,130	—	76,343,260
2017	41,373,197	11,723,700	3,927,920	—	57,024,817
2016	42,742,896	16,687,440	2,930,630	1,420,210	63,781,176
2015	47,125,630	16,954,760	1,649,490	286,047	66,015,927
2014	26,284,180	13,185,770	2,012,861	3,336,858	44,819,669
2013	16,232,230	1,581,160	1,228,630	3,873,396	22,915,416
2012	10,265,102	3,195,930	330,050	101,774	13,892,856
2011	7,504,785	3,529,771	(258,942)	(4,172,886)	6,602,728
2010	(581,358)	2,008,270	2,117,669	1,764,966	5,309,547

⁽¹⁾ Regional Connection Charges are a component of Capital Contributions as displayed on the Statements of Revenues, Expenses, and Changes in Net Position. See Notes 1 and 17 to the Basic Financial Statements.

⁽²⁾ Beginning in fiscal year 2007, annual net cash collections of connection charges were modified by a pending refund contingency. The pending refund contingency was discontinued in fiscal year 2016.

Regional Connection Charges



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Regional Connection Charge Rates
Last Ten Fiscal Years

Residential (8 or fewer units per acre ⁽¹⁾) <i>(Plans approved for construction and fees paid)</i>		
Meter Size	Charge	
	Nov 08 to Jun 19	May 08 to Oct 08
5/8"	\$ 4,870	\$ 4,710
3/4"	4,870	4,710
1"	9,610	9,300
1 1/2"	19,170	18,560
2"	30,680	29,700

⁽¹⁾ "Units per Acre means "Gross Acre," which represents an acre of land, including all interior streets, publicly dedicated land, and adjacent streets or rights-of-way to the street centerline, not to exceed a distance of 50 feet.

Non-Residential (Hotels, Motels, Golf Courses and Laundries Excluded) <i>(Plans approved for construction and fees paid)</i>		
Meter Size	Charge	
	Nov 08 to Jun 19	May 08 to Oct 08
5/8"	\$ 4,870	\$ 4,710
3/4"	4,870	4,710
1"	9,610	9,300
1 1/2"	19,170	18,560
2"	64,260	60,060
3"	237,900	216,610
4"	353,100	326,310
6"	See table for "Rates Based on Factors other than Meter Size"	
8"		
10"		

Industrial Laundries <i>(Plans approved for construction and fees paid)</i>		
Meter Size	Charge	
	Nov 08 to Jun 19	May 08 to Oct 08
5/8"	\$ 76,800	\$ 74,350
3/4"	76,800	74,350
1"	151,460	146,620
1 1/2"	302,950	293,270
2"	484,700	469,220
3"	969,400	938,430
4"	1,514,690	1,466,300
6"	3,029,360	2,932,580
8"	4,846,980	4,692,140
10"	6,967,540	6,744,960

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Regional Connection Charge Rates
Last Ten Fiscal Years

Rates Based on Factors other than Meter Size <i>(Plans approved for construction and fees paid)</i>			
Customer Class	Connection Charge Based On	Charge Per Unit	
		Nov 08 to Jun 19	May 08 to Oct 08
Residential - Individually Metered more than 8 Units per acre ⁽¹⁾ & Mobile Homes	Dwelling Unit	\$ 3,400	\$ 3,210
Residential - Master Metered more than 8 Units per acre ⁽¹⁾ & Mobile Homes ⁽²⁾	Dwelling Unit	3,400	3,210
Non-Residential, 6" and Larger - Excluding Hotels, Motels, Golf Courses, and Laundries ⁽³⁾	Annual Usage (1,000 Gal.)	29.20	26.50
Hotels & Motels	Hotel Room	2,780	2,690
Golf Courses (Irrigated Acres) ⁽⁴⁾	Acre	45,640	43,870
RV Parks	Space	1,380	1,340

⁽¹⁾ "Units per Acre" means "Gross Acre," which represents an acre of land, including all interior streets, publicly dedicated land, and adjacent streets or rights-of-way to the street centerline, not to exceed a distance of 50 feet.

⁽²⁾ Master metered mobile homes are not authorized in Clark County in accordance with NRS 461A.230.

⁽³⁾ SNWA regional connection charge based on audit and confirmation of annual water usage of the facility within the first three years of operation. Based on that audit, the connection charge may be adjusted accordingly.

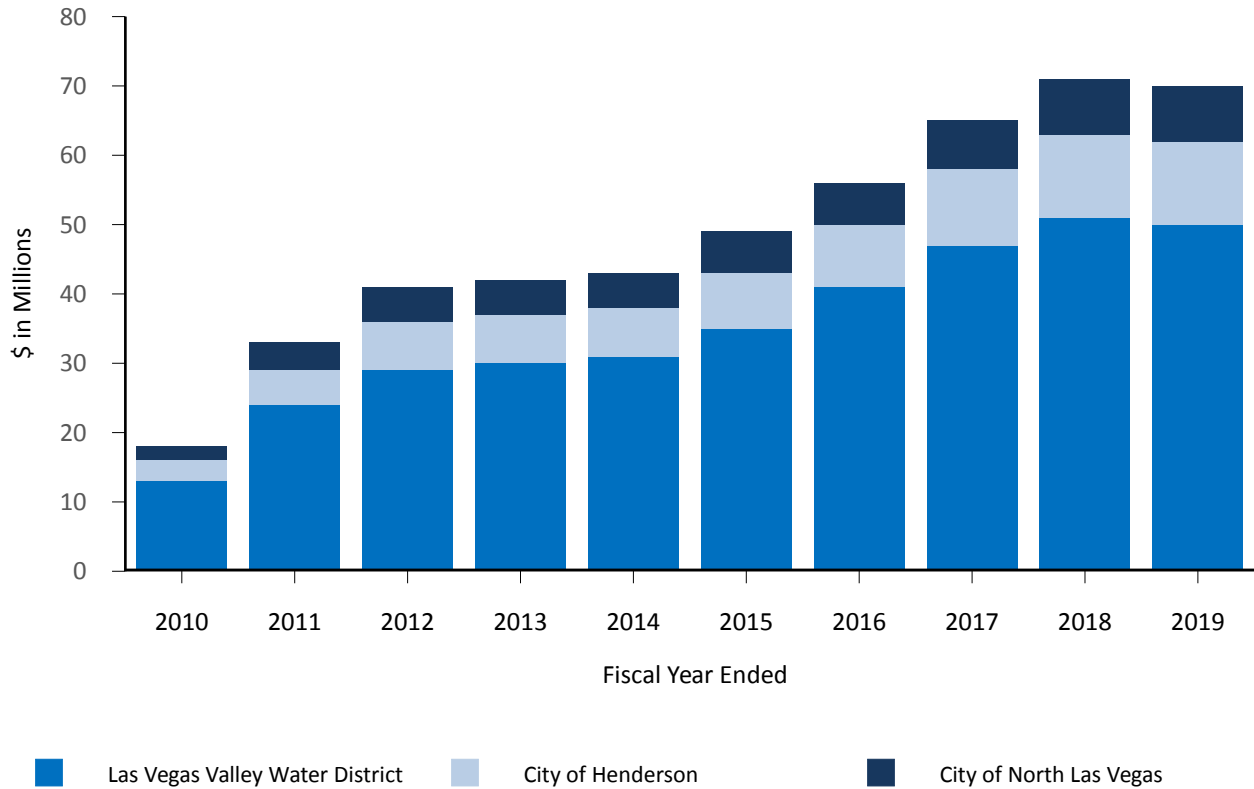
⁽⁴⁾ The SNWA regional connection charge is based on the potable irrigated acres of the golf course, which includes all playing areas, such as fairways, roughs, lakes, ponds, golf cart paths, sand traps, etc. The potable irrigated acres for this calculation does not include non-playing areas, although minimal potable irrigation may be required.

SOUTHERN NEVADA WATER AUTHORITY
 Statistical Section (Unaudited)
 Regional Commodity Charge by Purveyor Member ⁽¹⁾
 Last Ten Fiscal Years

Fiscal Year Ended June 30,	Las Vegas Valley Water District	City of Henderson	City of North Las Vegas	Total
2019	\$ 49,800,992	\$ 11,814,929	\$ 7,985,365	\$ 69,601,286
2018	50,547,095	12,016,747	7,988,733	70,552,575
2017	47,122,474	11,059,260	7,200,429	65,382,163
2016	40,842,592	9,415,053	6,363,871	56,621,516
2015	35,116,226	8,264,405	5,505,351	48,885,982
2014	31,340,928	7,329,885	4,755,148	43,425,961
2013	29,550,946	6,821,823	4,618,727	40,991,496
2012	29,327,883	6,825,773	4,512,536	40,666,192
2011	23,768,273	5,453,396	3,632,107	32,853,776
2010	13,205,610	3,110,815	2,118,237	18,434,662

⁽¹⁾ Regional Commodity Charges are a component of Capital Contributions as displayed on the Statements of Revenues, Expenses, and Changes in Net Position. See Notes 1 and 17 to the Basic Financial Statements.

Regional Commodity Charge by Purveyor Member

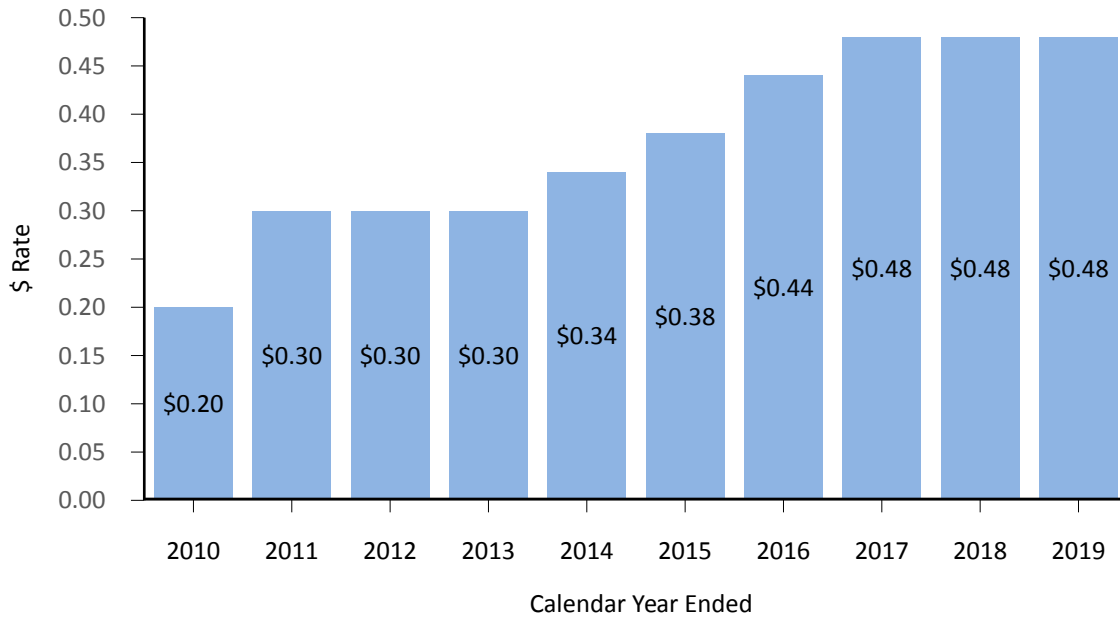


SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Regional Commodity Charge Rates
Last Ten Calendar Years

Calendar Year	Rate (per 1,000 gallons)
2019	\$0.48
2018	0.48
2017	0.48
2016	0.44
2015	0.38
2014	0.34
2013	0.30
2012	0.30
2011	0.30
2010	0.20

Regional Commodity Charge Rates



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

Ratios of Outstanding Debt ⁽¹⁾

Last Ten Fiscal Years

In Million Dollars

Fiscal Year Ended June 30	General Obligation Bonds ⁽²⁾	Notes Payable / Repayment Contracts	Total Debt ⁽³⁾	Debt as a Percent of Personal Income ⁽⁴⁾	Debt Per Capita In Dollars ⁽⁵⁾
2019	\$ 3,144.3	\$ 2.5	\$ 3,146.8	3.2%	\$ 1,422.8
2018	3,278.5	3.9	3,282.4	3.3%	1,484.1
2017	3,412.3	5.3	3,417.6	3.6%	1,569.4
2016	3,521.8	6.7	3,528.5	3.6%	1,651.8
2015	3,088.1	8.0	3,096.1	3.4%	1,488.5
2014	3,087.7	9.2	3,096.9	3.7%	1,521.1
2013	3,107.1	10.4	3,117.5	4.0%	1,556.4
2012	2,755.2	11.6	2,766.8	3.6%	1,422.3
2011	2,737.5	12.7	2,750.2	3.8%	1,446.0
2010	2,756.7	13.8	2,770.5	4.0%	1,415.8

⁽¹⁾ Details of the SNWA's outstanding long-term and short-term debt can be found in the Notes to the Basic Financial Statements and in this Statistical Section.

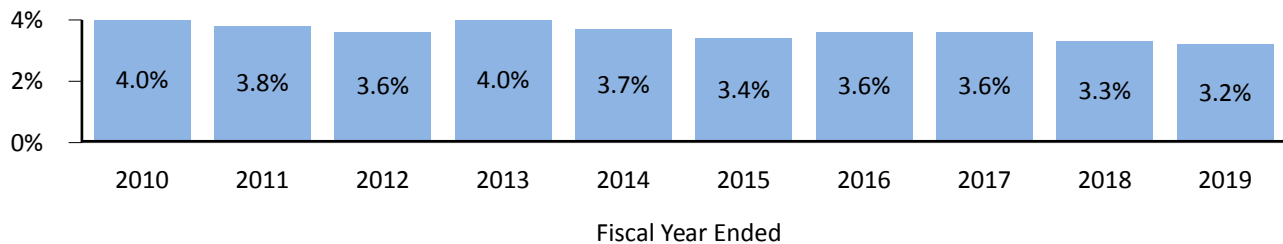
⁽²⁾ Net of related premiums and discounts as required per GASB Comprehensive Implementation Guide 9.24.6.

⁽³⁾ All SNWA bond and note debt is general obligation debt issued on behalf of the SNWA by the State of Nevada, LVVWD, and Clark County, additionally secured by pledged revenue. For more information, see Pledged Revenue Coverage information in this Statistical Section.

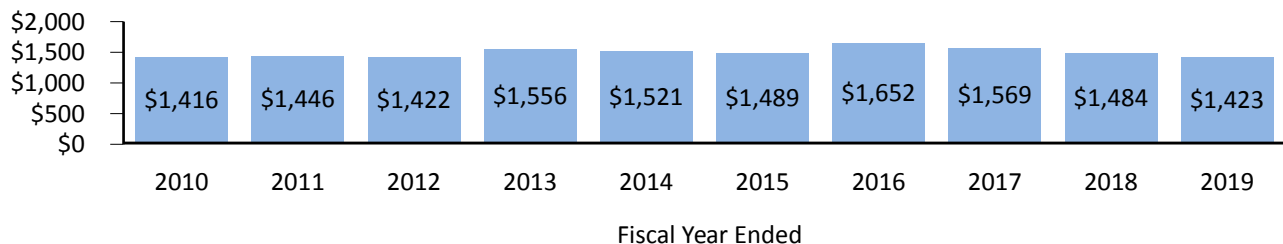
⁽⁴⁾ Total debt divided by personal income in Clark County, which is indicated in the demographic and economic information table in this Statistical Section.

⁽⁵⁾ Total debt divided by the population in SNWA's service area.

Debt as Percentage of Personal Income



Debt Per Capita



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Ratios of General Bonded Debt ⁽¹⁾
Last Ten Fiscal Years

In Million Dollars

Fiscal Year Ended June 30	G.O. Debt Additionally Secured with SNWA Pledged Revenues ⁽²⁾	Debt Secured with Sales Tax Pledge ^{(2) (3)}	Total General Bonded Debt	Following Fiscal Year's Principal Payments ⁽⁴⁾	Net General Bonded Debt	Total Debt as Percent of Annual Applied Revenues ^{(5) (6)}	Annual Debt Service as Percent of Annual Applied Revenues ^{(5) (7)}
2019	\$3,145.0	\$1.8	\$3,146.8	\$(121.6)	\$3,025.2	587.4%	50.6%
2018	3,280.1	2.3	3,282.4	(116.5)	3,165.9	630.1%	52.3%
2017	3,414.8	2.8	3,417.6	(112.1)	3,305.5	732.7%	58.8%
2016	3,525.3	3.2	3,528.5	(106.2)	3,422.3	824.4%	53.7%
2015	3,092.4	3.7	3,096.1	(84.0)	3,012.1	784.7%	43.7%
2014	3,092.8	4.1	3,096.9	(24.3)	3,072.6	886.4%	42.2%
2013	3,112.9	4.6	3,117.5	(16.9)	3,100.6	987.3%	46.7%
2012	2,761.7	5.1	2,766.8	(15.1)	2,751.7	1,142.7%	60.9%
2011	2,744.7	5.5	2,750.2	(31.9)	2,718.3	1,313.3%	75.0%
2010	2,764.6	6.0	2,770.6	(31.2)	2,739.4	1,523.8%	90.6%

⁽¹⁾ Details of the SNWA's outstanding debt can be found in the Notes 14 and 16 to the Basic Financial Statements and in the Other Information section of the Statistical Section. As described in Note 1, SNWA has only seven customers, making per-customer ratios meaningless. Therefore, alternate ratios have been provided.

⁽²⁾ All SNWA bond and note debt is general obligation debt issued on behalf of the SNWA by the State of Nevada, Las Vegas Valley Water District, and Clark County, additionally secured by pledged revenue. Please see "Pledged Revenue Coverage" tables immediately following this schedule.

⁽³⁾ Only one debt issue (SNWA CRE 2008) has sales tax specifically pledged to it. All other issues are general obligation bonds with additional security of SNWA pledged revenues.

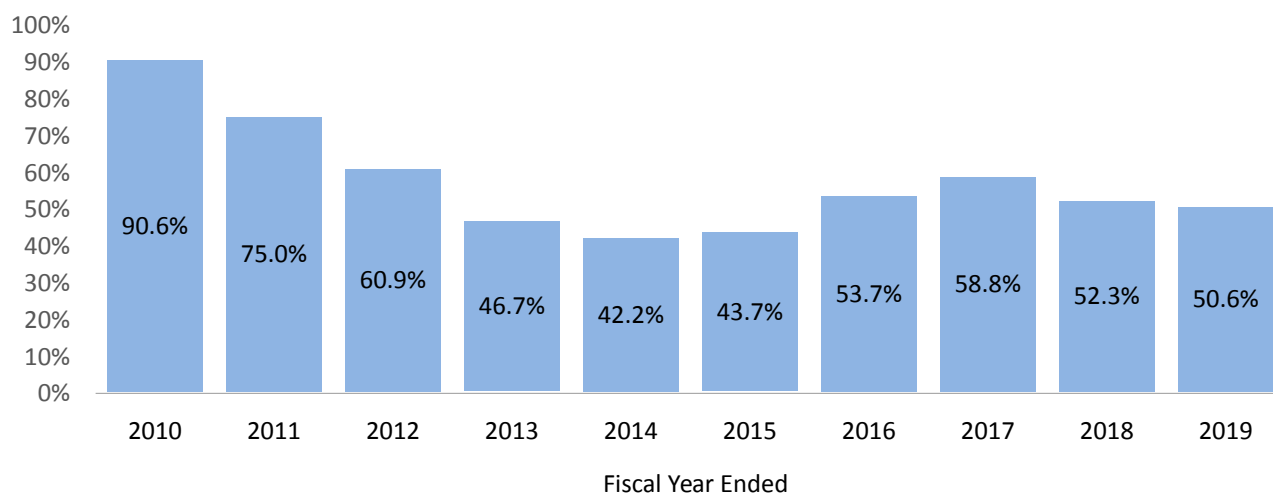
⁽⁴⁾ Principal portion of debt service payments for the following fiscal year, excluding commercial paper.

⁽⁵⁾ The SNWA cannot levy property taxes. Although the entities issuing debt on its behalf can, the SNWA does not expect that to occur. Therefore, alternate ratios have been provided.

⁽⁶⁾ Total debt divided by total applied revenues. Applied revenues are revenues which are used to pay debt service. These revenues consist of Sales Tax, Wholesale Delivery Charge, Regional Connection Charge, Regional Commodity Charge, Regional Reliability Surcharge, and Regional Infrastructure Charge. Regional Connection Charges are adjusted by a refund contingency for fiscal year 2010 to 2015.

⁽⁷⁾ Total annual debt service (principal and interest) divided into total applied revenues as defined in ⁽⁶⁾ above.

Annual Debt Service as Percent of Annual Applied Revenues



SOUTHERN NEVADA WATER AUTHORITY
Statistical Section (Unaudited)
Information About Debt Limitations and Pledged Revenue Coverage

DEBT LIMITATIONS

The SNWA does not have a dollar amount of debt limit. The SNWA's ability to issue and pay its debt is a function of its capital needs and revenues generated from its facilities.

PLEGGED REVENUE COVERAGE

Fiscal Year Ended June 30	Pledged Revenue Sales Tax ⁽¹⁾	Bonds with Sales Tax Pledge ⁽²⁾	Coverage Ratio
2019	\$67,970,379	\$1,840,000	36.9
2018	63,601,130	2,300,000	27.7
2017	60,856,934	2,760,000	22.0
2016	58,152,408	3,220,000	18.1
2015	55,933,316	3,680,000	15.2
2014	52,308,926	4,140,000	12.6
2013	48,847,306	4,600,000	10.6
2012	46,222,883	5,060,000	9.1
2011	43,577,390	5,520,000	7.9
2010	41,833,183	5,980,000	7.0

⁽¹⁾ Sales tax collections are restricted by law to be used only for capital acquisition and retirement of debt.

⁽²⁾ Only one debt issue (SNWA CRE 2008) has sales tax specifically pledged to it. All other issues are general obligation bonds with additional security of SNWA pledged revenue.

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

Pledged Revenue Coverage

Last Ten Fiscal Years

Fiscal Year Ended June 30	Gross Revenues ⁽¹⁾	Less Operating Expense ⁽²⁾	Net Available Revenue	Add Beginning Unrestricted Funds ⁽³⁾	Net Available for Debt Service	Total Debt Service ⁽⁴⁾	Debt Coverage Ratio ⁽⁵⁾
2019	\$ 559,631,750	\$ 173,194,350	\$ 386,437,400	\$ 561,768,492	\$ 948,205,892	\$ 260,852,199	3.64
2018	525,797,942	168,535,148	357,262,794	480,331,301	837,594,095	262,918,858	3.19
2017	473,007,416	166,458,183	306,549,233	422,030,778	728,580,011	265,380,836	2.75
2016	480,743,470	134,936,152	345,807,318	382,138,848	727,946,166	222,812,922	3.27
2015	402,439,702	127,494,786	274,944,916	322,928,812	597,873,728	167,810,691	3.56
2014	360,059,198	138,110,567	221,948,631	308,634,591	530,583,222	146,324,785	3.63
2013	323,304,876	108,170,994	215,133,882	236,252,384	451,386,266	146,773,353	3.08
2012	251,265,209	125,663,412	125,601,797	305,553,937	431,155,734	146,624,017	2.94
2011	213,230,601	112,862,482	100,368,119	366,951,904	467,320,023	155,206,052	3.01
2010	187,790,238	120,391,880	67,398,358	438,885,842	506,284,200	162,911,866	3.11

⁽¹⁾ Gross revenues are comprised of wholesale delivery charge, regional connection charge (net of pending refund contingency, which was discontinued in fiscal year 2016), regional water charge (comprised of commodity and reliability), regional infrastructure charge, sales tax, groundwater management fees, Las Vegas wash revenues, investment income (including capitalized portion), and other revenues. Other revenues includes receipts from Southern Nevada Public Lands Management Act (SNPLMA), raw water facilities charge and minor billings to purveyor members (Big Bend Water District, City of Las Vegas, and Clark County Water Reclamation District).

⁽²⁾ Operating expense are comprised of energy, personnel and related, and operating and maintenance.

⁽³⁾ Unrestricted funds include unrestricted cash and investments as shown on the Statements of Net Position and sales tax proceeds on hand regardless of classification.

⁽⁴⁾ Includes interest paid on the commercial paper notes. Also, payments for the 2009A and 2009C bonds are net of the BAB subsidy.

⁽⁵⁾ Debt coverage ratio is calculated by dividing the net available for debt service amount by the total debt service amount.

SOUTHERN NEVADA WATER AUTHORITY
 Statistical Section (Unaudited)
 Demographic and Economic Information in Clark County, Nevada ⁽¹⁾
 Last Ten Calendar Years

Calendar Year	Population ⁽²⁾	Per Capita Income ⁽³⁾	Median Household Income ⁽⁴⁾	School Enrollment ⁽⁵⁾	Total Labor Force Thousands ⁽⁶⁾	U.S. Unemployment Rate ⁽⁷⁾
2018	2,251,175	N/A	\$48,977	321,695	1,105.2	3.9%
2017	2,193,818	\$44,217	47,610	321,991	1,072.6	4.4%
2016	2,166,181	43,005	45,634	320,186	1,050.6	4.9%
2015	2,118,353	42,665	43,603	317,759	1,038.7	5.3%
2014	2,069,450	40,459	51,214	314,598	1,019.5	6.2%
2013	2,031,723	38,423	51,057	311,218	1,004.3	7.4%
2012	1,988,195	38,562	49,546	308,377	999.5	8.1%
2011	1,967,722	36,531	48,215	309,899	995.1	8.9%
2010	1,951,269	35,476	51,437	309,442	984.0	9.6%
2009	1,952,040	35,075	53,505	311,221	967.7	9.3%

⁽¹⁾ All figures are subject to revision.

⁽²⁾ Population as of July 1. Source: 2010 figure from the U.S. Bureau of the Census; all other figures from the Nevada State Demographer.

⁽³⁾ The abbreviation "N/A" means not available. Source: U.S. Department of Commerce, Bureau of Economic Analysis.

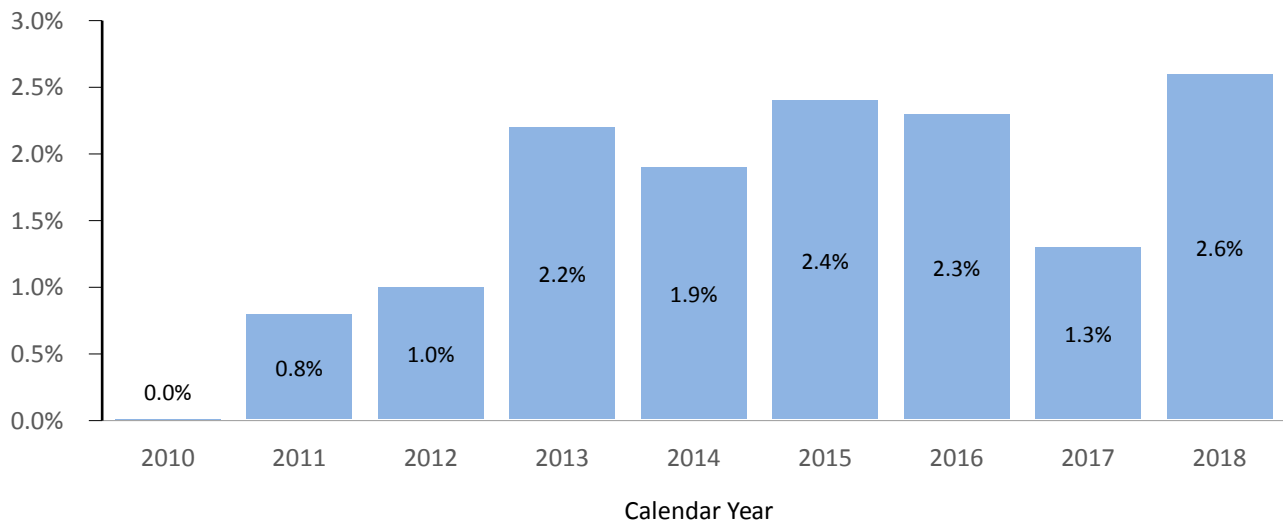
⁽⁴⁾ Source: The Nielsen Company, *Site Reports*, 2015-2017; and Claritas, 2018-2019.

⁽⁵⁾ School enrollment in fall. Source: Clark County School District.

⁽⁶⁾ Source: State of Nevada - Department of Employment, Training & Rehabilitation.

⁽⁷⁾ Source: Bureau of Labor Statistics (annual averages).

Change in Population From Prior Year



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

Ten Largest Property-Owners Taxpayers in Clark County, Nevada ⁽¹⁾

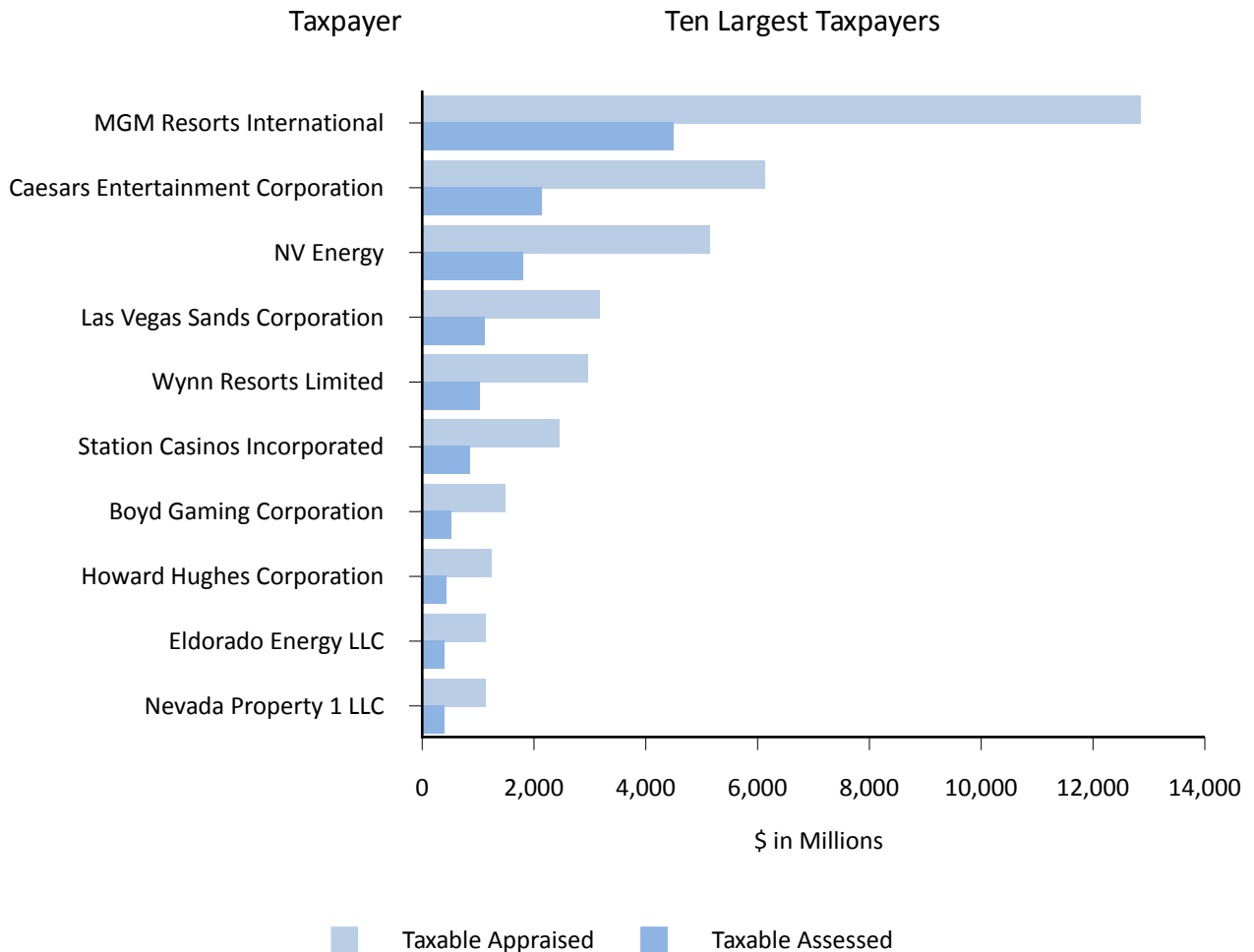
Fiscal year ended June 30, 2019

Taxpayer ⁽²⁾	Taxable Assessed	Taxable Appraised
1. MGM Resorts International	\$ 4,499,272,037	\$ 12,855,062,963
2. Caesars Entertainment Corporation	2,144,272,433	6,126,492,666
3. NV Energy	1,803,093,727	5,151,696,363
4. Las Vegas Sands Corporation	1,112,597,471	3,178,849,917
5. Wynn Resorts Limited	1,036,719,867	2,962,056,763
6. Station Casinos Incorporated	857,275,430	2,449,358,371
7. Boyd Gaming Corporation	521,614,079	1,490,325,940
8. Howard Hughes Corporation	432,051,425	1,234,432,643
9. Eldorado Energy LLC	398,697,770	1,139,136,486
10. Nevada Property 1 LLC	398,201,833	1,137,719,523

Source: Nevada Department of Taxation, *Ten Highest Assessed Taxpayers Statewide and All Counties*. (Report dated December 10, 2018)

⁽¹⁾ Includes the five incorporated cities.

⁽²⁾ Some taxpayers are hotel/casinos that may have multiple properties.



SOUTHERN NEVADA WATER AUTHORITY

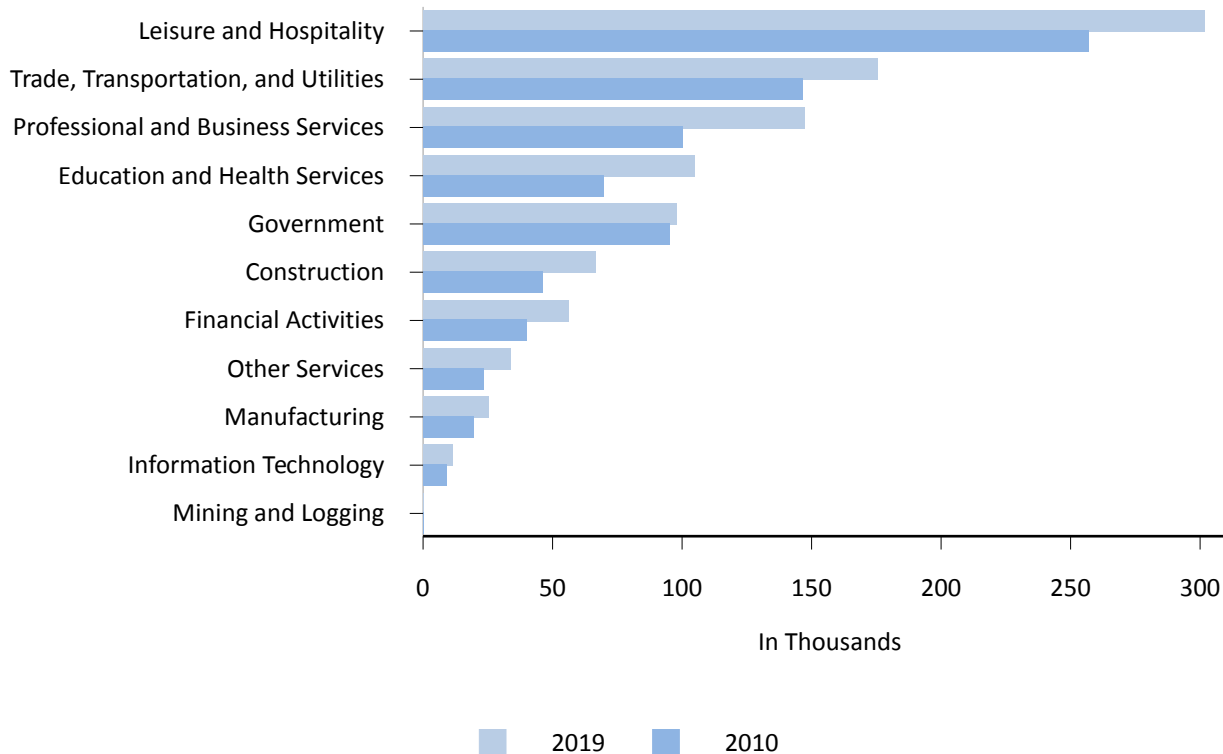
Statistical Section (Unaudited)

Employment by Industry Sector in the Las Vegas Metropolitan Area ⁽¹⁾
June 30, 2019 and 2010

Industry Sector	June 30, 2019		June 30, 2010	
	Employees (In Thousands)		Employees (In Thousands)	
Leisure and Hospitality	301.9	29.5%	256.9	31.8%
Trade, Transportation, and Utilities	175.7	17.2%	146.5	18.1%
Professional and Business Services	147.4	14.4%	100.4	12.4%
Education and Health Services	105.0	10.3%	69.7	8.6%
Government	98.2	9.6%	95.3	11.8%
Construction	66.7	6.5%	46.4	5.7%
Financial Activities	56.2	5.5%	40.1	5.0%
Other Services	33.9	3.3%	23.4	2.9%
Manufacturing	25.6	2.5%	19.6	2.4%
Information Technology	11.6	1.1%	9.1	1.1%
Mining and Logging	0.5	—%	0.3	—%
Total Nonfarm Payrolls	1,022.7	100.0%	807.7	100.0%

⁽¹⁾ Source: U.S. Bureau of Labor Statistics for the metropolitan statistical area of Las Vegas-Henderson-Paradise, Nevada. In the past, the Nevada Department of Employment, Training, and Rehabilitation (DETR) compiled a list of the top employers in Clark County. In fiscal year 2019, DETR stopped providing this information and the top employers list is not available from another reliable source. Therefore, the information above is intended to provide the reader with alternate data to consider customer concentration risk.

Employment by Industry Sector



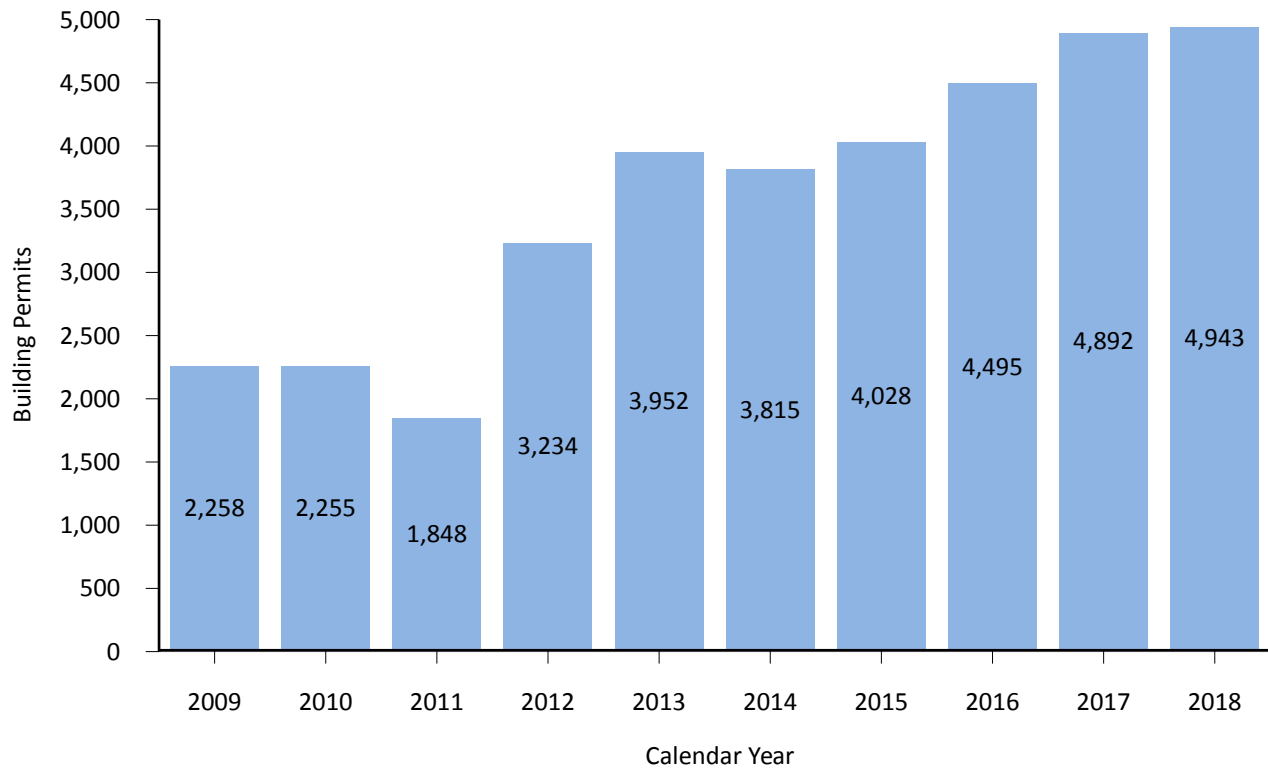
SOUTHERN NEVADA WATER AUTHORITY
 Statistical Section (Unaudited)
 Building Permits Issued in Clark County, Nevada
 Last Ten Calendar Year

Building Permit Type	Calendar Year Ended ⁽¹⁾									
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Single Family Residential	4,074	4,503	3,956	3,550	3,375	3,515	2,966	1,599	2,023	1,930
Townhouses	396	24	79	26	39	50	—	—	6	—
Condominiums	83	65	13	17	14	28	18	13	54	89
Duplex/Apartment Buildings	104	65	133	162	122	104	20	40	8	19
Hotels and Motels	7	6	4	2	4	—	3	—	—	3
Mobile Home Parks	—	—	—	—	—	—	—	—	—	3
Guest Houses	28	47	60	64	57	36	52	23	29	28
Buildings	251	182	250	207	204	219	175	173	135	186
Structures Total ⁽²⁾	4,943	4,892	4,495	4,028	3,815	3,952	3,234	1,848	2,255	2,258

⁽¹⁾ Source: Clark County Development Services, Building Department.

⁽²⁾ Structure permits are important to SNWA as they are most likely to generate Regional Connection Charge revenue.

Building Permits Issued for Structures



SOUTHERN NEVADA WATER AUTHORITY

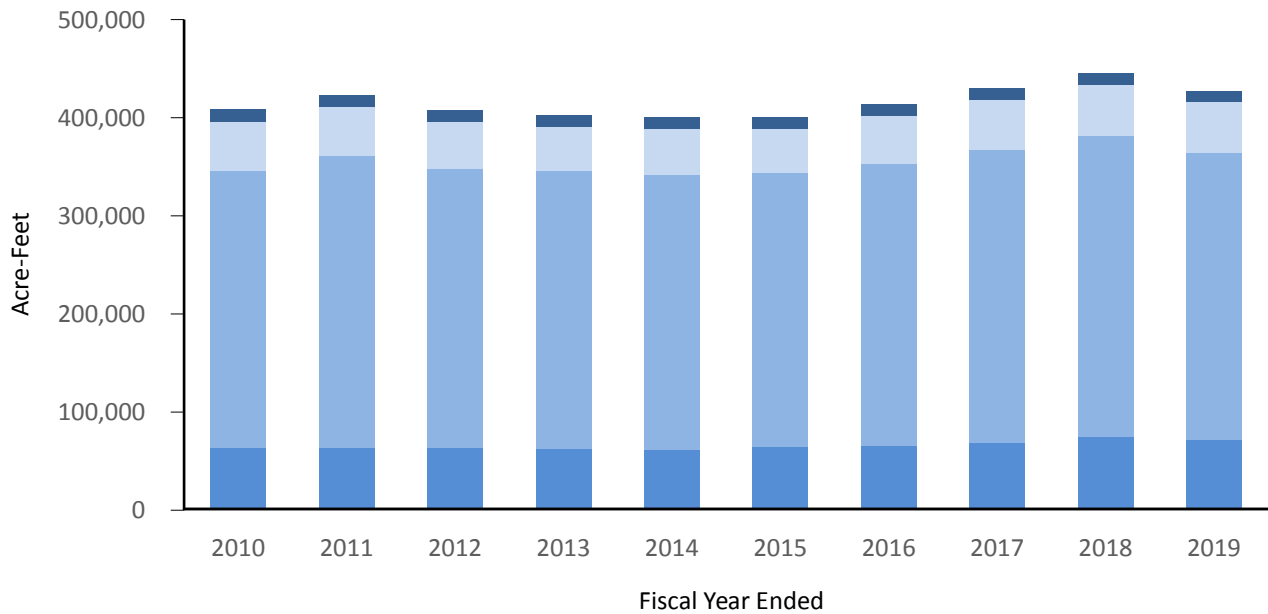
Statistical Section (Unaudited)

Annual Water Delivered by the Southern Nevada Water System in Acre-Feet
Last Ten Fiscal Years

Fiscal Year Ended June 30	City of Boulder City	City of Henderson	Las Vegas Valley Water District	Nellis Air Force Base	North Las Vegas	Total Delivered
2019	9,848	71,651	292,273	1,118	51,869	426,759
2018	10,731	75,248	306,302	1,202	51,456	444,939
2017	10,496	69,224	298,110	1,213	51,476	430,519
2016	10,458	65,284	287,374	1,044	49,569	413,729
2015	10,378	64,167	280,195	1,008	44,934	400,682
2014	10,688	61,890	280,417	1,097	46,459	400,551
2013	10,280	62,127	284,196	1,088	44,414	402,105
2012	10,514	63,450	284,662	1,069	48,120	407,815
2011	10,534	64,262	296,672	1,334	50,256	423,058
2010	10,845	63,092	283,052	1,511	50,302	408,802

Source: The SNWA's Operations Department

Annual Water Delivered by Purveyor Member



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

Full-Time Equivalent Employees (FTEs) by Department / Function ⁽¹⁾
Last Ten Fiscal Years

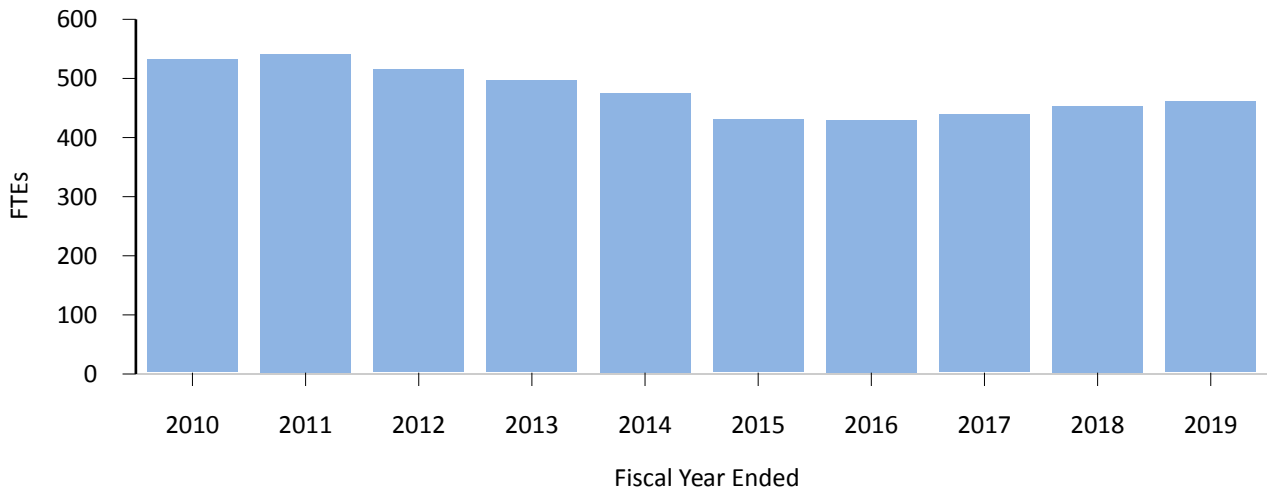
Department / Function	Fiscal Year Ended June 30,									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Administrative Support ⁽²⁾	—	—	—	—	128.5	137.6	113.6	108.8	124.7	152.7
Customer Care & Field Services	2.9	2.9	3.0	1.3	—	—	—	—	—	—
Energy Management	6.0	6.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Engineering	23.3	24.8	30.3	32.9	38.7	51.5	70.8	77.8	78.9	66.0
Environmental, Health, Safety, & Corporate Security	19.7	18.6	16.8	15.8	—	—	—	—	—	—
Executive Management	5.5	5.0	5.0	5.0	—	—	—	—	—	—
Finance	24.2	23.0	32.0	33.2	—	—	—	—	—	—
Human Resources	4.6	3.5	4.1	—	—	—	—	—	—	—
Information Technology	40.1	39.6	34.5	34.4	—	—	—	—	—	—
Infrastructure Management	23.6	24.6	19.2	16.0	14.7	—	—	—	—	—
Legal Services	8.5	8.0	13.9	11.0	—	—	—	—	—	—
Operations	57.3	54.0	57.4	56.7	56.7	89.0	—	—	—	—
Public Services	39.8	40.3	30.1	31.9	—	—	—	—	—	—
Resources & Facilities	78.9	75.8	97.0	98.5	101.8	—	—	—	—	—
SNWA Groundwater Resources	—	—	—	—	—	—	48.1	51.0	63.0	64.5
SNWA Surface Water Resources	—	—	—	—	—	—	14.0	25.0	24.0	20.0
Southern Nevada Water Systems	—	—	—	—	—	—	195.9	192.6	199.7	188.5
Water & Environmental Resources	—	—	—	—	—	98.4	48.8	55.2	46.0	35.0
Water Quality & Treatment	86.4	85.8	89.3	87.2	84.8	93.9	—	—	—	—
Water Resources	40.5	41.5	—	—	—	—	—	—	—	—
TOTAL	461.3	453.4	438.6	429.9	430.2	475.4	496.2	515.4	541.3	531.7

Source: The SNWA's annual budget documents, which are approved by the Board of Directors

⁽¹⁾ The SNWA has no employees of its own. FTEs in this table are employed by LVVWD because the LVVWD is the operating agent for the SNWA. See Note 1 to the Basic Financial Statements for more details on this relationship. FTE numbers are estimates as they come from the annual budget process. Organizational changes are made periodically to better align the organization with its objectives and activities.

⁽²⁾ Starting in the fiscal year ended June 30, 2016, the "Administrative Support" departments were displayed separately in the budget process.

Full-Time Equivalent Employees



SOUTHERN NEVADA WATER AUTHORITY

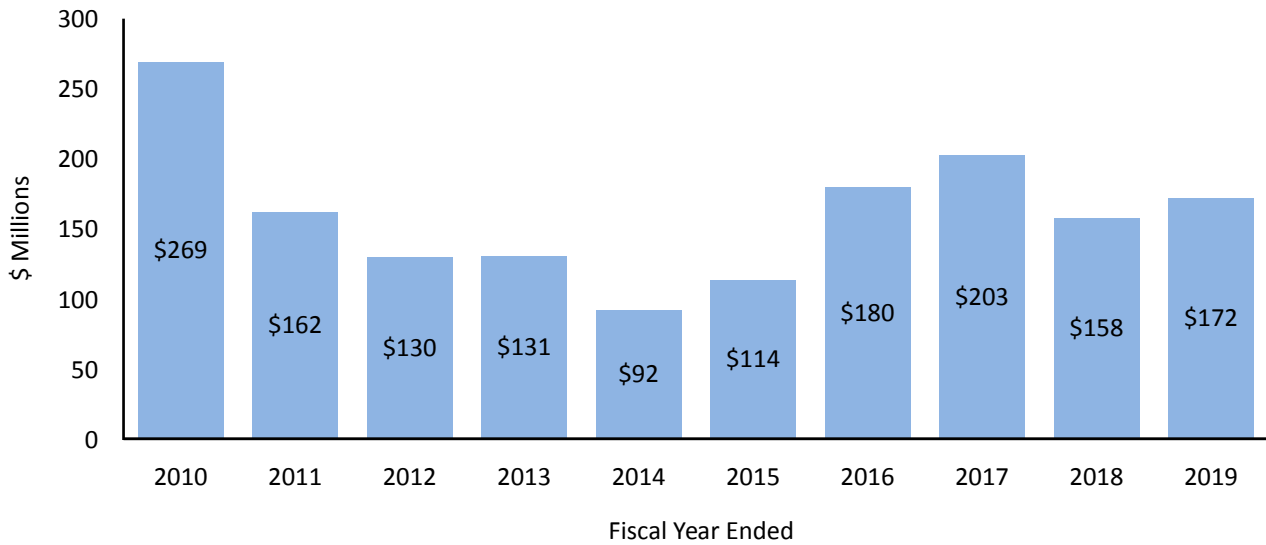
Statistical Section (Unaudited)

Capital Expenditures

Last Ten Fiscal Years

Fiscal Year Ended June 30	Major Construction and Capital Plan	Las Vegas Wash Capital Improvements	Capital Expenditures Outside of Capital Improvement Plans	Total Capital Expenditures
2019	\$ 150,304,295	\$ 6,008,197	\$ 15,605,468	\$ 171,917,960
2018	131,099,993	16,590,597	9,899,286	157,589,876
2017	192,961,627	3,518,951	6,383,511	202,864,089
2016	172,109,188	1,113,383	6,384,113	179,606,684
2015	94,914,794	15,694,463	3,764,784	114,374,041
2014	78,826,736	9,448,938	3,660,439	91,936,113
2013	120,480,080	9,429,731	1,399,339	131,309,150
2012	118,981,628	9,819,269	925,631	129,726,528
2011	156,948,614	4,865,554	414,594	162,228,762
2010	262,219,878	6,385,472	342,315	268,947,665

Total Capital Expenditures



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

Capital Asset Statistics by Function

Last Ten Fiscal Years

Fiscal Year Ended June 30	Miles of Pipeline	Ozone Treatment Capacity ⁽¹⁾	Ozone Treatment Facilities	Pumping Plants	Reservoirs & Forebays	Metering Stations	Rechlorination Facilities	Plant Facilities
2019	175	1,000	2	28	38	35	8	3
2018	175	1,000	2	28	38	35	8	3
2017	175	1,000	2	28	38	35	8	3
2016	175	1,000	2	28	38	35	8	3
2015	175	1,000	2	27	38	35	8	3
2014	175	1,000	2	27	38	35	8	3
2013	175	1,000	2	27	38	35	8	3
2012	175	1,000	2	27	38	35	8	3
2011	175	1,000	2	27	38	35	8	3
2010	175	1,000	2	27	38	35	8	3

Source: The SNWA's Operations Department

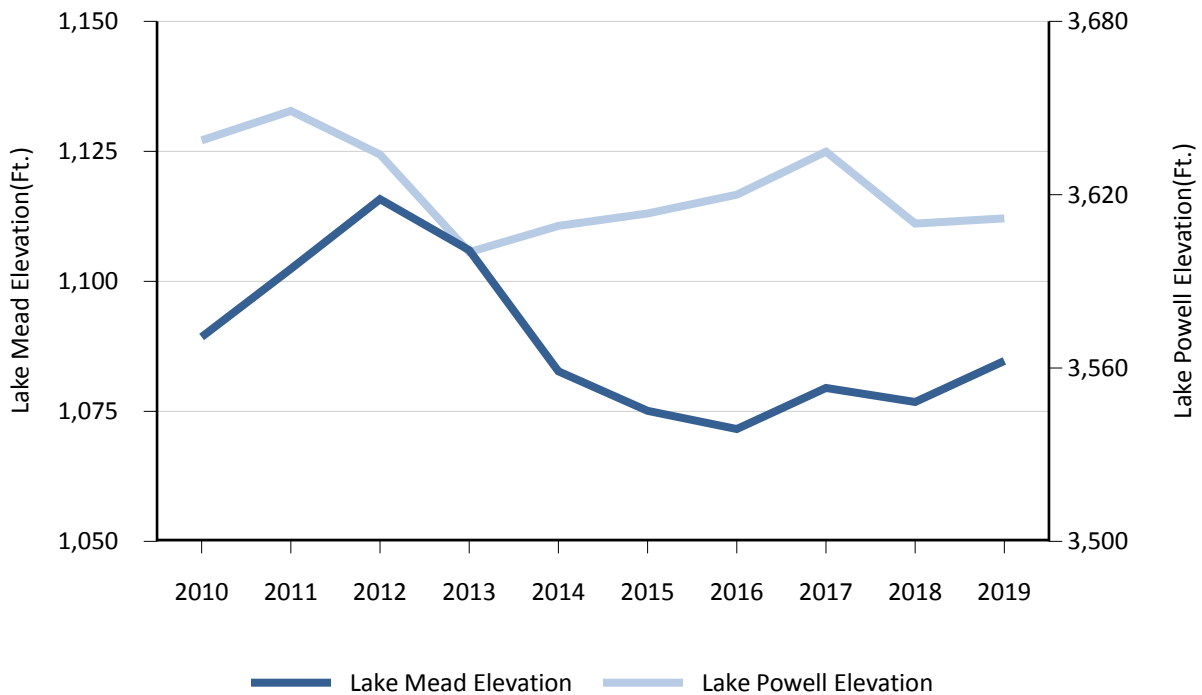
⁽¹⁾ Capacity In million gallons per day.

SOUTHERN NEVADA WATER AUTHORITY
 Statistical Section (Unaudited)
 Lake Elevations by Quarter Measured in Feet at the Dams
 Last Ten Fiscal Years

	Lake Mead ⁽¹⁾	Lake Powell ⁽¹⁾		Lake Mead ⁽¹⁾	Lake Powell ⁽¹⁾
09/30/09	1,093.7	3,635.4	09/30/14	1,081.3	3,605.5
12/31/09	1,096.3	3,626.2	12/31/14	1,087.8	3,597.8
03/31/10	1,100.7	3,619.4	03/31/15	1,084.9	3,591.0
06/30/10	1,089.3	3,638.8	06/30/15	1,075.1	3,613.5
09/30/10	1,083.8	3,633.7	09/30/15	1,078.1	3,606.0
12/31/10	1,086.3	3,626.5	12/31/15	1,080.9	3,600.8
03/31/11	1,096.4	3,610.7	03/31/16	1,080.5	3,592.2
06/30/11	1,102.4	3,649.0	06/30/16	1,071.6	3,620.0
09/30/11	1,116.0	3,653.0	09/30/16	1,075.2	3,610.9
12/31/11	1,132.8	3,639.8	12/31/16	1,080.8	3,600.5
03/31/12	1,129.4	3,635.3	03/31/17	1,088.3	3,595.9
06/30/12	1,115.8	3,633.9	06/30/17	1,079.5	3,634.9
09/30/12	1,115.2	3,621.6	09/30/17	1,082.1	3,628.3
12/31/12	1,120.4	3,609.8	12/31/17	1,082.5	3,622.9
03/31/13	1,118.6	3,599.0	03/31/18	1,088.1	3,612.2
06/30/13	1,106.0	3,600.1	06/30/18	1,076.8	3,610.0
09/30/13	1,106.9	3,591.3	09/30/18	1,078.3	3,592.3
12/31/13	1,106.7	3,584.4	12/31/18	1,081.4	3,581.9
03/31/14	1,101.7	3,574.8	03/31/19	1,090.2	3,569.3
06/30/14	1,082.7	3,609.2	06/30/19	1,084.7	3,611.8

⁽¹⁾ Source: US Department of Interior, Bureau of Reclamation.

Comparison of Fiscal Year End Lake Mead and Powell Elevations



SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

Debt History

As of June 30, 2019

Issued By	Debt Name	Issue Date	Funds Used For	Original Amount \$	Refunded Amount \$	Refund Source	Principal Paid \$	Balance at 6/30/2019(\$)
State of Nevada	State of Nevada 1967 Debenture #1	Sep 1967	Interim Water Acquisition Planning & Design	10,000	10,000	State of Nevada 1968 Bonds	—	—
State of Nevada	State of Nevada 1967 Debenture #2	Oct 1967	Interim Water Acquisition Planning & Design	25,000	25,000	State of Nevada 1968 Bonds	—	—
State of Nevada	State of Nevada 1967 Debenture #3	Nov 1967	Interim Water Acquisition Planning & Design	365,000	365,000	State of Nevada 1968 Bonds	—	—
State of Nevada	State of Nevada 1968 Bonds	Jun 1968	First Stage of the State Facilities AMS Treatment Plant	8,900,000	5,580,000	State of Nevada 1994 Bonds	3,320,000	—
State of Nevada	State of Nevada Federal Replacement Contract #1	Mar 1973	First Stage of the Federal Facilities Transmission	51,558,293	39,636,913	Clark County 0601 Bonds	11,921,380	—
State of Nevada	State of Nevada 1978A Bonds	Jan 1979	Second Stage of the State Facilities Design & Equipment Purchase	13,000,000	9,125,000	State of Nevada 1994 Bonds	3,875,000	—
State of Nevada	State of Nevada 1978B Bonds	Feb 1979	Second Stage of the State Facilities Construction	47,000,000	36,220,000	State of Nevada 1993 Bonds	10,780,000	—
State of Nevada	State of Nevada 1982 Debenture	Jul 1982	New Computer System for the Second Stage State Facilities	3,000,000	3,000,000	State of Nevada 1978C Bonds	—	—
State of Nevada	State of Nevada Federal Repayment Contract #2	Mar 1983	Second Stage of the Federal Facilities Transmission	131,480,402	122,617,366	Clark County 0601 Bonds	8,863,036	—
State of Nevada	State of Nevada 1978C Bonds	Jul 1984	Refund the 1982 Debenture	3,000,000	2,595,000	State of Nevada 1990 Bonds	405,000	—
State of Nevada	State of Nevada 1978D Bonds	Aug 1986	Relocate the Las Vegas Lateral Under the Las Vegas Wash	11,000,000	8,550,000	State of Nevada 1993 Bonds	2,450,000	—
State of Nevada	State of Nevada 1990 Bonds	Aug 1990	Refund the 1978C Bond & Begin the Communications Project	6,550,000	3,340,000	State of Nevada 1993 Bonds	3,210,000	—
State of Nevada	State of Nevada 1992 Bonds	Nov 1992	Lab Equipment Improvements Maintenance & Operations Facility	9,815,000	5,125,000	State of Nevada 1997B Bonds	4,690,000	—
State of Nevada	State of Nevada 1993 Bonds	Nov 1993	Refund the 1978B, 1978D, and 1990 Bonds	46,805,000	23,125,000	State of Nevada 2003C Bonds	23,680,000	—
State of Nevada	State of Nevada 1994 Bonds	Nov 1994	Refund the 1968 & 1978A Bonds & Begin Construction on the SNWA CIP	170,380,000	141,610,000	State of Nevada 1995, 2005H Bonds	28,770,000	—
LVVWD	LVVWD Mar 1995 Bonds	Mar 1995	SNWA CIP Construction	20,000,000	12,775,000	LVVWD Apr 1998 & 2005B Bonds	7,225,000	—

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

Debt History

As of June 30, 2019

Issued By	Debt Name	Issue Date	Funds Used For	Original Amount \$	Refunded Amount \$	Refund Source	Principal Paid \$	Balance at 6/30/2019(\$)
LVVWD	LVVWD Jul 1995 Bonds	Jul 1995	SNWA CIP Construction	30,000,000	18,675,000	LVVWD Apr 1998 & 2005B Bonds	11,325,000	—
State of Nevada	State of Nevada 1995 Bonds	Dec 1995	Partially Refund the State of Nevada 1994 Bonds	118,590,000	118,590,000	State of Nevada 2006D Refunding Bonds	—	—
LVVWD	LVVWD Jul 1996 Bonds	Jul 1996	SNWA CIP Construction	180,000,000	168,300,000	LVVWD Apr 1998 & 2005B Bonds	11,700,000	—
State of Nevada	State of Nevada 1997A Bonds	Sep 1997	Phase I of the Power Delivery Project	49,270,000	41,550,000	State of Nevada 2005I Bonds	7,720,000	—
State of Nevada	State of Nevada 1997B Bonds	Sep 1997	Partially Refund the State of Nevada 1992 Bonds	5,545,000	2,210,000	State of Nevada 2010B Bonds	3,335,000	—
LVVWD	LVVWD Commercial Paper	Jan 1998	SNWA CIP Construction	250,000,000	250,000,000	LVVWD Commercial Paper Payoff (2003)	—	—
LVVWD	LVVWD Apr 1998 Bonds	Apr 1998	Partially Refund the LVVWD 0395, 0795, & 0796 Bonds	190,255,000	183,420,000	LVVWD 2008B Bonds	6,835,000	—
State of Nevada	State of Nevada 0798 Bonds	Jul 1998	SNWA CIP Construction	300,000,000	275,750,000	State of Nevada 2005F & 2013 Bonds	24,250,000	—
State of Nevada	State of Nevada 1999A Bonds	Sep 1999	Phase II of the Power Delivery Project	25,730,000	22,295,000	State of Nevada 2005I Bonds	3,435,000	—
State of Nevada	Nevada Drinking Water State Revolving Fund Loan 1	Dec 1999	SNWA CIP Construction	12,269,695			11,425,945	843,750
Clark County	Clark County 0700 Bonds	Jul 2000	SNWA CIP Construction	200,000,000	175,105,000	Clark County 2006 & 2009 Refunding Bonds	24,895,000	—
Clark County	Clark County 0601 Bonds	Jun 2001	SNWA CIP Construction & Repay Federal Contracts	250,000,000	222,095,000	Clark County 2006, 1106, 2009, LVVWD 2011C, & 2012A Refunding Bonds	27,905,000	—
State of Nevada	Nevada Drinking Water State Revolving Fund Loan 2	Jun 2001	SNWA CIP Construction	10,000,000			8,344,547	1,655,453
Clark County	Clark County 1102 Bonds	Nov 2002	SNWA CIP Construction	200,000,000	180,790,000	Clark County 1106, 2009, LVVWD 2011C, & 2012A Refunding Bonds	19,210,000	—
LVVWD	LVVWD Commercial Paper Payoff	Jan 2003	Refund Jan 1998 LVVWD Commercial Paper Program	250,000,000	212,265,000	LVVWD 2009D & 2011C Refunding Bonds	37,735,000	—
State of Nevada	State of Nevada 2003C Bonds	Sep 2003	Partially Refund State of Nevada 1993 Bonds	21,515,000	455,000	State of Nevada 2010B Bonds	21,060,000	—

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

Debt History

As of June 30, 2019

Issued By	Debt Name	Issue Date	Funds Used For	Original Amount \$	Refunded Amount \$	Refund Source	Principal Paid \$	Balance at 6/30/2019(\$)
LVVWD	LVVWD Commercial Paper	Mar 2004	SNWA CIP Construction & Silverhawk Purchase	400,000,000	—		—	400,000,000
LVVWD	LVVWD 2005B Refunding Bonds	May 2005	Partially Refund LVVWD 0395, 0795, & 0796 Bonds	27,925,000	—		27,925,000	—
State of Nevada	State of Nevada 2005F Refunding Bonds	May 2005	Partially Refund State of Nevada 0798 Bonds	249,365,000	225,855,000	LVVWD 2011B, 2011C, & 2015B Refunding Bonds	23,510,000	—
State of Nevada	State of Nevada 2005H Refunding Bonds	Apr 2005	Partially Refund State of Nevada 1994 Bonds	36,130,000	31,620,000	LVVWD 2015C Refunding Bonds	4,510,000	—
State of Nevada	State of Nevada 2005I Refunding Bonds	Apr 2005	Partially Refund State of Nevada 1997A & 1999A Bonds	65,300,000	58,060,000	LVVWD 2011B & 2015C Refunding Bonds	7,240,000	—
Clark County	Clark County 2006 Refunding Bonds	May 2006	Partially Refund of Clark County 0700 & 0601 Bonds	242,880,000	220,920,000	LVVWD 2011B & Clark County 2016A Refunding Bonds	21,960,000	—
State of Nevada	State of Nevada 2006D Refunding Bonds	Jul 2006	Refund State of Nevada 1995 Bonds	111,840,000	86,045,000	State of Nevada 2010B, LVVWD 2011B, & 2016A Refunding Bonds	25,795,000	—
Clark County	Clark County 1106 Refunding Bonds	Nov 2006	SNWA CIP Construction & Partial Refund of Clark County 0601 & 1102 Bonds	604,140,000	501,829,167	Clark County 2009, LVVWD 2011B, LVVWD 2011C, Clark County 2016A, & Clark County 2016B Refunding Bonds	32,765,833	69,545,000
LVVWD	LVVWD 2008B Refunding Bonds	Feb 2008	Refund LVVWD April 1998 Bond	171,720,000	140,565,000	LVVWD 2011A & 2018B Refunding Bonds	31,155,000	—
Clark County	Clark County 2008 Bonds	Jul 2008	SNWA CIP Construction	400,000,000	372,445,000	Clark County 2009, LVVWD 2011C, & Clark County 2017 Refunding Bonds	27,555,000	—
SNWA	SNWA Clean Renewable Energy 2008 Bonds	Jul 2008	SNWA CIP Construction	6,900,000	—		5,060,000	1,840,000
LVVWD	LVVWD 2009A Bonds	Aug 2009	SNWA CIP Construction	90,000,000	90,000,000	LVVWD 2019A Refunding Bonds	—	—
LVVWD	LVVWD 2009B Bonds	Aug 2009	SNWA CIP Construction	10,000,000	7,675,000	LVVWD 2017B Refunding Bonds	2,325,000	—

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

Debt History

As of June 30, 2019

Issued By	Debt Name	Issue Date	Funds Used For	Original Amount \$	Refunded Amount \$	Refund Source	Principal Paid \$	Balance at 6/30/2019(\$)
Clark County	Clark County 2009 Refunding Bonds	Nov 2009	Partial Refund of Clark County 0700, 0601, 1102 1106, & 2008 Bonds	50,000,000			14,475,000	35,525,000
State of Nevada	State of Nevada 2009 Bonds	Dec 2009	SNWA CIP Construction	2,214,457			885,783	1,328,674
LVVWD	LVVWD 2009C Bonds	Dec 2009	SNWA CIP Construction	348,115,000	348,115,000	LVVWD 2015 Refunding Bonds	—	—
LVVWD	LVVWD 2009D Bonds	Dec 2009	Partial Refund of LVVWD Commercial Paper Payoff (Jan 03)	71,965,000	53,040,000	LVVWD 2017B & 2019A Refunding Bonds	18,925,000	—
State of Nevada	State of Nevada 2010B Refunding Bonds	Jun 2010	Refund of State of Nevada 1997B & Partial Refund of State of Nevada 2003C & 2006D Bonds	7,405,000			6,230,000	1,175,000
LVVWD	LVVWD 2011A Refunding Bonds	May 2011	Partial Refund of LVVWD 2008B Bonds	58,110,000			18,060,000	40,050,000
LVVWD	LVVWD 2011B Refunding Bonds	Oct 2011	Partial Refund of the State of Nevada 2005I, 2006D, 2005F & Clark County 1106 Bonds	129,650,000			38,470,000	91,180,000
LVVWD	LVVWD 2011C Refunding Bonds	Oct 2011	Partial Refund of Clark County 0601, 1102, 1106, 2008, State of Nevada 2005F Bonds, & LVVWD Commercial Paper Payoff	267,815,000			68,870,000	198,945,000
Clark County	Clark County 2012 Refunding Bonds	Jun 2012	Refund of Clark County 0601 & 1102 Bonds	85,015,000			5,500,000	79,515,000
LVVWD	LVVWD 2012B Bonds	Jul 2012	SNWA CIP Construction	360,000,000			35,480,000	324,520,000
State of Nevada	State of Nevada 2013 Refunding Bonds	Feb 2013	Refunding of State of Nevada 0798 Bonds	21,720,000			—	21,720,000
LVVWD	LVVWD 2015 Refunding Bonds	Jan 2015	Refunding of LVVWD 2009C Bonds	332,405,000			—	332,405,000
LVVWD	LVVWD 2015B Refunding Bonds	Jun 2015	Refunding of State of Nevada 2005F Bonds	177,635,000			33,520,000	144,115,000
LVVWD	LVVWD 2015C Refunding Bonds	Jun 2015	Refunding State of Nevada 2005H & 2005I Bonds	42,125,000			8,205,000	33,920,000
Clark County	Clark County 2016A Refunding Bonds	Mar 2016	Partial Refunding of Clark County 2006 & Clark County 1106 Bonds	263,955,000			61,555,000	202,400,000

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)

Debt History

As of June 30, 2019

Issued By	Debt Name	Issue Date	Funds Used For	Original Amount \$	Refunded Amount \$	Refund Source	Principal Paid \$	Balance at 6/30/2019(\$)
LVVWD	LVVWD 2016A Refunding Bonds	Apr 2016	Partial Refunding of State of Nevada 2006D Bonds & New Money	497,785,000			28,570,000	469,215,000
Clark County	Clark County 2016B Refunding Bonds	Aug 2016	Refunding of Clark County 1106 Bonds	271,670,000			7,750,000	263,920,000
LVVWD	LVVWD 2017B Refunding Bonds	Mar 2017	Refunding of LVVWD 2009B & 2009D Bonds	22,115,000			—	22,115,000
Clark County	Clark County 2017 Refunding Bonds	Mar 2017	Refunding of Clark County 2008 Bonds	321,640,000			9,910,000	311,730,000
LVVWD	LVVWD 2018B Refunding Bonds	Mar 2018	Refunding of LVVWD 2008B Bonds	79,085,000			8,245,000	70,840,000
LVVWD	LVVWD 2019A Refunding Bonds	Mar 2019	Refunding of LVVWD 2009A & 2009D Bonds	107,975,000			—	107,975,000
				\$ 8,550,662,847	\$ 4,421,368,446		\$ 902,816,524	\$ 3,226,477,877

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2019

Fiscal Year	Nevada Drinking Water State Revolving Fund Loan 1			Nevada Drinking Water State Revolving Fund Loan 2		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ 843,750	\$ 22,913	\$ 866,663	\$ 645,196	\$ 51,746	\$ 696,941
2021	—	—	—	667,712	29,229	696,941
2022	—	—	—	342,545	5,926	348,471
2023	—	—	—	—	—	—
2024	—	—	—	—	—	—
2025	—	—	—	—	—	—
2026	—	—	—	—	—	—
2027	—	—	—	—	—	—
2028	—	—	—	—	—	—
2029	—	—	—	—	—	—
2030	—	—	—	—	—	—
2031	—	—	—	—	—	—
2032	—	—	—	—	—	—
2033	—	—	—	—	—	—
2034	—	—	—	—	—	—
2035	—	—	—	—	—	—
2036	—	—	—	—	—	—
2037	—	—	—	—	—	—
2038	—	—	—	—	—	—
2039	—	—	—	—	—	—
2040	—	—	—	—	—	—
2041	—	—	—	—	—	—
2042	—	—	—	—	—	—
2043	—	—	—	—	—	—
2044	—	—	—	—	—	—
2045	—	—	—	—	—	—
2046	—	—	—	—	—	—
Totals	\$ 843,750	\$ 22,913	\$ 866,663	\$ 1,655,453	\$ 86,900	\$ 1,742,353

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2019

Fiscal Year	LVVWD Commercial Paper			Clark County 1106 Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ 400,000,000	\$ 10,580,000	\$ 410,580,000	\$ —	\$ 1,965,425	\$ 1,965,425
2021	—	—	—	—	1,965,425	1,965,425
2022	—	—	—	—	1,965,425	1,965,425
2023	—	—	—	—	1,965,425	1,965,425
2024	—	—	—	—	1,965,425	1,965,425
2025	—	—	—	—	1,965,425	1,965,425
2026	—	—	—	—	1,965,425	1,965,425
2027	—	—	—	—	1,965,425	1,965,425
2028	—	—	—	—	1,965,425	1,965,425
2029	—	—	—	—	1,965,425	1,965,425
2030	—	—	—	—	1,965,425	1,965,425
2031	—	—	—	—	1,965,425	1,965,425
2032	—	—	—	—	1,965,425	1,965,425
2033	—	—	—	—	1,965,425	1,965,425
2034	—	—	—	21,830,000	1,637,975	23,467,975
2035	—	—	—	—	1,310,525	1,310,525
2036	—	—	—	23,530,000	957,575	24,487,575
2037	—	—	—	24,185,000	302,313	24,487,313
2038	—	—	—	—	—	—
2039	—	—	—	—	—	—
2040	—	—	—	—	—	—
2041	—	—	—	—	—	—
2042	—	—	—	—	—	—
2043	—	—	—	—	—	—
2044	—	—	—	—	—	—
2045	—	—	—	—	—	—
2046	—	—	—	—	—	—
Totals	\$ 400,000,000	\$ 10,580,000	\$ 410,580,000	\$ 69,545,000	\$ 31,724,338	\$ 101,269,338

(Totals may not add due to rounding)

⁽¹⁾ The SNWA intends to fund the \$400 million of maturing commercial paper principal by issuing new commercial paper.

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2019

Fiscal Year	SNWA Clean Renewable Energy 2008 Bonds			Clark County 2009 Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ 460,000	\$ 18,837	\$ 478,837	\$ 2,500,000	\$ 1,776,250	\$ 4,276,250
2021	460,000	13,455	473,455	2,625,000	1,651,250	4,276,250
2022	460,000	8,073	468,073	2,755,000	1,520,000	4,275,000
2023	460,000	2,691	462,691	2,895,000	1,382,250	4,277,250
2024	—	—	—	3,040,000	1,237,500	4,277,500
2025	—	—	—	3,190,000	1,085,500	4,275,500
2026	—	—	—	3,350,000	926,000	4,276,000
2027	—	—	—	3,520,000	758,500	4,278,500
2028	—	—	—	3,695,000	582,500	4,277,500
2029	—	—	—	3,880,000	397,750	4,277,750
2030	—	—	—	4,075,000	203,750	4,278,750
2031	—	—	—	—	—	—
2032	—	—	—	—	—	—
2033	—	—	—	—	—	—
2034	—	—	—	—	—	—
2035	—	—	—	—	—	—
2036	—	—	—	—	—	—
2037	—	—	—	—	—	—
2038	—	—	—	—	—	—
2039	—	—	—	—	—	—
2040	—	—	—	—	—	—
2041	—	—	—	—	—	—
2042	—	—	—	—	—	—
2043	—	—	—	—	—	—
2044	—	—	—	—	—	—
2045	—	—	—	—	—	—
2046	—	—	—	—	—	—
Totals	\$ 1,840,000	\$ 43,056	\$ 1,883,056	\$ 35,525,000	\$ 11,521,250	\$ 47,046,250

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2019

Fiscal Year	State of Nevada 2009 Bonds			State of Nevada 2010B Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ 126,540	\$ —	\$ 126,540	\$ 1,175,000	43,416	\$ 1,218,416
2021	126,540	—	126,540	—	—	—
2022	126,540	—	126,540	—	—	—
2023	126,540	—	126,540	—	—	—
2024	126,540	—	126,540	—	—	—
2025	126,540	—	126,540	—	—	—
2026	126,540	—	126,540	—	—	—
2027	126,540	—	126,540	—	—	—
2028	126,540	—	126,540	—	—	—
2029	126,540	—	126,540	—	—	—
2030	63,270	—	63,270	—	—	—
2031	—	—	—	—	—	—
2032	—	—	—	—	—	—
2033	—	—	—	—	—	—
2034	—	—	—	—	—	—
2035	—	—	—	—	—	—
2036	—	—	—	—	—	—
2037	—	—	—	—	—	—
2038	—	—	—	—	—	—
2039	—	—	—	—	—	—
2040	—	—	—	—	—	—
2041	—	—	—	—	—	—
2042	—	—	—	—	—	—
2043	—	—	—	—	—	—
2044	—	—	—	—	—	—
2045	—	—	—	—	—	—
2046	—	—	—	—	—	—
Totals	\$ 1,328,674	\$ —	\$ 1,328,674	\$ 1,175,000	\$ 43,416	\$ 1,218,416

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2019

Fiscal Year	LVVWD 2011A Refunding Bonds			LVVWD 2011B Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ 4,950,000	\$ 2,007,219	\$ 6,957,219	\$ 10,490,000	\$ 4,013,315	\$ 14,503,315
2021	5,175,000	1,783,776	6,958,776	10,900,000	3,603,366	14,503,366
2022	5,415,000	1,542,414	6,957,414	11,335,000	3,168,674	14,503,674
2023	5,680,000	1,279,028	6,959,028	11,805,000	2,699,631	14,504,631
2024	5,960,000	995,937	6,955,937	12,320,000	2,185,170	14,505,170
2025	6,270,000	689,951	6,959,951	12,870,000	1,629,784	14,499,784
2026	6,600,000	358,644	6,958,644	13,475,000	1,030,299	14,505,299
2027	—	—	—	7,985,000	395,896	8,380,896
2028	—	—	—	—	—	—
2029	—	—	—	—	—	—
2030	—	—	—	—	—	—
2031	—	—	—	—	—	—
2032	—	—	—	—	—	—
2033	—	—	—	—	—	—
2034	—	—	—	—	—	—
2035	—	—	—	—	—	—
2036	—	—	—	—	—	—
2037	—	—	—	—	—	—
2038	—	—	—	—	—	—
2039	—	—	—	—	—	—
2040	—	—	—	—	—	—
2041	—	—	—	—	—	—
2042	—	—	—	—	—	—
2043	—	—	—	—	—	—
2044	—	—	—	—	—	—
2045	—	—	—	—	—	—
2046	—	—	—	—	—	—
Totals	\$ 40,050,000	\$ 8,656,969	\$ 48,706,969	\$ 91,180,000	\$ 18,726,135	\$ 109,906,135

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2019

Fiscal Year	LVVWD 2011C Refunding Bonds			Clark County 2012 Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ 11,710,000	\$ 9,962,963	\$ 21,672,963	\$ —	\$ 3,180,600	\$ 3,180,600
2021	12,295,000	9,377,463	21,672,463	—	3,180,600	3,180,600
2022	12,910,000	8,762,713	21,672,713	—	3,180,600	3,180,600
2023	13,555,000	8,117,213	21,672,213	—	3,180,600	3,180,600
2024	14,240,000	7,439,463	21,679,463	—	3,180,600	3,180,600
2025	14,950,000	6,727,463	21,677,463	—	3,180,600	3,180,600
2026	15,695,000	5,979,963	21,674,963	—	3,180,600	3,180,600
2027	22,625,000	5,168,475	27,793,475	—	3,180,600	3,180,600
2028	14,370,000	4,037,225	18,407,225	—	3,180,600	3,180,600
2029	15,090,000	3,318,725	18,408,725	11,000,000	3,180,600	14,180,600
2030	15,845,000	2,564,225	18,409,225	27,370,000	2,740,600	30,110,600
2031	3,745,000	1,771,975	5,516,975	28,395,000	1,645,800	30,040,800
2032	3,920,000	1,595,750	5,515,750	12,750,000	510,000	13,260,000
2033	4,115,000	1,399,750	5,514,750	—	—	—
2034	4,320,000	1,194,000	5,514,000	—	—	—
2035	4,540,000	978,000	5,518,000	—	—	—
2036	4,765,000	751,000	5,516,000	—	—	—
2037	5,000,000	512,750	5,512,750	—	—	—
2038	5,255,000	262,750	5,517,750	—	—	—
2039	—	—	—	—	—	—
2040	—	—	—	—	—	—
2041	—	—	—	—	—	—
2042	—	—	—	—	—	—
2043	—	—	—	—	—	—
2044	—	—	—	—	—	—
2045	—	—	—	—	—	—
2046	—	—	—	—	—	—
Totals	\$ 198,945,000	\$ 79,921,863	\$ 278,866,863	\$ 79,515,000	\$ 36,702,400	\$ 116,217,400

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2019

Fiscal Year	LVVWD 2012B Bonds			State of Nevada 2013 Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ 8,055,000	\$ 15,551,450	\$ 23,606,450	\$ —	\$ 651,600	\$ 651,600
2021	8,440,000	15,168,700	23,608,700	—	651,600	651,600
2022	8,690,000	14,915,500	23,605,500	—	651,600	651,600
2023	9,120,000	14,486,750	23,606,750	—	651,600	651,600
2024	9,565,000	14,044,750	23,609,750	—	651,600	651,600
2025	10,040,000	13,566,500	23,606,500	—	651,600	651,600
2026	10,545,000	13,064,500	23,609,500	—	651,600	651,600
2027	11,070,000	12,537,250	23,607,250	—	651,600	651,600
2028	11,625,000	11,983,750	23,608,750	21,720,000	325,800	22,045,800
2029	12,205,000	11,402,500	23,607,500	—	—	—
2030	12,815,000	10,792,250	23,607,250	—	—	—
2031	13,455,000	10,151,500	23,606,500	—	—	—
2032	14,130,000	9,478,750	23,608,750	—	—	—
2033	14,835,000	8,772,250	23,607,250	—	—	—
2034	15,580,000	8,030,500	23,610,500	—	—	—
2035	16,315,000	7,290,450	23,605,450	—	—	—
2036	17,095,000	6,515,450	23,610,450	—	—	—
2037	17,905,000	5,703,450	23,608,450	—	—	—
2038	18,755,000	4,853,000	23,608,000	—	—	—
2039	19,640,000	3,969,600	23,609,600	—	—	—
2040	20,565,000	3,044,600	23,609,600	—	—	—
2041	21,530,000	2,076,000	23,606,000	—	—	—
2042	22,545,000	1,061,900	23,606,900	—	—	—
2043	—	—	—	—	—	—
2044	—	—	—	—	—	—
2045	—	—	—	—	—	—
2046	—	—	—	—	—	—
Totals	\$ 324,520,000	\$ 218,461,350	\$ 542,981,350	\$ 21,720,000	\$ 5,538,600	\$ 27,258,600

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2019

Fiscal Year	LVVWD 2015 Refunding Bonds			LVVWD 2015B Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ —	\$ 16,370,250	\$ 16,370,250	\$ 12,215,000	\$ 6,900,375	\$ 19,115,375
2021	—	16,370,250	16,370,250	12,840,000	6,274,000	19,114,000
2022	—	16,370,250	16,370,250	13,500,000	5,615,500	19,115,500
2023	—	16,370,250	16,370,250	14,195,000	4,923,125	19,118,125
2024	—	16,370,250	16,370,250	14,920,000	4,195,250	19,115,250
2025	—	16,370,250	16,370,250	15,680,000	3,430,250	19,110,250
2026	—	16,370,250	16,370,250	25,040,000	2,412,250	27,452,250
2027	—	16,370,250	16,370,250	26,310,000	1,128,500	27,438,500
2028	—	16,370,250	16,370,250	9,415,000	235,375	9,650,375
2029	—	16,370,250	16,370,250	—	—	—
2030	—	16,370,250	16,370,250	—	—	—
2031	6,440,000	16,370,250	22,810,250	—	—	—
2032	23,245,000	16,048,250	39,293,250	—	—	—
2033	37,245,000	14,886,000	52,131,000	—	—	—
2034	39,100,000	13,023,750	52,123,750	—	—	—
2035	41,055,000	11,068,750	52,123,750	—	—	—
2036	43,065,000	9,061,350	52,126,350	—	—	—
2037	45,175,000	6,955,650	52,130,650	—	—	—
2038	47,380,000	4,746,800	52,126,800	—	—	—
2039	49,700,000	2,430,100	52,130,100	—	—	—
2040	—	—	—	—	—	—
2041	—	—	—	—	—	—
2042	—	—	—	—	—	—
2043	—	—	—	—	—	—
2044	—	—	—	—	—	—
2045	—	—	—	—	—	—
2046	—	—	—	—	—	—
Totals	\$ 332,405,000	\$ 274,663,650	\$ 607,068,650	\$ 144,115,000	\$ 35,114,625	\$ 179,229,625

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2019

Fiscal Year	LVVWD 2015C Refunding Bonds			Clark County 2016A Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ 2,960,000	\$ 1,594,875	\$ 4,554,875	\$ 25,755,000	\$ 9,476,125	\$ 35,231,125
2021	3,105,000	1,443,250	4,548,250	27,075,000	8,155,375	35,230,375
2022	3,260,000	1,284,125	4,544,125	28,460,000	6,767,000	35,227,000
2023	3,420,000	1,117,125	4,537,125	18,625,000	5,589,875	24,214,875
2024	3,590,000	941,875	4,531,875	19,635,000	4,633,375	24,268,375
2025	3,765,000	758,000	4,523,000	20,700,000	3,625,000	24,325,000
2026	3,950,000	565,125	4,515,125	21,835,000	2,561,625	24,396,625
2027	4,145,000	362,750	4,507,750	9,215,000	1,785,375	11,000,375
2028	4,355,000	150,250	4,505,250	9,770,000	1,310,750	11,080,750
2029	1,150,000	24,125	1,174,125	10,350,000	807,750	11,157,750
2030	220,000	3,438	223,438	10,980,000	274,500	11,254,500
2031	—	—	—	—	—	—
2032	—	—	—	—	—	—
2033	—	—	—	—	—	—
2034	—	—	—	—	—	—
2035	—	—	—	—	—	—
2036	—	—	—	—	—	—
2037	—	—	—	—	—	—
2038	—	—	—	—	—	—
2039	—	—	—	—	—	—
2040	—	—	—	—	—	—
2041	—	—	—	—	—	—
2042	—	—	—	—	—	—
2043	—	—	—	—	—	—
2044	—	—	—	—	—	—
2045	—	—	—	—	—	—
2046	—	—	—	—	—	—
Totals	\$ 33,920,000	\$ 8,244,938	\$ 42,164,938	\$ 202,400,000	\$ 44,986,750	\$ 247,386,750

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2019

Fiscal Year	LVVWD 2016A Refunding Bonds			Clark County 2016B Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ 12,470,000	\$ 23,303,850	\$ 35,773,850	\$ 4,160,000	\$ 12,586,350	\$ 16,746,350
2021	15,070,000	22,805,050	37,875,050	4,370,000	12,373,100	16,743,100
2022	16,250,000	22,051,550	38,301,550	4,590,000	12,149,100	16,739,100
2023	17,325,000	21,239,050	38,564,050	16,140,000	11,630,850	27,770,850
2024	18,185,000	20,372,800	38,557,800	16,935,000	10,803,975	27,738,975
2025	9,600,000	19,463,550	29,063,550	17,765,000	9,936,475	27,701,475
2026	1,610,000	18,983,550	20,593,550	18,635,000	9,026,475	27,661,475
2027	11,455,000	18,935,250	30,390,250	35,660,000	7,669,100	43,329,100
2028	12,025,000	18,362,500	30,387,500	37,435,000	5,841,725	43,276,725
2029	12,625,000	17,761,250	30,386,250	27,870,000	4,209,100	32,079,100
2030	13,260,000	17,130,000	30,390,000	14,525,000	3,149,225	17,674,225
2031	13,920,000	16,467,000	30,387,000	15,270,000	2,404,350	17,674,350
2032	14,615,000	15,771,000	30,386,000	15,970,000	1,703,200	17,673,200
2033	15,350,000	15,040,250	30,390,250	16,625,000	1,051,300	17,676,300
2034	16,115,000	14,272,750	30,387,750	—	718,800	718,800
2035	16,920,000	13,467,000	30,387,000	17,970,000	359,400	18,329,400
2036	17,770,000	12,621,000	30,391,000	—	—	—
2037	18,655,000	11,732,500	30,387,500	—	—	—
2038	19,590,000	10,799,750	30,389,750	—	—	—
2039	20,570,000	9,820,250	30,390,250	—	—	—
2040	21,595,000	8,791,750	30,386,750	—	—	—
2041	22,675,000	7,712,000	30,387,000	—	—	—
2042	23,810,000	6,578,250	30,388,250	—	—	—
2043	25,000,000	5,387,750	30,387,750	—	—	—
2044	26,250,000	4,137,750	30,387,750	—	—	—
2045	27,565,000	2,825,250	30,390,250	—	—	—
2046	28,940,000	1,447,000	30,387,000	—	—	—
Totals	\$ 469,215,000	\$ 377,279,650	\$ 846,494,650	\$ 263,920,000	\$ 105,612,525	\$ 369,532,525

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2019

Fiscal Year	LVVWD 2017B Refunding Bonds			Clark County 2017 Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ 1,605,000	\$ 1,027,125	\$ 2,632,125	\$ 10,405,000	\$ 13,947,100	\$ 24,352,100
2021	1,695,000	946,875	2,641,875	10,920,000	13,426,850	24,346,850
2022	1,775,000	862,125	2,637,125	11,470,000	12,880,850	24,350,850
2023	1,865,000	773,375	2,638,375	12,045,000	12,307,350	24,352,350
2024	1,955,000	680,125	2,635,125	12,645,000	11,705,100	24,350,100
2025	2,055,000	582,375	2,637,375	13,275,000	11,072,850	24,347,850
2026	2,155,000	479,625	2,634,625	13,940,000	10,409,100	24,349,100
2027	2,270,000	371,875	2,641,875	14,635,000	9,712,100	24,347,100
2028	1,770,000	258,375	2,028,375	15,370,000	8,980,350	24,350,350
2029	1,855,000	169,875	2,024,875	16,140,000	8,211,850	24,351,850
2030	1,935,000	95,675	2,030,675	16,945,000	7,404,850	24,349,850
2031	580,000	37,625	617,625	17,790,000	6,557,600	24,347,600
2032	600,000	19,500	619,500	18,505,000	5,846,000	24,351,000
2033	—	—	—	19,245,000	5,105,800	24,350,800
2034	—	—	—	20,010,000	4,336,000	24,346,000
2035	—	—	—	20,815,000	3,535,600	24,350,600
2036	—	—	—	21,650,000	2,703,000	24,353,000
2037	—	—	—	22,515,000	1,837,000	24,352,000
2038	—	—	—	23,410,000	936,400	24,346,400
2039	—	—	—	—	—	—
2040	—	—	—	—	—	—
2041	—	—	—	—	—	—
2042	—	—	—	—	—	—
2043	—	—	—	—	—	—
2044	—	—	—	—	—	—
2045	—	—	—	—	—	—
2046	—	—	—	—	—	—
Totals	\$ 22,115,000	\$ 6,304,550	\$ 28,419,550	\$ 311,730,000	\$ 150,915,750	\$ 462,645,750

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2019

Fiscal Year	LVVWD 2018B Refunding Bonds			LVVWD 2019A Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ 8,665,000	\$ 3,542,000	\$ 12,207,000	\$ 2,415,000	\$ 5,398,750	\$ 7,813,750
2021	9,110,000	3,108,750	12,218,750	2,535,000	5,278,000	7,813,000
2022	9,575,000	2,653,250	12,228,250	2,660,000	5,151,250	7,811,250
2023	10,065,000	2,174,500	12,239,500	2,795,000	5,018,250	7,813,250
2024	10,580,000	1,671,250	12,251,250	2,935,000	4,878,500	7,813,500
2025	11,125,000	1,142,250	12,267,250	3,075,000	4,731,750	7,806,750
2026	11,720,000	586,000	12,306,000	3,235,000	4,578,000	7,813,000
2027	—	—	—	3,400,000	4,416,250	7,816,250
2028	—	—	—	2,250,000	4,246,250	6,496,250
2029	—	—	—	2,365,000	4,133,750	6,498,750
2030	—	—	—	2,480,000	4,015,500	6,495,500
2031	—	—	—	—	3,891,500	3,891,500
2032	—	—	—	—	3,891,500	3,891,500
2033	—	—	—	105,000	3,891,500	3,996,500
2034	—	—	—	115,000	3,886,250	4,001,250
2035	—	—	—	115,000	3,880,500	3,995,500
2036	—	—	—	115,000	3,874,750	3,989,750
2037	—	—	—	120,000	3,869,000	3,989,000
2038	—	—	—	24,610,000	3,863,000	28,473,000
2039	—	—	—	52,650,000	2,632,500	55,282,500
2040	—	—	—	—	—	—
2041	—	—	—	—	—	—
2042	—	—	—	—	—	—
2043	—	—	—	—	—	—
2044	—	—	—	—	—	—
2045	—	—	—	—	—	—
2046	—	—	—	—	—	—
Totals	\$ 70,840,000	\$ 14,878,000	\$ 85,718,000	\$ 107,975,000	\$ 85,526,750	\$ 193,501,750

(Totals may not add due to rounding)

SOUTHERN NEVADA WATER AUTHORITY

Statistical Section (Unaudited)
Individual Debt Service Schedules
As of June 30, 2019

Fiscal Year	GRAND TOTAL		
	Principal	Interest	Total
2020	\$ 521,605,486	\$ 143,972,533	\$ 665,578,019 ⁽¹⁾
2021	127,409,253	127,606,363	255,015,616
2022	133,574,085	121,505,924	255,080,009
2023	140,116,540	114,908,938	255,025,479
2024	146,631,540	107,952,944	254,584,485
2025	144,486,540	100,609,572	245,096,113
2026	151,911,540	93,129,031	245,040,571
2027	152,416,540	85,409,196	237,825,737
2028	143,926,540	77,831,125	221,757,665
2029	114,656,540	71,952,950	186,609,490
2030	120,513,270	66,709,688	187,222,958
2031	99,595,000	61,263,025	160,858,025
2032	103,735,000	56,829,375	160,564,375
2033	107,520,000	52,112,275	159,632,275
2034	117,070,000	47,100,025	164,170,025
2035	117,730,000	41,890,225	159,620,225
2036	127,990,000	36,484,125	164,474,125
2037	133,555,000	30,912,663	164,467,663
2038	139,000,000	25,461,700	164,461,700
2039	142,560,000	18,852,450	161,412,450
2040	42,160,000	11,836,350	53,996,350
2041	44,205,000	9,788,000	53,993,000
2042	46,355,000	7,640,150	53,995,150
2043	25,000,000	5,387,750	30,387,750
2044	26,250,000	4,137,750	30,387,750
2045	27,565,000	2,825,250	30,390,250
2046	28,940,000	1,447,000	30,387,000
Totals	\$ 3,226,477,877	\$ 1,525,556,377	\$ 4,752,034,254

(Totals may not add due to rounding)

⁽¹⁾Includes commercial paper. The SNWA intends to fund the \$400 million of maturing commercial paper by issuing new commercial paper.

**Independent Auditors'
Report on
Internal Control
and Compliance**

**INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL
OVER FINANCIAL REPORTING AND ON COMPLIANCE AND
OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL
STATEMENTS PERFORMED IN ACCORDANCE WITH
GOVERNMENT AUDITING STANDARDS**

Board of Directors
Southern Nevada Water Authority
Las Vegas, NV

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States of America, the financial statements of the Southern Nevada Water Authority (SNWA) as of and for the fiscal year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise SNWA's basic financial statements as listed in the table of contents, and have issued our report thereon dated October 24, 2019.

Internal Control over Financial Reporting. In planning and performing our audit of the basic financial statements, we considered SNWA's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the basic financial statements, but not for the purpose of expressing an opinion on the effectiveness of SNWA's internal control. Accordingly, we do not express an opinion on the effectiveness of SNWA's internal control.

A *deficiency* in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of SNWA's basic financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters. As part of obtaining reasonable assurance about whether SNWA's basic financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of basic financial statement amounts, including whether the funds established by SNWA, as listed in Nevada Revised Statutes (NRS) 354.624 (5)(a)(1 through 5), complied with the express purposes required by NRS 354.6241. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

We noted certain matters that we reported to SNWA in a separate letter dated October 24, 2019.

Purpose of this Report. The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of SNWA's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering SNWA internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Piercy Bowh Tapp: Km

Las Vegas, Nevada
October 24, 2019