



SOUTHERN NEVADA WATER AUTHORITY®

# OPERATING & CAPITAL BUDGET 2017

Fiscal year ending June 30, 2017



**On the cover:**

Lake Mead's Low Lake Level Pumping Station, in combination with Intake No. 3, will deliver water deeper from within the lake, ensuring continued access to the community's primary water supply should lake levels continue to decline due to drought. The pumping station is slated for completion in 2020.

# **Southern Nevada Water Authority**

## **Operating & Capital Budget Fiscal Year Ending June 30, 2017**



**SOUTHERN NEVADA WATER AUTHORITY®**

### **Board of Directors**

**Mary Beth Scow, County Commissioner, Chairwoman,  
(representing Las Vegas Valley Water District)**  
**Sam Bateman, Vice Chairman, (representing City of Henderson)**  
**Marilyn Kirkpatrick, County Commissioner  
(representing Clark County Water Reclamation District)**  
**Bob Coffin, City of Las Vegas Councilman**  
**Duncan McCoy, City of Boulder City Councilman**  
**Steve Sisolak, County Commissioner (representing Big Bend Water District)**  
**Anita Wood, City of North Las Vegas Councilwoman**

**John J. Entsminger  
General Manager**

**Gina L. Neilson  
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](http://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 2016-17 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, 2015.**

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

*Distinguished  
Budget Presentation  
Award*

PRESENTED TO

**Southern Nevada Water Authority  
Nevada**

For the Fiscal Year Beginning

**July 1, 2015**

Executive Director

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Table of Contents**  
Fiscal Year Ending June 30, 2017

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

Executive Summary ..... 1-1  
Drought and Water Resources ..... 1-1  
Financial Considerations/Capital Funding..... 1-5  
Fiscal Year 2016-17 Objectives..... 1-7  
Financial Summary ..... 1-7  
Approval ..... 1-9

**SECTION 2:           Introduction and Strategic Plan**

**Introduction** ..... 2-1  
    Purposes and Powers ..... 2-1  
    Transfer Act ..... 2-1  
    Intergovernmental Relationships..... 2-2  
    Organizational Structure ..... 2-4  
    Financial Structure and Controls..... 2-6  
    Capital Project Structure and Controls..... 2-8  
    Budget Controls and Process ..... 2-9  
    Budget Augmentation ..... 2-11  
    Budget Calendar for the Fiscal Year 2016-17 ..... 2-12  
**Southern Nevada Water Authority Strategic Plan** ..... 2-15  
    Strategic Plan Background ..... 2-15  
    Strategic Plan and 2016-17 Budget Plan Preparation..... 2-15  
    Vision- Mission- Goals ..... 2-16  
    Strategic Plan Strategies..... 2-17

**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**  
**Operating and Capital Budget**  
**Table of Contents**  
Fiscal Year Ending June 30, 2017

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

State of Nevada, Department of Taxation, Budget Submittal .....	4-1
Budget Document Index.....	4-2
Schedule S-2: Statistical Data .....	4-3
Schedule A-2: Proprietary and Nonexpendable Trust Funds.....	4-4
Schedule F-1: Revenues, Expenses and Net Income Fund: Enterprise .....	4-5
Schedule F-2: Statement of Cash Flows .....	4-6
Schedule C-1: Indebtedness .....	4-7
Lobbying Expense Estimate.....	4-8
Existing Contracts .....	4-9
Privatization Contracts .....	4-13
Affidavit of Publication.....	4-14
Letter of Compliance .....	4-15

**SECTION 5: Department Budgets**

Summary of Department Expenditures .....	5-1
Executive Management.....	5-2
Legal Services .....	5-12
Finance .....	5-15
Energy Management.....	5-25
Information Technology.....	5-32
Human Resources.....	5-38
Public Services .....	5-41
Environmental, Health, Safety & Corporate Security .....	5-46
Customer Care & Field Services .....	5-55
Engineering.....	5-61
Resources and Facilities .....	5-66
Infrastructure Management.....	5-77
Operations.....	5-85
Water Quality & Treatment .....	5-93

**SECTION 6: Capital Plans**

Capital Budget .....	6-1
----------------------	-----

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Table of Contents**  
Fiscal Year Ending June 30, 2017

**SECTION 7: Debt Management Policy**

Introduction.....	7-3
Affordability of Debt.....	7-6
Issued by the Las Vegas Valley Water District .....	7-6
Issued by the Clark County .....	7-8
Issued by the State of Nevada .....	7-10
Debt Capacity .....	7-12
Debt Comparison (per capita and assessed valuation).....	7-12
Policy Statement for Sale of Debt .....	7-12
Operation Costs and Revenue Sources for Projects in Major Construction and Capital Plan.....	7-15
Miscellaneous Items.....	7-15
Chief Financial Officer Information .....	7-18
Appendix.....	7-19

**SECTION 8: Statistical Information**

Table of Contents .....	8-1
Demographic Statistics.....	8-2
Top Ten Employers.....	8-3
Clark County New Home Sales, Median New Home Price .....	8-4
Secured Tax Roll .....	8-5
Temperature & Rainfall.....	8-6
Charts: Average Rainfall and Comparison of Lake Elevations.....	8-7

**SECTION 9: Financial Policies**

Financial Policy .....	9-1
Reserve Policy.....	9-5

**SECTION 10: Glossary**

Glossary .....	10-1
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# SECTION 1

## GENERAL MANAGER'S INFORMATION REPORT

Executive Summary.....	1-1
Drought and Water Resources .....	1-1
Financial Considerations/Capital Funding .....	1-5
Fiscal Year 2016-17 Objectives .....	1-7
Financial Summary.....	1-7
Approval.....	1-9



SOUTHERN NEVADA WATER AUTHORITY®

FISCAL YEAR 2016-17  
OPERATING AND CAPITAL BUDGET



# SOUTHERN NEVADA WATER AUTHORITY

## GENERAL MANAGER'S INFORMATION REPORT

DATE: April 19, 2016

NO. 38

SUBJECT: SOUTHERN NEVADA WATER AUTHORITY  
PROPOSED OPERATING AND CAPITAL BUDGET FOR FISCAL YEAR 2016-17

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The Tentative Operating and Capital Budget of the Southern Nevada Water Authority (SNWA) for fiscal year 2016-17 was submitted by April 15, 2016, 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

For more than a decade, SNWA's efforts have been largely directed to weathering economic uncertainty and responding to unprecedented drought conditions in the Colorado River Basin. During that time, organizational initiatives focused on short- and long-term financial planning and stability, a continued emphasis on water conservation, and identification of current and future infrastructure and resource needs. Aided by an improving economy, increased regional, state and local collaboration, and the completion of the Intake No. 3 tunnel, these organizational efforts bolstered SNWA's financial foundation and secured reliable water supplies for Southern Nevada.

However, since Lake Mead water levels are projected to further decline and future shortages on the Colorado River are probable, fiscally-responsible planning for additional resources and infrastructure is a critical focus moving forward.

The fiscal year 2016-17 Budget Plan reflects the maintenance of SNWA's financial foundation, continued conservation efforts,

and the development and protection of water resources for Southern Nevada.

### Drought and Water Resources

Ninety percent of Southern Nevada's water supply comes from the Colorado River via Lake Mead. Snowfall and runoff into the Colorado River Basin were well below normal between years 2000 and 2014, resulting in the lowest 15-year average inflow into the Colorado River system in nearly a half-century. In January 2016, Lake Mead's elevations hovered around 1,081 feet—a decline of 133 feet from 16 years prior. U.S. Bureau of Reclamation (BOR) forecasts indicate lake levels will continue to drop into the future.

If Lake Mead declines as projected, a federally-declared shortage will be implemented when the lake elevation reaches 1,075 feet. Current projections indicate that there is an 18 percent probability of a declared shortage in 2017, and a 52 percent probability in 2018. If shortage is declared, Nevada and Arizona will be required to temporarily reduce their Colorado River diversions by 13,000 acre-feet per year (AFY) and 320,000 AFY, respectively. To protect the community's water supply and reduce the risk of shortage, community participation and cooperation among basin-wide stakeholders is imperative. That being said, long-standing community conservation practices have positioned Southern Nevada such that it would likely not be impacted by a shortage declaration.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**General Manager's Information Report**

Fiscal Year Ending June 30, 2017

Ongoing conservation practices continue to benefit Southern Nevada, but sustained and increased collaborative efforts on local, regional and federal levels is imperative to maintain a secure supply along the Colorado River.

**Water Resource Plan**

An updated iteration of SNWA's Water Resource Plan was approved by the Board of Directors in September 2015. The document provides a comprehensive overview of water resources and demands in Southern Nevada and discusses factors influencing resource availability and use over a 50-year planning horizon.

The new plan considers and addresses the relative highs and lows of future water demands, as well as supply restrictions that could occur over the long-term planning horizon. It demonstrates that SNWA has sufficient permanent, temporary and future resources to meet all potential future planning scenarios.

**Nevada Drought Forum**

Governor Brian Sandoval formed the Nevada Drought Forum (Forum) in April 2015 to address Nevada's state-wide water resource challenges. The purpose of the Forum was to facilitate a statewide dialogue among interested stakeholders and identify best practices for drought policy, preparedness and management.

The Forum met several times throughout the year to discuss drought impacts, mitigation efforts, and obstacles to successfully conducting business in the midst of drought. Additionally, Forum members participated in the Governor's Drought Summit, which

further explored stakeholder drought response efforts, water conservation efforts, conservation barriers, and opportunities to improve Nevada's drought resiliency in the future.

This process will provide a substantial and meaningful step toward managing drought impacts state-wide and maintaining sustainable water supplies.

**Intake No. 3 Completion**

In September 2015, workers removed a temporary bulkhead from the inlet to Intake No. 3, allowing water to enter the newly constructed three-mile tunnel underneath Lake Mead. Within a week, Intake No. 3 began delivering water from the depths of the lake to customers in Southern Nevada. By drawing water from the bottom of Lake Mead, Intake No. 3 increases the flexibility of Southern Nevada's water treatment and delivery system, significantly enhances water quality and protects the community from declining lake levels.

**Low Lake Level Pumping Station**

Existing pumping stations associated with Intakes 1 and 2 are currently drawing water from Intake No. 3 for customer delivery; however, 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 Low Lake Level Pumping Station (L3PS) is currently being constructed. Once complete and connected to the third intake, L3PS will have the capability of drawing water from as

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**General Manager's Information Report**  
Fiscal Year Ending June 30, 2017

low as 875 feet above sea level.

### **Conservation**

Conservation remains a critical component of SNWA's resource portfolio. By reducing current and future water resource demands, the availability of current and future supplies increases.

Through the implementation of aggressive and successful water management initiatives, SNWA has become a global leader in water conservation. Between 2002 and 2014 Southern Nevada customers reduced their use of Colorado River water by 32 billion gallons, despite a population increase of more than 520,000 people.

While conservation gains are expected to continue, they will likely be realized more slowly than in previous years, as higher levels of efficiency are more difficult to achieve. Notwithstanding, SNWA will continue to take practical and innovative steps to maintain the effectiveness of the community's conservation efforts.

**New Watering Schedule.** Representatives from SNWA and its member agencies met several times over the course of three months in 2015 to evaluate existing conservation programs and local ordinances and to make recommendations to increase community water savings. In the end, the group recommended the implementation of two key issues: a consistent, valley-wide ordinance regulating the installation of fountains, and the revision of existing ordinances and service rules to reduce the number of summer watering days. The new regulations will not be mandatory until summer 2017 and are estimated to yield approximately 900 million gallons of additional water savings annually.

**WaterSmart Landscapes.** SNWA's Water Smart Landscapes Program is one of the nation's most successful turf conversion programs. Since program inception, 177 million square feet of turf have been converted, saving approximately 98 billion gallons of water. It is estimated that about one-half of the community's ornamental turf has been upgraded to water-efficient landscaping.

In July 2015, the Board of Directors approved promotional periods during which the rebate would be temporarily increased from \$1.50 to up to \$2 per square foot. Since that time, the SNWA has experienced a 36 percent increase in applications.

### **Banking Agreements**

Through local and interstate arrangements, SNWA has acquired a number of banked resources that can be used to offset reductions in permanent supplies due to shortages, meet short-term gaps and serve as a temporary bridge to meet demands while other permanent resources are being developed.

**Arizona Water Bank.** Arizona has stored approximately 601,000 acre-feet of Colorado River water underground for SNWA's future use. The stored water may be utilized at a maximum annual rate of 40,000 consumptive use AFY during normal water supply conditions and up to 60,000 AFY during a declared shortage.

**California Water Bank.** As of 2014, Nevada had banked more than 205,000 acre-feet of water in California. Per the banking agreement, SNWA may use up to 30,000 AFY during normal and shortage water supply conditions.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**General Manager's Information Report**  
Fiscal Year Ending June 30, 2017

In September 2015, the SNWA Board of Directors approved an additional agreement allowing Nevada to bank up to 150,000 acre-feet of unused water in California to temporarily supplement California's drought-stressed water supplies to meet demands. The agreement will add \$45 million to the SNWA's Rate Stabilization Fund to help defer or reduce the impact of future water rate increases.

**Southern Nevada Water Bank.** In addition to its interstate banking agreements, SNWA has partnered with the Las Vegas Valley Water District (LVVWD) to store water within the Las Vegas Valley aquifer for future use. Per the agreement, the net recoverable amount of water stored by SNWA is approximately 337,000 acre-feet, with a maximum annual withdrawal rate of 20,000 AFY.

#### **Groundwater Development Project**

The SNWA continues permitting and legal activities for its Groundwater Development Project, a project intended to meet long-term demands.

In 2012, the Nevada State Engineer granted nearly 84,000 acre-feet of groundwater rights in four east-central Nevada valleys. Since that time, the ruling was reviewed in District Court. The SNWA continues to participate in the legal process to secure these water rights.

A 2012 Record of Decision authorized the SNWA the rights-of-way to construct project facilities. In February 2014, project opponents filed separate legal challenges to the Bureau of Land Management's decision on the Environmental Impact Statement and its issuance of project rights-of-way. The rights-of-way litigation remains ongoing and the SNWA remains an active participant so that development of these resources can be

pursued when needed to supply future water demands.

#### **Colorado River Conservation Pilot Program**

In July 2014, SNWA, along with other Colorado River contractors, executed the Colorado River Conservation Pilot Program to evaluate the feasibility of mitigating drought impacts and demand imbalance through compensated voluntary reductions in use or loss. With five regional partners jointly contributing a total of \$11 million to conservation initiatives along the River, the goal of the Program is to keep water levels in Lake Mead and Lake Powell above critically low elevations and to enhance flows in areas upstream of the storage reservoirs.

To date, 12 different proposals in the Upper and Lower Basins have been executed, totaling an estimated water savings of 37,000 acre-feet. There are four additional projects—either in progress or contract negotiation— that will total nearly 30,000 AF in additional Colorado River water savings. A second solicitation for projects in the Upper Basin has resulted in 32 new proposals that are being evaluated for inclusion in the program. This program was highlighted at the White House Water Summit on March 22, 2016.

#### **Pilot Drought Response Actions**

The SNWA, U.S. Department of the Interior, and other Lower Basin water users entered into a Memorandum of Understanding (MOU) in December 2014 for pilot drought response actions. The goal of the MOU is for participating entities to voluntarily develop a combined total of 750,000 acre-feet of additional water, or "protection volume," by 2017 to be stored in Lake Mead. This water is

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**General Manager's Information Report**  
Fiscal Year Ending June 30, 2017

intended to help stabilize water levels. SNWA's current commitment to the program is 45,000 AF. These commitments are the first step in achieving a larger goal of 1.5 to 3 million acre-feet of protection volume through 2020. Nevada contributed 7,500 acre-feet to the program in 2015.

**Minute 319**

Collaboration between the U.S. and Mexico has continued as part of the implementation of Minute 319, which defines Colorado River deliveries to Mexico under both high- and low-reservoir conditions. It also allows Mexico to defer its deliveries from the Colorado River and store water in Lake Mead.

Through Minute 319, SNWA is allowed to invest in Mexico's infrastructure improvements in exchange for Bi-national intentionally-created surplus (ICS) credits. Before the Minute expires, the SNWA will obtain 23,751 AF of Bi-national ICS. The SNWA and other U.S. Colorado River stakeholders are working with Mexico to extend the provisions of Minute 319.

**Colorado River Basin Supply and Demand Study**

Released in 2012, the Colorado River Basin Water Supply and Demand Study evaluates future water supplies and demands on the Colorado River. The study—the most comprehensive of its kind ever undertaken on the Colorado River—confirmed that there are likely to be significant shortfalls between projected water supplies and demands within the Basin in coming decades.

To support continued work associated with the Study, the U.S. Bureau of Reclamation initiated the "Moving Forward" effort. This

process is designed to inform future management efforts along the Colorado River. As part of the process, three workgroups were formed to investigate: municipal and industrial conservation and water reuse; agricultural conservation, productivity and water transfers; and environmental and recreational flows. A Phase I report was released in May 2015; Phase II will further expand upon these efforts by implementing pilot projects.

**System Efficiency and Sustainability.**

SNWA's conservation efforts are largely focused on water savings, but substantial energy savings also can be realized with proper improvements to water system components. According to the Environmental Protection Agency's ENERGY STAR program, water system upgrades that minimize leaks and improve pump and motor efficiency can achieve energy savings of up to 10 percent.

In its 2015 City Energy Efficiency Scorecard, the American Council for an Energy-Efficient Economy rated U.S. cities based on efficiency within their water systems. Out of the 51 cities that were examined, Las Vegas ranked near the top for the second straight year.

Another demonstration of the community's water efficiency is the fact that, while it is home to 70 percent of the state's population and generates 70 percent of the state's economic output, Southern Nevada uses only 5 percent of the state's available water.

**Financial Considerations/  
Capital Funding**

Key initiatives for fiscal year 2016-17 include the continuation of Major Construction and Capital Plan (MCCP) projects and water

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**General Manager's Information Report**  
Fiscal Year Ending June 30, 2017

resource management efforts.

**Low Lake Level Pumping Station.**

Construction of the L3PS represents a significant part of SNWA's capital commitment for the upcoming fiscal year. The new pumping station will ensure access to Colorado River water should Lake Mead's water elevation fall below 1,000 feet.

The L3PS consists of 34 6-foot diameter, 500-foot deep well shafts, each with its own 30 million gallon per day submersible pump; a 12,000 square-foot forebay; an access shaft, and a pumping station with the ability to pump water to the Alfred Merritt Smith and River Mountains Water Treatment Facilities.

It is estimated that design and construction costs will total approximately \$650 million and that L3PS will be operational as early as 2020.

**Garnet Valley Water System.**

During the December 2015 Special Session, the Nevada State Legislature approved a tax package for global company Faraday Future to build an electric vehicle manufacturing facility in Garnet Valley, Nevada, approximately 25 miles northeast of Las Vegas. The development of a water system to serve the area also was included within the legislation. A water treatment facility, production wells, storage reservoirs and a conveyance system are currently in design to serve Garnet Valley customers. This system will be funded through state bonds, built by the SNWA and operated by LVVWD.

Faraday Future began initial site preparation activities on its manufacturing facility in February and anticipates being operational in 2017. This leaves a compact timeframe to complete all activities necessary to ensure

proper governance, appropriate operational funding and adequate infrastructure is in place to provide a reliable water supply to all Garnet Valley customers. Critical activities include the installation of necessary infrastructure, permitting water rights, the creation of financing and billing mechanisms, implementation of a stakeholder process, development of water rates and service rules, and other activities to ensure reliable water service to the area.

The state of Nevada will issue \$67 million in general obligation bonds to fund construction of the water system. A Special Improvement District and Tax Increment Financing Area will be created by the City of North Las Vegas to repay State bonds while system operation and maintenance will be funded by water customers.

A committee of water system stakeholders will convene later this year to address water system needs. The group, which will meet publicly and include representatives from SNWA, LVVWD, NV Energy, City of North Las Vegas, land owners and others, will discuss service rules and water rates and coordinate efforts between the agencies involved.

**Drought Protection Charge.**

To fund costs associated with L3PS, the SNWA implemented a fixed charge based upon customer meter size. The fixed charge, first added to water bills in 2016, is being phased in over a three-year period.

**Financial Stability.**

SNWA is consistently engaged in proactive long-term planning efforts to identify the financial impact of future infrastructure and resource needs. Anticipating necessary

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**General Manager's Information Report**  
Fiscal Year Ending June 30, 2017

improvements and their costs helps minimize the financial impact to the agency and its ratepayers. In September 2014, the organization began a two-year process to reduce its debt service by refunding approximately \$915 million of its existing obligation. At current interest rates, it is estimated that this will result in \$118 million (\$10 million annually) in cash flow savings. In January 2016, the Board of Directors approved a new policy for maintaining adequate reserves of cash and investments, which will be an important tool for mitigating the risks associated with potential volatility in SNWA's sources and uses of funds.

### **Fiscal Year 2016-17 Objectives**

- Treat and deliver high quality drinking water supplies to customers in Southern Nevada
- Direct surplus Connection Charge revenues to support the Rate Stabilization Fund
- Work with local and state partners to design and construct the Garnet Valley Water System
- Continue construction of the L3PS
- Maintain sufficient water resources to meet near and long-term projected water demands
- Monitor declining Lake Mead water levels for impacts to water quality

- Continue assessments of critical assets
- Continue to seek grant funding to support activities in the areas of drought management, resource development, water quality, infrastructure and environmental management

### **Awards and Recognition**

- Las Vegas was one of only 11 U.S. cities that received a score of at least 4.5 or higher out of 5 on the American Council for an Energy Efficient Economy's 2015 City Energy Efficiency Scorecard. The scorecard examined 51 U.S. cities based on efficiency within their water systems.
- SNWA won the Association of Metropolitan Water Agencies' 2015 Platinum Award for Utility Excellence, which is awarded by a panel of peer judges and based on effective utility management
- Received the Distinguished Budget Presentation Award from the GFOA for the SNWA Operating and Capital Budget for the fiscal year ended June 30, 2016

### **Financial Summary**

The table on the following page contains a summary of the SNWA's fiscal years 2014-15, 2015-16 and 2016-17.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**General Manager's Information Report**  
Fiscal Year Ending June 30, 2017



**Budget Summary**  
(\$ Millions)

	Actual 2014-15	Budget 2015-16	Budget 2016-17	Budget-to-Budget Variance	
				\$	%
<b>Sources</b>					
Wholesale Delivery Charge	\$ 121.1	\$ 122.4	\$ 122.8	\$ 0.4	0%
Infrastructure Charge	87.0	112.5	149.6	37.1	33%
Commodity Charge	48.9	57.6	63.9	6.2	11%
Connection Charge	66.0	53.8	68.4	14.7	27%
Reliability Surcharge	4.9	5.1	5.3	0.2	3%
Sales Tax	55.9	54.4	58.0	3.5	7%
Interest Income	1.6	1.3	2.9	1.7	
Groundwater Management Fees	0.9	0.9	0.9	(0.0)	0%
LV Wash Program Fees	0.4	0.4	0.4	-	0%
Grant Proceeds	7.9	0.6	0.9	0.3	61%
Other Revenues	12.8	8.9	83.6	74.7	
<b>Subtotal</b>	<b>\$ 407.5</b>	<b>\$ 417.9</b>	<b>\$ 556.6</b>	<b>\$ 138.7</b>	<b>33%</b>
Debt Issuance Proceeds	-	520.4	-	(520.4)	
<b>Total Sources</b>	<b>\$ 407.5</b>	<b>\$ 938.3</b>	<b>\$ 556.6</b>	<b>\$ (381.6)</b>	<b>-41%</b>
<b>Uses</b>					
Energy	\$ 35.1	\$ 37.5	\$ 38.0	\$ 0.5	1%
Payroll & Related	66.6	66.7	71.5	4.8	7%
Operating Expenses	42.5	36.6	49.2	12.6	34%
Capital Expenditures	95.6	287.4	219.3	(68.1)	-24%
Debt Service	167.6	223.8	271.0	47.3	21%
<b>Total Uses</b>	<b>\$ 407.4</b>	<b>\$ 652.0</b>	<b>\$ 649.0</b>	<b>\$ (3.0)</b>	<b>0%</b>
<b>Total Net Surplus/(Deficit)</b>	<b>\$ 0.1</b>	<b>\$ 286.3</b>	<b>\$ (92.4)</b>		

**Sources.**

The 2016-17 Budget Plan's total sources of funds are projected to be \$556.6 million, or a 41 percent decrease compared to the 2015-16 Adopted Budget Plan. The decrease is due to proceeds from a debt issuance in 2015-16 and no projected proceeds in 2016-17.

Not including proceeds of debt issuance, sources of funds are budgeted to increase \$138.7 million, which is 33 percent. The rise is primarily attributable to increases in

Infrastructure Charges, Connection Charges, and \$77 million in proceeds from the sale of a 25 percent ownership stake in the Silverhawk Power Generation Facility to NV Energy.

Infrastructure Charges are budgeted to increase \$37.1 million, which is 33 percent above the 2015-16 Adopted Budget Plan. The increase is primarily attributable to rate increases being phased in over multiple years. The SNWA Board approved a series of recommendations, which included rate increases, from a 21-member Integrated

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**General Manager's Information Report**

Fiscal Year Ending June 30, 2017

Resource Planning Advisory Committee (IRPAC) which convened in 2012 to evaluate the interrelated aspects of water resource management. The IRPAC Phase I rate increases were approved in 2013, and are being phased-in through 2017. The IRPAC Phase II rate increases are being phased-in over three years beginning in 2016.

Connection Charges are projected to increase \$14.7 million, which is 27 percent above the 2015-16 Adopted Budget Plan. This rise is due to new connections to the system from increasing residential and commercial construction throughout the Las Vegas Valley. While still far below the peak of \$188.5 million in fiscal year 2005-06, this projection reflects a notable increase.

Of the remaining sources of funds, Commodity Charges are budgeted to increase \$6.2 million, or 11 percent. This increase is primarily attributable to further implementation of the IRPAC Phase I rate increases.

**Uses.**

The 2016-17 Budget Plan's total uses of funds are projected to be \$649 million, a \$3 million decrease compared to the 2015-16 Adopted Budget Plan.

Capital expenditures are budgeted to decrease \$68.1 million. The low lake level pumping station is the largest component of capital expenditures. Fiscal year 2016-17 is the second year of construction for the L3PS.

Debt service is projected to increase \$47.3 million, which is 21 percent above the 2015-16 Adopted Budget Plan. This increase in debt service has been anticipated for several years. The IRPAC Phase I & II rate

increases were partially based on the future debt service requirements. Debt service costs are projected to remain relatively stable for approximately the next ten years, then decline thereafter. In addition, there may be savings from future debt refundings.

Payroll costs are anticipated to increase by \$4.8 million, or 7 percent, compared to the 2015-16 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.

Of the remaining uses of funds, energy is budgeted to be relatively stable with non-payroll operating expenses increasing \$12.6 million. This increase is due to higher costs in materials, supplies, maintenance, and repairs.

**Approval**

The public hearing for the 2016-17 Budget Plan is scheduled for 9:00 a.m., Thursday, May 19, 2016, 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

<b>Introduction</b> .....	2-1
Purposes and Powers.....	2-1
Transfer Act.....	2-1
Intergovernmental Relationships .....	2-2
Organizational Structure.....	2-4
Financial Structure and Controls.....	2-6
Capital Project Structure and Controls .....	2-8
Budget Controls and Process .....	2-9
Budget Augmentation.....	2-11
Budget Calendar for the Fiscal Year 2016-17 .....	2-12
<b>Southern Nevada Water Authority Strategic Plan</b> .....	2-15
Strategic Plan Background .....	2-15
Strategic Plan and 2016-17 Budget Plan Preparation .....	2-15
Vision- Mission- Goals.....	2-16
Strategic Plan Strategies .....	2-17



SOUTHERN NEVADA WATER AUTHORITY®

FISCAL YEAR 2016-17  
OPERATING AND CAPITAL BUDGET



**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year Ending June 30, 2017

## **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. Collectively, the GM, DGM's, CFO and General

Counsel are known as Executive Management (EM).

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 2016-17.

### **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

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year Ending June 30, 2017

CRC transferred all books and records in its possession relating to the project and its facilities. In addition to the assets, all 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 (2.6 percent), Henderson (16 percent), North Las Vegas (11.2 percent), the LVVWD (69.9 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

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year Ending June 30, 2017

and liabilities of the SNWS as well as responsibility for operations were transferred 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. This amount was derived by discounting future repayment contract payments at 6.08 percent, which was the yield on the 30-year Treasury bond as of September 30, 1999. On July 3, 2001 the SNWA transferred \$116.2 million to the Bureau to prepay the federal repayment contracts realizing a discount of approximately \$48.0 million. This discount amount was added to the Deferred Amount on Refunding and amortized over the life of the SNWA's 0601 Bond Issue, which provided the funds for this prepayment. Because the SNWA used proceeds of the 0601 Bond Issue with an interest rate of 5.31 percent to prepay the federal repayment contracts with an interest rate of 3.25 percent, the cash flow saving to the SNWA is approximately \$13 million on a nominal basis and \$9 million on a present value basis. The 0601 Bond has since been refunded / restructured into several other issues.

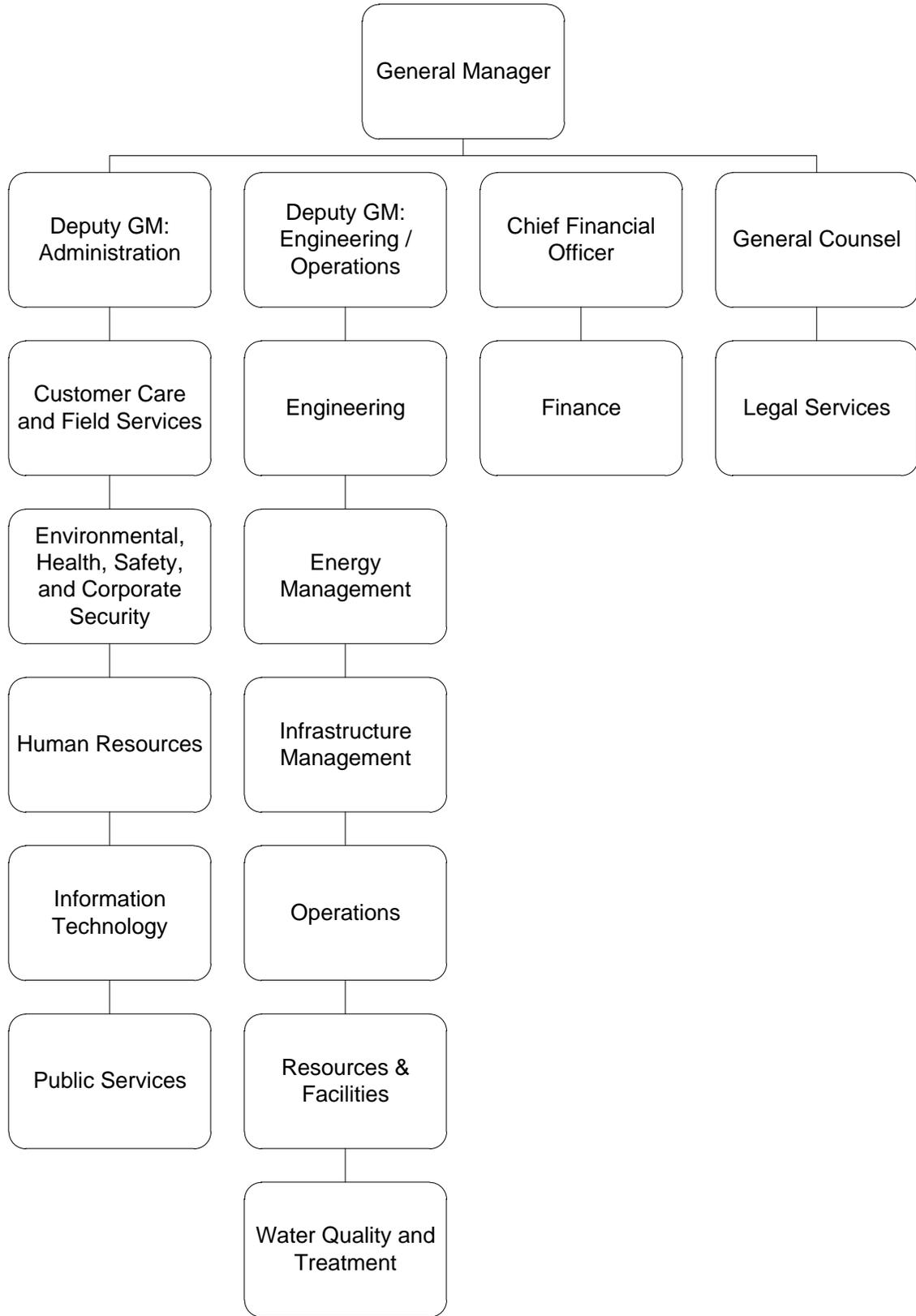
**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year Ending June 30, 2017

**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.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year Ending June 30, 2017



**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year Ending June 30, 2017

**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

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year End June 30, 2017

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 June 30, 2016, the SNWA has \$3.662 billion in outstanding general obligation debt, of which \$23.4 million is debt the State of Nevada sold for the SNWA, \$2.466 billion is debt the LVVWD has sold for the SNWA, and \$1.16 billion is debt the SNWA sold through the Clark County Bond Bank. 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. Additionally, SNWA has two loans from the State of Nevada Revolving Fund totaling \$6.6 million.

**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. The SNWA also purchases

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year End June 30, 2017

employee fidelity insurance in the amount of \$3 million, with a \$25,000 deductible per occurrence.

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, 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.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year End June 30, 2017

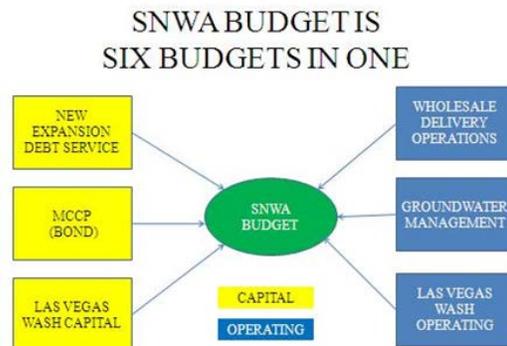
**Execution of Capital Plan.** After approval of the capital plan by the SNWA Board, the Engineering department assembles a staging plan for each project and develops specifications to be used as criteria during the competitive bidding process. Major construction portions are then let to an open competitive bidding process. All bids are reviewed and the lowest qualifying bid is 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 2016-17 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.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year End June 30, 2017

**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-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 and quarterly 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 November 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 EM to justify expenditure requests. After all of the departments' budgets have been reviewed and approved by EM, 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.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year End June 30, 2017

On the third 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 2016-17 BUDGET CALENDAR

	All Departments	Financial Services	Executive Management	Human Resources
 <p><b>Dec</b></p>	<p><b>Tue Dec 15 – Mon Jan 18</b> Departments coordinate with Human Resources to determine appropriate position classifications, salary/pay rates, and number of temporary positions</p>	<p><b>Tue Dec 15</b> Send Budget instructions and calendar to departments</p>		<p><b>Tue Dec 1</b> Distribute organization charts to departments. Changes to org charts due to Human Resources by Tuesday, January 19, 2016</p> <p><b>Mon Dec 21</b> Distribute list of existing intern, temporary and summer hire positions to departments. Renewal or elimination of any of those positions due to Human Resources by Tuesday, January 19, 2016</p>
	<p><b>Tue Dec 15</b> Send operating expense template and begin assisting departments</p> <p><b>Tue Dec 15</b> Assigned analysts &amp; departments begin coordinating budget process and schedule</p>			
<p><b>Jan</b></p>	<p><b>Tue Jan 19</b> Submit any changes on organization charts to Human Resources</p>	<p><b>Mon Jan 4</b> Begin coordinating with departments incurring intercompany and overtime payroll costs</p>		
	<p><b>Tue Jan 19</b> Submit final requests for interns, temporary and summer hire positions to Human Resources</p>			
	<p><b>Mon Jan 25</b> Submit final 2016-17 operating capital requests and operating expense budgets to Financial Services</p>	<p><b>Mon Jan 25</b> Submit major data processing and equipment requests to Information Technology and Fleet Services for review and coordination</p>	<p><b>Mon Jan 25</b> Send lists of existing intern, temporary and summer hire position renewals to Financial Services</p>	

# FISCAL YEAR 2016-17 BUDGET CALENDAR

	All Departments	Financial Services	Executive Management	Human Resources
<p><b>Feb</b></p>	<p><b>Mon Feb 1</b> Receive narrative instructions</p>	<p><b>Mon Feb 1</b> Send budget narrative instructions to departments</p> <p><b>Mon Feb 8</b> Send summaries and detail of operating expense &amp; capital expenditure budgets to departments</p> <p><b>Mon Feb 8</b> Begin assisting departments in preparation for the Senior Management Team (SMT) budget meeting presentations</p>	<p><b>Mon Feb 29</b> Budget overview briefing with Executive Management (E-team)</p> <p><b>Thu Mar 10</b> Department proposed budget meetings with SMT</p>	
	<p><b>Tue Mar 22</b> Budget narratives due to Financial Services</p>	<p><b>Mon Feb 1</b> Receive final 2016-17 department capital requests and any changes/comments from IT/Fleet Services</p> <p><b>Mon Feb 29</b> Budget overview briefing with Executive Management (E-team)</p> <p><b>Thu Mar 10</b> Department proposed budget meetings with SMT</p>	<p><b>Mon Feb 29</b> Budget overview briefing with Executive Management (E-team)</p> <p><b>Thu Mar 10</b> Department proposed budget meetings with SMT</p> <p><b>Thu Mar 10 – Mon Mar 21</b> Executive Management makes final budget decisions</p>	
		<p><b>Thu Apr 7</b> Complete proposed draft budgets for Budget Workshops with Boards of Directors</p> <p><b>Thu Apr 14</b> File Preliminary Budgets with the Nevada State Department of Taxation</p>	<p><b>Thu Apr 21</b> Board of Directors Budget Workshops for SNWA</p> <p><b>Mon Apr 25</b> Board of Directors Budget Workshops for LVVWD (including BBWD &amp; Coyote Springs)</p>	

# FISCAL YEAR 2016-17 BUDGET CALENDAR

All Departments	Financial Services	Executive Management	Human Resources
 <p><b>May</b></p>	<p><b>Thu May 5</b> LVVWD, BBWD, and Coyote Springs Public hearing notice published in LVRJ</p> <p><b>Tue May 10</b> SNWA Public hearing notice published in LVRJ</p> <p><b>Thu May 26</b> Send adopted budgets to the Nevada State Department of Taxation</p>	<p><b>Mon May 16</b> LVVWD Board of Directors conducts public hearings on proposed budgets of LVVWD, Big Bend, and Coyote Springs for possible adoption</p> <p><b>Thu May 19</b> SNWA Board of Directors conducts a public hearing on the proposed budget for possible adoption</p>	
<p><b>Jun</b></p>	<p><b>Wed Jun 1</b> Send Adopted budgets to directors and managers</p> <p><b>Thu Jun 23</b> Publish LVVWD, SNWA, BBWD &amp; Coyote Springs annual summary fiscal reports in LVRJ</p>		
<p><b>Jul</b></p>			
<p><b>Aug</b></p>	<p><b>Thu Aug 4</b> Submit proof of publication of fiscal reports to the Nevada State Department of Taxation</p> <p><b>Thu Aug 11</b> Submit Budget Award Application to the GFOA</p>		

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year Ending June 30, 2017

## **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 2016-17 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 2016-17 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 devastating effects

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year End June 30, 2017

of a historic 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.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year End June 30, 2017

**Strategic Plan Strategies.**

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

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

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

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

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

service experience.

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

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

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

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

- Identify, prioritize and implement sustainable and cost-effective solutions to organizational challenges.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Introduction and Strategic Plan**  
Fiscal Year End June 30, 2017

- 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.

# 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 2016-17  
OPERATING AND CAPITAL BUDGET



**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
Fiscal Year Ending June 30, 2017

The fiscal year 2016-17 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 2016-17 Budget Plan's total sources of funds are projected to be \$556.6 million, or a 41

percent decrease compared to the fiscal year 2015-16 Adopted Budget Plan. The fiscal year 2016-17 Budget Plan's total uses of funds are projected to be \$649.0 million, or a .5 percent decrease compared to the fiscal year 2015-16 Adopted Budget Plan. The table below shows the Sources and Uses Summary for the fiscal years 2014-15, 2015-16, and 2016-17.



**Budget Summary**

	Actual 2014-15	Budget 2015-16	Budget 2016-17	Budget-to-Budget Variance	
				\$	%
<b>Sources</b>					
Wholesale Delivery Charge	\$ 121,100,263	\$ 122,401,411	\$ 122,759,977	\$ 358,566	0%
Infrastructure Charge	87,046,856	112,462,115	149,563,411	37,101,296	33%
Commodity Charge	48,885,982	57,648,277	63,850,411	6,202,135	11%
Connection Charge	66,015,927	53,765,118	68,446,150	14,681,032	27%
Reliability Surcharge	4,875,676	5,119,962	5,283,282	163,320	3%
Sales Tax	55,933,316	54,448,884	57,992,371	3,543,487	7%
Interest Income	1,592,657	1,283,700	2,936,847	1,653,147	129%
Groundwater Management Fees	882,331	874,637	873,661	(976)	0%
LV Wash Program Fees	404,578	416,715	416,715	-	0%
Grant Proceeds	7,944,857	553,631	890,510	336,878	61%
Other Revenues	12,793,313	8,918,320	83,613,324	74,695,004	838%
<b>Subtotal</b>	<b>\$ 407,475,756</b>	<b>\$ 417,892,771</b>	<b>\$ 556,626,659</b>	<b>\$ 138,733,888</b>	<b>33%</b>
Debt Issuance Proceeds	-	520,362,957	-	(520,362,957)	-100%
<b>Total Sources</b>	<b>\$ 407,475,756</b>	<b>\$ 938,255,728</b>	<b>\$ 556,626,659</b>	<b>\$ (381,629,069)</b>	<b>-41%</b>
<b>Uses</b>					
Energy	\$ 35,071,725	\$ 37,524,906	\$ 38,008,556	\$ 483,650	1%
Payroll & Related	66,645,023	66,684,688	71,530,308	4,845,621	7%
Operating Expenses	42,471,373	36,628,270	49,192,884	12,564,614	34%
Capital Expenditures	95,589,791	287,376,221	219,255,395	(68,120,826)	-24%
Debt Service	167,633,716	223,751,702	271,025,463	47,273,761	21%
<b>Total Uses</b>	<b>\$ 407,411,628</b>	<b>\$ 651,965,787</b>	<b>\$ 649,012,607</b>	<b>\$ (2,953,180)</b>	<b>0%</b>
<b>Total Net Surplus/(Deficit)</b>	<b>\$ 64,128</b>	<b>\$ 286,289,941</b>	<b>\$ (92,385,948)</b>	<b>\$ (378,675,889)</b>	

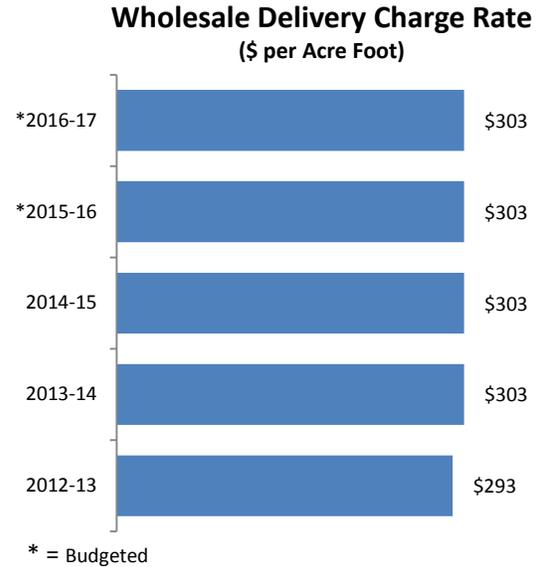
**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
 Fiscal Year Ending June 30, 2017

**Sources**

The fiscal year 2016-17 Budget Plan’s total sources of funds are projected to be \$556.6 million, which is a 41 percent decrease compared to the 2015-16 Adopted Budget Plan. The decrease is largely due to the prior year including proceeds from a \$520 million debt issuance. Offsetting the debt proceeds, the remaining sources experienced a 33 percent increase over the 2015-16 Adopted Budget Plan due to a combination of an improved local economy and further implementation of the Phase 1 and 2 water rate increases recommended by the SNWA Board of Directors (Board) appointed 21-member Integrated Resource Planning Advisory Committee (IRPAC), and subsequently approved by the Board.

**Wholesale Delivery Charge.**

The wholesale delivery charge is the revenue generated from treated 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 2016-17, the wholesale delivery charge will remain at \$303 per acre-foot. Periodic rate increases have kept the wholesale delivery charge revenue relatively stable during periods of declining usage. The increase of \$0.4 million (0.3 percent) in fiscal year 2016-17 is the result of a slight increase 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.



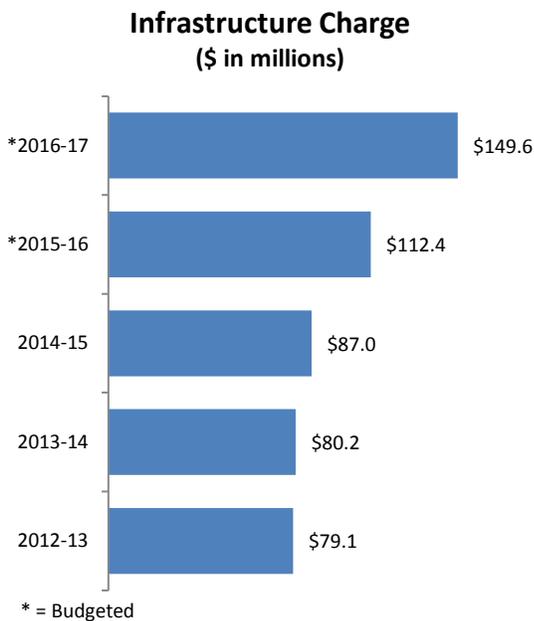
**Infrastructure Charge.**

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 Board assembled the IRPAC to review future 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, 2014, and increasing annually through January 1, 2017. The fiscal year 2016-17 projections of the infrastructure charge revenue includes six months of the January 1,

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
 Fiscal Year Ending June 30, 2017

2016, increase and six months of the January 1, 2017, increase.

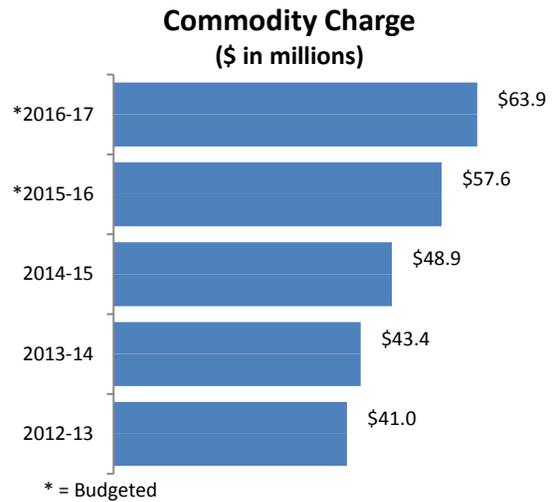
In addition to IRPAC’s Phase 1 recommended increases to the infrastructure charge, IRPAC’s Phase 2 recommended, with subsequent Board approval in December 2014, to increase the fixed monthly charges. This charge was called the Drought Protection Charge and was added to the infrastructure charge. The fiscal year 2016-17 Budget Plan includes six months of the January 1, 2016, implementation of the charge and six months of the January 1, 2017 increase. These IRPAC Phase 1 and 2 recommended, and Board approved, increases account for the rise in the infrastructure charge of \$37.1 million, which is a 33 percent increase compared to the 2015-16 Adopted Budget Plan.



**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 rate increased to \$0.34 in January, 2014, to \$0.38 in January, 2015 and to \$0.44 in January, 2016. It is approved to increase to \$0.48 in January, 2017.

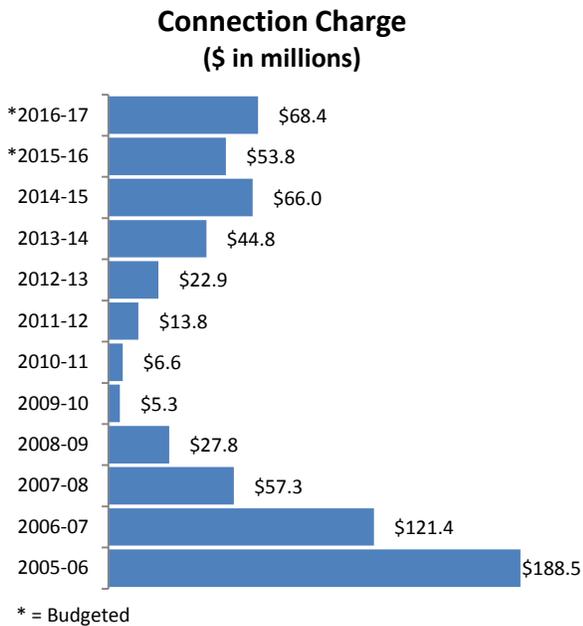


**Connection Charge.**

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 2016-17 projection of connection charge revenue is \$68.4 million, which is higher (27 percent) than the 2015-16 Adopted Budget Plan. Connection charge collections were one of the SNWA’s largest sources of funds in the mid-2000s. However,

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
 Fiscal Year Ending June 30, 2017

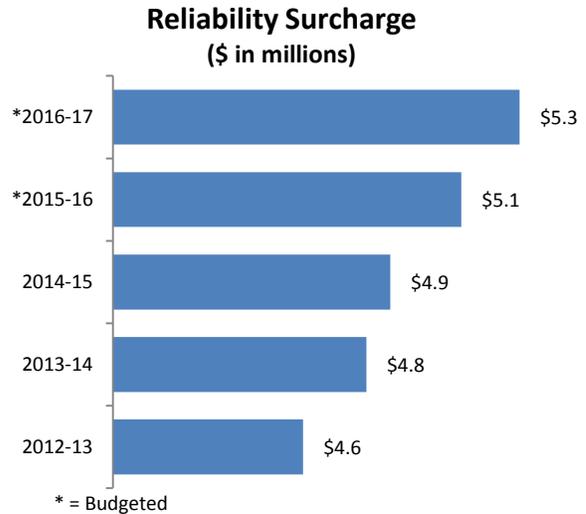
during the recent recession, this revenue fell sharply with the lack of construction activity in the SNWA’s service area. Since reaching a low in fiscal year 2009-10, connection charges have increased steadily.



**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 2016-17 reliability surcharge is projected to increase slightly (\$0.2 million, 3 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.

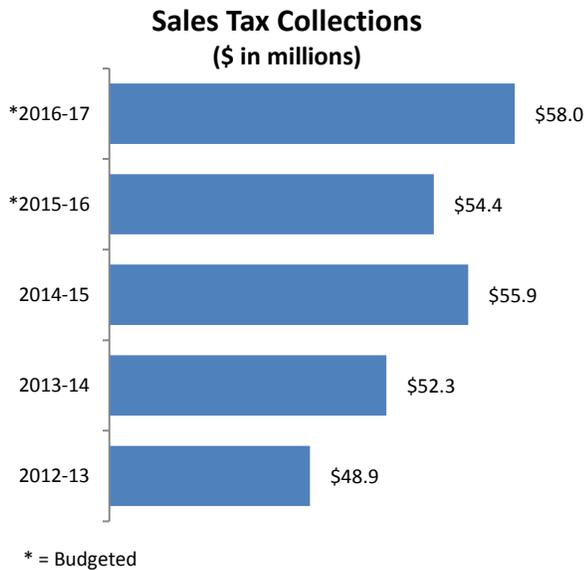


**Sales Tax.**

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 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.

**Southern Nevada Water Authority  
Operating and Capital Budget  
Operating and Capital Budget Plan  
Fiscal Year Ending June 30, 2017**

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 2016-17 projection of sales tax revenue is \$3.5 million, or 7 percent, higher than the 2015-16 Adopted Budget Plan, due to an improving economy.



**Interest Income.**

Interest 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). Interest income is projected to increase \$1.7 million (129 percent) over the 2015-16 Adopted Budget Plan. This increase is primarily attributable to the investment of unspent bond proceeds from the prior year debt issuance. Interest income is based on the amount of funds available to invest and the ROI. The ROI is

expected to remain fairly consistent, therefore the projected increase is entirely due to having more funds available to invest.

**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 2016-17. Consequently, for the fourth 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 2015-16 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 are projected to remain flat in fiscal year 2016-17 as compared to the 2015-16 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 increase \$0.4 million (61 percent) in fiscal

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
 Fiscal Year Ending June 30, 2017

year 2016-17 from the 2015-16 Adopted Budget Plan. This increase is primarily attributable to grants related to water quality research and development.

**Other Revenues.**

Other revenues are budgeted to increase \$74.7 million (838 percent) from the fiscal year 2015-16 Adopted Budget Plan. The most significant other revenue item is the sale of the SNWA’s 25% ownership in the Silverhawk Power Generation Facility to NV Energy. The SNWA will receive \$77 million at the close of the transaction in May 2017.

**Debt Issuance Proceeds.**

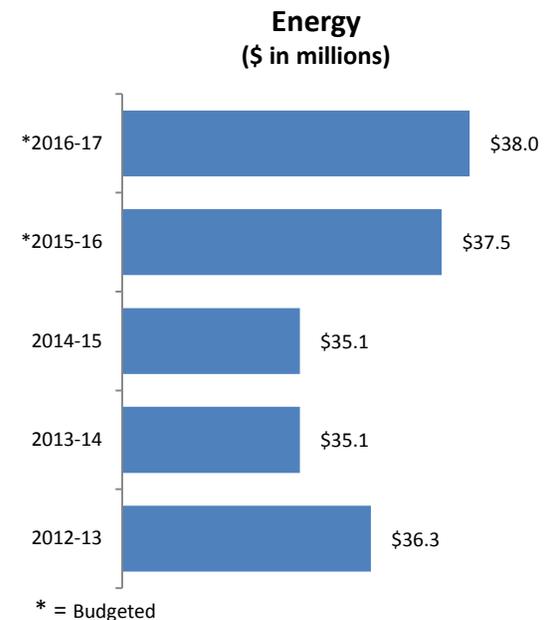
The SNWA expected to expend all of the currently available bond funds in fiscal year 2015-16. Therefore, the SWNA issued bonds in fiscal year 2015-16 to fund the next 24 to 36 months of capital expenditures related to the Major Capital and Construction Plan, which is discussed in further detail later in this section. The majority of capital expenditures in the next 24 to 36 months are attributable to the low lake level pumping station.

**Uses**

The fiscal year 2016-17 Budget Plan’s total uses of funds are projected to be \$649.0 million, a 0.5 percent increase compared to the 2015-16 Adopted Budget Plan. The uses remained fairly constant from the prior year due to increases in operating expenses and debt service being offset by a decrease in capital expenditures.

**Energy.**

Treating raw water and delivering it to the Las Vegas valley is energy intensive. The cost of energy for fiscal year 2016-17 is projected to increase \$0.5 million (1 percent) over the fiscal year 2015-16 Adopted Budget Plan. This increase is primarily due to higher anticipated energy prices.



**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 2016-17, payroll and related expenses are anticipated to be \$71.5 million. This represents an increase of \$4.8 million, or 7 percent, compared to the 2015-16 Adopted Budget Plan.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
 Fiscal Year Ending June 30, 2017

**Payroll & Related**  
 (\$ in millions)



\* = Budgeted

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 2015-16 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>Budget</u>	<u>Budget</u>
	<u>2014-15</u>	<u>2015-16</u>	<u>2016-17</u>
Executive Management	8.0	5.0	5.0
Legal Services	9.6	11.9	13.9
Finance	29.0	32.4	32.0
Energy Management	5.5	6.0	6.0
Information Technology	42.5	34.4	34.5
Human Resources	-	-	4.1
Public Services	20.7	31.9	30.1
Environmental, Health, Safety & Corporate Security	15.7	15.8	16.8
Customer Care & Field Services	2.0	1.3	3.0
Engineering	32.3	32.9	30.3
Resources & Facilities	97.6	98.6	97.0
Infrastructure Management	13.6	16.0	19.2
Operations	63.6	56.7	57.4
Water Quality & Treatment	86.8	87.3	89.3
<b>Total</b>	<b>426.9</b>	<b>429.9</b>	<b>438.4</b>

*\*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 \$12.6 (34 percent) as compared to the 2015-16 Adopted Budget Plan. This increase is due to higher costs in materials, supplies, maintenance, and repairs. Also, the SNWA has increased the capitalization threshold, which has generated a shift of items from capital costs to operating expenses.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
 Fiscal Year Ending June 30, 2017

**Capital Expenditures.**

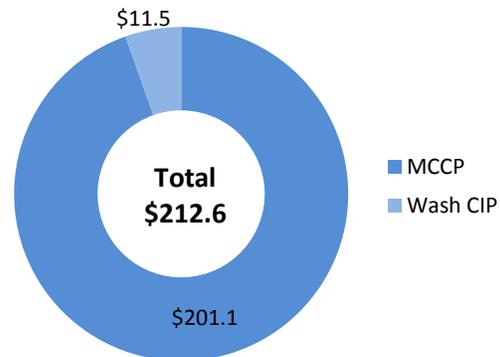
Capital expenditures are projected to decrease \$68.1 million (24 percent), compared to the fiscal year 2015-16 Adopted Budget Plan. The decrease is primarily attributable to completion of the third intake and the beginning of the low-lake level pumping station, which encompasses 65 percent of the projected capital expenditures in the 2016-17 budget. (This project is described later in this section.)

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.

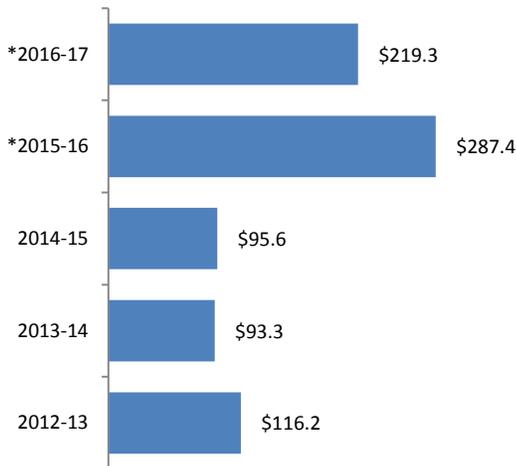
The majority of the SNWA’s capital expenditures are accounted for in the SNWA’s two approved capital improvement plans (CIP):

- 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.

**CIP Related Capital Expenditures  
 in Fiscal Year 2016-17 Budget Plan  
 (\$ in millions)**



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



\* = Budgeted

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
 Fiscal Year Ending June 30, 2017

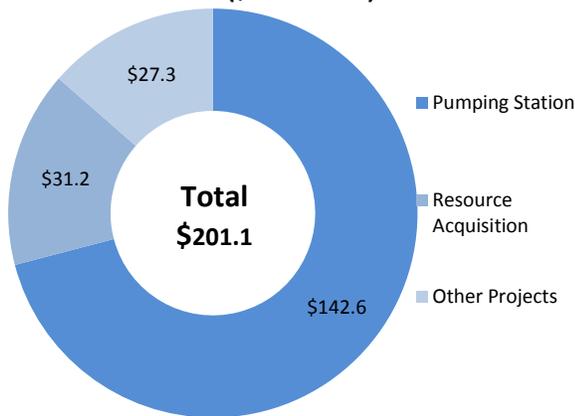
The following is a brief description of the most significant M CCP project:

- Intake No.3 Project – Low Lake Level Pumping Station. Construct a 900 million gallon per day pumping station to convey water from the new Intake No. 3 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. This pumping station 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 could be complete as early as 2021. The fiscal year 2016-17 Budget Plan includes \$142.6 million to be spent on this project.

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 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.

**M CCP Related Capital Expenditures in 2016-17 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

**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 valley has experienced extraordinary population growth since the SNWA’s inception in 1991. The vast majority of the SNWA’s outstanding debt was

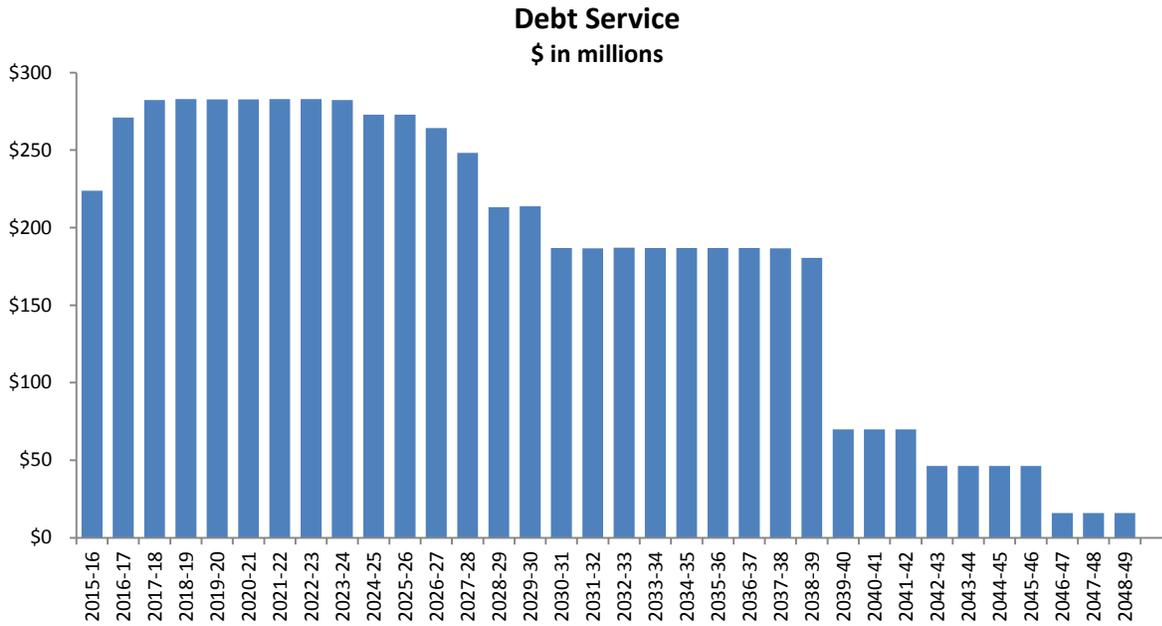
**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
 Fiscal Year Ending June 30, 2017

necessary to fund the infrastructure growth to support such extraordinary population growth. During the recent recession, 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.

increase is primarily due to the ending of the cash flow relief as discussed above. This increase in debt service has been anticipated for several years. The IRPAC's Phase 1 and 2 rate increases were partially based on the future debt service requirements. The existing debt service was projected to rise again in fiscal year 2016-17 before stabilizing for approximately ten years, then declining.

Debt service payments are anticipated to increase \$47.3 million (21 percent) compared to the 2015-16 Adopted Budget Plan. This

The following chart illustrates the outstanding debt service.



**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
Fiscal Year Ending June 30, 2017

**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 2016-17 Budget Plan.

**Estimated Net Assets Detail**  
**Fiscal Year 2016-17 Budget**

	<b>Invested in Capital Assets Net of Related Debt</b>	<b>Restricted</b>	<b>Unrestricted</b>	<b>Total Net Assets</b>
Estimated Net Position on June 30, 2016	\$ 1,213,799,697	\$ 65,344,310	\$ 588,927,690	\$ 1,868,071,697
<i>From Revenues, Expenses, and Net Income Schedule (RENI), Page 4-5</i>				
Operating Revenue	\$ -	\$ -	\$ 208,123,597	\$ 208,123,597
Capital Contributions		57,992,371	287,143,255	345,135,626
Interest Earned	(1,459,613)		2,936,847	1,477,234
Payroll and Related Energy	24,115,193		(71,530,308)	(47,415,116)
Operating Expenses			(38,008,556)	(38,008,556)
Depreciation Expense	(80,000,000)		(49,192,884)	(49,192,884)
Interest Expense (Debt Service)	106,181,518		(271,025,463)	(164,843,946)
<i>Subtotal from RENI</i>	<u>\$ 48,837,097</u>	<u>\$ 57,992,371</u>	<u>\$ 68,446,486</u>	<u>\$ 175,275,955</u>
<i>Items not on RENI</i>				
Capitalized Expenditures	\$ 219,255,395	\$ (219,255,395)	\$ -	\$ -
Debt Issuance Proceeds		-		-
<i>Subtotal Items not on RENI</i>	<u>\$ 219,255,395</u>	<u>\$ (219,255,395)</u>	<u>\$ -</u>	<u>\$ -</u>
Estimated Net Position on June 30, 2017	<u>\$ 1,481,892,189</u>	<u>\$ (95,918,714)</u>	<u>\$ 657,374,176</u>	<u>\$ 2,043,347,651</u>

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
Fiscal Year Ending June 30, 2017

**Sub Funds**

According to Generally Accepted Accounting Principles, 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 2016-17**

	Operating Sub Funds		Capital Sub Funds			Total
	Wholesale Delivery Operations	Groundwater Management Plan	New Expansion Debt Service	Major Capital & Construction Plan	Las Vegas Wash	
<b>Sources</b>						
Wholesale Delivery Charge	\$ 122,759,977	\$ -	\$ -	\$ -	\$ -	\$ 122,759,977
Infrastructure Charge			149,563,411			149,563,411
Commodity Charge			63,850,411			63,850,411
Connection Charge			68,446,150			68,446,150
Reliability Surcharge			5,283,282			5,283,282
Sales Tax			54,217,379		3,774,992	57,992,371
Interest Income	58,737	8,811	1,409,687	1,459,613		2,936,847
Groundwater Management Fees		873,661				873,661
LV Wash Program Fees	(736,161)				1,152,876	416,715
Grant Proceeds	890,510					890,510
Other Revenues	1,477,520		82,063,803	72,000		83,613,324
<b>Subtotal</b>	<b>\$ 124,450,583</b>	<b>\$ 882,471</b>	<b>\$ 424,834,124</b>	<b>\$ 1,531,613</b>	<b>\$ 4,927,867</b>	<b>\$ 556,626,659</b>
Debt Issuance Proceeds	-	-	-	-	-	-
<b>Total Sources</b>	<b>\$ 124,450,583</b>	<b>\$ 882,471</b>	<b>\$ 424,834,124</b>	<b>\$ 1,531,613</b>	<b>\$ 4,927,867</b>	<b>\$ 556,626,659</b>
<b>Uses</b>						
Energy	\$ 38,008,556					\$ 38,008,556
Payroll & Related	46,919,663	495,453	11,191,436	11,765,228	1,158,528	71,530,308
Operating Expenses	37,634,542	722,905	9,586,307		1,249,130	49,192,884
Capital Expenditures				219,255,395		219,255,395
Debt Service			271,025,463			271,025,463
<b>Total Uses</b>	<b>\$ 122,562,761</b>	<b>\$ 1,218,358</b>	<b>\$ 291,803,207</b>	<b>\$ 231,020,623</b>	<b>\$ 2,407,658</b>	<b>\$ 649,012,607</b>
<b>Total Net Surplus/(Deficit)</b>	<b>\$ 1,887,822</b>	<b>\$ (335,886)</b>	<b>\$ 133,030,917</b>	<b>\$ (229,489,010)</b>	<b>\$ 2,520,209</b>	<b>\$ (92,385,948)</b>

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Operating and Capital Budget Plan**  
Fiscal Year Ending June 30, 2017

**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 valley'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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SOUTHERN NEVADA WATER AUTHORITY®

# SECTION 4

## STATE OF NEVADA

### BUDGET DOCUMENTS

State of Nevada, Department of Taxation, Budget Submittal.....	4-1
Budget Document Index .....	4-2
Schedule S-2: Statistical Data.....	4-3
Schedule A-2: Proprietary and Nonexpendable Trust Funds .....	4-4
Schedule F-1: Revenues, Expenses and Net Income Fund: Enterprise.....	4-5
Schedule F-2: Statement of Cash Flows.....	4-6
Schedule C-1: Indebtedness.....	4-7
Lobbying Expense Estimate .....	4-8
Existing Contracts.....	4-9
Privatization Contracts.....	4-13
Affidavit of Publication .....	4-14
Letter of Compliance.....	4-15



SOUTHERN NEVADA WATER AUTHORITY®

FISCAL YEAR 2016-17

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, 2017

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 \$ 336,369,875

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

Gina L. Neilson  
(Print Name)  
Chief Financial Officer  
(Title)

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

Signed Gina L. Neilson

Dated: 7/7/16

### APPROVED BY THE GOVERNING BOARD

Mary Beth Scow, Chairwoman Mary Beth Scow  
Sam Bateman, Vice-Chairman Sam Bateman  
Marilyn Kirkpatrick Marilyn Kirkpatrick  
Bob Coffin Bob Coffin  
Duncan McCoy Duncan McCoy  
Steve Sisolak Steve Sisolak  
Anita Wood Anita Wood

### SCHEDULED PUBLIC HEARING:

Date and Time Thursday, May 19, 2016 9:00 AM

Publication Date May 6, 2016

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

**SOUTHERN NEVADA WATER AUTHORITY  
BUDGET DOCUMENT INDEX**

**Page No.**

I	INTRODUCTION	
	1 Transmittal Letter	1
	2 Index	2
II	SUMMARY FORMS	
	1 Schedule S-2 - Statistical Data	3
	2 Schedule A-2 - Proprietary Funds	4
III	PROPRIETARY FUNDS	
	1 Schedule F-1 - Enterprise Fund - Revenues, Expenses and Net Income	5
	2 Schedule F-2 - Enterprise Fund - Statement of Cash Flows	6
IV	SUPPLEMENTARY INFORMATION	
	1 Schedule C-1 - Indebtedness	7
V	LOBBYING EXPENSE ESTIMATE	8
VI	SERVICE CONTRACTS	
	1 Schedule of Existing Contracts	9-12
	2 Schedule of Privatization Contracts	13

Page 2

FULL TIME EQUIVALENT EMPLOYEES BY FUNCTION

	ACTUAL PRIOR YEAR ENDING 06/30/15	ESTIMATED CURRENT YEAR ENDING 06/30/16	BUDGET YEAR ENDING 06/30/17
General Government			
Judicial			
Public Safety			
Public Works			
Sanitation			
Health			
Welfare			
Culture and Recreation			
Community Support			
TOTAL GENERAL GOVERNMENT			
Utilities	426.9	429.9	438.4
Hospitals			
Transit Systems			
Airports			
Other			
TOTAL	426.9	429.9	438.4

POPULATION (AS OF JULY 1)	2,102,238	2,146,000	2,191,000
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



<b>PROPRIETARY FUND</b>	(1)	(2)	(3) (4) BUDGET YEAR ENDING 06/30/17	
	ACTUAL PRIOR YEAR ENDING 6/30/2015	ESTIMATED CURRENT YEAR ENDING 6/30/2016	TENTATIVE APPROVED	FINAL APPROVED
<b>OPERATING REVENUE</b>				
Wholesale Delivery Charge	121,100,263	122,401,411	\$ 122,759,977	\$ 122,759,977
Groundwater Program Revenue	882,331	874,637	873,661	873,661
Administration Costs Recoveries	472,786	459,920	459,920	459,920
Las Vegas Wash Revenues	404,578	416,715	416,715	416,715
Other Operating Revenue	3,538,758	10,295,730	83,613,324	83,153,404
<b>Total Operating Revenue</b>	<b>126,398,716</b>	<b>134,448,413</b>	<b>208,123,597</b>	<b>207,663,677</b>
<b>OPERATING EXPENSE</b>				
Personnel and Related	49,951,688	49,248,424	47,415,116	47,415,116
Energy	35,071,725	37,524,905	38,008,556	38,008,556
Other - Operations & Maintenance	42,471,373	36,628,270	49,192,884	49,192,884
Depreciation/Amortization	75,774,807	80,000,000	80,000,000	80,000,000
<b>Total Operating Expense</b>	<b>203,269,593</b>	<b>203,401,599</b>	<b>214,616,556</b>	<b>214,616,556</b>
Operating Income or (Loss)	(76,870,877)	(68,953,186)	(6,492,959)	(6,952,879)
<b>NONOPERATING REVENUES</b>				
Interest/Investment Income	1,592,657	1,205,856	1,477,234	1,477,234
Property Taxes				
Subsidies				
Consolidated Tax				
Capital Contributions	281,927,406	283,444,357	345,135,626	345,135,626
Amortization of Bond Premiums & Discounts	4,868,091			
Other	94,294			
<b>Total Nonoperating Revenues</b>	<b>288,482,448</b>	<b>284,650,213</b>	<b>346,612,860</b>	<b>346,612,860</b>
<b>NONOPERATING EXPENSES</b>				
Interest Expense	54,939,795	51,509,219	164,843,946	121,753,319
Amortization of Refunding Costs	3,492,409		-	-
Bond Issue & Commercial Paper Costs	3,299,596		-	-
Other	-		-	-
<b>Total Nonoperating Expenses</b>	<b>61,731,800</b>	<b>51,509,219</b>	<b>164,843,946</b>	<b>121,753,319</b>
<b>Net Income before Operating Transfers</b>	<b>149,879,771</b>	<b>164,187,808</b>	<b>175,275,955</b>	<b>217,906,662</b>
Operating Transfers (Schedule T)				
In				
Out				
<b>Net Operating Transfers</b>				
<b>NET POSITION</b>	<b>149,879,771</b>	<b>164,187,808</b>	<b>175,275,955</b>	<b>217,906,662</b>

Southern Nevada Water Authority  
(Local Government)

SCHEDULE F-1 REVENUES, EXPENSES AND NET INCOME

FUND      ENTERPRISE

<b>PROPRIETARY FUND</b>	(1)	(2)	(3) (4) BUDGET YEAR ENDING 06/30/17	
	ACTUAL PRIOR YEAR ENDING 6/30/2015	ESTIMATED CURRENT YEAR ENDING 6/30/2016	TENTATIVE APPROVED	FINAL APPROVED
<b>A. CASH FLOWS FROM OPERATING ACTIVITIES:</b>				
General and Administrative/Resources Charges	1,347,895	459,920	459,920	459,920
Groundwater Management Fees	882,331	874,637	873,661	873,661
Las Vegas Wash Revenues	404,578	416,715	416,715	416,715
Wholesale Delivery Charges	121,868,607	122,401,411	122,759,977	122,759,977
Other Revenues	2,719,445	10,295,730	83,613,324	83,153,404
Cash Payments to Suppliers of Goods and Services	(127,219,253)	(123,401,600)	(158,731,749)	(158,731,749)
a. Net cash provided by (or used for) operating activities	3,603	11,046,813	49,391,848	48,931,928
<b>B. CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:</b>				
b. Net cash provided by (or used for) noncapital financing activities	-	-	-	-
<b>C. CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:</b>				
Purchase or Construction of Capital Assets	(112,283,126)	(264,897,998)	(219,255,395)	(219,255,395)
Proceeds from Disposal of Property and Equipment	100,287	-	-	-
Proceeds of Debt Issuance	-	-	400,000,000	400,000,000
Principal Paid on Debt	(24,290,584)	(78,025,252)	(506,181,517)	(506,181,517)
Interest Paid on Debt	(143,343,132)	(145,726,453)	(164,843,946)	(164,843,946)
Capital Contributions	261,381,108	283,444,357	345,135,626	345,135,626
Credit Payment Income	-	(2,236,500)	-	-
c. Net cash provided by (or used for) capital and related financing activities	(18,435,447)	(207,441,846)	(145,145,233)	(145,145,233)
<b>D. CASH FLOWS FROM INVESTING ACTIVITIES:</b>				
Purchases of Investment Securities	(276,844,584)	(375,000,000)	(450,000,000)	(450,000,000)
Proceeds from Sales or Maturities of Investment Securities	263,629,000	550,000,000	550,000,000	550,000,000
Investment Earnings	9,492,141	1,283,700	1,477,234	1,477,234
d. Net cash provided by (or used in) investing activities	(3,723,443)	176,283,700	101,477,234	101,477,234
NET INCREASE (DECREASE) in cash and cash equivalents (a+b+c+d)	(22,155,287)	(20,111,333)	5,723,849	5,263,929
CASH AND CASH EQUIVALENTS AT JULY 1, 20xx	57,985,477	35,830,190	15,718,857	15,718,857
CASH AND CASH EQUIVALENTS AT JUNE 30, 20xx	35,830,190	15,718,857	21,442,706	20,982,786

Southern Nevada Water Authority  
(Local Government)

SCHEDULE F-2 STATEMENT OF CASH FLOWS

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



## LOBBYING EXPENSE ESTIMATE

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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: 79th Session; February 6, 2017 to June 5, 2017*

1. Activity:	<u>Legislature 2017 - Southern Nevada Water Authority</u>	
2. Funding Source:	<u>Operating Revenues</u>	
3. Transportation		\$ <u>29,497</u>
4. Lodging and meals		\$ <u>28,236</u>
5. Salaries and Wages		\$ <u>51,788</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>2,301</u>
<b>Total</b>		<b>\$ <u><u>121,821</u></u></b>

Entity: Southern Nevada Water Authority

Budget Year 2016-2017

Page: 8  
Schedule 30

**SCHEDULE OF EXISTING CONTRACTS**

**Budget Year 2016 - 2017**

**Local Government:** Southern Nevada Water Authority  
**Contact:** Gina Neilson  
**E-mail Address:** [gina.neilson@snwa.com](mailto:gina.neilson@snwa.com)  
**Daytime Telephone:** 702-862-3434

Total Number of Existing Contracts: \_\_\_\_\_ 180 \_\_\_\_\_

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2016-17	Proposed Expenditure FY 2017-18	Reason or need for contract:
1	Utility Resources	05/15/97	upon notice	\$ 300,000.00	\$ 300,000.00	PUC Consultant
2	Lionel, Sawyer & Collins	04/07/04	upon notice	24,999	24,999	Legal representation
3	Utility Resources, Inc.	03/17/05	upon notice	530,000	530,000	Public utility commission regulatory hearings
4	Finlinson & Finlinson	01/21/06	upon notice	30,000	30,000	Natural resource consulting services
5	Taggart & Taggart	01/18/07	upon notice	286,000	286,000	Legal services for environmental compliance
6	JH Davenport	12/24/08	upon notice	10,150	10,150	Water resource and administrative consulting services
7	Piercy Bowler Taylor & Kern	03/02/10	06/30/17	191,442	95,721	Auditing Services
8	Lewis & Roca	03/22/10	upon notice	100,000	100,000	Legal Services
9	Kay Brothers	05/05/10	upon notice	100,000	100,000	Consulting services on water issues
10	Aspen Environmental Group	10/13/10	upon notice	100,000	100,000	Legal services for reporting and expert testimony
11	Stratus Consulting	11/17/10	09/30/17	70,689	70,689	Support for WUCA workshop and whitepaper
12	Creel Printing Company	08/29/11	08/28/16	50,000	-	Printing services for Water Smart Newsletter
13	Soil Tech	09/01/11	08/31/16	50,000	-	Revegetation of Las Vegas Wash
14	PhycoTech Inc.	10/25/11	upon notice	50,000	50,000	Water Quality Analysis for Phytoplankton
15	C. Joseph Guild III	01/02/12	upon notice	92,000	92,000	Natural Resource and Water Issues Consulting
16	R&R Public Affairs	01/22/12	01/21/18	75,000	37,500	Consulting services for state and federal natural resource issues
17	C. Joseph Guild III	01/31/12	upon notice	64,000	64,000	Ranch and Agricultural Consulting
18	Snell & Wilmer, LLP	04/11/12	04/11/20	100,000	100,000	Glen Canyon Dam environmental compliance
19	Holland & Hart	05/22/12	05/22/19	100,000	100,000	Litigation related services
20	Simplex Grinnell LP	06/13/12	06/30/17	50,077	-	Fire systems maintenance
21	Safe Electronics, Inc.	06/13/12	06/30/17	42,000	-	Fire systems maintenance
22	G&G Systems	06/13/12	06/30/17	38,484	-	Fire systems maintenance
23	ABC Fire & Cylinder	06/13/12	06/30/17	17,800	-	Fire systems maintenance
24	Greenberg Traurig, LLP	06/19/12	upon notice	100,000	100,000	Bond counsel
25	Warren Turkett	06/25/12	upon notice	81,680	81,680	Lower Colorado River water quality database
26	Michael J Brennan	08/23/12	07/01/18	100,000	100,000	Environmental compliance consulting
27	Holland & Hart	08/23/12	08/23/20	100,000	100,000	Nevada Power integrated resource plan litigation
28	Laguna Productions	02/21/13	02/20/19	145,000	145,000	Production assistance
29	Market Decision Corporation	03/04/13	03/04/17	75,000	-	Data collection services
30	Vogue Linen Service	05/01/13	05/01/17	1,000	500	Uniform cleaning services for Wahoo Ranch
31	Rogich Communications	06/17/13	06/30/17	75,000	45,000	Communication support for SNWA community outreach programs
32	Flow Science	07/18/13	07/01/17	125,000	60,000	Lake Mead Modeling (Watersmart Grant Reclamation)
33	Global Water Technologies LTD	07/25/13	upon notice	70,000	70,000	Innovation development assistance
34	Faiss Foley Warren	08/01/13	07/31/19	900,000	900,000	Integrated communications and support services for SNWA
35	Institute for Executive Development	08/29/13	08/28/20	90,000	90,000	Development of organizational initiatives
36	Simplot Growers Solutions	10/01/13	09/30/19	10,000	10,000	Soil testing services for SNWA ranches
37	Ballard Spahr LLP	11/26/13	11/27/21	20,000	20,000	Legal services regarding the Glen Canyon Dam
38	Stinson Leonard Street LLP	01/02/14	upon notice	100,000	100,000	Legal services
39	Muddy River Regional Environmental Impact Alleviation Committee	01/06/14	01/07/19	50,000	50,000	Tamarisk removal services for fire control
40	Ronald E. Zegers	03/03/14	upon notice	100,000	100,000	Water quality issue consulting
41	AB Sciex	03/11/14	03/10/19	183,627	183,627	Service agreement for lab equipment
42	Hobbs, Ong and Associates	03/20/14	upon notice	400,000	400,000	IRPAC Financial advisory services
43	Agilent Technologies, Inc.	04/01/14	03/31/19	148,050	148,050	Laboratory equipment repair services
44	Ranch Advisory Partners LLC	05/15/14	05/19/17	75,000	75,000	Environmental compliance permit support services
45	Henderson Electric Motors, Inc.	05/21/14	05/20/19	175,050	175,050	Repair of electric motors
46	Las Vegas Color Graphics	07/01/14	06/30/19	50,000	50,000	Mailing services for Water Smart Newsletter
47	Orange Legal Technologies	07/15/14	upon notice	40,000	-	Production of an administrative record
48	Robin Rocky	07/29/14	07/31/16	45,000	-	PSA related to River Mountains Solar Project
49	Tri-County Weed Control	08/01/14	06/30/19	16,578	-	Weed control in Warm Springs Nat Area
50	High Sierra Water Laboratory	08/27/14	01/28/19	40,000	40,000	Water sample analysis services
51	Great Basin Bird Observatory	08/28/14	12/31/20	52,239	52,239	Bird Inventory, habitat assessment & data analysis.
52	Black & Veatch	10/01/14	upon notice	45,740	45,740	Mixing zone modeling services
53	Booky Oren Global Water Technologies Ltd.	10/16/14	upon notice	100,000	100,000	Organizational development assistance
54	Spring Valley Associates	12/10/14	12/10/20	975,000	975,000	Ranch Operations and Maintenance Services
55	NV Division of Forestry	12/10/14	11/30/16	83,333	-	Conservation camp work detail services

56	Capital Project Law Group, PLLC	03/16/15	03/16/23	50,000	50,000	Legal advisory services
57	Bio-West, Inc.	03/18/15	03/18/19	52,000	52,000	Biological consulting services- Virgin River
58	Bio-West, Inc.	03/18/15	03/18/19	58,000	58,000	Biological consulting services- Muddy River
59	Weck Analytical Enviro. Svcs Inc	06/10/15	06/10/20	300,000	300,000	Water sample analysis
60	Ram Proline LLC	12/29/15	12/29/18	156,783	156,783	Strip and recoat pump parts
61	Argus Engineering	05/16/15	05/16/20	70,000	70,000	PSA for work related to the SCADA system
62	Imagine Exhibitions Inc.	06/10/16	12/31/17	125,000	125,000	Traveling Exhibition "Playing with Light"
63	LGA	06/15/15	06/23/16	69,150	-	Professional Services for the HVAC upgrade of the Scada equipment room at AMS
64	Richard Stearns Designers Studio	07/21/15	06/30/16	55,000	-	Consultant for Springs Preserve Gift Shop to facilitate design and execution of shop event decor, and suggested purchase of shop inventory.
65	Imagine Exhibitions Inc.	09/03/15	03/20/19	125,000	125,000	Traveling Exhibit "Science Fiction: Science Future"
66	Science North	10/22/15	10/16/17	165,000	165,000	Arctic Voices Traveling Exhibit
67	Glass Box Technology Inc.	11/30/15	11/29/20	60,000	60,000	Professional services for EMC data storage operating system software training
68	Brown and Caldwell	01/21/16	04/30/17	179,451	179,451	Engineering services for the Fluoride System Improvement Project at AMSWTF
69	Bracken's Valley Tire Repair LLC	03/30/15	04/01/21	20,000	20,000	Pivot Tire Purchases and Repairs
70	WAG Services Inc.	06/01/15	06/30/20	40,000	40,000	Hay Tarping Services for Ranches
71	Abbott Trophies	07/22/15	07/21/21	2,800	2,800	Name Badges for Springs Preserve Staff and Volunteers
72	Highlights	10/01/15	01/31/21	7,400	7,400	Removal and Storage of SP-owned Holiday Lights at Retail Store
73	LV Family Puppet Theater Company	10/01/15	06/30/17	30,000	30,000	Educational Stage Shows
74	A Trak Out Solution	08/15/15	07/31/21	14,000	14,000	Vegetation removal
75	Omniticket Network	08/01/15	07/31/21	20,000	20,000	Services related to internet ticket sales for the Springs Preserve
76	Par 3 Landscape & Maint. Inc.	10/01/15	06/01/21	47,000	47,000	WSNA Landscaping
77	A Trak Out Solution	10/02/15	06/30/20	8,170	14,000	WSNA Dumpster Service
78	LJ McCormick Enterprises Inc.	10/01/15	06/30/20	49,000	49,000	WSNA Ecological Restoration
79	Safe Electronics Inc.	11/01/15	10/31/16	32,000	-	Wet system panels and devices, IR flame detectors, smoke detectors in fan coil units, and elevator recall services for SNWS.
80	Leavitt Enterprises LLC	10/15/15	06/30/20	7,000	7,000	WSNA Handyman Services
81	Moyle Irrigation	01/01/16	12/31/23	25,000	50,000	Pivot irrigation system parts and maintenance svcs.
82	Stotz Equipment	01/01/16	12/31/23	15,000	30,000	Ranches John Deere Repair Parts and Service
83	O'Flaherty Plumbing & Heating	01/01/16	12/31/23	17,500	35,000	Ranches Plumbing Repair Services
84	Steve Reagan	01/01/16	12/31/23	17,500	35,000	Ranches Veterinary Services
85	Parsons Water & Infrastructure Inc.	09/17/15	06/30/16	26,000	-	Program management services
86	Process Applications Inc	11/06/14	until complete	20,000	10,000	Ozone dissolution methods
87	Montgomery Watson/CH2M Hill	07/16/15	until complete	16,000,000	16,000,000	Amendment to existing agreement for lead design engineering services
88	Clean Energy Project	07/15/15	07/15/15	4,000	-	NCES Exhibit
89	Black & Veatch Corporation	05/21/15	06/30/16	636,038	-	Engineering services AMSWTF Filter Improvements demonstration
90	Colorado Water	02/15/15	12/31/15	145,166	-	Exhibits
91	Argus Engineering	05/21/15	05/20/20	130,000	130,000	Engineering services
92	Carollo Engineers, Inc.	05/21/15	06/30/16	185,000	-	Sodium hypochloride evaluation study
93	Russell Stevens	02/15/15	12/31/15	7,000	-	Shoe service
94	CDM Smith	02/15/15	02/15/15	14,913	-	IRPAC
95	Barnard of Nevada, Inc.	05/21/15	06/30/16	5,800,000	-	Construction of Lake Level Pumping Station
96	Black & Veatch Corporation	11/19/15	06/30/16	178,167	-	Engineering services for AMSWTF Filter Improvements demonstration
97	IEH Laboratories	10/15/15	10/14/16	12,000	5,000	Laboratory services
98	Brown and Caldwell	01/21/16	06/30/16	179,451	-	Engineering services for the Fluoride System Improvements Project
99	Bureau of Reclamation	09/17/15	06/30/16	100,000	-	Grant - Support Water Smart Landscape Rebate Program.
100	Merrick & Company	09/17/15	9/16/2018	260,400	260,400	Purchase & delivery of LiDAR digital elevation data services
101	City of Henderson, City of LV, CC Water Reclamation District, Reg Transp Comm. Of SN & CC Regional Flood Control Dist.	01/01/16	12/31/19	169,308	169,308	Aerial Imagery
102	Geophex Surveys	09/17/15	12/31/18	177,549	177,549	Digital aerial imagery
103	Nevada Division of Water Resources	09/17/15	06/30/16	188,475	-	Surface and ground water collection services

104	Orange Legal Technologies	07/27/15	06/30/16	20,000	-	Litigation on the Clark, Lincoln & White Pine Counties Groundwater Development Project.
105	JC Davis	01/19/16	06/30/17	48,000	48,000	Public relations services including community outreach & other communications-related activities.
106	HDR Engineering Inc.	09/02/15	06/30/16	90,000	-	Technical assistance on Water Research Foundation Project.
107	University of Colorado, Boulder	06/22/15	06/30/16	65,219	-	Technical assistance on Water Research Foundation Project.
108	US Dept of Interior / USGS	10/01/15	09/30/16	63,336	-	Real-time water quality monitoring platforms
109	American Water Works Service Company Inc.	05/18/15	06/30/16	60,000	-	Technical assistance on Water Research Foundation Project.
110	Bio-West, Inc.	04/29/15	04/28/19	58,000	58,000	Biological consulting services
111	Bio-West, Inc.	04/29/15	04/28/19	52,000	52,000	Biological consulting services
112	Department of the Interior	06/09/15	09/30/16	95,000	-	Real-time water quality monitoring
113	Carollo Engineers, Inc.	04/29/15	04/28/16	76,300	-	Technical assistance on Water Research Foundation Project.
114	HRA, Inc.	03/25/15	06/30/16	49,500	-	Assist with Nat'l Historic Preservation Act
115	The Arrangers, Inc dba LV Mgmt &/or Creative Endeavors	04/02/15	03/31/16	225,000	-	Facilities & Services to host the WaterSmart Innovations Conference.
116	Int'l Ozone Association Pan American Group	04/06/15	04/05/16	50,000	-	Jennifer Fuel to act as Administration & Communication Officer for the Int'l Ozone Assoc.
117	Digital Mapping, Inc.	04/07/15	04/06/16	65,000	-	Aerial imagery and/or LIDAR data for Warm Springs Natural Area
118	AeroTech Mapping, Inc.	04/07/15	04/06/16	65,000	-	Aerial digital imagery for the Warm Springs Natural Area
119	Quantum Spatial, Inc.	04/07/15	04/06/16	65,000	-	Aerial imagery and/or LIDAR data for Warm Springs Natural Area
120	Carollo Engineers, Inc.	04/29/15	04/28/16	76,300	-	Technical assist. On Tasks 3, 4 & 5 for Water Research Foundation project.
121	Eurofins Eaton Analytical	08/01/14	07/31/15	138,730	-	Laboratory analysis
122	Patricia Emery	05/18/15	05/17/19	24,900	24,900	Editorial services with finalizing documents & reports on an as-needed basis.
123	Pam Robinson	05/26/15	05/25/16	30,000	-	Research, support coordination & development efforts for the 2015 Nevada Drought Summit.
124	LG Architects, Inc. dba LGA	07/01/15	10/01/15	69,150	-	Upgrade of the Comm 1 SCADA Equipment Room HVAC Upgrades.
125	University of Colorado on behalf of the Dept of Civil Engineering	06/22/15	06/21/16	65,219	35,000	Tech assistance on Water Research Foundation Project 4559: "Simultaneous Removal of Multiple Chemical Contaminants Using Biofiltration."
126	Board of Regents, NV Sys of High Ed on behalf o Univ of NV, Reno, NV Bureau of Mines & Geology	07/14/15	07/13/16	40,000	-	University to review the Authority's draft Geologic Data Report to include manuscript, geologic maps & digital geographic info system files.
127	R&R Partners, Inc.	07/16/15	06/30/21	3,350,000	3,383,500	Marketing, Communications & Public outreach svcs for water efficiency public education campaign
128	Lewis Michaelson of Katz & Associates, Inc.	08/03/15	12/31/15	20,000	-	Consulting & advisement on Summit program & materials.
129	Great Basin Bird Observatory	08/04/15	08/14/16	43,160	-	Conduct bird inventory, habitat assessment & data analyses in the Warm Springs Natural Area & springs
130	Susan Mulanax	07/08/15	07/07/16	50,000	-	Planning and Engineering Services
131	Knight & Leavitt Associates	06/01/15	12/31/15	19,000	-	Environmental Services
132	Corrpro	09/02/15	09/01/16	25,000	-	Coating services, inspection & support for the rehabilitation of the Pumping Station 5 Forebay Tank
133	Broadbent & Associates, Inc.	09/02/15	09/01/16	21,977	-	Asbestos abatement technical specs prior to asbestos abatement activities for Pumping Station 6 Forebay Tank & perform inspection & clearance svcs
134	Carollo Engineers, Inc.	10/21/15	10/20/16	30,000	-	Analytical svcs in support of MBR Demonstration for Potable Reuse.
135	Utah Division of Wildlife Resources	10/27/15	10/26/16	25,000	-	Conduct mgmt & monitoring efforts for the benefit of conservation of least chub & Columbia spotted frog.
136	The Field Museum of Natural History	12/09/15	12/08/16	5,000	-	Participate in Colorado River Exhibit Project Partners meeting & make a formal presentation on the process for developing, designing & implementing a traveling exhibit program.
137	Black & Veatch Corporation	12/14/15	12/13/16	24,680	-	To estimate the future quality of Lake Mead water at the third intake.
138	Digital Mapping, Inc.	02/17/16	02/16/17	75,000	75,000	Aerial imagery to support off-site work for the Faraday Future electric vehicle mfg facility.



**SCHEDULE OF PRIVATIZATION CONTRACTS**

**Budget Year 2016 - 2017**

**Local Government:** Southern Nevada Water Authority

**Contact:** Gina Neilson

**E-mail Address:** [gina.neilson@snwa.com](mailto:gina.neilson@snwa.com)

**Daytime Telephone:** 702-862-3434

Total Number of Privatization Contracts: NONE

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Duration (Months/ Years)	Proposed Expenditure FY 2016-17	Proposed Expenditure FY 2017-18	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 0000789364**

Eileen Gallagher, being 1st duly sworn, deposes and says: That she is the Legal Clerk for the Las Vegas Review-Journal and the Las Vegas Sun, daily newspapers regularly issued, published and circulated in the City of Las Vegas, County of Clark, State of Nevada, and that the advertisement, a true copy attached for, was continuously published in said Las Vegas Review-Journal and / or Las Vegas Sun in 1 edition(s) of said newspaper issued from 05/06/2016 to 05/06/2016, on the following days:

**05 / 06 / 16**

**NOTICE IS HEREBY GIVEN**  
that the Board of Directors of the Southern Nevada Water Authority (SNWA) will hold a Public Hearing on Thursday, May 19, 2016, at the hour of 9:00 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 2016-17.  
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.  
**JOHN J. ENTSMINGER,**  
General Manager  
PUB: May 6, 2016  
LV Review-Journal

*ISI Eileen Gallagher*  
**LEGAL ADVERTISEMENT REPRESENTATIVE**

**Subscribed and sworn to before me on this 6th day of May, 2016**

Notary *Mary Lee*

 **MARY A. LEE**  
Notary Public State of Nevada  
No. 09-8941-1  
My Appt. Exp. Nov. 13, 2016



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*  
DAVE DEVOLLD  
*Chair, Nevada Tax Commission*  
DEONNE E. CONTINE  
*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

**REVISED FINAL BUDGET**

August 8, 2016

Ms. Gina L. Neilson, Chief Financial Officer  
Las Vegas Valley Water District  
1001 South Valley View Blvd.  
Las Vegas, NV 89153

Re: Final Budgets – Fiscal Year 2016-2017 –Southern Nevada Water Authority

Dear Ms. Neilson:

The Department of Taxation has examined the Revised Fiscal Year 2016-2017 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 Revised Final Budget, the following tax rates were presented to the Nevada Tax Commission on June 27, 2016 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](mailto:klangley@tax.state.nv.us).

Sincerely,

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

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# SECTION 5

## DEPARTMENT BUDGETS

Summary of Department Expenditures .....	5-1
Executive Management .....	5-2
Legal Services .....	5-12
Finance .....	5-15
Energy Management.....	5-25
Information Technology.....	5-32
Human Resources .....	5-38
Public Services.....	5-41
Environmental, Health, Safety & Corporate Security .....	5-46
Customer Care & Field Services .....	5-55
Engineering .....	5-61
Resources and Facilities .....	5-66
Infrastructure Management .....	5-77
Operations .....	5-85
Water Quality & Treatment.....	5-93



SOUTHERN NEVADA WATER AUTHORITY®

FISCAL YEAR 2016-17

OPERATING AND CAPITAL BUDGET



**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
Fiscal Year Ending June 30, 2017

## 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 2016-17 Budget Plan. The following table presents the 2014-15 actual, 2015-16 Adopted Budget and 2016-17 Budget Plan for each of the departments.

### Summary of Department Expenditures

<b>Departments</b>	<b>2014-15 Actual</b>	<b>2015-16 Budget</b>	<b>2016-17 Budget</b>	<b>Budget-to-Budget Variance</b>
Executive Management	\$ 1,806,009	\$ 1,665,283	\$ 1,828,743	\$ 163,459
Legal Services	7,977,939	16,016,332	18,565,199	2,548,867
Finance	15,666,877	10,704,462	17,347,930	6,643,468
Energy Management	36,326,694	39,140,906	39,085,579	(55,327)
Information Technology	7,868,090	7,116,898	12,980,741	5,863,843
Human Resources	(6,721)	100,000	743,503	643,503
Public Services	7,288,104	10,593,624	11,512,260	918,636
Environmental Health Safety & Corporate Security	2,311,308	2,459,223	2,444,245	(14,978)
Customer Care & Field Services	308,314	205,473	398,859	193,386
Engineering	92,998,017	242,612,548	161,004,085	(81,608,464)
Resources & Facilities	26,143,336	48,019,401	49,070,133	1,050,732
Infrastructure Management	2,703,631	6,708,469	10,419,465	3,710,996
Operations	16,554,461	19,588,128	21,440,891	1,852,762
Water Quality & Treatment	21,831,854	23,283,337	31,145,512	7,862,176
<b>Total Department Expenditures</b>	<b>\$ 239,777,913</b>	<b>\$ 428,214,085</b>	<b>\$ 377,987,144</b>	<b>\$ (50,226,941)</b>
Bond Payments	\$ 167,633,716	\$ 223,751,702	\$ 271,025,463	\$ 47,273,761
<b>Total Uses of Funds</b>	<b>\$ 407,411,629</b>	<b>\$ 651,965,787</b>	<b>\$ 649,012,607</b>	<b>\$ (2,953,180)</b>

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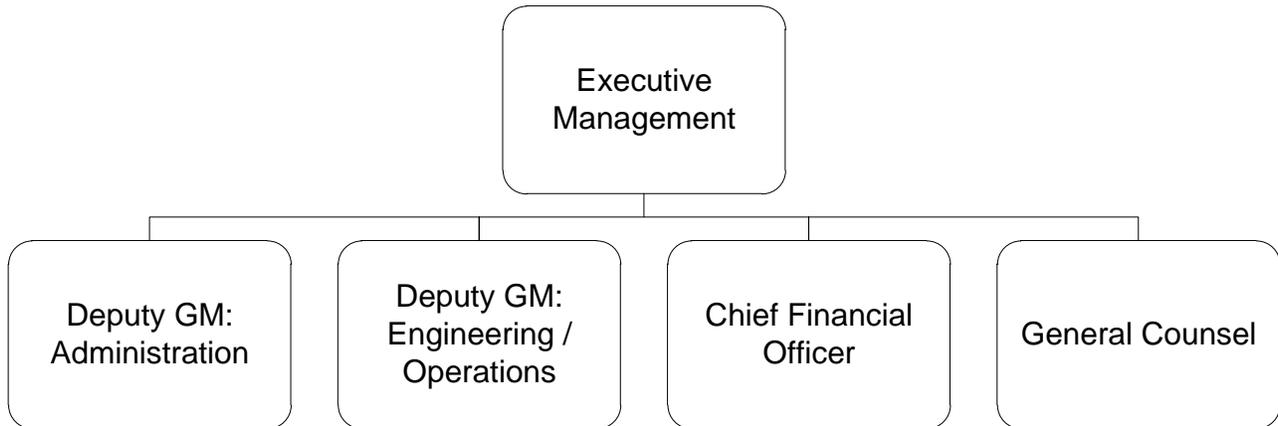
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Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Executive Management  
Fiscal Year Ending June 30, 2017

## EXECUTIVE MANAGEMENT

Level: 1000

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### Mission Statement

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

### The Executive Management Team

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

Southern Nevada Water Authority  
 Operating and Capital Budget  
 Department Budgets  
 Executive Management  
 Fiscal Year Ending June 30, 2017

**Expenditures**

<b>SNWA Uses</b>	<b>Actual 2014-15</b>	<b>Budget 2015-16</b>	<b>Budget 2016-17</b>
Materials & Supplies	\$ 4,116	\$ 8,500	\$ 22,500
Maintenance & Repairs	21	15,000	-
Other Employee Expenses	176,564	216,200	192,150
Other Expenses	128,276	153,325	572,350
<b>Total Operating Expenses</b>	<b>\$ 308,976</b>	<b>\$ 393,025</b>	<b>\$ 787,000</b>
Capital Costs	\$ -	\$ 222,000	\$ -
Payroll Costs	\$ 1,497,033	\$ 1,050,258	\$ 1,041,743
<b>Total Department Expenditures</b>	<b>\$ 1,806,009</b>	<b>\$ 1,665,283</b>	<b>\$ 1,828,743</b>
FTE Positions	8.0	5.0	5.0

**Major Activities**

Over the past year, the Executive Management Team has directed a wide range of initiatives to stabilize the financial foundation of both organizations and ensure that Southern Nevada’s critical water supplies and infrastructure remain protected and reliable. These activities help to ensure that the community has access to adequate future water resources. Significant initiatives over the past year include:

- Completion of Intake No. 3 tunnel;
- An update to the Water Resource Plan to reflect changing conditions.
- Began the design and construction of a new Low Lake Level Pumping Station (L3PS), which is expected to be complete

by 2020.

- Participation in the December 2015 Special Legislative Session.
- Participated in the White House Water Summit in March 2016. The organization’s efforts to enhance the sustainability of water in the United States as part of the Colorado River Pilot System Conservation Program were highlighted. The program will be extended with additional funding as part of a collaborative initiative designed to increase Lake Mead and Lake Powell reservoir elevations for the benefit of the entire Colorado River Basin.
- Began the design and construction of infrastructure for the Garnet Valley water system.
- In conjunction with Governor Sandoval’s

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Executive Management**  
Fiscal Year Ending June 30, 2017

Chairmanship of the Western Governors' Association, participated in a summit of the Western Governors regarding drought. Staff also participated in the Governor's drought forum and Summit process, which facilitated a state-wide dialogue among interested stakeholders to identify best practices for drought policy, preparedness and management.

- Collaboration with Colorado River partners on conservation programs that will protect Lake Mead water elevations;
- An emphasis on asset management and enhanced service levels;
- Continued leadership and involvement in Colorado River issues and initiatives;
- Continued implementation of programs to increase efficiency and enhance the customer service experience; and
- Continued emphasis on the Springs Preserve to increase revenue through new programming and attractions.
- LVVWD won the Association of Metropolitan Water Agencies' 2015 Platinum Award for Utility Excellence, which is awarded by a panel of peer judges and based on effective utility management

### **Intake No. 3 Completion**

In September 2015, workers removed a temporary bulkhead from the inlet to Intake No. 3. Within a week, Intake No. 3 began delivering water from the depths of the lake to customers in Southern Nevada. By drawing water from lower in Lake Mead, Intake No. 3 increases the flexibility of Southern Nevada's water treatment and delivery system, significantly enhances water quality, and

protects the community from declining lake levels.

### **Low Lake Level Pumping Station**

Following a recommendation from the Integrated Resources Planning Advisory Committee Process, SNWA began design and construction on a new low lake level pumping station (L3PS) at Lake Mead. Because current and forecasted conditions project a high probability of lake levels continuing to decline—potentially to a depth lower than existing infrastructure has the ability to draw from—L3PS will connect to the third intake and have the capability to draw water from as low as 875 feet above sea level.

### **Drought Protection Charge**

To fund costs associated with L3PS, SNWA implemented a fixed charge based upon customer meter size. The fixed charge, first implemented in January, is being phased-in over a three-year period.

### **SNWA Water Resource Plan**

In September 2015, the Executive Management Team presented an updated iteration of the SNWA Water Resource Plan to the Board of Directors. The document provides a comprehensive overview of water resources and demands in Southern Nevada and discusses factors that will influence resource availability and use over the next 50 years.

The updated plan considers and addresses the relative highs and lows of future water demands, as well as supply restrictions that could occur over the long-term planning

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Executive Management**  
Fiscal Year Ending June 30, 2017

horizon. It also demonstrates that SNWA has sufficient permanent, temporary and future resources to meet all potential future planning scenarios.

### **Garnet Valley Water System**

During a Special Session in December 2015, the Nevada State Legislature approved a tax package for the international car manufacturer, Faraday Future, to build an electric vehicle manufacturing facility in Garnet Valley, NV, approximately 25 miles northeast of Las Vegas. State funding for the construction of a water and wastewater system to serve the area also was included within the legislation. Production wells, treatment, storage reservoirs and a conveyance system are currently in design to serve Garnet Valley customers. This system will be funded through state bonds, built by the Southern Nevada Water Authority (SNWA) and will likely be operated by LVVWD, consistent with other outlying water systems. SNWA was prepared to provide construction water to Faraday by February 1, 2016.

The Executive Management Team is overseeing critical activities to ensure a reliable water supply to the area, such as the installation of necessary infrastructure, permitting water rights, creation of financing and billing mechanisms, implementation of a public stakeholder process and development of water rates and service rules.

### **Groundwater Development Project**

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 plan. The project will help meet the community's long-term demands and provide a water supply separate from the Colorado River. Although the project is unlikely to be needed in the short-term, the SNWA continues permitting activities, including legal review.

### **LVVWD Operations**

Under direction of the Executive Team, the LVVWD Infrastructure Management Department implements an asset management plan. This plan allows staff to proactively monitor water system components and identify efficient, cost-effective solutions to maintain reliable water service, meet conservation goals and satisfy customer needs.

Stable operating costs, infrequent main breaks and low non-revenue water losses indicate that LVVWD infrastructure is generally in good condition. However, water infrastructure is vulnerable to corrosion, deterioration and malfunction, which if left ignored, can lead to service interruptions and costly emergency repair work. To maintain system reliability, near-term infrastructure renewal funding priorities are identified in the asset management plan and currently include the replacement of obsolete large meters, high-density polyethylene service laterals, high-failure cement pipe and at-risk steel distribution mains. By focusing on these priorities, the potential of water loss, system failure, leaks, customer inconvenience and service interruptions is significantly minimized.

One major project on the horizon is the replacement of an aging 16-inch pipeline that

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Executive Management**  
Fiscal Year Ending June 30, 2017

was installed on Las Vegas Boulevard in 1955. LVVWD is coordinating with two upcoming mega resorts—Alon and Resorts World—to replace parts of the pipeline in conjunction with necessary pavement improvements for the resorts. The project will install approximately 1,580 linear feet of 16-inch diameter pipe in the frontage of Resorts World and 1,400 linear feet in the frontage of Alon Resort. By coordinating with the resorts to include this work with their projects, LVVWD will save thousands of dollars in pavement restoration and eliminate additional traffic disruptions after the resorts are open. It is estimated that this work will take place in 2017.

### **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***

##### **2016-17 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.

- Continue construction progress on L3PS.
- Demonstrate national and international leadership in water research, conservation and water quality efforts.
- Coordinate efforts with stakeholders to address the needs of the Garnet Valley Water System, including infrastructure installation, water rights permitting, financing and billing mechanisms and development of water rates and service rules.
- Continue to implement the LVVWD's Major Construction Program and the SNWA's Major Construction and Capital Plan, including continued progress on the new low lake level pumping station.

##### **2015-16 Major Accomplishments**

- Updated the SNWA Water Resource Plan to include recommendations from the IRPAC process, new regional conservation efforts and the consideration of fluctuating supply and demand cycles of water resources.
- Replacement of more than 27,000 meters. The new meters provide improved reliability, increased accuracy and dramatically reduce the time it takes to read meters.
- Completion of Intake No. 3, which made its first water deliveries in 2015.
- Commenced construction on L3PS.
- Participation in the Nevada Drought Forum and Summit, which facilitated a statewide dialogue to identify best practices for drought policy, preparedness and management.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Executive Management**  
Fiscal Year Ending June 30, 2017

- Worked with SNWA member agencies to evaluate opportunities for additional conservation measures.
- In September, the SNWA Board approved an agreement allowing Nevada to bank up to 150,000 acre-feet of unused water in California to temporarily supplement California's drought-stressed water supplies.
- Continued implementation of the Colorado River Conservation Pilot Program, through which 12 different proposals in the Upper and Lower Basins have been executed, totaling an estimated water savings of 37,000 acre-feet.

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

**2016-17 Performance Objectives**

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

**2015-16 Major Accomplishments**

- LVVWD delivered approximately 105 billion gallons of water to customers throughout its service area.
- Customer Care handled nearly 600,000 customer interactions and generated approximately 4 million bills.
- Field Services completed more than 228,000 field orders, including water-waste investigations, service start and stop requests and general maintenance work.
- Commenced construction of the Springs Preserve Streetscape exhibit and trails improvement project, which is anticipated

to be complete in the fall of 2016 and is funded primarily through the Southern Nevada Public Lands Management Act.

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

**2016-17 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.

**2015-16 Major Accomplishments**

- Las Vegas was one of only 11 U.S. cities that received a score of at least 4.5 or higher out of 5 on the American Council for an Energy Efficient Economy's 2015 City Energy Efficiency Scorecard. The scorecard examined 51 U.S. cities based on efficiency within their water systems.
- Ranked 2nd place in the 2015 Green Fleets Awards, which recognizes 100 best fleets in North America. The LVVWD has been ranked in the top 50 green fleets for eight consecutive years.
- In light of recent water quality compromises in Flint Michigan and at the Gold King Mine in Colorado, water quality

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Executive Management**  
Fiscal Year Ending June 30, 2017

remains a top priority. Over the past year, SNWA has applied for and received \$350,000 in water quality-related grant funding to help ensure that community water meets all state and federal standards.

- Completed solar project at River Mountains Water Treatment Facility, from which SNWA will purchase approximately 38,000 megawatts per year. SNWA's ultimate goal is to mirror the State's Renewable Portfolio Standard of receiving 25 percent of its energy from renewable resources by 2025. Currently, 18 percent of SNWA's energy portfolio is derived from renewable resources.
- The Spring Preserve's Origen and Desert Living Center buildings earned The Outstanding Building of the Year Award for the Pacific Southwest Region in the Earth category from the Building Owners and Managers Association International (BOMA) of Nevada. The award highlights energy efficiency and sustainability in buildings.
- The Moapa dace population has nearly quintupled since habitat restoration efforts began at the Warm Springs Natural Area. The population increased from 459 in 2008 to 2,248 in 2014. In 2015, that count increased by an additional 17 percent.
- Continued implementation of the Warm Springs Natural Area Stewardship Plan, which provides a framework for use and management of the property that preserves the integrity of natural resources and allows for water resource management. Second phase improvements include plans for an amphitheater, restroom, shade structure

and seating areas. Since acquisition of the property, SNWA has focused on restoration of aquatic fish habitat, control and eradication of invasive species, fire prevention and property maintenance. A public trail system is currently under construction to enable low-impact public use of the property.

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

**2016-17 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 development and implementation of a long-term Operations and Maintenance Plan for system assets with associated costs and funding options.

**2015-16 Major Accomplishments**

- LVVWD began using acoustic technology to listen for small pipeline leaks before they erupt into larger main breaks. This real-time, wireless technology allows crews to detect leaks at the onset and repair them before they develop into a potential emergency.
- Continued to contribute resources and research to the Colorado River Basin Supply and Demand Study process.
- Continued leadership in the implementation of the Las Vegas Wash Comprehensive Adaptive Management

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Executive Management**  
Fiscal Year Ending June 30, 2017

Plan, Las Vegas Wash Capital Improvements Plan and coordination of the Las Vegas Wash Coordination Committee. Since 2000, 19 of 21 planned weirs, 12 miles of bank protection and more than 400 acres of vegetation have been installed along a 6-mile section of the Wash. These stabilization and enhancement efforts have resulted in a 60 percent reduction in total suspended solids in the once-degraded waterway. The Wash has since been removed from the 303(d) list of impaired waters in Nevada and sediment loading into Lake Mead has been reduced.

- 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.***

**2016-17 Performance Objectives**

- Plan and develop opportunities to increase the LVVWD and SNWA investments in alternative and renewable energy supplies.
- Continue to respond to current economic conditions and evaluate revenue needs and opportunities for additional efficiencies.

**2015-16 Major Accomplishments**

- In September 2014, the SNWA and LVVWD

began a two-year process to reduce debt service obligations by refunding approximately \$1.24 billion of existing debt. At current interest rates, it is estimated that this action will result in approximately \$150 million in cash flow savings through 2027.

- The SNWA continues to administer one of the most successful conservation programs in the country. Today, Southern Nevada consumes approximately 32 billion gallons less water than it did in 2002, despite the addition of nearly a half-million new residents. The SNWA is on track to meet its goal of 199 total system gallons per capita per day before 2035.
- The Board of Directors approved a new policy for maintaining adequate reserves of cash and investments, which will be an important tool for mitigating the risks associated with potential volatility in sources or uses of funds. A similar policy was adopted by the SNWA Board.
- The previously-mentioned water banking agreement with California will add \$45 million to SNWA's Rate Stabilization Fund to help defer or reduce the impacts of future rate increases.
- Community participation in the Water Smart Landscapes Rebate Program has greatly increased. In 2015, more than 2,000 Water Smart Landscapes projects were completed, resulting in the conversion of nearly 2.5 million square feet of ornamental turf. Since program inception, 177 million square feet of turf have been converted, saving approximately 98 billion gallons of water.
- In July 2015, the SNWA Board of Directors approved promotional periods during which the Water Smart Landscapes rebate

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Executive Management**  
Fiscal Year Ending June 30, 2017

would be temporarily increased from \$1.50 to up to \$2 per square foot. Since that time, the SNWA has experienced a 36 percent increase in applications.

- Last year, the LVVWD issued 5,516 water waste letters and completed 2,303 water waste investigations, resulting in \$22,360 in assessed fees.
- In Fiscal Year 2014-15, Springs Preserve overall revenue increased by approximately 18 percent, third party business events grew by 43 percent and special event attendance increased by nearly 16 percent over the previous fiscal year.
- Divine Events assumed operations of the Springs Preserve café in July 2014. Since then, fiscal year to date revenues are 33 percent higher than they were over the same time span the previous year.

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

**2016-17 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.

**2015-16 Major Accomplishments**

- Intake No. 3 was named the 2015 Global Tunneling Project of the Year by British magazine New Civil Engineer.

- The intake project also has been named as one of six finalists for the American Society of Civil Engineers' annual award for the world's most outstanding civil engineering achievement.
- The Nevada Society of Professional Engineers honored SNWA and its engineering staff when it awarded the 2016 Project of the Year to Intake No. 3.
- In 2015, staff contacted approximately 30,000 customers regarding nearly 180 LVVWD/SNWA construction projects and system maintenance activities.
- SNWA won the Association of Metropolitan Water Agencies' 2015 Platinum Award for Utility Excellence, which is awarded by a panel of peer judges and based on effective utility management.
- R&R Partners won a total of 10 Addy awards for various SNWA campaigns.
- LVVWD received a Pinnacle Award by the Public Relations Society of America Las Vegas Valley chapter for the Water District's social media program, which was recognized as one of the best in Southern Nevada.
- The Springs Preserve social media program continued to grow its followers in the past year. The Preserve's Facebook page gained an average of 1,000 followers a month and currently has nearly 44,000 followers.
- The Springs Preserve won the Best of Show Award from the Public Relations Society of America (PRSA) Las Vegas chapter for the collateral designs and marketing of the Springs Preserve Butterfly Habitat. The Preserve also won a Pinnacle Award for the communication and marketing campaign promoting the

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Executive Management**  
Fiscal Year Ending June 30, 2017

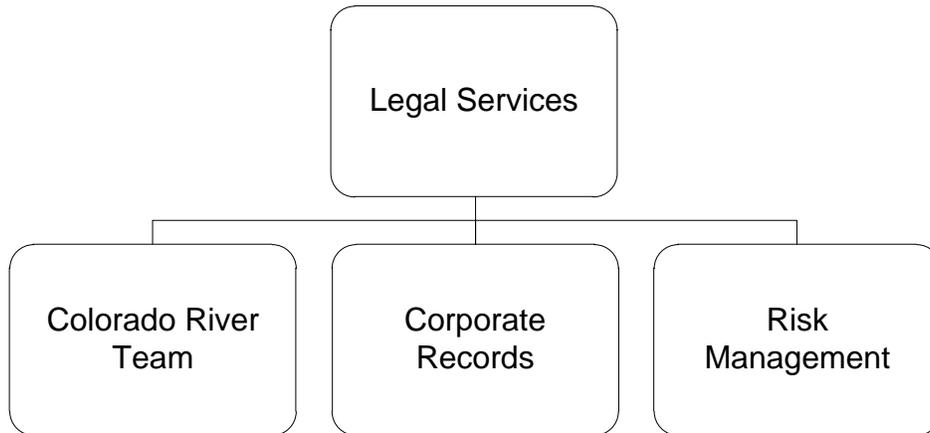
summer camps, which experienced a 55 percent increase in early registrations and an 11 percent gross revenue increase. The PRSA Awards recognize the best public relations programs, tools and professionals in Southern Nevada, Northern Arizona and Southern Utah.

- Implemented the new ChangeYourClock.com website and introduced text message reminders for customers to change their watering clocks each season.
- Received a \$100,000 commitment from Wells Fargo to support the Springs Preserve Streetscape project.
- Since 1999, the SNWA has assisted more than 500 well users to connect to a 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, 398 sub-meters have been distributed to well owners, 210 rebates have been issued for the installation of those sub-meters, and approximately 360 wells have been plugged and abandoned.

Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Legal Services  
Fiscal Year Ending June 30, 2017

**LEGAL SERVICES**  
**Level: 1200**

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**Mission**

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

**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 has recently become more active

in resource planning with the establishment of the Colorado River Team division and continues to advise on electrical power issues. The Corporate Records division works to ensure compliance with document preservation, retention, and disposition regulations and internal policies. 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 2016-17 budget contains continuing funding to support these

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Legal Services**  
Fiscal Year Ending June 30, 2017

efforts and for outside counsel who perform a variety of other legal services for the organization. Funds have been retained in the budget to continue the corporate records

effort. The document management effort has reached significant milestones but project objectives remain to be accomplished.

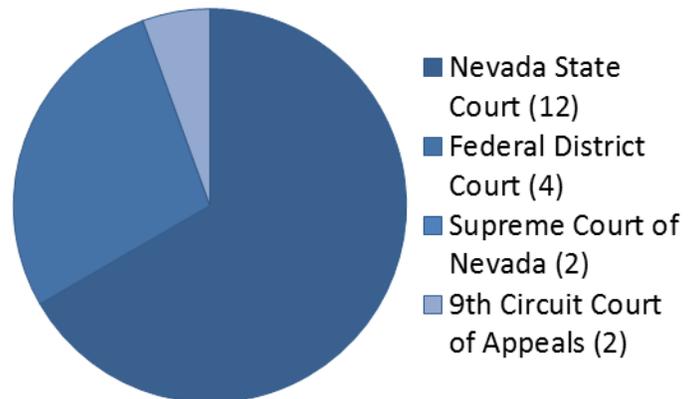
**Expenditures**

<b>SNWA Uses</b>	<b>Actual 2014-15</b>	<b>Budget 2015-16</b>	<b>Budget 2016-17</b>
Materials & Supplies	\$ 2,145	\$ 9,000	\$ 28,000
Other Employee Expenses	84,342	52,000	104,000
Other Expenses	6,185,242	4,043,803	4,450,803
<b>Total Operating Expenses</b>	<b>\$ 6,271,729</b>	<b>\$ 4,104,803</b>	<b>\$ 4,582,803</b>
Capital Costs	\$ -	\$ 9,786,667	\$ 11,524,000
Payroll Costs	\$ 1,706,210	\$ 2,124,862	\$ 2,458,396
<b>Total Department Expenditures</b>	<b>\$ 7,977,939</b>	<b>\$ 16,016,332</b>	<b>\$ 18,565,199</b>
FTE Positions	9.6	11.9	13.9

**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. The Colorado River Team works to protect and enhance Nevada’s Colorado River entitlement, while the Corporate Records division manages the organization’s records retention policy.

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



**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Legal Services**  
Fiscal Year Ending June 30, 2017

**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, the Colorado River Team, Corporate Records, 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.

**2016-17 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 assist staff with legislative issues, reviewing and drafting proposed legislation when requested.

**2015-2016 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.

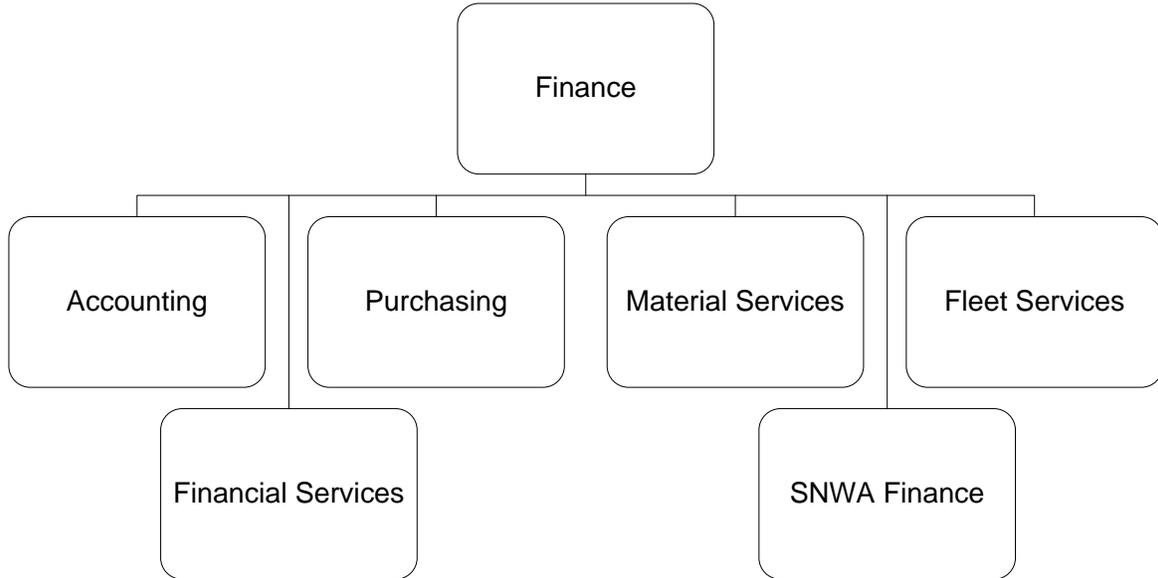
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Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Finance  
Fiscal Year Ending June 30, 2017

**FINANCE**  
**Level: 2100**

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**Mission**

To provide leadership in finance, accounting, budgeting and debt management, ensuring the financial integrity and safeguarding assets of the Las Vegas Valley Water District (LVVWD) and the Southern Nevada Water Authority (SNWA).

**Department Description**

The Finance department is responsible for day-to-day accounting and 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 SNWA and a Pension Trust Fund. In the Enterprise Funds, financial activities are recorded in a manner similar 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 LVVWD Pension Plan. The department also coordinates the LVVWD and the SNWA budget processes in compliance with Nevada State Law. Internal accounting controls, as required under generally accepted accounting principles (GAAP), are strictly enforced in safeguarding property and in preparing financial statements.

**Budget Objectives and Highlights**

The 2016-17 Finance department budget contains funding to maintain the necessary functions the LVVWD and the SNWA require for its services to their customers.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Finance**  
Fiscal Year Ending June 30, 2017

**Expenditures**

<b>SNWA Uses</b>	<b>Actual 2014-15</b>	<b>Budget 2015-16</b>	<b>Budget 2016-17</b>
Materials & Supplies	\$ 728,930	\$ 646,350	\$ 1,139,750
Maintenance & Repairs	49,901	204,300	179,800
Rental & Leases	53,902	58,450	63,850
Other Employee Expenses	39,502	54,550	81,135
Other Expenses	10,690,832	4,284,879	7,144,075
<b>Total Operating Expenses</b>	<b>\$ 11,563,068</b>	<b>\$ 5,248,529</b>	<b>\$ 8,608,610</b>
Capital Costs	\$ 52,997	\$ 951,000	\$ 4,108,000
Payroll Costs	\$ 4,050,812	\$ 4,504,934	\$ 4,631,320
<b>Total Department Expenditures</b>	<b>\$ 15,666,877</b>	<b>\$ 10,704,462</b>	<b>\$ 17,347,930</b>
FTE Positions	29.0	32.4	32.0

**Department Performance**

**Accounting.** The Accounting division is responsible for the development, maintenance and administration of the LVVWD accounting system. 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-seven (37) 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 LVVWD funds; reconciling bank statements with thousands of disbursements; processing payroll for approximately 1,250 employees; processing accounts payable for approximately 42,000 payments annually, which earned more than \$280,000 discounts in fiscal year 2014-15 including an annual credit card rebate of \$112,000; accounting for

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Finance**

Fiscal Year Ending June 30, 2017

the Springs Preserve; and accounts receivable, which includes federal and state agency grant accounting that require preparing and submitting reports to obtain reimbursements.

In October 2014, the LVVWD began outsourcing 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 an annual line item operating and capital budget. This encompasses budget development, implementation and monitoring for the LVVWD, SNWA, and BBWD. Financial Services prepares variance reports

by division and division managers 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 analysis and develops water rate, connection and other fee recommendations for the LVVWD and SNWA departments, projects and programs. On an annual basis, the division conducts a survey of water rates from over 60 cities located in the western United States, closely monitors water production and consumption data, and prepares Annual Statistical Reports.

**SNWA Finance.** The SNWA Finance division supports the strategic objectives of the Finance department by providing accounting services, financial reporting, financial analysis, cash management, and coordination with the financial staffs of the SNWA purveyors and other agencies. The SNWA Finance division is charged with the following responsibilities: the day-to-day accounting of the SNWA; the accounting and reporting associated with investment of the LVVWD and SNWA funds; reconciliation of receivables and payables between the LVVWD and the SNWA; the preparation and tracking of purveyor billings; the collection, tracking, and forecasting of regional connection charges, infrastructure charges, commodity charges, reliability surcharges, sales tax revenues, and other miscellaneous revenue sources; preparing and filing forms and narratives in connection with LVVWD and SNWA grant receipts; preparation of the SNWA CAFR and other financial reports; fixed assets tracking; construction contract tracking; and cash management. The SNWA Finance division also conducts numerous financial analyses such as: arbitrage calculations, cash requirements forecasts, and operating funds analyses.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Finance**

Fiscal Year Ending June 30, 2017

**Purchasing Services.** The Purchasing division is responsible for all purchasing related activities for the LVVWD, the SNWA and the Springs Preserve. These activities include: market analysis; developing new, expanded or alternative sources of supply; systems contracting; formal and informal bids; personal property sales; sustainable purchasing program; and the diversity program. Negotiations of renewed contracts and other cost saving measures continue to be the division's priority. Purchase orders are issued to award contracts and reflect the work processed by the division.

**Material Services.** Material Services primary role is to deliver reliable customer service through material management services, material storage and retrieval. To ensure their internal customer's material needs are met, Material Services relies heavily on their supplier partnerships. Materials are received, inspected, and processed at both the LVVWD and SNWS Main distribution warehouses for final delivery to their internal customers at LVVWD, SNWS, and to eleven satellite facilities. For the period ending February 2016, the inventory assets were valued at \$17.1 million consisting of 16,257 inventory items. Material Services supplies and issues O&M inventoried materials needed to maintain the LVVWD water production and delivery system. Material Services issued a monthly average of inventory valued at \$1.5 million. The inventory issued, which was valued at \$1.5 million, is also measured in "touches" and Material Service processed a monthly average of 6,300 touches. Material Services also received and processed incoming inventoried material as well as other non-discretionary materials purchased by

LVVWD internal users. Material Services processed an average monthly value of \$3.1 million of these in-coming materials. This receiving activity, or value of \$3.1 million, is also measured in "touches" and Material Services processed a monthly average of 1,194 touches. Material Services supports sustainability through inactive inventory reduction, use of recycled paper, repurposed shipping materials, and recycled cardboard. Material Services also coordinates and manages the LVVWD investment recovery efforts through the LVVWD auction program, bid sales, and the public sales auction for various recyclable and repurposed materials. Additional services include supply chain management; O&M and/or capital project material planning and forecasting; material coordination for special projects; emergency job site deliveries; safety garment administration; coordination of semi-annual first-aid kit replenishment; Safety Data Sheet administration; courier services for organizational needs which includes lab samples; loanable tool support; FedEx and UPS shipping services.

**Mail Services.** Mail Services is the central depository for processing incoming and outgoing intercompany mail and United States Postal Service (USPS) mail and is located at the LVVWD Valley View campus and the Molasky Corporate Center. Core responsibilities include the administration, management, receipt, sorting, processing and timely delivery of all interoffice and incoming USPS correspondence LVVWD wide. Mail Services delivers daily to the SNWA, SNWS and Springs Preserve campuses and to all outlying remote facilities throughout the LVVWD service area. All Mail Services personnel are required annually to attend terrorism training

**Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Finance**

Fiscal Year Ending June 30, 2017

conducted by the LVVWD Emergency Preparedness Coordinator. Mail Services' high profile activities include the delivery and posting of public notices; administering the LVVWD postage budget; conducting interoffice mail and desktop delivery of stationery; and special communication campaign folding projects. Mail Services consistently evaluates their work distribution and processes to add organizational value, maximize resources, gain productivity and efficiency.

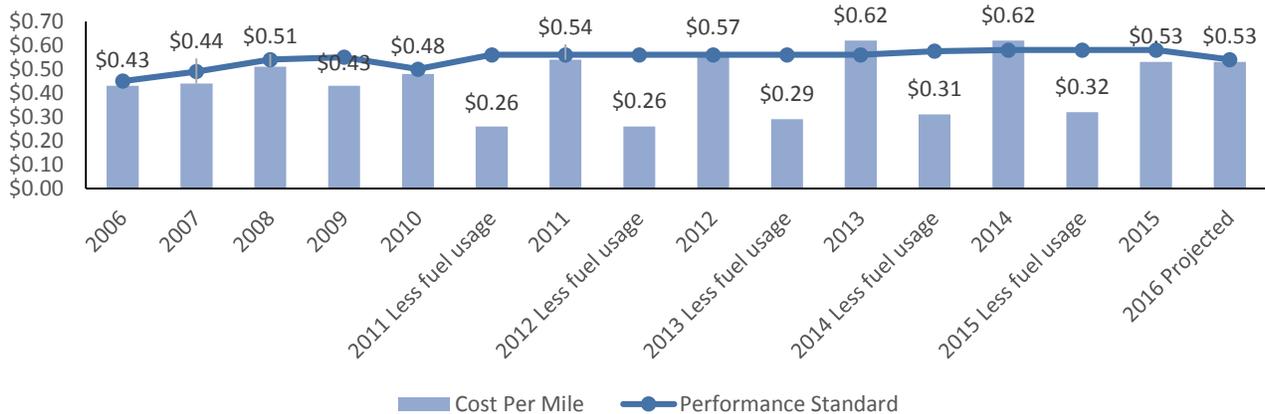
**Fleet Services.** The mission of the Fleet Services division is to provide safe, reliable and functional vehicles, equipment, tools, fuel, and communications equipment to LVVWD, SNWA and BBWD so they can be used to support water delivery.

Fleet Services currently maintains more than 1,500 vehicles and support equipment pieces and 1,200 pieces of communications equipment, supporting the LVVWD, SNWA, and BBWD. Services include repair, maintenance, acquisition and disposition of all

vehicles, support equipment, communications equipment and loanable tools. Fleet Services also operates six service facilities and six fueling facilities located in Las Vegas, Boulder City, Henderson and White Pine County.

For fiscal year 2016-17, the Fleet Services Division has requested 106 new and replacement vehicles and related equipment at a cost of approximately \$7,842 million. The replacements are for vehicles and equipment having reached the end of their life cycle. Best management practices suggest these vehicles be replaced to maintain serviceability, reliability, repair costs and downtime at acceptable levels. Apart from new and replacement vehicles, Fleet Services is also requesting new GPS equipment for fleet vehicles. This equipment will be used to better manage the fleet as well as reduce fuel usage and enhance safety. The chart below reflects the LVVWD average vehicle operating cost per mile compared to accepted performance standards.

**2006 - 2015 Average Vehicle Operating Cost Per Mile  
Compared to Performance Standard**



**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Finance**  
Fiscal Year Ending June 30, 2017

## **Strategic Plan Objectives and Accomplishments**

By the very nature of its activities, the Finance department either directly or indirectly impacts all of the Strategic Plan Goals through the prudent and strategic funding of all 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.***

### **2016-17 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.
- In support of the Emergency Response Plan, continue to develop the Logistics Chief Book Guidelines.

### **2015-16 Major Accomplishments**

- Secured first \$520 million of funding for SNWA Low Lake Level Pumping Station and other capital infrastructure.
- Established formal policies for the LVVWD and SNWA to reserve funds for base operating expenses, debt service, capital improvements, and unforeseen events.
- Provided Emergency Response Plan logistical support in response to BBWD's boil water order by delivering 1,512

1-gallon containers of drinking water to local customers.

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

### **2016-17 Performance Objectives**

- Develop and Implement an electronic routing application for contract awards within General Manager's authority.
- Continue to improve and streamline day-to-day accounting practices, specialized processes, and improved financial analyses, reporting, and information sharing for the departments.
- Provide the best possible equipment choices to the departments to assist them in meeting their goals efficiently and effectively.
- Continue to include customers in the specification process of new and/or replacement vehicles and equipment.
- Minimize equipment down time through the use of technology, technician training and good parts availability.

### **2015-16 Major Accomplishments**

- Implemented an on-line bidding system in coordination with nine other Nevada local governments.
- Provided Maintenance Engineering forecasting and material management services for the wellsite communications upgrade program. Fiscal year-to-date purchases are \$405,000 and material issues are \$391,000 consisting of 25 SKU's.
- Provided timely support to Meter Services, the Meter Repair Shop and the

**Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Finance**

Fiscal Year Ending June 30, 2017

Meter Change-out Retrofit team for the meter change-out program.

- Enhanced customer service in outlying areas through the use of technology, improved parts availability and scheduling of technicians.
- Maintained Automotive Service Excellence (ASE) “Blue Seal of Service Award”.
- Maintained ASE “World Class Technician Status”, adding one supervisor and one additional technician to the World Class Standings.

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

**2016-17 Performance Objectives**

- Provide weights and categories for all purchase orders to assist in the computation of the company’s carbon footprint.
- Increase purchases of recycled and environmentally friendly products.
- 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 LVVWD plug-in electric vehicle fleet.
- Expand the use of compressed natural gas as an automotive fuel.

**2015-16 Major Accomplishments**

- Provided 100 percent of stocking class A, B and C’s inventory items’ weight and

category profile for the Greenhouse Gases Report. This information is used to compute the company’s annual carbon footprint based on issue and purchase volume.

- Investment recovery efforts from contractor bid sales for scrap metals generated \$236,800 fiscal year-to-date (FYTD) to the Operating Fund.
- Replaced older diesel powered vehicles with flex fuel vehicles, reducing the LVVWD carbon foot print.
- Recycled and reused several service bodies and mounted equipment on light and medium duty utility vehicles, reducing the use of raw materials.
- Recycled used oil to be used as heating fuel for the fleet maintenance facility in Spring Valley.
- Selected as one of Heavy Duty Trucking Magazines "Top 50 Green Fleets".
- Selected as one of 100 Best Fleets “Top Green Fleets in North America”, placing 2<sup>nd</sup>.

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

**2016-17 Performance Objectives**

- Begin the implementation of improved report technology for the upgraded general ledger accounting system that better automates information for more timely and useful reports.
- Research and initiate policy changes and alternative payment methods resulting in a reduction in the number of paper customer refund payments issued.

**Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Finance**

Fiscal Year Ending June 30, 2017

- Maximize the productivity of the upgraded accounting system by evaluating and implementing new functionality.
- Encourage the purchase of sustainable products by facilitating meetings with suppliers and interested departments.
- Continue to equip fleet facilities with state of the art test 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.

**2015-16 Major Accomplishments**

- Upgraded Oracle Financials accounting system from 11i to R12.
- Selected a financial reporting software so Finance can better serve its customers.
- Fully implemented Phases I and II for the utilization of wireless warehouse hand held devices and barcode technology for issues, item inquiry and location changes. Phase III and IV are scheduled for the 2nd and 4th quarter in 2016.
- Upgraded all LVVWD two-way radios from analog to digital technology in order to improve communications and enhance interoperability throughout the Las Vegas valley. 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.***

**2016-17 Performance Objectives**

- Issue Clark County 2016B refunding bonds.
- 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 in order to increase the credit card rebate.
- Reduce the volume of manually processed payments through customer outreach efforts in coordination with Customer Care and Field Services.
- Reduce the overall cost per mile/hour of operation for LVVWD vehicles and equipment (based on market economics).
- Continue to identify vehicles/equipment that are low usage and not cost effective.

**2015-16 Major Accomplishments**

- Issued the Clark County 2016A refunding bonds generating net present value savings of \$56 million.
- Issued the LVVWD 2016A & B refunding bonds generating net present value savings of \$31 million.
- Secured a State Revolving Fund loan of \$15 million for LVVWD capital infrastructure.
- Facilitated the purchase of floors 12 and 14 at the Molasky Corporate Center for an estimated savings of \$8.6 million.
- Successfully implemented procedures with the U.S. Army for billing/reimbursement of the Sloan Water System.

**Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Finance**

Fiscal Year Ending June 30, 2017

- Saved \$100,000 in soft savings by managing repairable inventory versus purchasing new.
- FYTD inactive inventory efforts at LVVWD and SNWS Material Services resulting in \$179,100 inventory reduction or 201 SKU's.
- To maximize resources, improve process efficiencies, and to ensure site security, Mail Services administers desk top stationery delivery District wide.
- Recovered over \$459,372 in vehicle resale at auction.
- Replaced older diesel powered vehicles with flex fuel vehicles, saving an estimated \$240,000 in capital replacement costs.
- Reconditioned and reused several service bodies and mounted equipment on light and medium duty utility vehicles saving over \$100,000.
- Partner with other departments to create vehicle/equipment committees to better assess needs and improve end products provided.
- Continue to promote team safety initiatives.
- Maintain Fleet Certification as an "Industry Competitive Fleet Management Operation" through the Fleet Counselor Services (FCS) and the Rocky Mountain Fleet Management Associations (RMFMA).
- Maintain ASE "Blue Seal of Service Award."
- Maintain ASE "World Class Technician Status."
- Maintain I-CAR Gold Class Certification for Fleet Services paint and body operations.

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

**2016-17 Performance Objectives**

- Submit the LVVWD and SNWA CAFR for the year June 30, 2016, to the GFOA and receive the Certificate of Excellence in Financial Reporting.
- Receive unmodified opinion from external auditors for the LVVWD, SNWA and BBWD fiscal year 2016 audits.
- Receive the Distinguished Budget Presentation Award from the GFOA for the LVVWD and SNWA Operating and Capital Budgets for the year ended June 30, 2017.
- Collaborate with Human Resources on supplier diversity outreach efforts.

**2015-16 Major Accomplishments**

- Received the Certificate of Excellence in Financial Reporting from the GFOA of the United States and Canada for the thirty-seventh (37<sup>th</sup>) consecutive year for the LVVWD CAFR for the year ended June 30, 2015.
- Received the Certificate of Excellence in Financial Reporting from the GFOA for the twentieth (20<sup>th</sup>) consecutive year for the SNWA CAFR for the year ended June 30, 2015.
- Received an unmodified opinion from external auditors for the LVVWD, SNWA and BBWD fiscal year 2015 audits.
- Received the Distinguished Budget Presentation Award from the GFOA for the LVVWD and SNWA Operating and Capital Budgets for the year ended June 30, 2016.
- Material and Mail Service created a "capacity to production" metric to

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Finance**

Fiscal Year Ending June 30, 2017

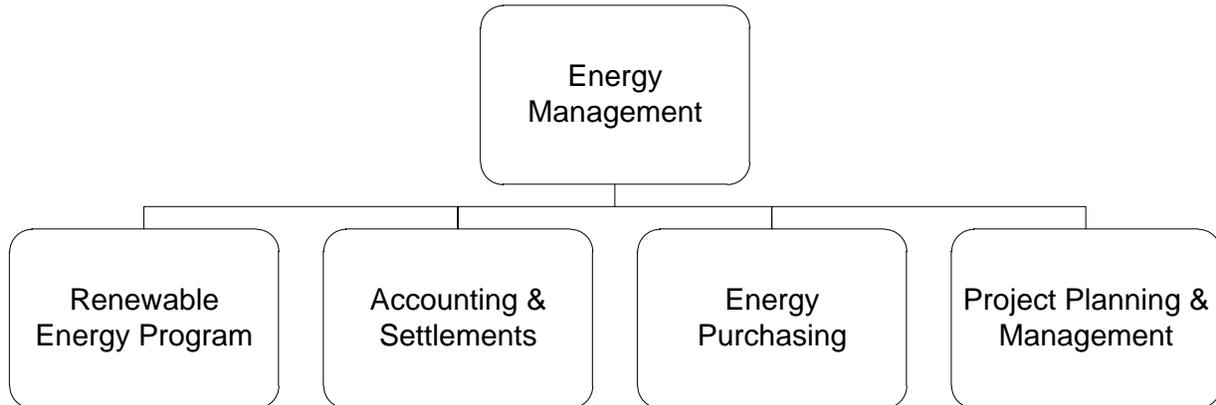
document and monitor core activities to determine how effectively resources are being utilized compared to demand.

- LVVWD Material Services achieved 21 years and SNWS Material Services achieved 15 years without a lost time accident.
- Validated the 35 percent or \$5.9 million of Material Services' \$17 million inventory categorized as critical.
- Validated emergency preparedness inventory to ensure material standing and shelf-life quality assurance.
- Maintained Fleet Certification as an "Industry Competitive Fleet Management Operation" through the FCS and the RMFMA.
- Maintained ASE "Blue Seal of Service Award".
- Maintained ASE "World Class Technician Status".
- Achieved I-CAR Gold Class Certification for Fleet Services paint and body operations.

## ENERGY MANAGEMENT

### Level: 2200

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### Mission

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

### Department Description

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

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

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

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Energy Management**  
 Fiscal Year Ending June 30, 2017

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

**Budget Objectives and Highlights**

The fiscal year 2016-17 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**

<b>SNWA Uses</b>	<b>Actual 2014-15</b>	<b>Budget 2015-16</b>	<b>Budget 2016-17</b>
Energy	\$ 34,853,251	\$ 37,524,906	\$ 37,708,556
Materials & Supplies	2,145	2,500	2,500
Maintenance & Repairs	2,043	-	-
Rental & Leases	252,581	267,467	-
Other Employee Expenses	10,716	8,250	8,250
Other Expenses	352	1,250	1,250
<b>Total Operating Expenses</b>	<b>\$ 35,121,088</b>	<b>\$ 37,809,873</b>	<b>\$ 37,720,556</b>
Capital Costs	\$ -	\$ 25,000	\$ -
Payroll Costs	\$ 1,205,606	\$ 1,306,033	\$ 1,365,023
<b>Total Department Expenditures</b>	<b>\$ 36,326,694</b>	<b>\$ 39,140,906</b>	<b>\$ 39,085,579</b>
FTE Positions	5.5	6.0	6.0

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Energy Management**  
Fiscal Year Ending June 30, 2017

## **Department Performance**

### **Silver State Energy Association.**

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

Expanding the energy portfolio managed by this group to include the SNWA member agencies and the members of the SSEA has brought significant economies of scale and portfolio synergies to each of the participants, including the SNWA. Furthermore, the energy portfolio has been able to be expanded in this way without increasing 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.

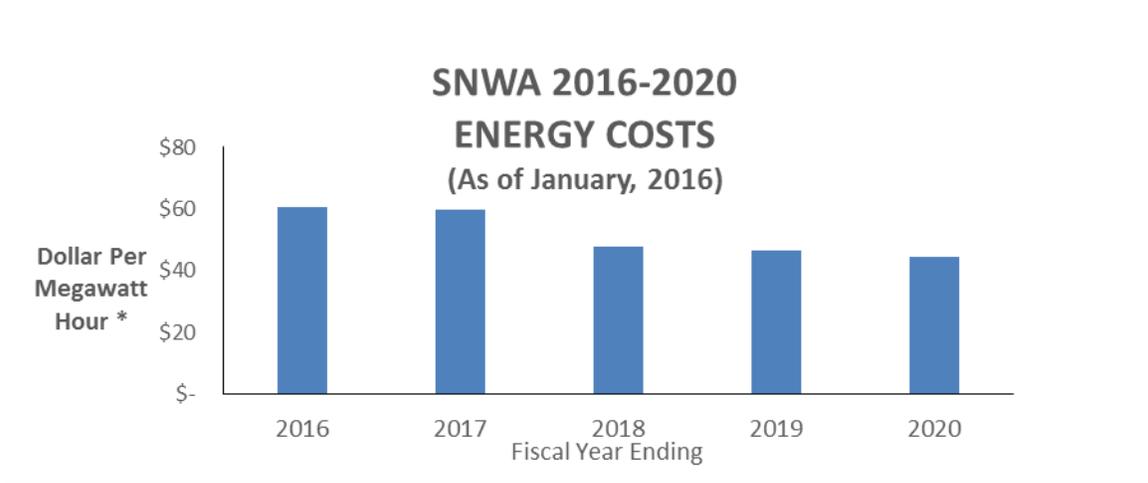
Some of the benefits the SNWA realizes by participating in the SSEA include 1) economies of scale when purchasing energy; 2) lower overhead costs; 3) lower balancing, imbalance and ancillary services costs due to the synergies of serving a single larger portfolio vs. serving the different load shapes 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 SNWA's energy portfolio has largely been eliminated through calendar year 2020. 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 2020, changes in the market price of energy are expected to have little effect on the SNWA's expected costs during this period. The following chart shows the SNWA's actual and projected energy costs through calendar year 2020 as of the end of January 2015.

**Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Energy Management  
Fiscal Year Ending June 30, 2017**



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 \$39 million, excluding the estimated cost of capital associated with the SNWA’s energy assets for the fiscal year 2016-17. 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 for the ENTP and is awaiting a right-of-way grant and permits from the Bureau of Land Management.

**SNWA and LVVWD Sustainability Initiatives.**

The SNWA will continue to pursue economical renewable energy that will contribute to the SNWA’s and the LVVWD’s overall supply portfolio:

**Strategic Plan Objectives and Accomplishments**

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

**2016-17 Performance Objectives**

- Maximize the value of existing renewable energy facilities.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Energy Management**  
Fiscal Year Ending June 30, 2017

- Secure Right of Way Grants to develop the SSEA's 230 kV Eastern Nevada Transmission Project.
- Coordinate the installation of the electric power delivery system for the Lower Lake Level Pumping Station (L3PS).
- Develop new economical renewable energy supply options.

**2015-16 Major Accomplishments**

- Completed the installation of a 14.4 MW solar PV plant at the River Mountains Water Treatment Facility and began receiving power in December 2015.
- Defined the requirements for the installation of the electric power delivery system for Lower Lake Level Pumping Station #3.
- Coordinated the ENTP line routing with other project developers to avoid routing conflicts through the Lava Butte/Lake Las Vegas corridor, allowing the SSEA to receive a right-of-way and permits from the Bureau of Land Management.
- Developed economical options for several alternative energy project proposals.
- Negotiated an agreement to sell 25% interest in the Silverhawk Power Plant for \$77 million cash and will also realize \$5 million in annual operating savings.
- Executed new Portfolio Energy Credit (PEC) sales agreements with Barrick Gold and Switch.

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

**2016-17 Performance Objectives**

- Continue to work with the SSEA members and the SNWA member agencies to understand and meet their energy related information and reporting needs.
- Update the SSEA website to include current information of value to members and trade partners.
- Work with NV Energy to structure a Hoover D tariff that will allow the member agencies to use their Hoover allocations at NV Energy retail sites.
- Support the member agencies' efforts to determine the most optimal use of their new Hoover D allocations.

**2015-16 Major Accomplishments**

- Provided technical support and assistance to the energy customer member agencies in their pursuit of an allocation of Hoover Dam energy. All of the member agencies were successful in obtaining an allocation of Hoover Dam energy from the federal government.
- Evaluated the potential cost savings of moving additional LVVWD sites/meters to the Energy Supply Program and presented results to SNWA Management.
- Collaborated with the SNWA Finance department to define and implement improved energy reporting and accounting practices.
- Worked with City of Henderson to develop an automated billing report.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Energy Management**  
Fiscal Year Ending June 30, 2017

- Saved SNWA and their member agencies \$11 million compared with NV Energy rates.

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

**2016-17 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.
- Consolidate all of the LVVWD solar renewable systems under Energy Management and transition ongoing maintenance oversight of the facilities to CRC.
- Develop and execute a warranty and maintenance agreement with SunPower.
- Increase the efficiency of SSEA financial operations and improve financial reporting through timely book closing.
- Identify information bottlenecks preventing the timely closing of the SSEA books and request solutions.
- Migrate accounting records for the member agency books to Quickbooks and eliminate the need to maintain those records in the Revenue & Expense workbook.
- 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.
- Develop a wheeling rate for the Power Delivery Project.
- Implement a new system for the accurate and timely tracking performance of renewable energy systems and portfolio energy credits.
- Evaluate the usefulness of the information being posted to the SSEA website and modify the website accordingly.
- Implement MuniLink for PEC invoicing; thoroughly test MuniLink as a tool that can be adapted to other billing applications.
- Create a timely and accurate PEC/REC report management tool.

**2015-16 Major Accomplishments**

- Maintained a fixed cost energy portfolio for our customers within compliance requirements.
- Successfully completed the migration of accounting records to Quickbooks increasing both efficiency and availability of financial information.
- Completed a clean external audit, without any significant audit findings, of the SSEA's financial records after converting from Excel to QuickBooks, allowing for the regular production of improved financial reports.
- Followed through on a regulatory intervention concerning transmission and ancillary services rates resulting in the saving of \$2million.
- Developed a margin call estimation tool; created tools to further analyze market

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Energy Management**  
Fiscal Year Ending June 30, 2017

data available from the Bloomberg Professional System.

- Initiated desktop deposit to allow bank deposits electronically from our offices.
- Established and followed a book closing and review schedule.
- Utilized expanded financial staff to improve internal control points through the addition of new process reviews.
- Re-evaluated and streamlined internal credit procedures. Began the credit enabling process with several counter parties.
- Implemented the use of Pioneer's "sandbox" server to more efficiently complete annual model changes.
- Contracted with a third party billing provider to produce REC/PEC invoices.

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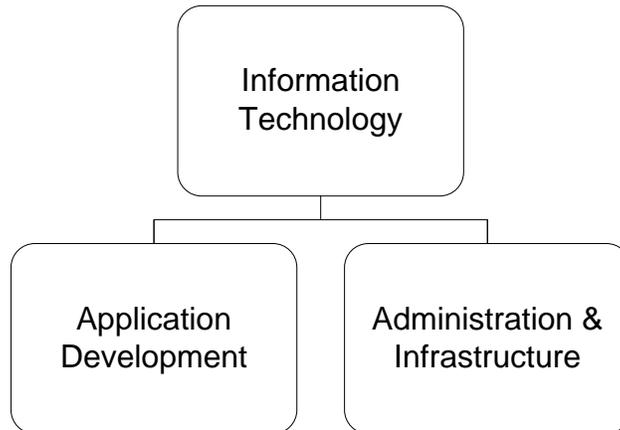


SOUTHERN NEVADA WATER AUTHORITY®

## INFORMATION TECHNOLOGY

### Level: 2300

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### Mission

Establish a leadership position in 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, ongoing related support, cybersecurity, and telecommunications. 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 2016-17 Information Technology department budget contains funding to continue the development and implementation of technology projects and provide daily operational support to LVVWD, SNWA, the Springs Preserve, and BBWD information technology systems.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Information Technology**  
 Fiscal Year Ending June 30, 2017

**Expenditures**

<b>SNWA Uses</b>	<b>Actual 2014-15</b>	<b>Budget 2015-16</b>	<b>Budget 2016-17</b>
Water	\$ -	\$ -	\$ -
Energy	-	100	-
Materials & Supplies	45,887	60,400	839,700
Maintenance & Repairs	197,842	7,000	2,619,059
Rental & Leases	2,580	149,000	366,000
Other Employee Expenses	-	21,150	46,980
Other Expenses	230,061	561,200	1,719,100
<b>Total Operating Expenses</b>	<b>\$ 476,371</b>	<b>\$ 798,850</b>	<b>\$ 5,590,839</b>
Capital Costs	\$ -	\$ 373,000	\$ 1,171,023
Payroll Costs	\$ 7,391,719	\$ 5,945,048	\$ 6,218,879
<b>Total Department Expenditures</b>	<b>\$ 7,868,090</b>	<b>\$ 7,116,898</b>	<b>\$ 12,980,741</b>
FTE Positions	42.5	34.4	34.5

**Department Performance**

Information Technology completed a number of projects to improve business processes, functionality, system operations, and security, while reducing expenses. Major projects during the year included the acquisition and implementation of Office 365, a three-year PC refresh program, upgrade of Oracle Financials, installation and implementation of a new Laboratory Information Management System (LIMS), implementation of metering analytics online portal, enhanced customer focused applications to provide better usability,

implementation of an Automated Outbound Dialing Interactive Voice Response (IVR) system, begin analysis for the acquisition and implementation of new hardware to support the upgrade of the LVVWD Supervisory Control and Data Acquisition (SCADA) system project and upgrades to Oracle servers and operating systems.

**Information Technology Application Development.** This multi-division team performs software development, upgrades and version testing, and validation of key

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Information Technology**  
Fiscal Year Ending June 30, 2017

operational systems utilized throughout the organization.

Application Development will continue to prioritize the upgrade of core enterprise systems, a multi-year process initiated in fiscal year 2015. The Customer Care and Billing System upgrade will be completed with planned functional improvements in customer information, billing, payment, and meter data management areas. The organization's payment systems, including cashiering and automated payments, will be upgraded to be EMV (Europay, MasterCard, and Visa), or chip card compliant, a requirement of Payment Card Industry (PCI) Security Standards.

The implementation of a Human Capital Management system is a comprehensive effort to consolidate time and attendance, payroll, recruitment, learning management, analytics, self-service, and core human resource management systems into one integrated solution. Benefits will include elimination of several disparate systems, further reduction in manual workload of Human Resources (HR) administrative duties, and added capabilities for recruitment, performance and compensation management.

Hansen, the system supporting construction and approval of new service connections for Engineering Services and Engineering Inspection, is an aging system that will be replaced through enhancements to existing systems. This approach will eliminate outdated technology and leverage existing systems, reducing overhead and implementation costs.

A major upgrade is planned for the Fleet Management System to take advantage of many improvements to the user portal interfaces, the warranty writing, and workflow processes. This upgrade will keep us current with the software while leveraging key functionality. In addition, Application Development will provide integration services and evaluation support to Fleet Services for their implementation of a GPS/telematics system that will greatly enhance their fleet management capabilities. This system will be implemented in phases over the next several years.

An upgrade is planned for Avantis, the organization's asset management/preventative maintenance system. This upgrade will provide a reengineered user interface designed to be compliant with current technology standards. Ongoing support will continue to be provided to Operations and Water Quality staff through effective delivery of SCADA information required for compliance, metrics, and performance monitoring.

Application Development will be supporting technology review, planning, and implementation where needed in other key business areas including Call Center and IVR systems, bill payment and printing services, customer self-service payment channels, and financial management systems.

**Information Technology Administration and Infrastructure.** This multi-division team is comprised of the Support Services division, the Technical Services division, and the Spatial Technologies division. The Technical Services division is responsible for the application administration of critical business systems

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Information Technology**  
Fiscal Year Ending June 30, 2017

utilized throughout the organization. It is also responsible for the architecture and administrative support for the corporate system to include database infrastructure, server administration, enterprise storage, e-mail and mobile communication, web services, cybersecurity, network infrastructure, and the telecom group which manages wireless communications devices (cell phones, modems, and air cards) and the main telecom switch for all locations and campuses. Additionally, this division is responsible for the maintenance of the SCADA systems for LVVWD, SNWA, and BBWD. The division maintains and configures the LIMS which supports both the Water Quality and Applied Research Laboratories.

The Support Services division is responsible for many diverse functions within the company. The Desktop Hardware support group provides remote and on-site support for over 4,000 computers, monitors, and printers. The Desktop Software support group researches, installs and supports over 1,000 applications, on all company desktop and laptop devices.

Major emphasis will continue to be on cybersecurity as world-wide security breaches increase at an alarming rate. Emphasis will continue to be directed toward providing an operationally stable and secure computer system infrastructure, as well as educating employees on cybersecurity topics.

Ongoing initiatives include continued work to provide off-site disaster recovery capability, allowing continuous service and business continuity, defense against cybersecurity threats and vulnerabilities, cybersecurity awareness briefings, system

upgrades/replacements to critical infrastructure hardware reaching end of life, implementation of technology to meet required PCI standards, increasing network performance and efficient data storage capacity, ensuring high availability of applications and databases, support to mobile devices, as well as to develop and refine processes to support the infrastructure.

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.

Security efforts include continual review and enhancement to security procedures, timely application of security patches, and audited/controlled system and data access. In addition, the division focuses on ensuring software technologies and business processes meet all required PCI standards.

Major on-going initiatives include replacement of an aged SNWA SCADA system, which is a multi-year, multi-million dollar, joint effort with SNWA. The replacement project is in progress and will continue for approximately another year. Other major initiatives include the completion of the LIMS at River Mountains Water Treatment Facility and the completion of the BBWD SCADA system.

The Spatial Technologies division is responsible for the acquisition and delivery of

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Information Technology**  
Fiscal Year Ending June 30, 2017

high-resolution imagery, Geographic Information System (GIS) applications and infrastructure to support GIS.

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

#### **2016-17 Performance Objectives**

- Upgrade corporate backup infrastructure to streamline backup policies, retire outdated servers and software, provide enhanced disaster recovery options, and maintain software vendor support.
- Implement a Human Capital Management System to consolidate human resource systems, achieve further reduction in manual workload of HR administrative duties, and add new capabilities for recruitment, performance and compensation management.
- Enhance corporate data security with emerging technology to identify threats and mitigate risk.
- Upgrade the Customer Care and Billing System to provide functional improvements in customer information, billing, payment, and meter data management areas.

- Replace aging systems used to manage the construction and approval of new service connections with existing systems, in order to eliminate unsupported technology and reduce overhead and implementation costs.

#### **2015-16 Major Accomplishments**

- Implemented an Automated Outbound Dialing IVR System for Customer Care and Public Information to improve customer outreach, reduce delinquent shut-offs, and alert customers with outage notifications.
- Implemented Microsoft Office 365. Upgraded all Office suites to 2013 and implemented Office enhancements to include OneNote, OneDrive, and Skype for Business communications suite. This new cloud platform will reduce operational and capital costs while improving our mobile workforce computing and data accessibility.
- Completed the upgrade of Oracle Financials to ensure legal and regulatory continuity and maintain software vendor support.
- Upgraded backup infrastructure to streamline backup policies, retire outdated servers and software, provide enhanced disaster recovery options, and maintain software vendor support.
- Completed the upgrade of the Avantis Asset Management/Preventative Maintenance system which provided improvements to preventative maintenance forecasting, work order processing, replenishment management, and mass update capabilities.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Information Technology**  
Fiscal Year Ending June 30, 2017

- Installed a campus-wide Wi-Fi network with internet access for vendors, business partner use, and for employee convenience.
- Implemented metering analytics on-line portal for Customer Care and Conservation to improve customer outreach, analyze consumption, events, trends, and improve forecasting.

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

**2016-17 Performance Objectives**

- Upgrade the organization’s payment systems, including cashiering and automated payments, to be EMV or chip card compliant, a requirement of PCI Security Standards.
- Continue server replacement with new hardware which will increase performance and operational stability.
- Continue to expand opportunities for new self-service programs to allow customers and businesses to interact and conduct business with LVVWD and SNWA through new technologies such as mobile devices, while enhancing the customer experience.
- Make numerous enhancements to cybersecurity which include the implementation of additional threat monitoring tools and further data separation to achieve PCI compliance 3.2.

**2015-16 Major Accomplishments**

- Implemented Agile methodology throughout Information Technology utilizing both Scrum and Kanban principles

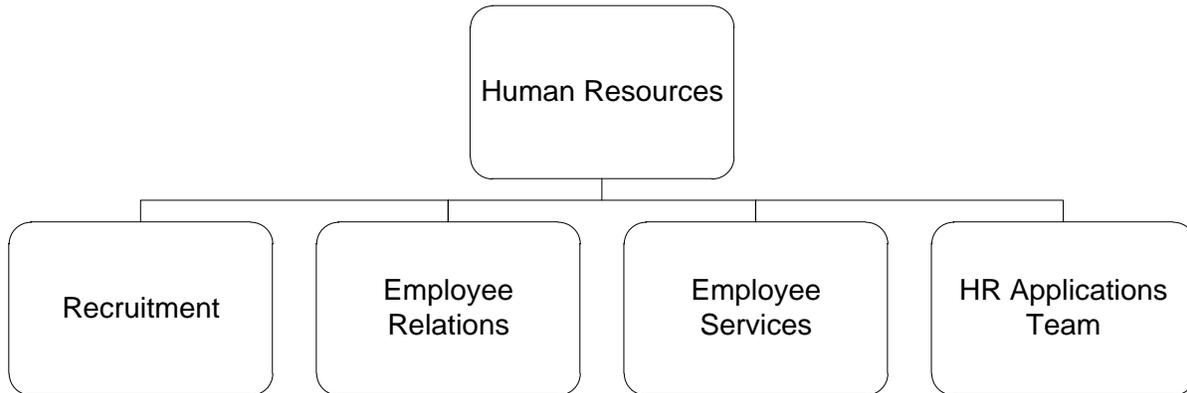
to enhance interdepartmental collaboration and improve bidirectional customer communications.

- Major improvements have been made in Software Security Development Practices, including adoption of a formal security peer code review process that includes training, use of automated security analysis software, and formal review and acceptance before production release.
- A mobile-friendly Customer Self Service Application was released providing customers a full range of services including bill payment, find payment locations, start-stop-transfer water service, find watering days, report water waste, and more.
- Met the higher standards of PCI Data Security Standard (DSS) 3.0 for payment card processing infrastructure.

Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Human Resources  
Fiscal Year Ending June 30, 2017

**HUMAN RESOURCES**  
Level: 2400

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**Mission**

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

**Budget Objectives and Highlights**

The Human Resources department continues to monitor budgetary expenditures, while still pursuing its efforts towards diversity, employee development, and productive employee relations.

**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 four service groups within the department: Recruitment, Employee Services, Employee Relations and the HR Applications Team.

Southern Nevada Water Authority  
 Operating and Capital Budget  
 Department Budgets  
 Human Resources  
 Fiscal Year Ending June 30, 2017

**Expenditures**

<b>SNWA Uses</b>	<b>Actual 2014-15</b>	<b>Budget 2015-16</b>	<b>Budget 2016-17</b>
Other Expenses	\$ -	\$ 100,000	\$ 100,000
Total Operating Expenses	\$ -	\$ 100,000	\$ 100,000
Capital Costs	\$ -	\$ -	\$ -
Payroll Costs	\$ (6,721)	\$ -	\$ 643,503
<b>Total Department Expenditures</b>	<b>\$ (6,721)</b>	<b>\$ 100,000</b>	<b>\$ 743,503</b>
FTE Positions	-	-	4.1

**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.

**Employee Services.** 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.

Southern Nevada Water Authority  
 Operating and Capital Budget  
 Department Budgets  
 Human Resources  
 Fiscal Year Ending June 30, 2017

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

<u>Activity</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Total Hires	98	106	83	82	239
Job Notices	74	80	59	84	243
Written Exams	648	106	457	149	237
Interviews	653	693	527	420	107
Job Applications					
Accepted/Processed	3,302	1,905	3,021	2,373	5,981
Job Interest Forms	10,980	11,716	8,871	10,467	17,179
Recruitment					not
Letters Sent	4,293	6,053	8,513	5,577	available
Training Hours	5,902	9,111	9,705	8,288	2,070

**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 hiring; 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.***

**2016-17 Performance Objectives**

- Implement multi-pronged training to include group and individual web based instruction, including supervisor/manager training.
- Select a vendor to replace our HR time entry and payroll systems for implementation in April 2017.

**2015-16 Major Accomplishments**

- Completed two of three Leadership Development series training for Managers and key professionals

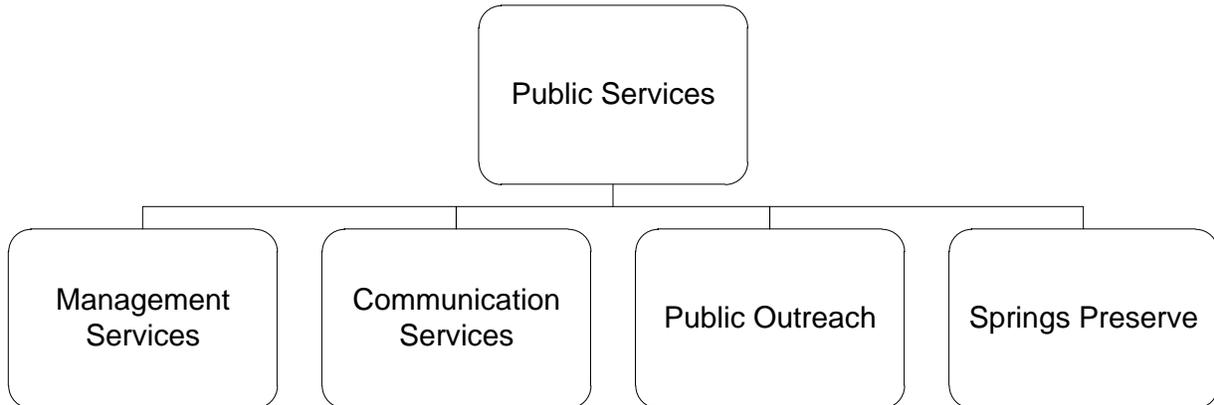
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Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Public Services  
Fiscal Year Ending June 30, 2017

**PUBLIC SERVICES**  
Level: 2500

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**Mission**

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

**Department Description**

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

Together, the four divisions work together to provide exceptional customer service to the organization’s internal and external customers. 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 2016-17 budget remains consistent with the organization’s efforts to enhance efficiency and service to internal and external customers.

Southern Nevada Water Authority  
 Operating and Capital Budget  
 Department Budgets  
 Public Services  
 Fiscal Year Ending June 30, 2017

**Expenditures**

<b>SNWA Uses</b>	<b>Actual 2014-15</b>	<b>Budget 2015-16</b>	<b>Budget 2016-17</b>
Materials & Supplies	\$ 178,092	\$ 368,880	\$ 313,230
Maintenance & Repairs	78,996	182,700	178,160
Rental & Leases	9,211	29,500	25,000
Other Employee Expenses	126,471	120,544	188,532
Other Expenses	3,977,197	5,523,100	6,368,435
<b>Total Operating Expenses</b>	<b>\$ 4,369,967</b>	<b>\$ 6,224,724</b>	<b>\$ 7,073,357</b>
Capital Costs	\$ -	\$ -	\$ -
Payroll Costs	\$ 2,918,137	\$ 4,368,900	\$ 4,438,903
<b>Total Department Expenditures</b>	<b>\$ 7,288,104</b>	<b>\$ 10,593,624</b>	<b>\$ 11,512,260</b>
FTE Positions	20.7	31.9	30.1

**Department Performance**

In fiscal year 2015-16, the Public Services Department continued efforts to provide outstanding service and support of organizational initiatives and priorities

**Management Services.** Over the past fiscal year, the division supported organizational initiatives through a wide variety of activities. Its principal achievements include facilitation of the Governor’s Drought Forum and Summit processes, and support during the special legislative session in December 2015. The division also is responsible for board administration, special events, tours, meeting

monitoring, presentations and the coordination of special processes.

**Communication Services.** Communication Services is responsible for developing the materials that reach customers through web, social media, TV and print. Over the past fiscal year, the effectiveness of social media as a means for communication continued to grow, as did the organization’s ability to reach different types of customers. For example, the Springs Preserve’s Facebook page gained an average of 1,000 followers per month over the past year and now has nearly 44,000 followers. Additionally, the recent development of emergency communications websites, mobile websites and informational

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Public Services**  
Fiscal Year Ending June 30, 2017

websites such as ChangeYourClock.com increase the organizations' ability to communicate with customers and allow customers to more easily and quickly access important information.

**Public Outreach.** The Media Relations and Public Outreach Division is responsible for developing and implementing public awareness and education campaigns that support and advance organizational initiatives. Outreach efforts during the past fiscal year included the coordination and implementation of signature events at the Springs Preserve; communication with tens of thousands of customers regarding water system maintenance and construction activities; and the launch of multiple public education campaigns to promote the Water Smart Landscapes Rebate Program, SNWA Summer watering restrictions, and Springs Preserve venue rentals. The division coordinated the organization's crisis communications response to a water quality emergency in Laughlin, Nevada, which resulted in the issuance of a temporary Boil Water Order for the Big Bend Water District customers. Additionally, the division coordinated well over a hundred media inquiries from a wide-variety of media outlets and news organizations throughout the past year.

**Springs Preserve.** Springs Preserve staff is responsible for facility operations and developing programs and events that enhance the visitor experience and build community in Southern Nevada. In fiscal year 2015-16, significant progress has been made on the streetscape exhibit; expansion of the trail system and design of the Waterworks Exhibit. The school field trip program also was

expanded to include paid, instructor-led classes, all of which nearly sold out. Increased overall revenue also have been realized as group sales continue to grow and new programs are offered.

## **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.

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

### **2016-17 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.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Public Services**  
Fiscal Year Ending June 30, 2017

**2015-16 Major Accomplishments**

- Secured more than \$2.3 million in grant funding to support water-related initiatives.
- Assisted 16 well users to connect to municipal water supply and responded to approximately 421 phone inquiries on the Groundwater Information Line.
- Secured \$15 million in low-interest loan funding from the state of Nevada to improve and rehabilitate the LVVWD water system.
- Supported efforts at the December 2015 Special Legislative Session, which resulted in the approval of a funding package for the design and construction of a new water system in Garnet Valley.

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

**2016-17 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.

**2015-16 Major Accomplishments**

- Contacted approximately 30,000 customers regarding anticipated

construction projects or emergency water outages.

- Created emergency communication websites for SNWA and LVVWD that provides real-time updates to users in the event of a water emergency.
- In coordination with the Information Technology Department, launched a new mobile version of the LVVWD website, enabling users to pay bills, stop service and complete other tasks via mobile devices. More than one-third of lvvwd.com visitors are now accessing the website from mobile devices.
- Implemented a new mobile app for the Springs Preserve, featuring an events calendar and interactive map with way-finding directions.
- Planned and executed 10 signature events at the Springs Preserve, drawing a cumulative attendance of more than 58,000 people.

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

**2016-17 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.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Public Services**  
Fiscal Year Ending June 30, 2017

- Incorporate sustainable best practices into organizational initiatives and inspire positive change.

**2015-16 Major Accomplishments**

- Supported SNWA participation in the Governor’s Drought Forum and Summit.
- Continued support of the Sustainability Cross-Departmental Team (CDT) to examine internal processes and develop sustainable practices within the organization.
- Coordinated the 2015 WaterSmart Innovations Conference.
- Coordinated the 2015 Colorado River Water Users Association Conference.

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

**2016-17 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.

**2015-16 Major Accomplishments**

- In Fiscal Year 2014-15, Springs Preserve overall revenue increased by approximately 18 percent, third party business events grew by 43 percent and

special event attendance increased by nearly 16 percent over the previous fiscal year.

- Divine Events assumed operations of the Springs Preserve café in July 2014. Since then, fiscal year to date revenues are 33 percent higher than they were over the same time span the previous year.
- Many Springs Preserve special events were sold out, including Mardi Gras Vegas!, Día del Niño, the Ice Cream Festival, Grapes and Hops, Haunted Harvest and Día de los Muertos.

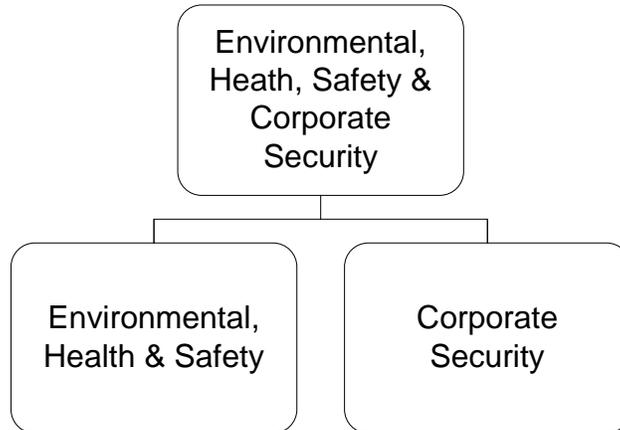
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Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
**Environmental, Health, Safety & Corporate Security**  
Fiscal Year Ending June 30, 2017

**ENVIRONMENTAL, HEALTH, SAFETY &  
CORPORATE SECURITY**  
Level: 2700

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**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 a high performance Environmental, Health and Safety (EHS) culture, develop strategies and programs to eliminate or mitigate risk and cost exposure, and maintain the safety and security of our employees, facilities and customers.

**Budget Objectives and Highlights**

The 2016-17 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.

Southern Nevada Water Authority  
 Operating and Capital Budget  
 Department Budgets  
**Environmental, Health, Safety & Corporate Security**  
 Fiscal Year Ending June 30, 2017

**Expenditures**

<b>SNWA Uses</b>	<b>Actual 2014-15</b>	<b>Budget 2015-16</b>	<b>Budget 2016-17</b>
Materials & Supplies	\$ 25,651	\$ 28,000	\$ -
Other Employee Expenses	290	-	-
Other Expenses	337,252	375,000	275,000
<b>Total Operating Expenses</b>	<b>\$ 363,194</b>	<b>\$ 403,000</b>	<b>\$ 275,000</b>
Capital Costs	\$ -	\$ -	\$ -
Payroll Costs	\$ 1,948,114	\$ 2,056,223	\$ 2,169,245
<b>Total Department Expenditures</b>	<b>\$ 2,311,308</b>	<b>\$ 2,459,223</b>	<b>\$ 2,444,245</b>
FTE Positions	15.7	15.8	16.8

**Department Performance**

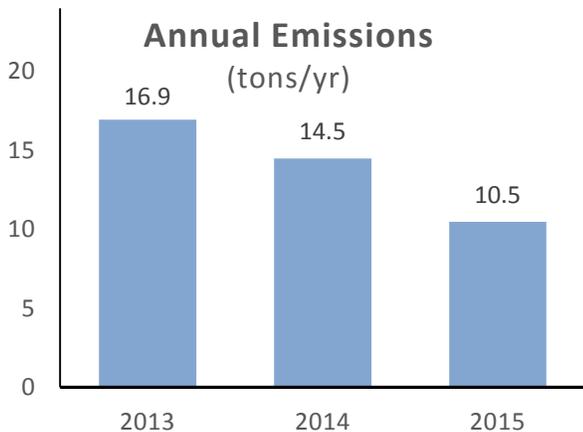
**Environmental, Health and Safety Division.** The EHS division provides ongoing environmental, health and safety training for all employees. The division is responsible for permitting and compliance with the Federal, State and local agency environmental regulations regarding pollution control (including air pollution, water pollution, land disturbances, implementation of chemical control and waste management) and also manages environmental permitting and

compliance reporting for operations and maintenance. Proactive development, implementation and management of environmental management systems and process safety programs are also led by this team. The division develops and publishes safety procedures ensuring compliance with Occupational Safety and Health Administration and state regulations; they employ an aggressive accident prevention program; investigates on-the-job accidents, and is developing a Fleet Safety program that encompasses vehicle and heavy equipment training, defensive driving education, and

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Environmental, Health, Safety & Corporate Security**  
 Fiscal Year Ending June 30, 2017

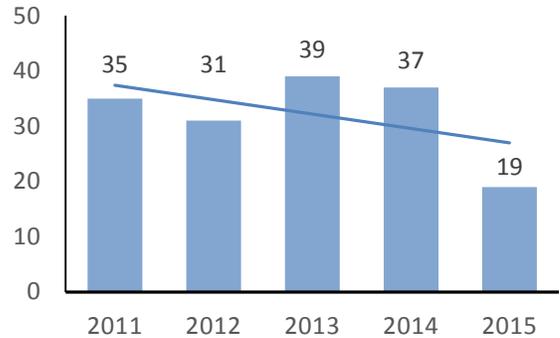
Commercial Drivers' Licenses. The division conducts monthly meetings with the EHS Steering Committee, comprised of employees from various departments and bargaining representatives. The health discipline manages the radiation safety program as well as the Asbestos & Lead Awareness and Hearing Conservation Programs for the organization. Additionally, this division manages the Workers' Compensation Program.

By using emission controls and eliminating emission sources, total air emissions in 2015 were reduced 28 percent from the previous year. Two (2) new engines were purchased that emit 30 percent less air pollutants than the engines they replaced.



Efforts over the last year have been made to achieve reductions in safety recordable injuries and serious (Category 2) at-fault vehicle accidents. The chart below represents a comparison of total recordable injuries over the past five years.

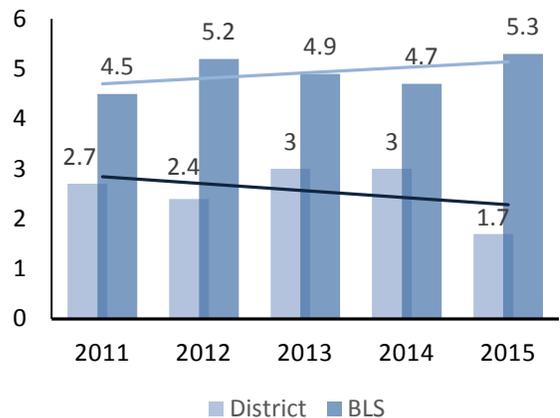
**Recordable Injuries by Year**



The District's injury rate is well below the Bureau of Labor Statistics (BLS) for like industries. The District's injury rate, indicated by the black trend line in the chart below, is trending in a positive direction.

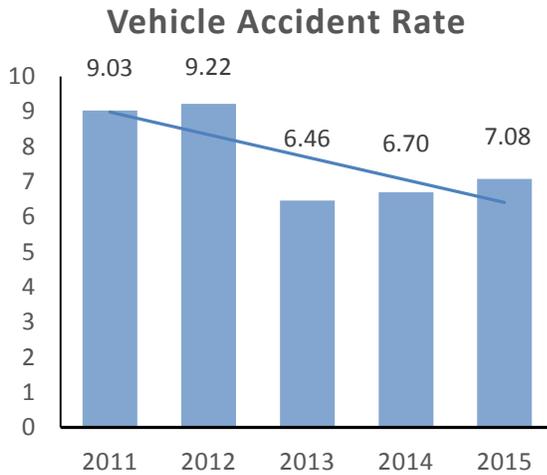
LVVWD and SNWA recycled a combined total of 1,467,088 pounds of materials in 2015. Total revenue generated was \$267,683 (bids for scrap = \$243,907 and auctions = \$23,776).

**Injury Rates**



**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Environmental, Health, Safety & Corporate Security**  
 Fiscal Year Ending June 30, 2017

The chart below depicts the five-year vehicle accident frequency rate. A slight increase in the rate was realized in 2015. The increase can be attributed to the increase in accidents and the fact that District employees drove approximately 100,000 miles less than in 2014.



The severity of vehicle accidents experienced in 2015 was significantly less than in the 2014. This attributed to cost savings of **\$466,000**.

**Corporate Security Division.** The mission of the Corporate Security division is to provide security services on a system-wide basis assuring the protection of people, property, facilities, and water treatment & delivery systems. The Security division is responsible for the protection of the water supply, employees, and customers during and after business hours. Security provides fire protection equipment inspections, assists with customer parking, escorts customers and visitors to areas where they can conduct their business, provides information assistance, monitors access to restricted areas, and allows access and monitors vendors during and after business hours. They patrol and

protect all properties of the LVVWD and the SNWA by responding to intrusion alarms at outlying properties and patrol reservoir and pumping station sites. Physical security networks and systems (card access, closed-circuit television, alarms, and locking systems) are in place and monitored by security officers. The Security division staffs and operates a 24/7 security center for central response to alarms, calls for assistance, accidents, video surveillance, and communication. Security provides on scene commander services in emergency situations. The Security division has formed partnerships with Federal, State and local law enforcement authorities and partners with other utilities and infrastructures in the 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.***

**2016-17 Performance Objectives**

- Operate the Security Center and continue to implement automated security systems to improve the protection of facilities.
- Expand the use of security system technologies to enhance efficiency. Expand the use of card activated access control.
- Review maintenance and services contracts to ensure EHS operational compliance.
- Continue to train and test the Emergency Response Plan (ERP). The LVVWD and

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Environmental, Health, Safety & Corporate Security**  
Fiscal Year Ending June 30, 2017

Southern Nevada Water Authority (SNWA) ERPs are combined.

- Progressing on a formal cross training program for all security officers to be trained on all security locations, responsibilities and assignments.
- Continue to expand the utilization of the security surveillance system.
- Partner with Department of Homeland Security and the Southern Nevada Counter-Terrorism Center for potential threats to facilities.
- Safety and Health conducts weekend/after-hour spot audits of industrialized work activities supporting water treatment, water quality, water distribution or other activities.
- Staff will review and update the EHS Manual and all internal 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.

#### **2015-16 Major Accomplishments**

- The LVVWD played a critical role during the Mt. Charleston rain event, safely returning the water system to a serviceable condition.
- EHS conducted 42 instructor-led training courses, which included 1,679 participants and 4,346 training hours.
- Continuing support and promotion of the “See Something, Say Something” program with our workforce.
- Safety and Health conducted over 95 spot audits and participated in seven (7)

comprehensive audits

- EHS conducted 145 investigations related to recordable injuries, at-fault vehicle accidents, at-fault property damage incidents, near-misses, chemical spills and first-aid events. When needed, providing recommendations to reduce the chance of reoccurrence.
- Recordable injuries were decreased in 2015 as compared to 2014 – 37 vs. 19.
- Obtained five new environmental permits, renewed 172 environmental permits, and modified two environmental permits to meet changing permit conditions.

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

#### **2016-17 Performance Objectives**

- Continue preventive efforts to reduce injuries and their fiscal impact.
- Continue to explore and test new security technology and systems.
- Continue to refine security systems in support of over 100 protected sites.
- Identify additional opportunities for security service and collaboration with internal departments.
- Continue to attend and provide support to Utility and Pipeline Coordinating Group, Nevada Homeland Security, DHS Critical Infrastructure Committee, InfraGard, and NV Commission on Homeland Security.
- Provide electronic quick reference for specific knowledge of related information on the EHSCS webpage.
- Participate in local association meetings to gather information on best management practices to compliment the Safety and Health Management System; adopt and implement proven work methods.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Environmental, Health, Safety & Corporate Security**  
Fiscal Year Ending June 30, 2017

- EHS will participate in internal and external committees or groups to improve communication and enhance customer service in 2016-17 and seek professional training opportunities to enhance skills and knowledge.
- Conclude implementation of Hazard Communication Global Harmonized System.

company vehicle accidents.

- Continuing progress on internal cross-training to ensure all officers are able to perform at all posts.
- Collaborated with internal work groups to improve rural and local security systems.

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

### **2015-16 Major Accomplishments**

- Provided EHS communications throughout 14 department Safety Action Teams.
- Total number of Workers' Compensation injuries were reduced by 22 in 2015 as compared to 2014.
- Updated electronic material on the Hydroweb to ensure the LVVWD supervision and employees have significant amount of useful safety and health literature, information and videos for training.
- Updated evacuation procedures and maps including all facilities and remote areas on the Hydroweb.
- Worked extensively with HR to maintain DuPont safety training material.
- Monitored health related events potentially affecting staff; provided informational fact sheets to the company.
- Aggressively pursued backflow theft and illegal water users resulting in multiple arrests and a noticeable reduction in theft.
- Increased employee awareness of potentially dangerous situations – created Active Shooter class on LMS for employees to take. Speaking at multiple Employee meetings on security issues.
- Security is the main first responder for

### **2016-17 Performance Objectives**

- Identify non-compliance items through organization-wide collaboration.
- Ensure environmental reporting is submitted to regulatory agencies.
- EHS will focus on how changes to the environment affect customers and the need to adjust current programs to accommodate said changes.
- Identify process changes needed to increase recycling efforts by 10 percent in 2015-16.

### **2015-16 Major Accomplishments**

- Collaborated and increased environmental awareness among all departments and divisions.
- Recycled 1,467,088 pounds of materials in 2015; generating \$267,683 in revenue.
- Reduced overall air emissions from stationary emission sources by more than 28 percent.
- Pollution prevention projects such as using the State of Nevada Pesticide Disposal program, permit modifications

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Environmental, Health, Safety & Corporate Security**  
Fiscal Year Ending June 30, 2017

and teaching in house training classes totaled a savings of over \$105,524.

- Monitor the effectiveness of the single stream recycling program at all work stations and offices at key facilities.
- Springs Preserve EMS received its first Recertification Audit in July and was found to be in conformance with ISO 14001.
- The number of unintentional releases of regulated materials were reduced by 10 percent compared to previous years.

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

**2016-17 Performance Objectives**

- Ensure Environmental Management Systems continue to be implemented with ongoing improvement, incorporating sustainability goals into each activity.
- Streamline the records inventory and utilize electronic documentation capabilities and accessibility.
- Experiment with new security technologies such as the Pixcontroller motion camera system and Outlocks Knock N Lock systems.
- Continue to work with Information Technology (IT) staff to develop additional components of the Automated Safety Management System.
- Continue to review and provide EHS forms in electronic format as well as look for new opportunities to enhance current selection.
- Develop innovative solutions to security vulnerabilities; fabricated and installed ladder guards.
- Update equipment in Springs Preserve

surveillance room to utilize during major events.

- Identify pollution prevention opportunities using technology and innovation.

**2015-16 Major Accomplishments**

- Utilized the Security Blotter to track theft and vandalism to be proactive on illegal activities.
- Automated Safety Management System for Recordkeeping developed and implemented.
- Contributed to the Preserve's Origen Museum receiving the TOBY Award for Outstanding Building of the Year from the Building Owners and Managers Association International (BOMA).
- Assisted two departments in purchasing two new cleaner burning engines to replace aging diesel engines that reduce air emissions by more than 30 percent.
- Implemented the recycling of used safety T-Shirts at the District and glass containers at the Springs Preserve in 2015.

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

**2016-17 Performance Objective**

- Ensure projects are evaluated proactively using EMS to ensure environmental compliance within Clark County.
- Identify new regulations and policy changes and collaborate with other agencies.
- Examine and update all security processes, priorities, and resource utilization to improve efficiency.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Environmental, Health, Safety & Corporate Security**  
Fiscal Year Ending June 30, 2017

- The Environmental Team will implement one improvement in 2015-16 from the results of the 2013 environmental benchmark study.

**2015-16 Major Accomplishments**

- Collaborated with Clark County Storm Water Quality Management Committee to improve compliance with storm water regulations.
- Collaborated with the Sustainability CDT to develop new organization-wide sustainability goals.
- Replaced the National Pollution Discharge Elimination System (NPDES) water discharge permit issued to the Alfred Merritt Smith Water Treatment Facility with two DeMinimis Discharge Permits.
- Obtained an Annual Dust Control Permit to cover District maintenance projects throughout the year.
- Conducted multiple opacity observations on dust omitting processes to ensure compliance with permit conditions.
- Adjusted security patrols and procedures to absorb additional facilities such as Sloan and Eagle without additional costs or manpower.

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

**2016-17 Performance Objectives**

- Utilize the security monthly reports and blotter reporting system to measure performance objectives and track issues.
- Conduct a division monthly staff meeting to update EHS employees on all major projects and communicate status changes

and challenges.

- Conduct instructor-led EHS courses for company employees.
- Provide EHS information updates to the company through an electronic Management Advisory, Pipeline, Hydroweb, Safety Alert Messages, etc.
- Continue to provide diverse learning opportunities.
- Participate in EHS annual off-site to discuss future initiatives, evaluate and update EHS programs, policies and procedures.
- Recognize employees/teams for their unique talents and accomplishments.
- Lead environmental programs including air pollution control, water pollution control, hazardous materials, hazardous waste and Process Safety Management.
- Disseminate an EHS Trend Analysis Report.

**2015-16 Major Accomplishments**

- Professional development is ongoing and analysts continually look for and participate in low or no cost training opportunities.
- Over 300 employees participated in 9 educational classes during the 2015 Safety Stand Down Day.
- EHS worked with HR to improve upcoming and overdue training notification emails to improve compliance training.
- Over 500 employees participated in the EHSCS department educational booth at the annual Employee Expo.
- The annual Trend Analysis was completed highlighting major EHS accomplishments throughout 2015.
- Accommodated 36 regulatory agency inspections and received zero Notice of

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Environmental, Health, Safety & Corporate Security**  
Fiscal Year Ending June 30, 2017

Violations or fines in 2015.

- There were zero OSHA citations issued in 2015.
- Converted Charleston Heights and Campbell Station badge access control systems to P2000. Added card reader in Springs Preserve guest services area. Adjust card reader control groups to provide better after hour access control.

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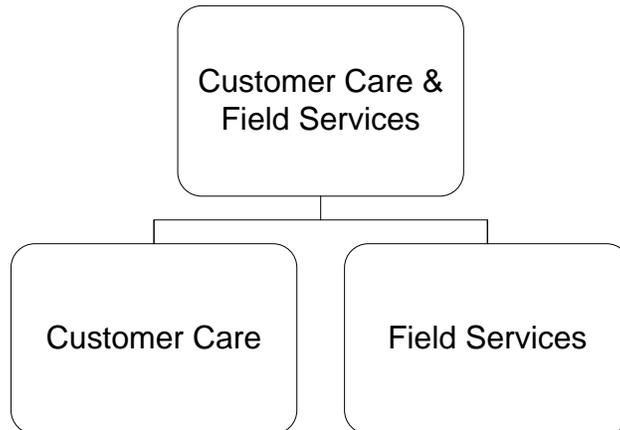


SOUTHERN NEVADA WATER AUTHORITY®

Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Customer Care and Field Services  
Fiscal Year Ending June 30, 2017

**CUSTOMER CARE AND FIELD SERVICES**  
Level: 2800

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**Mission**

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

ensure departmental efficiency and meet increased customer demand.

**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 enhance in-house collections, anticipating a budget reduction for 2016-17 in uncollectible accounts, and reengineering business processes around the meter to cash philosophy. This should improve inactive inventory management, advance lien processing, minimize field impacts and expand proactive customer notification which is expected to further reduce year-end write-offs.

**Budget Objectives and Highlights**

The 2016-17 budget for the Customer Care and Field Services department is consistent with the organization's efforts to reduce costs where possible while continuing to

**Field Services.** The 2016-17 Budget Plan contains funding for a read verification program, the continued development of an analytical application for consumption data, advanced metering infrastructure, and operational costs.

Southern Nevada Water Authority  
 Operating and Capital Budget  
 Department Budgets  
 Customer Care and Field Services  
 Fiscal Year Ending June 30, 2017

**Expenditures**

<b>SNWA Uses</b>	<b>Actual 2014-15</b>	<b>Budget 2015-16</b>	<b>Budget 2016-17</b>
Materials & Supplies	\$ 4,220	\$ 6,000	\$ 6,000
Maintenance & Repairs	-	3,500	3,500
Total Operating Expenses	\$ 4,220	\$ 9,500	\$ 9,500
Capital Costs	\$ -	\$ -	\$ -
Payroll Costs	\$ 304,094	\$ 195,973	\$ 389,359
<b>Total Department Expenditures</b>	<b>\$ 308,314</b>	<b>\$ 205,473</b>	<b>\$ 398,859</b>
FTE Positions	2.0	1.3	3.0

**Department Performance**

In 2015-16, 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 386,000 active services. The division manages the customer care phones, web requests, correspondence inquiries, walk-in requests, payments, credit assistance with payment 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.

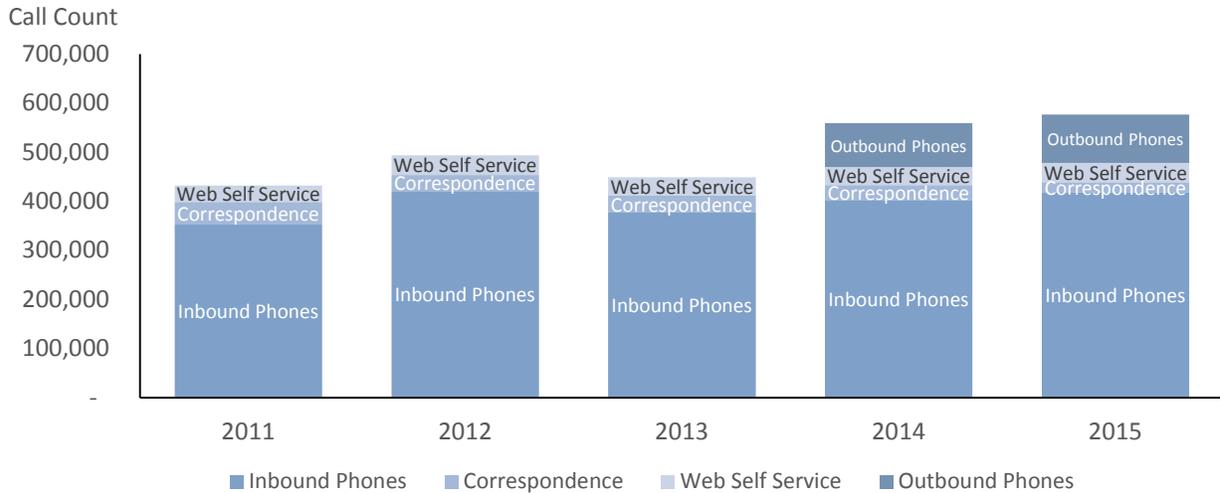
Customer care demands continue to be consistently high as the division has taken a proactive approach to customer education and service through outbound customer service calls.

**Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Customer Care and Field Services  
Fiscal Year Ending June 30, 2017**

The following graph illustrates the shift in volume distribution over the past five years

as process and technical innovations advance the meter to cash philosophy.

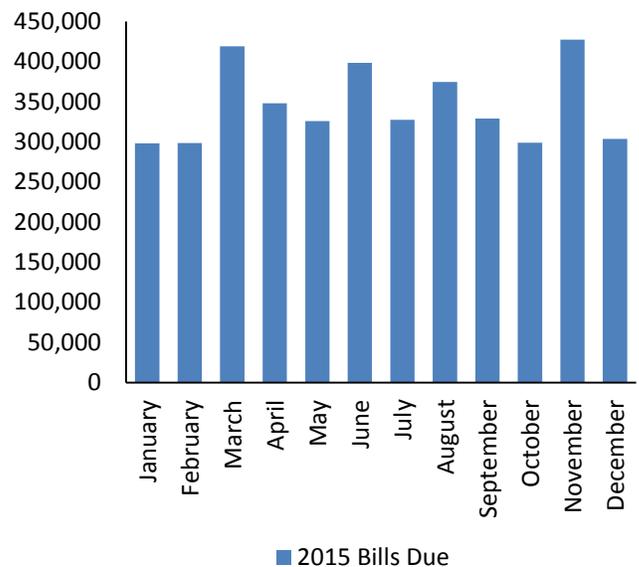
**CUSTOMER CARE PHONE AND CORRESPONDENCE VOLUME**



Advanced metering technology and proactive outreach has 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.

The following chart depicts the total number of bills generated monthly in 2015.

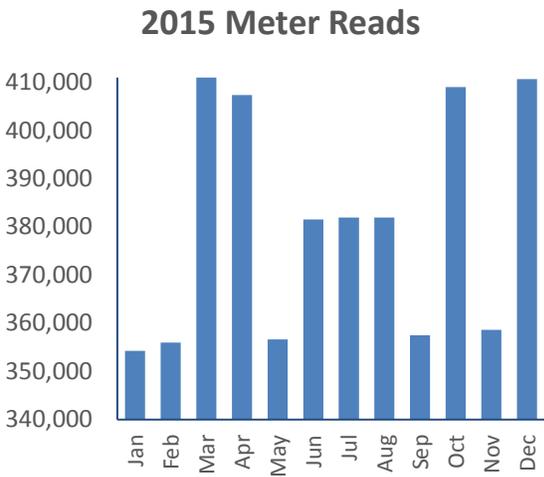
**Bills Generated**



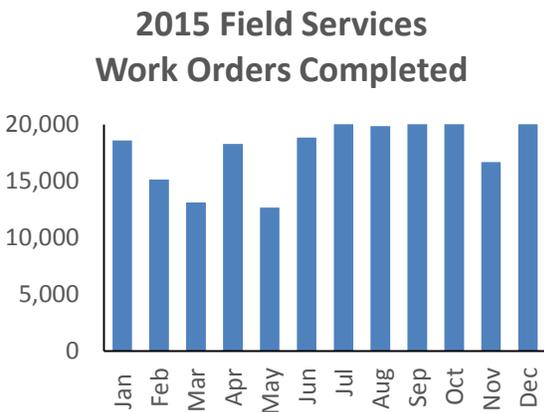
**Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Customer Care and Field Services  
Fiscal Year Ending June 30, 2017**

**Field Service:** The Field Services division is responsible for reading and maintaining meters for approximately 386,000 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 2015 Meter Reads chart illustrates the number of meter reads processed by Field Services in 2015.



The following chart illustrates the number of work orders processed by Field Services in 2015.



**Strategic Plan Objectives and Accomplishments**

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

**2016-17 Performance Objectives**

- Assess customer satisfaction, establish benchmarks and determine where improvements are required.
- Continuously improve service processes and practices based on customer assessments.
- Utilize appropriate technology to simplify and improve the customer experience.
- Provide necessary training and development to ensure 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.
- Enhance our quality program for Field Services.
- Continue read verification project for all meters 2" and smaller.
- Enhance current quality systems for improved call assessment and coaching.
- Assess customer satisfaction results against overall quality outcomes for actionable improvement.
- Continue to improve customer care technologies, tools, training and implementation.
- Create a quality assessment tool for

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Customer Care and Field Services**  
Fiscal Year Ending June 30, 2017

consistency in business processes.

**2015-16 Major Accomplishments**

- Achieved a 17% improvement in Service Levels over 2014.
- Achieved 22% success rate with added administrative process for resolving severe arrears through notification only.
- Outbound collection calls yield \$2.1 million cost avoidance in truck rolls.
- Improved internal resources to call center, responding to more than 27,000 calls to improve the customer experience.
- Dedicated 2,600 hours to training 140 unique topics throughout 2015 to consistently provide the best possible customer experience.
- Fully deployed business processes and training instrumental in achieving PCI DSS 3.0 compliance standards.
- Improved safety measures for securing employees in the event of an evacuation emergency.
- Assisted 2,999 customers in the field with consumption related questions.
- Invested in our field crews by up training additional staff to handle escalated accounts.
- Added 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.***

**2016-17 Performance Objectives**

- Reduce and dispose of waste responsibly.
- Maintain proper disposal of scrap and waste products, especially lithium batteries.

**2015-2016 Major Accomplishments**

- Lobby payments and transactions continue to decline with successful expanded payment and self-service options, reducing lobby traffic and carbon footprint.
- Disposed of toxic waste material in compliance with OSHA regulations.
- Recycled tons of cardboard boxes through Opportunity Village, a not-for-profit organization.
- Processed 3,213 courtesy water waste letters and 2,145 formal notifications in 2015.
- Completed 4,698 water waste investigations in 2015.

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

**2016-17 Performance Objectives**

- Begin to collect event and more refined interval data from the meter reading system to reduce truck rolls and increase customer service.
- Develop and strengthen global partnerships to leverage resources and advance innovations in Customer Service.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Customer Care and Field Services**  
Fiscal Year Ending June 30, 2017

- Integrate hourly interval data into business processes.
- Explore technology solutions for revenue protection and greater collection gains.
- Enhance outreach through modernized trickle notification technology.
- Develop and strengthen global partnerships to leverage resources and advance innovations in Customer Service.
- Continue to educate customers through field meets and courtesy letters.
- 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.
- Continue weekly communication forum between workgroups to address interdepartmental challenges and business impacts.
- Share service level results across workgroups.
- Leverage the existing resources for expert training classes to employee skill development.

**2015-16 Major Accomplishments**

- Host and participate in education and technical venues for business advancement throughout 2015.
- Incorporated groundwater processing into call center

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

**2016-17 Performance Objectives**

- 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.
- Continue Read Verification Program to resolve any discrepancies from AMR to meter reads.

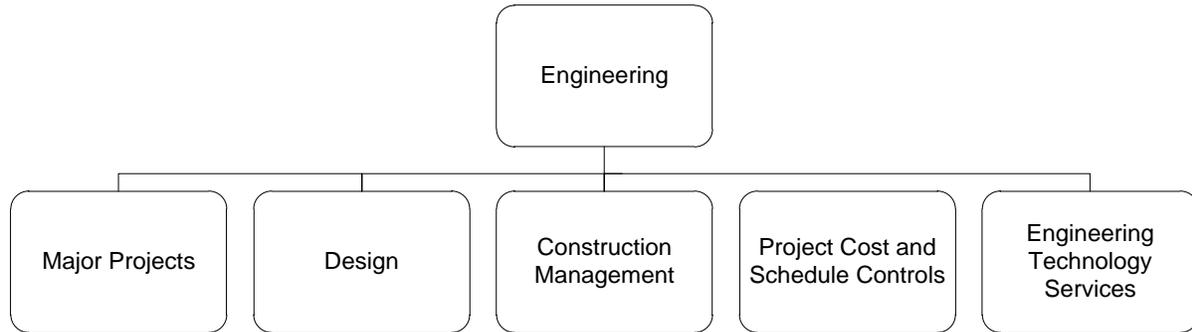
**2015-16 Major Accomplishments**

- Completed service verification project with verified reads on all services
- Initiate proactive notification process for critical arrears to mitigate revenue loss at minimal cost.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Engineering**  
Fiscal Year Ending June 30, 2017

**ENGINEERING**  
**Level: 3400**

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### **Mission**

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

### **Department Description**

The Engineering Department is responsible for implementing capital improvements projects for both the Las Vegas Valley Water District (LVVWD) and the Southern Nevada Water Authority (SNWA).

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 vast Las Vegas Valley and in nearby rural areas. In coordination with the Operations and Infrastructure Management departments, Engineering provides the design and construction services for many of the larger LVVWD 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 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 and Infrastructure Management departments, Engineering provides the design and construction services for many of the larger MCCP projects.

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

**Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Engineering**

Fiscal Year Ending June 30, 2017

Using its project and construction management resources and technology systems, Engineering offers support services to other departments for their operating capital projects. Engineering also develops

and maintains advanced technical systems enabling the LVVWD and the SNWA to efficiently access technical data and records pertaining to water infrastructure.

**Expenditures**

<b>SNWA Uses</b>	<b>Actual 2014-15</b>	<b>Budget 2015-16</b>	<b>Budget 2016-17</b>
Materials & Supplies	\$ 54	\$ 7,800	\$ 64,850
Maintenance & Repairs	(96)	702,750	705,000
Other Employee Expenses	1,090	7,175	71,675
Other Expenses	5,069	5,220	350,150
<b>Total Operating Expenses</b>	<b>\$ 6,117</b>	<b>\$ 722,945</b>	<b>\$ 1,191,675</b>
Capital Costs	\$ 87,459,385	\$ 236,278,776	\$ 154,415,162
Payroll Costs	\$ 5,532,516	\$ 5,610,827	\$ 5,397,248
<b>Total Department Expenditures</b>	<b>\$ 92,998,017</b>	<b>\$ 242,612,548</b>	<b>\$ 161,004,085</b>
FTE Positions	32.3	32.9	30.3

**Budget Objectives and Highlights**

The 2016-17 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 significant portion of the department staff will continue to be focused on many projects directly supporting the Operations and Infrastructure Management departments in preserving the facilities needed to assure a reliable, quality water supply for water customers.

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 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.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Engineering**

Fiscal Year Ending June 30, 2017

Capital expenditures for the new pumping station will continue through project completion in 2020.

No Wash CIP projects were constructed in the prior fiscal year. Construction of the Historic Lateral Expansion, Tropicana and Sunrise Weirs has been on hold during discussions with the State of Nevada on collaboration of weir construction with State managed activities for remediation of perchlorate migration to the Wash.

The Engineering department will also advance various capital projects for the LVVWD by designing and managing construction of projects to replace water mains, rehabilitate valve or meter vaults, 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 projects of the LVVWD and the SNWA capital plans. Currently, there are two active major project efforts, one for Intake No. 3 and one for the Las Vegas Wash, and individual teams are dedicated to those project activities.

**Design.** The design team is a collection of professional engineers, surveyors, technicians, permit coordinators, right-of-way agents, 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, and consistent with generally accepted engineering standards.

**Construction Management.** The construction management team is comprised of engineers and inspectors who have extensive experience in construction of public works and water utilities. These team members are involved in development of the design packages to assure construction complexities are properly considered and addressed in the design before inviting contractor bids. They also coordinate with the Legal Department to assure laws, regulations, and contract provisions are properly observed.

**Project Cost and Schedule Controls.** A small team is organized to assist the design and construction management teams and other involved departments with cost tracking and reporting and with scheduling analysis on capital projects. This team makes use of computer-based tools which compile relevant data, both from the design and construction teams and from the Finance Department. The cost database is comprehensive and detailed in capturing actual payments to every vendor and all labor hours applied on each capital project. This team also performs a vital function in collecting projected capital project expenditures as a tool for forecasting future funding requirements.

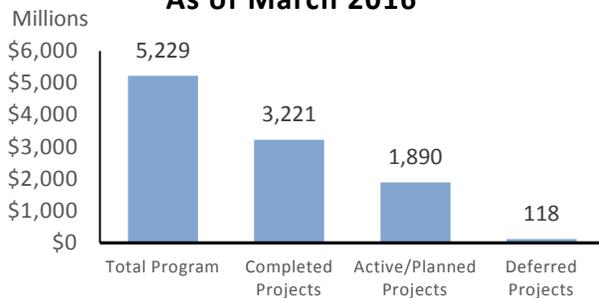
**Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Engineering**

Fiscal Year Ending June 30, 2017

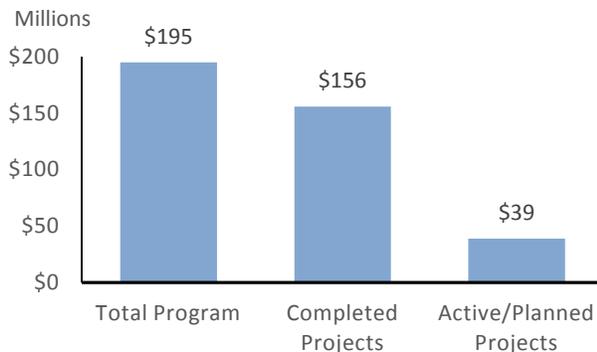
**Engineering Technology Services.** A team of professionals with computer-aided drafting, geospatial, data management and analysis, and computer programming skills provides computer support services to many departments in the organization. These services are vital to the efficient management of computer-based tools in the modern engineering environment of the water industry.

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 2016**

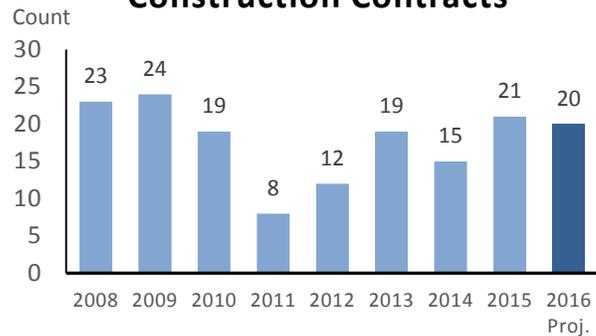


**Las Vegas Wash Capital  
Improvements  
As of March 2016**



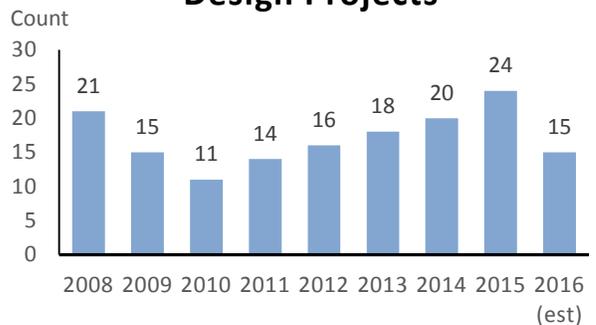
The chart below (Completed LVVWD Construction Projects) represents the number of the LVVWD construction projects completed by Engineering since 2008 and the number expected to be completed in 2016.

**Completed LVVWD  
Construction Contracts**



The following chart (Completed LVVWD Design Projects) illustrates the number of projects Engineering has designed since 2008 to support the infrastructure management requirements of the LVVWD.

**Completed LVVWD  
Design Projects**



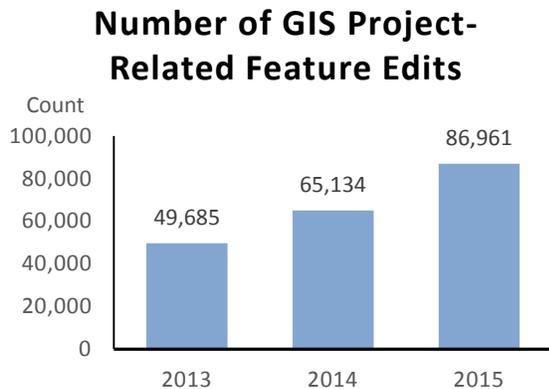
The facility databases managed by the Technology Services Division in the Engineering Department contain millions of records about various infrastructure assets such as treatment facilities, pumping stations, buildings, wells, reservoirs, pipelines, fire hydrants, valves, meters, and real property. The database information goes beyond simply

**Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Engineering**

Fiscal Year Ending June 30, 2017

defining the physical character of the assets. They also include dates when assets were acquired, constructed or modified, the original cost of the assets, rights-of-way provisions, pertinent warranty information, and relevant supporting documentation. Managing all of this data and keeping it current is a major ongoing effort.

The chart below shows how many thousands of features related to water facility assets constructed under capital projects for both the LVVWD and SNWA 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.



**Strategic Plan Objectives and Accomplishments**

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

**2016-17 Performance Objectives**

- Complete design and construction of projects according to the budgets and

schedules identified in the capital plans.

- Accomplish design and construction of water system development in Garnet Valley conforming to approved plans.
- Provide the Infrastructure Management 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 in the field of attributes of constructed water facilities.

**2015-16 Major Accomplishments**

- Began water deliveries from Intake No. 3.
- Completed construction of 20 LVVWD projects valued at \$25.5 million related to improvement of the LVVWD’s facilities, including the \$12.3 million Fayle Reservoir Rehabilitation project.
- Awarded 8 LVVWD construction contracts valued at \$7.9 million related to improvement of the LVVWD’s facilities.
- Performed inspections on approximately 540 different projects, involving over 42,346 individual inspection actions.
- Implemented new enterprise-wide budgeting tools for capital projects.

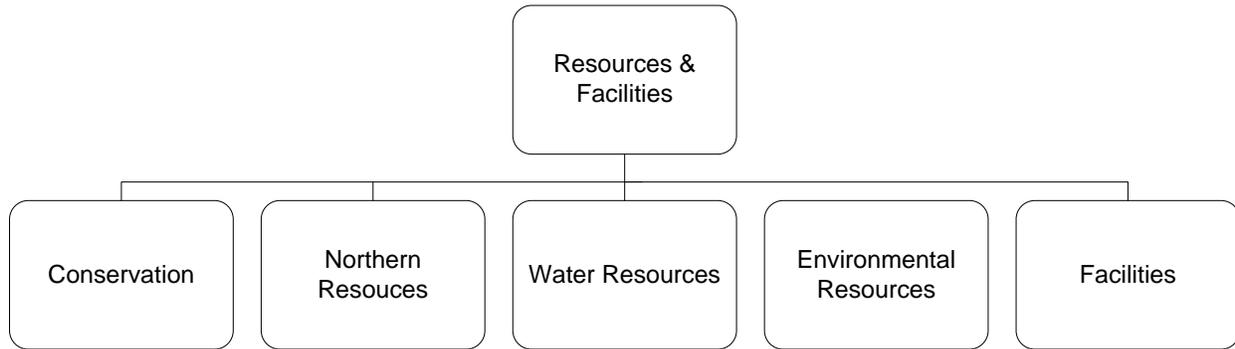
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SOUTHERN NEVADA WATER AUTHORITY®

## RESOURCES & FACILITIES

### Level: 3600



### Mission

The mission of the Resources & Facilities department is to sustainably manage the Southern Nevada Water Authority's (SNWA) water 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 through cost effective strategies supporting operations and organizational business.

### Department Description

The Resources & Facilities department consists of five divisions that include the Water Resources division, Conservation 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 2016-17 Resources & Facilities department budget contains funding for a wide-range of initiatives discussed below.

**Facilities.** The Facilities division budget contains \$4.2 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.

**Water Resources.** The Water Resources division budget contains \$5.4 million to continue efforts to plan, acquire, manage and develop water resources for use by the LVVWD and the SNWA. Included in this total is \$2.6 million for developing Tributary Conservation Intentionally Created Surplus (ICS) through leases of Muddy River and Virgin River water. The division will continue hydrologic data collection, monitoring, and reporting programs to ensure regulatory compliance with the terms of the LVVWD and the SNWA-owned water-right permits and project right-of-ways. The division will also

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2017

continue long-range resource planning and water resource management efforts necessary to ensure a reliable water supply while hydrological and climatological uncertainty exists. These activities include analyzing climate-change science and policy initiatives, and providing technical support for activities associated with Colorado River operations and decree accounting, administration of interstate banking agreements, the Colorado River Salinity Control Program, and the implementation of Minute 319 to the 1944 Water Treaty with Mexico.

**Environmental Resources.** The Environmental Resources division budget contains \$3.0 million in operational funding to continue environmental and biological 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, Virgin and Muddy River programs, Northern Resources, 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 2016-17, the division anticipates receiving \$1.8 million in revenue from Federal grants and local contributions.

**Conservation.** The Conservation division budget contains \$11.3 million in operational funding to further SNWA's long-term commitment to increased water conservation. In 2015, SNWA enhanced its incentive by raising the amount paid per square foot for turf conversion to \$2 for the

first 5,000 square feet converted to strengthen program interest. The budget is designed to cover both the increased incentive and accompanying increase in customer participation.

**Northern Resources.** The Northern Resources division budget totals \$3.7 million, of which, approximately 18 percent is for livestock inventory purchase and capital improvements to develop, utilize and maintain primary groundwater rights. Total gross revenues are projected to exceed \$2.6 million. The Northern Resources division consists of seven individual properties that have been consolidated into one independent operating company (IOC). The consolidation and management of these ranch properties has created operational efficiency, but increased gross operating costs. Increased operating costs are attributed to building livestock populations and re-establishment of perennial crops on irrigated fields, replacing aging non-functional infrastructure, renovation of historical ranch structures and construction of additional facilities. Program diversification including water development, nutrient management, cropping structure, propagation of multiple species of livestock, water and energy application 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 source of supply.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2017

**Expenditures**

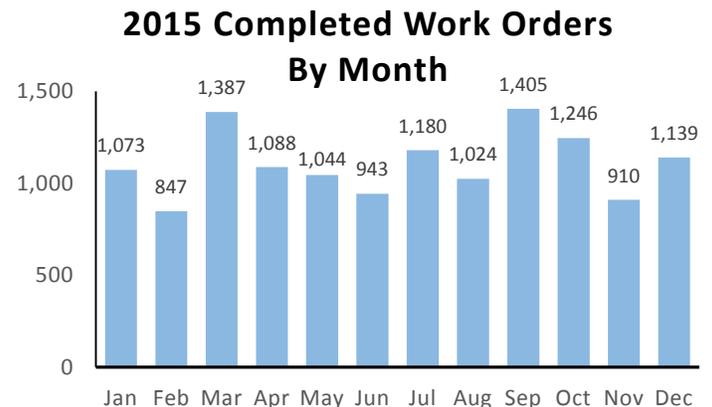
<b>SNWA Uses</b>	<b>Actual 2014-15</b>	<b>Budget 2015-16</b>	<b>Budget 2016-17</b>
Water	\$ 4,271,330	\$ -	\$ -
Materials & Supplies	1,970,245	2,504,000	2,379,100
Maintenance & Repairs	1,698,679	1,696,800	1,868,800
Rental & Leases	280,764	359,154	2,071,678
Other Employee Expenses	106,274	211,700	240,150
Other Expenses	1,989,596	2,905,200	2,816,600
<b>Total Operating Expenses</b>	<b>\$ 10,316,888</b>	<b>\$ 7,676,854</b>	<b>\$ 9,376,328</b>
Capital Costs	\$ 1,350,092	\$ 25,813,279	\$ 24,716,598
Payroll Costs	\$ 14,476,356	\$ 14,529,268	\$ 14,977,207
<b>Total Department Expenditures</b>	<b>\$ 26,143,336</b>	<b>\$ 48,019,401</b>	<b>\$ 49,070,133</b>
FTE Positions	97.6	98.6	97.0

**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

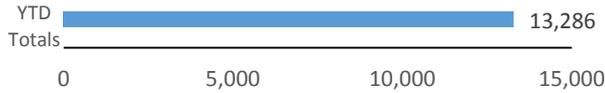
remodeling and/or retro-fit support for existing structures.

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



**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
 Fiscal Year Ending June 30, 2017

**2015 Completed Work Orders**  
**Year to Date Totals**



**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 conducting regional water resource planning, including: climate-change assessments, integrated water resource planning, population forecasting, regional water demand analyses, and water accounting; identifying, evaluating, and developing sources of additional groundwater and surface water supplies; managing the Southern Nevada Water Bank; 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.

**Environmental Resources.** The Environmental Resources division is responsible for conducting environmental and biological research, monitoring and planning to ensure compliance with Federal and State environmental laws, permits, and agreements. The division assists Federal agencies in completing those regulatory processes necessary to construct and operate water resource related infrastructure, including preparing environmental compliance documents and obtaining environmental and land permits. Biological studies, monitoring and reporting are

conducted in accordance with Federal environmental regulatory requirements, state water right rulings, and interagency environmental agreements such as Stipulated Agreements. The division is also responsible for fulfilling organizational responsibilities related to the Las Vegas Wash, Las Vegas Valley Watershed and the Warm Springs Natural Area.

**Conservation.** The Conservation division develops and implements programs and strategies to sustain and promote water conservation. The SNWA monitors water use in terms of Net GPCD, since SNWA recycles 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 125 gallons in 2015. This is a reduction of 37 percent, since 2002.

In addition to supporting water supply planning, the Conservation division ensures the SNWA is compliant with state and federal requirements ensuring beneficial use of water.

In 2015, the SNWA supported more than 2,000 projects comprising 4.5 million square feet of landscape conversion. These conversions produce perpetual savings of more than 248 million gallons annually. The cumulative benefit of landscape conversions completed since 2000 reduced the SNWA’s 2015 consumptive demand by more than 9.8 billion gallons, averted demand for 573,000 megawatt hours of energy, and reduced CO2 discharge by more than 280,000 metric tons. In 2015, these projects reduced power costs by approximately \$4.2 million.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2017

The Conservation division employs three major strategies to effect water efficiency: 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.

**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 \$2.6 million in projected ranch revenue for fiscal year 2016-17. 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. The ranch infrastructure, resource stewardship, water rights, personnel development, and financial stability are priorities integrated into the management program. 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.***

### **2016-17 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 in the Las Vegas Wash in accordance with agreements and the Las Vegas Wash Comprehensive Adaptive Management Plan (LVWCAMP).
- Develop a long term operating plan for the Las Vegas Wash assets.
- Maintain zero incidents of noncompliance with terms associated with the LVVWD and SNWA groundwater and surface-water permits.
- Maintain zero incidents of noncompliance with permits associated with the LVVWD's artificial recharge program.
- Comply with environmental permit requirements for construction and operation of new and existing Small Systems facilities.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2017

**2015-16 Major Accomplishments**

- Conducted aquatic bird, marsh bird, 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.
- Re-vegetated approximately 25 acres along the Las Vegas Wash, removed more than 20 acres of tamarisk, and conducted vegetation monitoring on nearly 300 acres.
- Conducted two Las Vegas Wash Green-Up events, where more than 600 volunteers planted approximately 20 acres.
- Coordinated and hosted a two-day science symposium for more than 200 high school students as part of World Wetlands Day.
- Organized meetings of the LVVWAC, LVWCC, and technical subcommittees in 2015.
- Conducted an excavation of a possible pit house structure on the Las Vegas Wash.
- Developed a draft Long Term Operating Plan on the Las Vegas Wash.
- Completed restoration of the Searchlight Water System pipeline and power line rights-of-way.
- Completed environmental compliance to support rehabilitation of the existing Rainbow well in Kyle Canyon.
- Completed all compliance monitoring and reporting for the LVVWD's groundwater rights associated with the Small Systems, and permits to recharge, store, and recover water from the Southern Nevada Water Bank.
- Published the annual monitoring report for the small system at Jean and submitted the report to Nevada Division of Water Resources (NDWR) in accordance with permit terms.
- Published the annual report of the LVVWD's groundwater production and artificial recharge in Las Vegas Valley and submitted the report to the Nevada Division of Water Resources (NDWR) and Nevada Division of Environmental Protection (NDEP) in accordance with permit terms.
- Completed hydrogeologic and geophysical data collection and analyses and identified sites for the installation of new production wells for the Garnet Valley Water System.
- Acquired temporary applications from the Nevada State Engineer that changed the point of diversion and place of use of a portion of SNWA groundwater rights in Coyote Spring Valley to existing wells in Garnet Valley where they will be used to supply demands in the Apex Industrial Park.
- Completed an investigation of elevated concentrations of regulated chemical constituents in the Las Vegas Valley groundwater, and devised mitigation measures to lower the concentration of these constituents in LVVWD production wells.
- Filed over 30 water-right proofs and extensions, and acquired 5 certificates from the Nevada State Engineer to maintain and perfect LVVWD and SNWA groundwater and surface-water rights.
- Coordinate and accompanied AIG, Lexington and Hartford representatives on the Insurance Carrier inspections.
- Completed Operating Capital projects; 5S010 – Roof replacement on six (6) SNWA Pump Stations (Hacienda, 2A, 2B, 2C, 7B

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2017

and IPS-1); 5S011 – Waterproofing and caulking seven (7) SNWA Pump Stations; 5S008 HVAC Replacements at both SNWA Water Treatment Facilities.

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

**2016-17 Performance Objectives**

- Maintain 90 percent or greater client satisfaction rating for delivery of the Water Smart landscapes program.
- Achieve an 80 percent or greater satisfaction rating for facilities-related customer interactions.

**2015-16 Major Accomplishments**

- Maintained a conservation customer feedback rating of 4.6 out of 5. Customer service satisfaction exceeded 90 percent.
- Provided over 2,000 customers with rebates for participation in conservation programs including conversion of over four million square feet of turf grass to water efficient landscaping.
- Implemented programming in accordance with the approved 2014-2018 Conservation Plan.
- G0792 – Completed the LVVWD SCADA Room Upgrade.
- G0791 – Completed the LVVWD Fleet Building HVAC Upgrade.
- 54102 – Completed Audio/Video Upgrades to the Molasky 7<sup>th</sup> Floor Board Room and all three (3) Mead Conference Rooms (V.V.).
- Facilitated major internal events including: all Divisional holiday parties,

Safety Stand-Down Day, Celebrating You week, etc.

- 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.***

**2016-17 Performance Objectives**

- Sustain the SNWA’s right-of-way grant for the Groundwater Development Project (GDP).
- Conduct monitoring and submit annual hydrologic and biological data and reports to the Nevada State Engineer as required by water-right permits.
- Complete actions as required under the SNWA / Department of Interior Stipulated Agreements.
- 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.
- 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.
- Ensure zero incidents of noncompliance with permits and interagency agreements for continued use and development of groundwater in Coyote Spring, Hidden and

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2017

- Garnet valleys and Virgin and Muddy Rivers surface water.
- Ensure 100 percent compliance with agreements to maintain the Muddy River and Virgin rivers lease programs.
  - Submit documentation annually as necessary to obtain Intentionally Created Surplus credits or other beneficial use of Muddy and Virgin River water rights and leases.
  - Provide comments within comment period deadlines for all proposed environmental rules, policies, and projects which may affect the SNWA's resources.
  - Complete environmental compliance for Silver State Energy Association Eastern Nevada Transmission Project.
  - Complete environmental compliance for projects initiated by other divisions and departments.
  - Collaborate on all major local and regional climate change initiatives relevant to the SNWA.
  - Review and update, as necessary, the SNWA Resource Plan and Water Budget annually.
  - Ensure 100 percent 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.
  - Implementation of aggressive conservation measures and programs to ensure long-term water conservation and sustainable use of water, including a continued commitment to long-term reductions in Net GPCD.
  - Make progress towards achieving the goals of the Recovery Plan for rare aquatic species on the Muddy River (Moapa dace).

- Provide public access at the Warm Springs Natural Area in accordance with the Southern Nevada Public Land Management Plan funding agreement.
- Mow fields at least once annually, and trim palms and maintain fire breaks annually as needed at the Warm Springs Natural Area in accordance with the Fire Management Plan.
- Communicate sustainability goals and progress to the organization.

**2015-16 Major Accomplishments**

- Achieved 2015 Net GPCD of 125 gallons.
- Provided rebates from conservation programs saving the community over 379 million gallons per year.
- Hosted approximately 1,000 attendees from 40 U.S. states at the 9th Annual WaterSmart Innovations Conference and Expo.
- Recipient of the Irrigation Association National Water and Energy Conservation Award.
- Supported legal defense of the Groundwater Development Project rights-of-way.
- Completed evaluations of Spring Valley Biological Monitoring Plan, in coordination with Biological Working Group as required under the Spring Valley Stipulated Agreement.
- Monitored more than 300 ground photography fixed monitoring locations across the SNWA's grazing allotments to document our use of the rangeland, drought conditions, and general range health.
- Conducted native fish surveys on the Virgin and Muddy Rivers.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2017

- Finalized a Safe Harbor Agreement to place Pahrump poolfish at the Springs Preserve.
- Conducted desert tortoise, migratory bird, and sensitive species surveys, and responded to 8 calls for dangerous animals at various SNWA/LVVWD facilities.
- Reviewed 125 draft policies, regulations, and projects potentially relevant to the SNWA and the LVVWD, and submitted 17 formal comments letters.
- Completed a cultural resources Programmatic Agreement, final Environmental Assessment and Biological Opinion for the Eastern Nevada Transmission Project.
- Initiated restoration of the South Fork of the Muddy River on WSNA to improve habitat for the Moapa dace.
- Moapa dace counts were generally stable, with 2,182 counted in August 2015 and 1,859 counted in February 2016.
- Completed signs and kiosks for the second phase of public access at the WSNA, and obtained \$875,000 in grant funding.
- Treated 56 acres on the WSNA for weeds, and grew over 10,000 native plants at the greenhouse for restoration planning at Warm Springs and the Las Vegas Wash.
- Trimmed palm trees, maintained fire breaks, and replaced fencing to preserve defensible space around structures and Moapa dace streams.
- Maintained and improved Great Basin Ranch properties through building renovations at the Robison ranches, Harbecke and Bastian; improving calving areas, shipping facilities, feedlot facilities enhancement to support livestock program; fencing and pond projects on several deeded sites; clearing all ranches of waste and other hazards.
- Supported better range ecology by controlling livestock distribution, forage utilization and protection of riparian areas with installation of diversion/drift fence between Scotty Meadows and South Spring Valley and replacing Pine Creek collection pond fence; assisting with mitigation of Sage Grouse issued by removal of cross fencing at Meadow Creek and McCoy Ranches.
- Completed installation and brought online four new irrigation systems at Huntsman/Phillips.
- Completed the re-habilitation of four wells at the Phillips ranch.
- Established and harvested marketable crop under these systems.
- Re-fenced the development area and perimeter fence along CR894, approximately 3 miles of fence line.
- Complete renovation of the Phillips house bringing it up to DOL standards.
- Produced 10,775 ton of marketable forage products.
- The ranch produced 652,126 pounds of beef and added 417 beef replacement females to the inventory.
- The ranch produced 151,650 pounds of lambs and added 1,200 replacement sheep to the inventory.
- Completed re-habilitation of the Bastain well.
- Installed new septic and leach field at the Bastain ranch.
- Planted trees, installed irrigation and a perimeter fence around the Bastain property.
- Built a radio tower used to support better staff communication.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2017

- Installed steel siding and a roof on the old Harbecke house.
- Built an employee appreciation area including a bar-b-que pit.
- Started construction of a hay storage building used to store export quality forage.
- Built spill containment around diesel pump.
- Installed new HVAC unit at Harbecke.
- Built ranch roads around new pivot systems at Huntsman.
- Participated with Environmental Resources team completing reclamation at four well sites.
- Placed approximately 50 percent of permitted AUMs in non-use for conservation and preservation of range resources.
- Installed a new vehicle lift in Fleet Services to better accommodate ranch equipment and create a safe work area.
- Audited SVA administration and reorganized management to comply with DOL regulation.
- Completed all compliance monitoring and reporting for the SNWA's groundwater and surface-water rights associated with the Northern Resources Ranch properties, Groundwater Development Project, Coyote Spring, Hidden and Garnet valleys and the Virgin and Muddy Rivers.
- Published a new SNWA Water Resources Plan and the 2015 SNWA Water Budget.
- Banked 75,000 af of Nevada's Extraordinary Conservation credits and approximately 75,000 af of Nevada's unused Colorado River apportionment in California.
- Performed monthly monitoring of the Colorado River Basin water-supply conditions and the SNWA's water use, and summarized data to convey drought impacts to Southern Nevada.
- Created and delivered approximately 29,300 acre feet of Tributary Conservation ICS from the Muddy and Virgin Rivers to Lake Mead.
- 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.
- Implemented a maintenance and repair plan to optimize efficiencies of irrigation wells and the development of water rights associated with the Northern Resources Ranch properties.
- Completed a study to characterize the water quality and extent of the shallow groundwater system in Las Vegas Valley in support of an inter-local agreement with the Clark County Water Reclamation District.
- Completed a comprehensive District-wide Lighting Project (interior and exterior) replacing or retrofitting over 1,000 fixtures. This resulted in reducing the annual electrical consumption by more than one Megawatt.
- Participated in the annual holiday drive, recycling over 2,500 Christmas trees.
- Supported and implemented the installation of the company-wide single-stream recycling program.
- Facilitated the Sustainability CDT, which met more than six times to coordinate the organization's sustainability goals.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Resources & Facilities**  
Fiscal Year Ending June 30, 2017

***Strategic Plan Goal – Ensure Organizational Efficiency and Manage Financial Resources to Provide Maximum Customer Value.***  
**2016-17 Performance Objectives**

- Annual department expenditures remain within budget.
- Facilitate renovation projects utilizing in-house labor whenever possible.

**2015-16 Major Accomplishments**

- Increased beef and sheep herd numbers substantially to provide future revenue growth.
- Completed Renovation's (Phase A & B) for Information Technology upgrading nineteen (19) work areas and seven (7) offices using in-house labor.
- Used in-house labor to renovate the Valley View Human Resources – North work area (formerly the Employee Development Division).
- Supported the Customer Care Lobby Station PCI Compliance upgrades.
- Renovated four (4) offices in the Executive and Legal areas of the West Administration Building.
- 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.
- Completed a price-elasticity study of water rates to inform the LVVWD Rates and Rules Citizens Advisory Committee.

***Strategic Plan Goal – Strengthen and Uphold a Culture of Service, Excellence and Accountability.***  
**2016-17 Performance Objectives**

- Department staff completes 90 percent of mandatory Knowledge Reservoir training on schedule.
- 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.
- Perform quarterly reviews of Strategic Plan and Tactics and KPIs will be updated at least quarterly.

**2015-16 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.
- Facilitated over 5,000 meeting room set-ups over the past 12-months.
- Completed 13,286 Work Tasks over the past 12-months.

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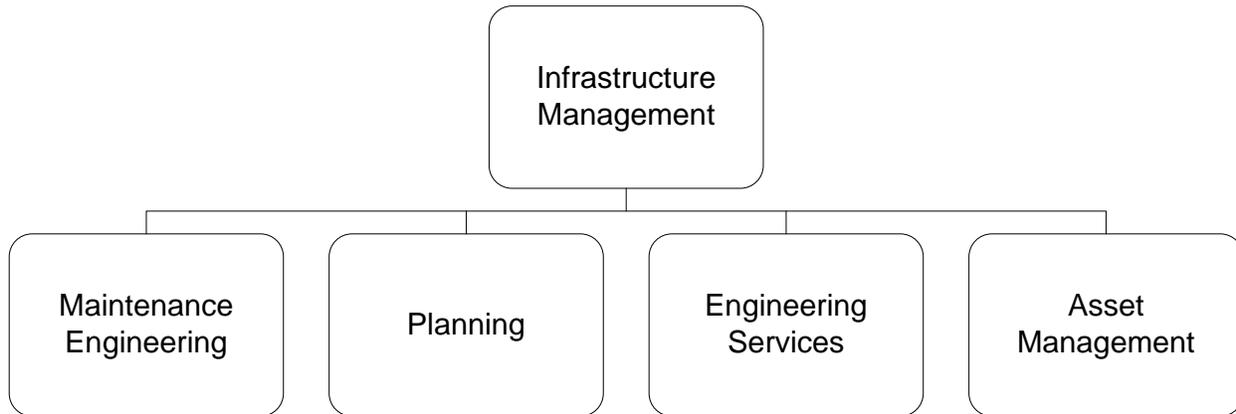


Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Infrastructure Management  
Fiscal Year Ending June 30, 2017

## INFRASTRUCTURE MANAGEMENT

Level: 3700

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### Mission

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

### Department Description

The primary responsibility of the Infrastructure Management Department is to manage the Las Vegas Valley Water District (LVVWD) and the Southern Nevada Water Authority (SNWA) assets by developing and maintaining the asset management program. To accomplish this, the Engineering Services and Planning Divisions review water plan submittals for proposed development to ensure they meet the LVVWD's construction standards, and provide adequate pressures and fireflow. 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 Departments (WQ&T). The Asset Management Division tests for leaks on large diameter pipelines, provides inspection support, develops future cost projections, and maintains the LVVWD and the SNWA cathodic protection systems. All of these efforts are directly in support of the Department's mission.

### Budget Objectives and Highlights

The 2016-17 Budget contains a comprehensive view of Infrastructure Management's efforts to maintain costs at current levels. Infrastructure Management's total operating expense budget between the LVVWD and the SNWA increased \$560,000 from budget year 2015-16 to 2016-17. Reorganizing Departments and Divisions, adding SCADA employees, and having an accurate previous fiscal year's budget are contributing factors to the expense increase. The Department will continue to focus efforts into maintaining cathodic protection, SCADA, and the 4-1-1 developer review process.

Southern Nevada Water Authority  
 Operating and Capital Budget  
 Department Budgets  
 Infrastructure Management  
 Fiscal Year Ending June 30, 2017

**Expenditures**

<b>SNWA Uses</b>	<b>Actual 2014-15</b>	<b>Budget 2015-16</b>	<b>Budget 2016-17</b>
Materials & Supplies	\$ 42,692	\$ 85,800	\$ 74,000
Maintenance & Repairs	1,000	265,000	425,000
Other Employee Expenses	4,146	20,750	17,750
Other Expenses	40,961	426,700	626,700
<b>Total Operating Expenses</b>	<b>\$ 88,800</b>	<b>\$ 798,250</b>	<b>\$ 1,143,450</b>
Capital Costs	\$ -	\$ 2,852,900	\$ 5,601,000
Payroll Costs	\$ 2,614,831	\$ 3,057,319	\$ 3,675,015
<b>Total Department Expenditures</b>	<b>\$ 2,703,631</b>	<b>\$ 6,708,469</b>	<b>\$ 10,419,465</b>
FTE Positions	13.7	16.0	19.2

**Department Performance**

**Maintenance Engineering.** The Maintenance Engineering Division is responsible for the engineering design enhancements and modifications needed to operate and maintain pumping stations, rate-of-flow-control stations, reservoirs, water treatment facilities, the distribution and transmission pipelines, and wells in a safe and efficient manner. Specific responsibilities of Maintenance Engineering include PLC/HMI/SCADA programming and 24x7 support, security system design and equipment procurement, water quality projects, electrical coordination study analysis, motor control center and switchgear upgrades, well rehabilitation and maintenance, 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, Big Bend Water District (BBWD), Alfred Merritt Smith Water Treatment Facility (AMSWTF), River Mountains Water Treatment Facility (RMWTF), and rural systems operated by LVVWD.

The Division is currently managing over 250 projects between the LVVWD and the SNWA, with a budget of more than \$10 million. Major projects include the SCADA upgrade at the SNWA, Automation Controller upgrades at the SNWA and the LVVWD, VFD replacements at WRC, Fayle Pump Station MOV replacements,

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Infrastructure Management**  
Fiscal Year Ending June 30, 2017

cathodic protection system installations at North Lateral, South Lateral, and Gibson Lateral, chemical system area upgrade, chiller pipe replacement at AMSWTF, Airport West Basin floor wall joint replacements, and the offloading island modifications at RMWTF.

**Planning.** The Planning Division provides research, analysis, modeling, and forecasting to support a number of activities at both the LVVWD and the SNWA. The Division provides long-term forecasts, water use analyses, and conservation analyses to the SNWA as inputs into regional water resource planning, as well as water resource demand projections, population distributions, and water demand distributions for the LVVWD, small systems, and the recycled water distribution systems. 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 a well-calibrated hydraulic model of the distribution system which is utilized for engineering analysis and decision support.

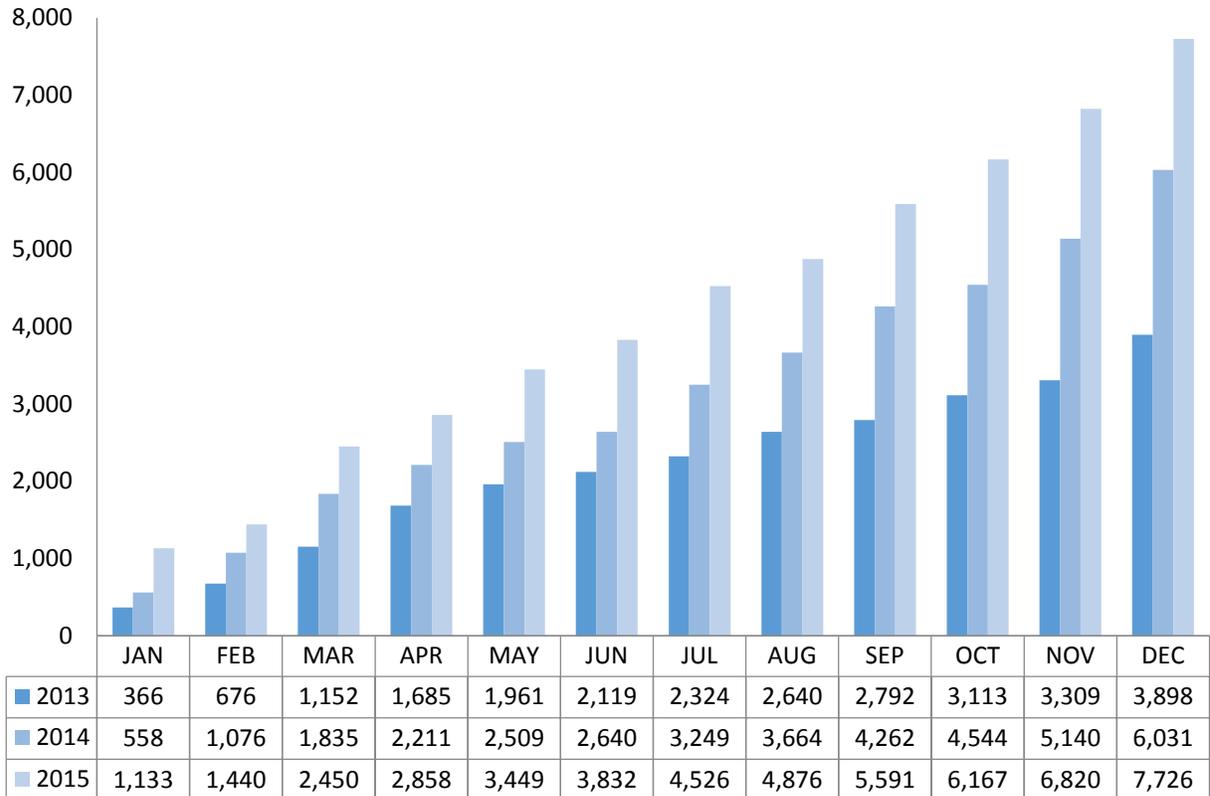
The Division locates, sizes, and schedules new pumping stations, reservoirs, wells, and major pipelines. In coordination with the Operations Department, the Division develops operating and emergency strategies to improve water quality and reduce energy consumption. The Division collaborates with the Engineering Services Division in the review of 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 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. Engineering Services approves the water plans for these system additions, and ensures system additions meet the LVVWD'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 also coordinates with other public works construction to minimize both the LVVWD costs and inconvenience to the public. Engineering Services is also responsible for the evaluation and testing of products for use in the water distribution system and is in charge of the LVVWD Approved Products List. The following chart represents the LVVWD's cumulative data representing new service points.

Southern Nevada Water Authority  
 Operating and Capital Budget  
 Department Budgets  
 Infrastructure Management  
 Fiscal Year Ending June 30, 2017

**New Service Points**  
**2013-2015 Cumulative New Service Points Received**

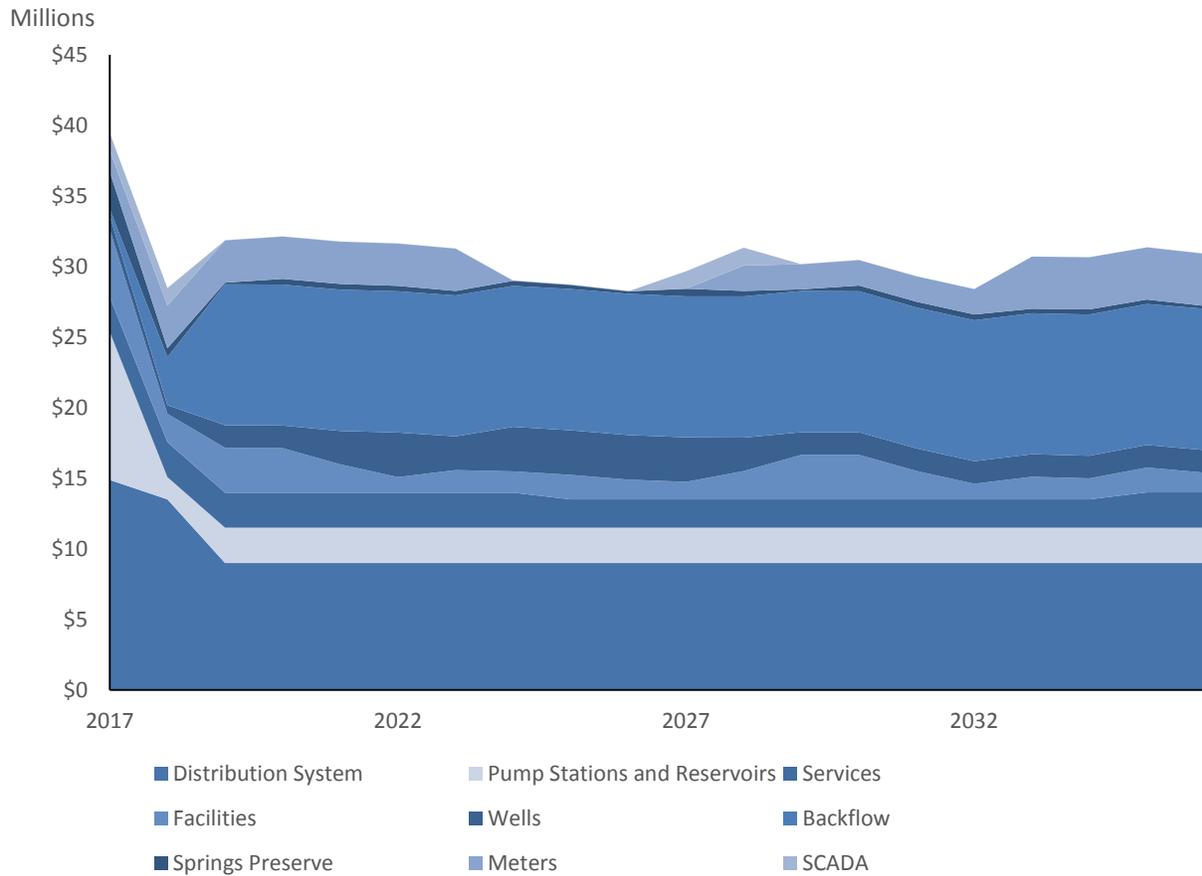


**Asset Management.** The Asset Management Division assesses infrastructure conditions and forecasts short and long-term capital renewal needs to meet service level expectations. The Division is responsible for managing the corrosion control program for the LVVWD, SNWA, and associated small systems. 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. The following chart represents the LVVWD’s estimated annual infrastructure renewal needs for all infrastructure including pipelines, service laterals, valves, vaults, wells, pump stations, and reservoirs.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Infrastructure Management**  
 Fiscal Year Ending June 30, 2017

### Estimated Annual Infrastructure Renewal Needs



The LVVWD’s distribution infrastructure is comprised of over 4,462 miles of piping, 4-inch in diameter and larger, 1,680 miles of ¾-inch to 3-inch services, 117,715 valves, and 36,801 fire-hydrants. In order to meet conservation objectives and rate-payer expectations, the distribution infrastructure must be maintained, replaced, or rehabilitated at an appropriate level. The Division will continue to update renewal needs based on condition assessments, water losses, break rates and overall risk.

### Strategic Plan Objectives and Accomplishments

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

#### 2016-17 Performance Objectives

- Replace obsolete site automation equipment with current technology utilizing industry standard protocol.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Infrastructure Management**  
Fiscal Year Ending June 30, 2017

- Maintain a capital improvements program for the LVVWD and small systems, and monitor and review development to support future growth.
- Monitor and evaluate water quality in the distribution system, and recommend improvements in response to changing water quality and regulatory conditions.
- Provide stewardship of the chemical processes used at all water treatment facilities.

**2015-16 Major Accomplishments**

- PLC controller upgrades completed; twenty-one controller upgrades for SNWA and twenty-one controller upgrades at the LVVWD.
- Designed and installed new electrical equipment including: Well 83 and 84 motor control centers, Well 45 5KV switchgear, Charleston Blvd 5KV main switchgear and motor control center, BPS2 soft starter, and the transformer replacements at Carlton Square and Montessori.
- Prepared the LVVWD Three Year Operating Plan strategy for SNWA and prepared the LVVWD Summer 2015 Well Plan.
- Monitored development and increase in system demands and made recommendations for operational changes to minimize the costs for new capital infrastructure.
- Performed hydraulic criticality analysis and provided recommendations to minimize costs for water main rehabilitation projects.

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

**2016-17 Performance Objectives**

- Reduce the length of time to review 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%.
- Utilize pdf images of civil plans to allow waterworks distributors to submit shop drawing submittals for product submittals.
- Collaborate with the City and County Building Departments to establish plan review criteria for existing developments requiring backflow retrofit and meter upsizing.
- Continue to work with other agencies to include water facility upgrades and replacements in road improvement projects.

**2015-16 Major Accomplishments**

- Approved 7,726 new water service connections.
- Reviewed 1,650 sets of developer and public works plans for the LVVWD and the SNWA, including brand new submittals, re-submittals, and revisions.
- Reviewed and approved 271 hydraulic grade line requests, 199 water network analyses, and 412 sets of

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Infrastructure Management**  
Fiscal Year Ending June 30, 2017

development plans.

- Reduced the length of time to review water plan submittals, network analyses, and hydraulic grade line requests through expansion of the digital submittal system and process improvements.

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

**2016-17 Performance Objectives**

- Perform a detailed update of master planning areas and associated facilities needed to serve developed and vacant acreages.
- Continue to utilize in-house resources to inspect infrastructure and only utilize outside resources for specialized testing the technicians and engineers are not experts in conducting. This includes, corrosion control technicians utilizing remote submarines to inspect smaller tanks instead of hiring divers.
- Continue to utilize the latest condition assessment technologies to determine the true condition and expected remaining life of the infrastructure.
- Create a demand model of the largest two percent of LVVWD's customers and estimate the price elasticity of demand for use by the Finance Department in future revenue requirement studies.
- Maintain a well-calibrated hydraulic model of the distribution system for effective decision support.

**2015-16 Major Accomplishments**

- Completed 166 projects with a capital budget of \$6.0 million, including the leveraging of SRF funds to facilitate automation equipment upgrades and THM mitigation installations.
- Incorporated the LVVWD facility replacements and improvements into City, County, and Nevada Department of Transportation projects, reducing future costs and minimizing the public's impact due to construction.
- Completed the Las Vegas Boulevard Master Plan, including identification of existing facilities in need of rehabilitation, replacement, or relocation, and requirements for new facilities. This work also included identifying pavement projects planned by other agencies for the purpose of initiating coordination of work in the interest of saving money and reducing traffic disruptions.
- Developed a database used to calculate the non-consumption based bills for each LVVWD customer.
- Revised and updated the system to estimate water requirements for new development.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Infrastructure Management**  
Fiscal Year Ending June 30, 2017

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

project close out and minimize paper copies.

**2016-17 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.
- Conduct UDACS (Uniform Design and Construction Standards) training sessions for engineering firms, addressing each firm's needs and assist them in submitting more accurate plans.

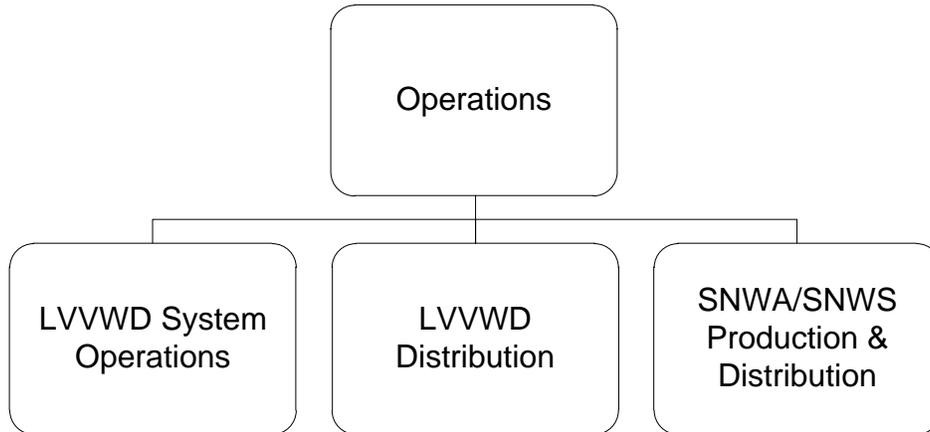
**2015-16 Major Accomplishments**

- Worked with waterworks distributors and the Approved Products Committee to identify products to be supplied locally and reduce the overall number of products requiring repair parts to be stocked by LVVWD. Easement submittal and review process is now digital and done through the web.
- Processed 951 record drawing requests for developer and public works projects for the facilities.
- Met with SCADA operators on a weekly basis to ensure that problems and concerns are dealt with quickly, and software and operating philosophy changes are understood.
- Implemented a digital signature process for site drawings to expedite

Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Operations  
Fiscal Year Ending June 30, 2017

**OPERATIONS**  
**Level: 4100**

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**Mission**

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

**Department Description**

The LVVWD system is comprised of a wide variety of facilities which 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 LVVWD Operations department’s divisions and functions were merged into a single

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Operations**

Fiscal Year Ending June 30, 2017

department. Building on this action, the department was further reorganized in October 2015 to create a combined Systems Operations division with separate maintenance divisions for LVVWD and 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 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 \$222,200 for the fiscal year 2016-17 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 2016-17 Budget Plan are shown on the following table.

Operations' fiscal year 2016-17 overall budget totals \$68,671,934 between the LVVWD and the SNWA.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Operations**  
Fiscal Year Ending June 30, 2017

**Expenditures**

<b>SNWA Uses</b>	<b>Actual 2014-15</b>	<b>Budget 2015-16</b>	<b>Budget 2016-17</b>
Water	\$ 223,435	\$ 250,000	\$ 250,000
Energy	144,461	-	200,000
Materials & Supplies	1,616,185	1,254,700	2,054,000
Maintenance & Repairs	39,023	280,000	280,000
Rental & Leases	182,961	175,000	175,000
Other Employee Expenses	33,616	74,300	78,150
Other Expenses	256,593	821,350	222,600
<b>Total Operating Expenses</b>	<b>\$ 2,496,275</b>	<b>\$ 2,855,350</b>	<b>\$ 3,259,750</b>
Capital Costs	\$ 5,022,357	\$ 8,765,617	\$ 9,553,000
Payroll Costs	\$ 9,035,828	\$ 7,967,161	\$ 8,628,141
<b>Total Department Expenditures</b>	<b>\$ 16,554,461</b>	<b>\$ 19,588,128</b>	<b>\$ 21,440,891</b>
FTE Positions	63.6	56.7	57.4

**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 SNWA Maintenance is also responsible for supporting the activities of the Computerized Maintenance Management System (CMMS) which is an integral component of the planning and scheduling activities for the maintenance and repair of all equipment.

**Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Operations**

Fiscal Year Ending June 30, 2017

The following table is a comparative listing of the major SNWS water facilities over time:

**1998-2015 Increase In Major Water Facilities  
Fiscal Year Ending June 30**

<u>Facility Type</u>	<u>1998</u>	<u>2000</u>	<u>2002</u>	<u>2004</u>	<u>2008</u>	<u>2015</u>
Plant Facilities	1	1	2	2	2	3
Plant Capacity	400	600	750	750	900	1,015
Metering Stations	19	25	30	31	35	36
Pumping Plants	14	21	26	27	28	31
Reservoirs and Forebays	16	23	27	27	28	32
Rechlorination Facilities	-	8	12	12	9	11
Ozone Treatment Facilities	-	-	2	2	2	3
Ozone Treatment Capacity	-	-	750	750	900	1,015
Miles of Pipeline	77	119	136	155	163	163
Acres	122	161	508	508	559	560
Square Feet	138,875	353,403	509,405	509,405	610,133	624,804
<b>Total Facilities</b>	<b>50</b>	<b>78</b>	<b>99</b>	<b>101</b>	<b>104</b>	<b>116</b>

\*\*\*Totals include facilities located at Big Bend Water District, Laughlin, NV

The Communications Systems section is responsible for the SNWS communication systems including fiber optics, SONET, T-1 multiplexing, as well as the installation and maintenance of the equipment associated with these systems. This section is also responsible for supporting field devices in the SNWS SCADA system. These responsibilities include the construction of remote terminal units, and installation, maintenance and repair services for the SCADA network hardware equipment. Communications Systems work closely with contractors to ensure the communication needs of SNWS are not disrupted during new construction. The section repairs all of the SNWS fiber optic and

telemetry cables, and manages the SNWS fiber optic and telemetry cable infrastructure.

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

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Operations**

Fiscal Year Ending June 30, 2017

the Colorado River Commission (CRC). In cooperation with the Water Quality and Treatment department, these sections also maintain all process control monitoring equipment with close tolerance of prescribed limits, ensuring the accuracy and reliability of the high quality water the SNWS delivers to its customers.

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.

The Raw Water Mechanical section is responsible for the raw water facilities including re-staging, repair, refurbishment, and maintenance issues with pumps, motors, and valves associated with Intake Pumping Stations 1 and 2, Booster Pumping Stations 1A and 2, and the Boulder City Raw Pump Station.

**LVVWD Distribution.** The Distribution division (Distribution) is responsible for maintaining 6,532 miles of pipeline and laterals, 120,953 valves, 387,559 service laterals, 38,033 fire hydrants, and appurtenances comprising the LVVWD's distribution system. In fiscal year 2014-15, Distribution crews completed 8,337 work orders consisting of repairs to pipelines, and repairing and replacing valves and fire hydrants; additionally, replaced 2,099 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 56,350 of these services have been replaced, leaving 23,750 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 9,732 valves in fiscal year 2014-15, 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 28,000 backflow prevention devices.

**Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Operations**

Fiscal Year Ending June 30, 2017

**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, 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 plans for a Small Systems team.

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 SNWA bills its customers.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Operations**  
Fiscal Year Ending June 30, 2017

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 control of wholesale water transmission and distribution system equipment using the SCADA computer system. Daily tasks include coordinating water and power orders from 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.

## **Strategic Plan Objectives and Accomplishments**

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

### **2016-17 Performance Objectives**

- Return LVVWD’s Faye Reservoir and Pumping Station to service after a \$20 million overhaul.
- Continue to collaborate with Infrastructure Management to complete SNWS PAC and LVVWD DNP3 programmable logic controller upgrades.
- Activate and incorporate two new small systems into the system for both operations and maintenance.
- Identify best operational and maintenance practices of various divisions and implement them as the standard practice

### **2015–16 Major Accomplishments**

- LVVWD Operations completed initial training on using the hydraulic model in creating daily water pumping plans. This allowed for the transfer of resources to Operations.
- ROFC 6 Forebay was rehabilitated and has set the standard for several similarly constructed, critical Forebay’s to be rehabilitated in the coming years.
- Continued interaction of Engineering on the Low Lake Level Pumping Station has resulted in support for the ongoing construction efforts and initiation of the purchase of major components such as pumps, valves, large diameter, and other appurtenances and equipment items needed for the station.
- Survived a 10% retirement rate with proactive interaction and support from

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Operations**

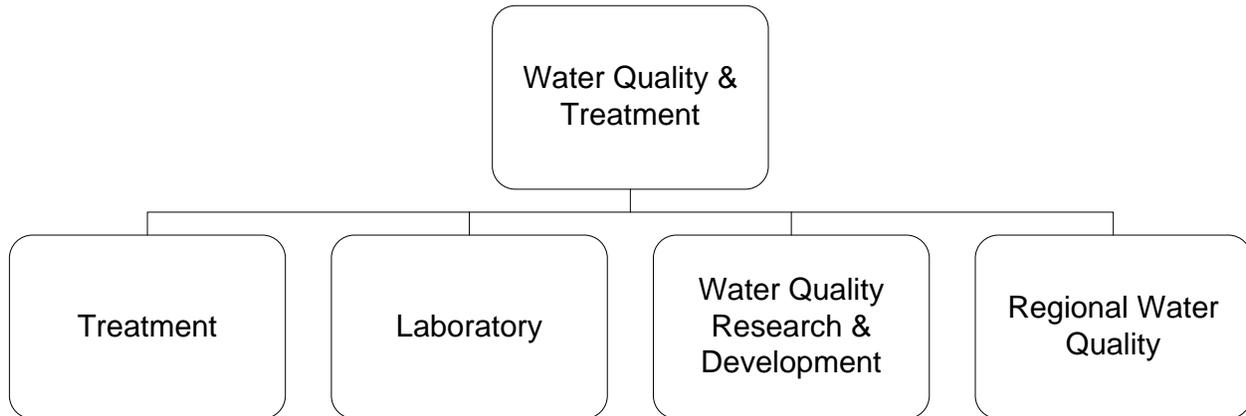
Fiscal Year Ending June 30, 2017

Human Resources to fill all vacancies with highly qualified internal and external candidates. Bottom line, our mission of delivering water was not adversely impacted.

## WATER QUALITY & TREATMENT

Level: 4500

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### Mission

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

### Department Description

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 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, 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

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Water Quality & Treatment**  
 Fiscal Year Ending June 30, 2017

Control and Data Acquisition System (SCADA), 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 optimizing treatment while minimizing cost.

**Expenditures**

<b>SNWA Uses</b>	<b>Actual 2014-15</b>	<b>Budget 2015-16</b>	<b>Budget 2016-17</b>
Energy	\$ 74,012	\$ 100,000	\$ 100,000
Materials & Supplies	4,160,186	4,162,500	4,534,100
Maintenance & Repairs	864,195	1,011,000	1,086,000
Other Employee Expenses	425,535	455,845	642,162
Other Expenses	632,479	1,278,128	1,120,310
<b>Total Operating Expenses</b>	<b>\$ 6,156,407</b>	<b>\$ 7,007,473</b>	<b>\$ 7,482,572</b>
Capital Costs	\$ 1,704,960	\$ 2,307,982	\$ 8,166,612
Payroll Costs	\$ 13,970,487	\$ 13,967,882	\$ 15,496,328
<b>Total Department Expenditures</b>	<b>\$ 21,831,854</b>	<b>\$ 23,283,337</b>	<b>\$ 31,145,512</b>
FTE Positions	86.8	87.3	89.3

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 and testing. The sections within the laboratory include Chemistry, Microbiology, Monitoring, and Laboratory Services. The analytical capabilities of the

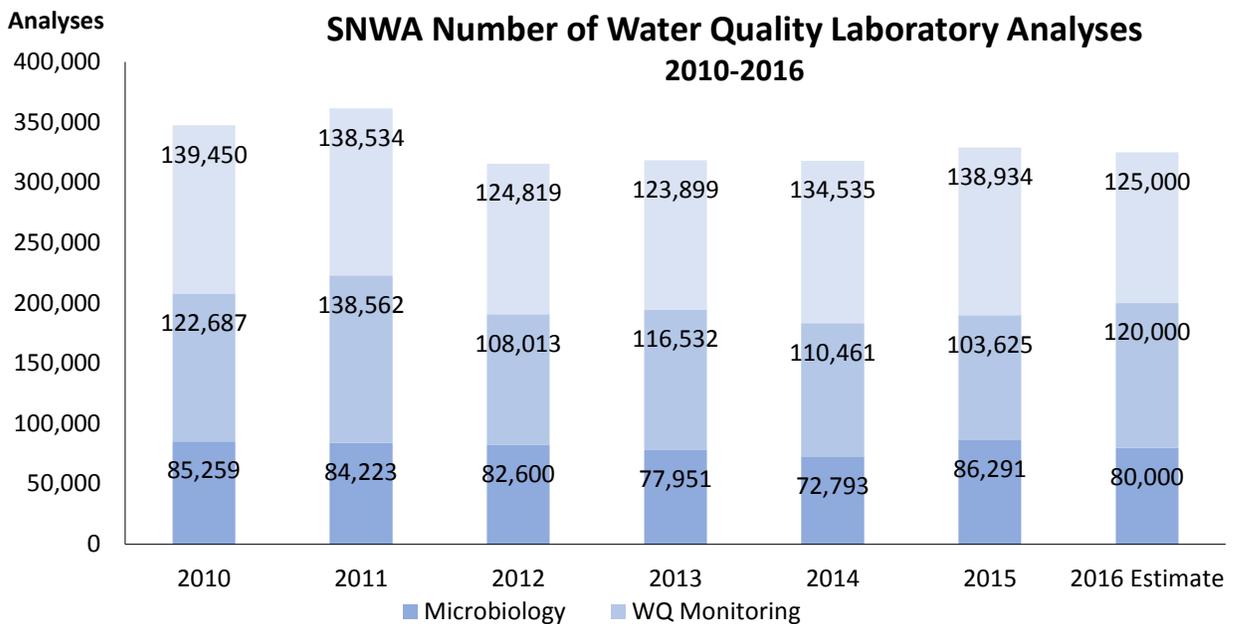
**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Water Quality & Treatment**  
 Fiscal Year Ending June 30, 2017

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 Southern Nevada Water Authority purveyors. The Monitoring, Chemistry and Microbiology sections subsequently perform a

variety of analyses on these samples. In addition, the Laboratory completed all the 2015 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 33,500 samples were collected and 328,850 analyses performed in 2015. The chart below presents the total number of laboratory analyses through calendar years 2009-2015 (2016 estimate).



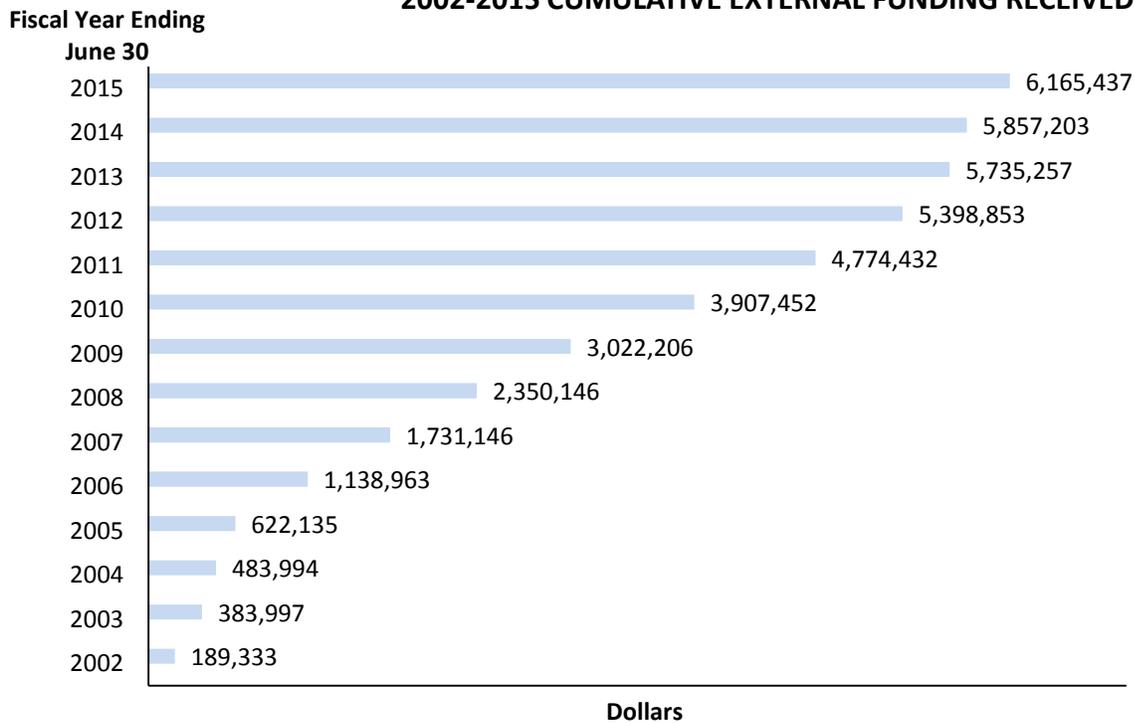
**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Water Quality & Treatment**  
 Fiscal Year Ending June 30, 2017

**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 United States 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 - 2015.

**SNWA WATER QUALITY RESEARCH & DEVELOPMENT**  
**2002-2015 CUMULATIVE EXTERNAL FUNDING RECEIVED**



**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Water Quality & Treatment**  
Fiscal Year Ending June 30, 2017

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

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.

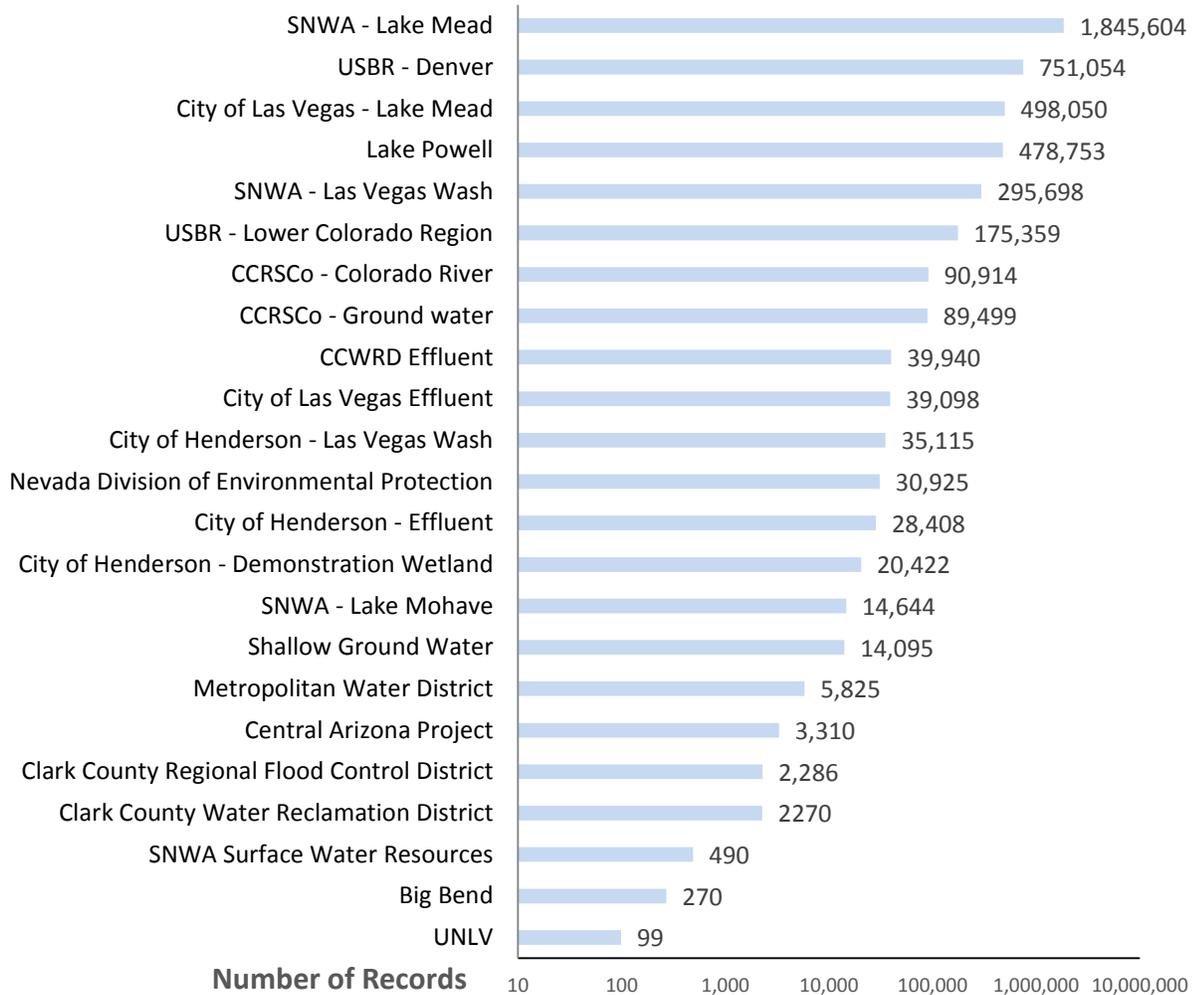
In 2015-16, the Regional Water Quality division received a second grant for the amount of \$100,000 from the Clark County Water Reclamation District to finalize the development of a shallow groundwater database, conduct monitoring of the shallow groundwater, to assess data gaps, and to make recommendations for future monitoring. The division has also completed a WaterSmart grant funded project to assess the impact of nutrients released from sediments on the water quality in Lake Mead with low dissolved oxygen conditions using the three dimensional model developed by Flow Science, Inc.

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 4,441,366 records in the Database. The chart below is a summary of the data that has been uploaded by each agency into the Database.

**Southern Nevada Water Authority  
Operating and Capital Budget  
Department Budgets  
Water Quality & Treatment  
Fiscal Year Ending June 30, 2017**

**SNWA Number of Records in Lower Colorado River  
Water Quality Database (Logarithmic Scale) - February 2016**



**Strategic Plan Objectives and Accomplishments**

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

**2016-17 Performance Objectives**

- Begin major maintenance and replacement of a portion of the sodium hypochlorite generation and storage system at RMWTF.
- Begin rehabilitation and modification construction of the filters at AMSWTF.
- Complete the rehabilitation of the fluoride system at the AMSWTF.
- Expand investigations of Las Vegas Wash to study the impact of storm events on

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Water Quality & Treatment**  
Fiscal Year Ending June 30, 2017

sediment and nutrient loading to the Las Vegas Bay.

- Work with Purchasing to replace instruments that are reaching obsolescence in order to maintain or improve upon our performance at delivering legally defensible data.

### **2015-16 Major Accomplishments**

- Completed a comprehensive comparative study of options for the RMWTF sodium hypochlorite generation system, and began rehabilitation of the filters at AMSWTF.
- Modified treatment process to bring Intake 3 on-line.
- Completed groundwater sampling, data collection and collation, and worked with groundwater staff from the Water Resources division to prepare a Las Vegas Valley Shallow Groundwater Study.
- Continuous commitment in implementation of the ChemWare Horizon Laboratory Information Management System (LIMS) in its final production stage. Ensuring the team has sufficient and proper exposure to seamlessly transition from the Sapphire LIMS to the Horizon LIMS, by increasing the frequency of side-by-side testing and gaining a deeper understanding of the new system.
- Completed all SDWA monitoring requirements for the SNWA, LVVWD, North Las Vegas, Henderson, Boulder City, Nellis Air Force Base, Coyote Spring Valley – Moapa, Big Bend Water District (BBWD), Blue Diamond, Kyle Canyon, Jean, Searchlight, and Kapex.

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

#### **2016-17 Performance Objectives**

- Re-aligned the information within the Avantis Maintenance Management System to better address our maintenance efforts.
- 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 THM monitoring, as well as ad-hoc water quality monitoring requests.
- Provide outstanding customer service to external customers via water quality investigations by responding to water quality complaints in a timely manner, teaching customers about water quality and what to look for, and leaving them feeling that their concerns matter and that we want to help them resolve their problem.
- Expand on-line ordering forms to capture all of our customers' container/preservative / media requirements.

#### **2015-16 Major Accomplishments**

- All emergency lab supply requests fulfilled within one working day.
- Water Quality Monitoring Plans submitted for all member agencies.
- Unregulated Contaminant Monitoring Rule 3 (UCMR3) monitoring completed for Henderson, North Las Vegas, and Boulder City.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Water Quality & Treatment**  
Fiscal Year Ending June 30, 2017

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

**2016-17 Performance Objectives**

- The Laboratory will continue to support the Algae Monitoring Plan by providing source water monitoring. In addition, the lab will work to improve the algal toxin screening process by automation of the algal toxin screening process and increase the number of toxins to include cylindrospermopsin.

**2015-16 Major Accomplishments**

- Complete performance evaluation of the first two filters at AMSWTF.

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

**2016-17 Performance Objectives**

- Begin treatment optimization efforts with R&D personnel for AMSWTF, RMWTF, and BBWD.
- Pursue external research funding regarding the treatment of cyanotoxins.
- Develop methodology for the analysis of total Microcystins in water by conversion to 3-methoxy-2methyl-4phenylbutyric acid followed by LC-MS/MS.
- Complete on-going externally funded projects by the Bureau of Reclamation, Water Research Foundation (Projects 4494, 4591, 4559, 4560, and 4536), Water Environment Foundation (Project U2R13), and the EPA.

**2015-16 Major Accomplishments**

- Continued support of various on-going research projects, including extensive lake and sources monitoring, complex storage/distribution system TTHM monitoring, as well as ad-hoc water quality monitoring requests.
- Initiated research on blending requirements for water from direct potable reuse treatment facilities, simultaneous removal of multiple chemical contaminants using Biofiltration, GAC control of regulated and emerging DBPs of health concern, and major sources of nitrosamine precursors from raw waters and distribution systems.
- The Laboratory division collaborated with the R&D division to determine efficiency of different treatment techniques for pathogenic free living amoeba species inactivation.
- Worked with IT and other staff to develop and test workflows during the development of the new Horizon LIMS system, and provided training and guidance on this development work to other areas within the Laboratory and R&D division.

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

**2016-17 Performance Objectives**

- Expand scheduling/sampling to include construction inspection sampling for the Member Agencies.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Department Budgets**  
**Water Quality & Treatment**  
Fiscal Year Ending June 30, 2017

- Complete the Water Quality and Treatment KPI Dashboard.

**2015-16 Major Accomplishments**

- Acquired \$806,056 of external funding for water quality research.
- Worked in partnership with LVVWD Operations division to successfully transfer water quality sampling responsibilities for the small water systems (Blue Diamond, Jean, Kyle Canyon, and Searchlight). Water Quality Monitoring was familiar with the well locations, so the focus was locating the proper sampling taps for collecting samples for the Total Coliform Rule. This allowed LVVWD Operations to focus on other assignments among their division and keep the water quality monitoring consistent with the Laboratory.

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

**2016-17 Performance Objectives**

- Update standard operating procedures for the Treatment division.
- Coordinate and complete all required lead and copper sampling for LVVWD.

**2015-16 Major Accomplishments**

- Fully support our member purveyors in addressing water quality issues and events.

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# SECTION 6

## CAPITAL PLANS

Capital Budget..... 6-1



SOUTHERN NEVADA WATER AUTHORITY®

FISCAL YEAR 2016-17

OPERATING AND CAPITAL BUDGET



## Capital Budget

The Southern Nevada Water Authority (SNWA) maintains a long-range valley-wide facility planning process to determine the type, size and location of water distribution and treatment capital facilities needed to meet the water services 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 construction program. The ongoing construction program is a dynamic program, with projects added, changed, or deleted as necessary to meet the changing conditions of the Member Agencies.

The construction program consists of the new 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 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

ongoing construction program. This is due to a variety of 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.

In 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 (100%) 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

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Capital Plans**  
Fiscal Year Ending June 30, 2017

assets to the SNWA’s water system is not easily quantified.

and construction projects included in the SNWA’s construction program for the next fiscal year.

The tables below show a listing of all the capital equipment and specific active design

**SNWA: CAPITAL BUDGET 2016-17**

<b>Department</b>	<b>COST</b>
<b>CAPITAL EQUIPMENT</b>	
<b><u>2100 - Finance</u></b>	
Heavy Truck Diagnostic Equipment	\$ 12,000
48 Volt Electric Golf Cart	13,000
Gas Powered Off Road UTV	15,000
24' Goose Neck Equipment Trailer	16,000
Tire Repair Equipment	16,000
Mechanics Tool Set and Box	16,000
Used Belly Dump Semi Trailer	24,000
Mid Size SUV/Crossover	33,000
Mid size Pick-UP, Reg. Cab 4X2	33,000
Compact Sedan	33,000
Compact Cargo Van	33,000
Mid size sport utility 4X4	35,000
1/2 Ton Crew Cab Sort Bed Pick-Up 4X4	35,000
1/2 Ton Regular Cab Pick-UP 4X4	35,000
1/2 Ton Extended Cab Short Bed Pick-Up 4X4	35,000
Mid Size Cargo Van 4X4	38,000
1/2 Ton Crew Cab, Diesel Pick-Up, 4X4	40,000
3/4 Ton, Regular Cab Diesel Pick-Up with Utility Body	40,000
Used 4000 Gal. Water Truck	40,000
3/4 Ton Crew Cab, Short Bed, Diesel Pick-Up	42,000

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Capital Plans**  
Fiscal Year Ending June 30, 2017

Cutaway Cargo Van	45,000
1-Ton Crew Cab Long Bed 4X4 Pick-Up With Flat Bed	46,000
3500 Crew Cab, Flat Bed, Diese Pick-Up 4X4	47,000
Used Cat D-5 Bull Dozer	60,000
2 Each: Mid Size Sport Utility 4X2	66,000
3 Each: Full Size Sport Utility Vehicle 4X4	114,000
5th Wheel Truck/Tractor Reg. Cab	135,000
Used Harsh Feed Truck Mixer	135,000
3 Each: 1-Ton Regular Cab Long Bed 4X4 Pick-Up With Flat Bed	138,000
3 Each: 1-Ton Crew Cab Long Bed 4X4 Pick-Up With Flat Bed	138,000
Hesston Self propelled Swather	150,000
Utility Truck with Crane and Welder 34,000 Lb. GVWR	220,000
Industrial Mechanics Truck	220,000
7250R John Deere Tractor 4X4	250,000
2 Each: 6170M John Deere Tractors 4X4	300,000
2 Each: 8295 R John Deere Tractors 4X4	600,000
4 Each: 1.5 Ton Utility Truck With Crane, 19.500 lbs GVWR	860,000

**2300 - Information Technology**

Netbotz equipment	7,500
Network security system upgrades	10,000
ADVA and Fiber Path Redundancy	17,500
Network Switches	20,000
Netbotz equipment	22,500
Network security system upgrades	30,000
Intel Servers	42,500
Backup infrastructure	45,000
Upgrade the Northern Resources Office satellite connection	50,000
ADVA and Fiber Path Redundancy	52,500
Network Switches	60,000
Intel Servers	127,500
Backup infrastructure	135,000

**3600 - Resources & Facilities**

Domestic Wells	50,000
Infrastructure - Wahoo Shop Renovations	75,000
Infrastruture - Harbecke House II Renovations	80,000
Pivot Irrigation System Installation	200,000
Livestock Purchases	675,000

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Capital Plans**  
Fiscal Year Ending June 30, 2017

**4500 - Water Quality & Treatment**

Replacement For Alignment Analyzer at River Mountains	17,000
TECTA B16 Microbiology Instrument	19,500
Cyanotoxin Automated Assay System (CAAS)	32,000
Replacement of Reverse Osmosis Units at River Mountains	36,500
Discrete Chemistry Analyzer (DCA) Seal Analytical AQ400	55,050
Laboratory Information Management System (LIMS) Contingency	60,000
EZ1 Advanced XL DNA Extraction System	62,000
Automated Solid Phase Extraction Units (ASPE)	63,280
Safe Drinking Water Act Compliance Monitoring and Tracking Software	100,000
Gas Chromatograph Mass Spectrometric Dector GC-MSD	115,000
Raindrop Digital Polymerase Chain Reaction (PCR) System	150,000
R&D Necessary Unforseen Projects	150,000

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<b>TOTAL CAPITAL EQUIPMENT</b>	<b>\$ 6,668,330</b>
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**MAJOR CONSTRUCTION, PLANT REPLACEMENT, IMPROVEMENTS**

**1200 - Legal**

Water Resource Acquisition and Development	\$ 1,300,000
Interim Colorado River Supplies	10,224,000

**2300 - Information Technology**

Water Resource Acquisition and Development	264,000
Clark, Lincoln, and White Pine Counties Groundwater Development	287,023

**3400 - Engineering**

AMSWTF Campus Pavement Restoration	50,000
Las Vegas Lateral Relocation, Hollywood Drive at Vegas Valley	55,000
AMS Asphalt Repair and Resurface - Phase II	200,000
Tropicana Outfall Weir	200,000
Sunrise Mountain Weir and Historical Later Weir Expansion	11,300,000
Lake Mead Intake No. 3 (Low Lake Level Pumping Station at Lake Mead)	142,610,162

**3600 - Resources & Facilities**

Upgrade AMSWTF Admin. Bldg North Soffitt Insulation	20,000
SNWA Replace Defective Lab HVAC Units	25,000
SNWA AMSWTF Restoration Project	25,000
AMS Entry Gate Upgrade	35,000

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Capital Plans**

Fiscal Year Ending June 30, 2017

Equipment Wash Bay Wahoo Shop	40,000
Gravel Screen	45,000
Huntsman Feedlot Processing Building/Hospital	100,000
AMSWTF Miscellaneous Facilities Improvements	100,000
Sloan Pumping Station Foundation Repairs	100,000
AMS Exterior Renovation	100,000
Pump Station HVAC Upgrades	100,000
SNWA HVAC Upgrades	120,000
Upgrade Deficient Evaporative Coolers and AC Units	135,000
AMS Warehouse Office Reconfiguration	150,000
SNWA Miscellaneous Projects	170,000
SNWA Paint Pump Stations	185,000
SNWA Energy Management System Expansion	200,000
SNWA Pump Train Maintenance (Painting)	200,000
SNWA Hay Barn	220,000
Install Buoy Barrier around Intake 1	225,000
Pump Station and Pipe Train Painting	250,000
SNWA Water Treatment Facility Roadway Lighting	285,000
Clark, Lincoln, and White Pine Counties Groundwater Development	1,396,668
Virgin and Muddy Rivers Water Resource Acquisition	3,298,130
Water Resource Acquisition and Development	16,111,800

**3700 - Infrastructure Management**

Oakey ROFCS Site - Oakey/Broadbent Radio link Project (MEPS 7435)	10,000
Pumping Station 5 Site - PP5 Forebay Drain Valve Replacement (MEPS 7164)	20,000
Repair EQ Basin Mixer Lifting Systems	30,000
Flamingo ROFCS Site - Equip Storage/Welding Building (MEPS 7339)	30,000
Pumping Stations 6 Site - PS-6 Septic Tank conversion to City Sewer system (MEPS 7360)	30,000
Multi-site - Intake 3 Tunnel to IPS2 Isolation Gate Corrections Project (MEPS 7380)	35,000
Software support for OMI and hydraulic panel conversions (300H)	45,000
5S007 - AMSWTF SCADA Computer Room A/C Upgrade	50,000
AMSWTF Site - Chlorine Scrubber Secondary Containment Improvement Project (MEPS 7309)	50,000
RMWTF Site - Rectifier Room Ventilation Rework (MEPS 7172)	50,000
Twin Lakes Pumping Station Site - Twin Lakes Tower Removal Project (MEPS 7434)	50,000
Multi-site - Forebay Hatch Repairs - PP3, PP4, PP5, PP7 Forebays, and Reg Tank 6 (MEPS 7161)	50,000
Chlorine Building A/C Upgrade	55,000
Vault Modifications (MEPS 7511)	60,000
Return Wash Water Reduction	71,000
Drain Installations	75,000
AMSWTF Site - Drying Bed Influent Valve Access Vaults (MEPS 7117)	100,000
RMWTF Site - Lab Flooring Replacement (MEPS 7351)	100,000
PP1A Flooring (MEPS 7498)	100,000
C Lateral (Main Aqueduct C) Site - C-Lateral Motor Field Application Panel Upgrade (MEPS 7431)	100,000

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Capital Plans**

Fiscal Year Ending June 30, 2017

District Service Area - Flow Transmitter Upgrade project (MEPS 7432)	100,000
Gibson Lateral Cathodic Protection System	130,000
West Valley Lateral Site - West Valley Lateral Anode Bed Replacement (MEPS 7081)	150,000
Install CP System	160,000
AMSWTF Site - Treatment Chemical Storage Tank Repairs (MEPS 7301)	200,000
Chiller and Sewer Pipe Replacement	250,000
AMSWTF Site - Auxiliary Chlorine Scrubber (MEPS 7307)	250,000
RMWTF Site - Replacement of Hypo tank liner (MEPS 6891)	250,000
Twin Lakes Pumping Station Site - Motor Control Center upgrade project (MEPS 7433)	300,000
Hacienda ROFC Valve Replacement (MEPS 7430)	500,000
Control System Improvements	2,200,000

**4100 - Operations**

5S014 - Hitachi Motor Relay Replacements	16,500
River Mountains 108" Flow Meter Upgrade	31,500
Flamingo ROFC Fence	60,000
R-8 Equestrian Pump Replacement	80,000
5S006 - Recoat Pump Casings at BPS1A and BPS2	125,000
Electrical Equipment Inspection Windows	150,000
Stage I and II Facilities PLC Upgrades	210,000
"A" Lateral Motor Refurbishment	400,000
Motor Refurbishment	500,000
PS 1A, 2A, 1B and 2B Pump Repairs and Flow Meter Installation	500,000
Hitachi Motor Retrofit (formerly Hacienda Pump Repairs)	500,000
Sleeve Valve Installation at Galleria, Simmons and Carlton ROFC Stations	500,000
Sleeve and Miscellaneous Valve Repairs	550,000
Machine Shop Equipment	750,000
PS 1C, 2C, BPS1A, and BPS2 Variable Frequency Drive Enhancements	900,000
5S013 - Stage 2 ROFC Valve & Venturi Flow Control Unit Replacements	1,180,000
Pumping Station Electrical Transformer Repairs	3,100,000

**4500 - Water Quality & Treatment**

Ozone System Related Needs	150,000
Fluoride Tank Replacement	250,000
AMSWTF Filter Bed Improvements	400,000
SNWA Necessary Unforeseen Projects	500,000
Sodium Hypochlorite System Upgrades at River Mountains Water Treatment Facility	2,580,000
AMSWTF Filter Improvements Demonstration	3,426,282

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<b>TOTAL CAPITAL PROJECTS</b>	<b>\$ 212,587,065</b>
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<b>TOTAL CAPITAL BUDGET</b>	<b>\$ 219,255,395</b>
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# SECTION 7

## DEBT MANAGEMENT POLICY

Introduction .....	7-3
Affordability of Debt .....	7-6
Issued by the Las Vegas Valley Water District.....	7-6
Issued by the Clark County.....	7-8
Issued by the State of Nevada.....	7-10
Debt Capacity.....	7-12
Debt Comparison (per capita and assessed valuation) .....	7-12
Policy Statement for Sale of Debt.....	7-12
Operation Costs and Revenue Sources for	
Projects in Major Construction and Capital Plan .....	7-15
Miscellaneous Items .....	7-15
Chief Financial Officer Information.....	7-18
Appendix .....	7-19



SOUTHERN NEVADA WATER AUTHORITY®

FISCAL YEAR 2016-17

OPERATING AND CAPITAL BUDGET



**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

## **Debt Management Policy**

In Accordance With  
NRS 350.013



**SOUTHERN NEVADA**  
**WATER AUTHORITY**

June 30, 2016

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

## **Table of Contents**

<b>Introduction</b> .....	7 - 3
<b>Affordability of Debt</b> .....	7 - 6
<b>Issued by the Las Vegas Valley Water District</b> .....	7 - 6
<b>Issued by Clark County, Nevada</b> .....	7 - 8
<b>Issued by the State of Nevada</b> .....	7 - 10
<b>Debt Capacity</b> .....	7 - 12
<b>Debt Comparison (per capita and assessed valuation)</b> .....	7 - 12
<b>Policy Statement for Sale of Debt</b> .....	7 - 12
<b>Operation Costs and Revenue Sources for</b>	
<b>Projects in Major Construction and Capital Plan</b> .....	7 - 15
<b>Miscellaneous Items</b> .....	7 - 15
<b>Chief Financial Officer Information</b> .....	7 - 18
<b>Appendix</b> .....	7 - 19

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

## **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 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 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 Investor Services 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 Investor Services 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. The SNWA is rated "AA-" by Standard & Poor's, but this rating is below the rating of the LVVWD, the State, and the County, which would likely result in higher interest rates. Therefore, it

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

is expected that the SNWA will continue 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 and updated nine times hence. In February 2010, the Board of Directors of SNWA (the Board) approved the merger of the two capital plans into a new MCCP presented herein. 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 March 2014. 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. 4 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. The facility improvements described by the MCCP are intended to ultimately provide a total water delivery system (including the current operating system) of 900 MGD gallons per day. 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*

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

*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 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 country 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*

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

*than once each fiscal year and not more often than twice each fiscal year, except that a municipality may update a statement or plan required by subsection 1 more often than twice each fiscal year.*

## **Affordability of Debt**

Response to NRS 350.013 1(c):

*(1) A discussion of its ability to afford existing general obligation debt, authorized future general obligation debt and proposed future general obligation debt; and*

*(6) A discussion of its sources of money projected to be available to pay existing general obligation debt, authorized future general obligation debt and proposed future general obligation debt*

### **Existing, Authorized and Proposed General Obligation/Revenue Supported Bond Indebtedness 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

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

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.

LVVWD has never levied an ad valorem tax because theirs and the SNWA's revenues have always 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 2016-17. 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, 2016.

**Debt Service Requirements.** See 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 historic pledged revenues and debt service coverage.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

**Southern Nevada Water Authority Debt**  
**Issued By The Las Vegas Valley Water District**  
As of June 30, 2016

	Issue Date	Original Amount	Outstanding Amount
LVVWD Commercial Paper	Mar-04	\$ 400,000,000	\$ 400,000,000
LVVWD 2008B Bonds	Feb-08	171,720,000	105,890,000
LVVWD 2009A Bonds	Aug-09	90,000,000	90,000,000
LVVWD 2009B Bonds	Aug-09	10,000,000	8,905,000
LVVWD 2009D Bonds	Dec-09	71,965,000	59,975,000
LVVWD 2011A Refunding Bonds	May-11	58,110,000	53,755,000
LVVWD 2011B Refunding Bonds	Oct-11	129,650,000	120,430,000
LVVWD 2011C Refunding Bonds	Oct-11	267,815,000	230,940,000
LVVWD 2012B Bonds	Jul-12	360,000,000	346,615,000
LVVWD 2015 Refunding Bonds	Jan-15	332,405,000	332,405,000
LVVWD 2015B Refunding Bonds	Jun-15	177,635,000	177,635,000
LVVWD 2015C Refunding Bonds	Jun-15	42,125,000	42,125,000
LVVWD 2016A Bonds	Apr-16	497,785,000	497,785,000
<b>Total</b>		<b>\$ 2,609,210,000</b>	<b>\$ 2,466,460,000</b>

SOURCE: Southern Nevada Water Authority

**Existing, Authorized and Proposed Revenue Supported Bond Indebtedness Issued by Clark County, Nevada (“Clark 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 members’ 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

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

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 page sets forth the SNWA’s proposed County Bonds as of June 30, 2016.

**Debt Service Requirements.** See 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 Appendix for the table illustrating the SNWA’s historic pledged revenues and debt service coverage.

**Southern Nevada Water Authority Debt**  
**Issued By Clark County, Nevada**  
As of June 30, 2016

	Issue Date	Original Amount	Outstanding Amount
Clark County 2006 Refunding Bonds	Nov-06	\$ 604,140,000	\$ 419,135,000
Clark County 2008 Bonds	Jul-08	400,000,000	353,415,000
Clark County Clean Renewable Energy 2008 Bonds	Jul-08	6,900,000	3,220,000
Clark County 2009 Refunding Bonds	Nov-09	50,000,000	42,335,000
Clark County 2010B Refunding Bonds	Jun-10	7,405,000	4,460,000
Clark County 2012 Refunding Bonds	Jun-12	85,015,000	79,515,000
Clark County 2016A Refunding Bonds	Mar-16	263,955,000	263,955,000
<b>Total</b>		<b>\$ 1,417,415,000</b>	<b>\$ 1,166,035,000</b>

SOURCE: Southern Nevada Water Authority

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

**Existing Colorado River**  
**Commission/Federal Repayment**  
**Contracts/Water Revenue Bonds Issued by**  
**the State of Nevada (“State of Nevada**  
**Bonds”).**

The SNWS was originally financed by a combination of State of Nevada, Colorado River Commission General Obligation Bonds (the CRC 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 CRC 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 CRC 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 CRC 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 CRC Bonds is further secured by a lien on the net pledged revenues derived from the operation of the SNWA facilities.

Additionally, the State has issued a water revenue bond for the SNWA (SNWA Water Revenue Bond 2009). This issue allows the SNWA to draw against the value of the bond for three years and then begin paying off the borrowings over a twenty year period without interest charges.

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.

**Southern Nevada Water Authority  
Operating and Capital Budget  
Debt Management Policy  
Fiscal Year Ending June 30, 2017**

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, 2016.

**Debt Service Requirements.** See 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 Appendix for the table illustrating the SNWA's historic pledged revenues and debt service coverage.

**Southern Nevada Water Authority Debt  
Issued By The State of Nevada  
As of June 30, 2016**

	Issue Date	Original Amount	Outstanding Amount
Nevada Drinking Water State Revolving Fund Loan 1	Dec-99	\$ 12,269,695	\$ 3,201,207
Nevada Drinking Water State Revolving Fund Loan 2	Jun-01	10,000,000	3,463,404
State of Nevada 2009 Bonds	Dec-09	2,214,457	1,708,295
State of Nevada 2013 Refunding Bonds	Feb-13	21,720,000	21,720,000
<b>Total</b>		<b>\$ 46,204,152</b>	<b>\$ 30,092,907</b>

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 LVVWD Water Bonds and SNWA Revenue 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 related to the requirements of the Nevada Open Meeting Law.

### Competitive Sale.

In a competitive sale, all underwriter(s) are invited to submit a proposal to purchase an issue of bonds. The bonds are awarded to the underwriter(s) presenting the best bid according to stipulated criteria set forth in the notice of sale. The best bid is determined based on the lowest overall interest rate.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

**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 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 Chief Financial Officer 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 Chief Financial Officer may, but is not required, conduct

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

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 Chief Financial Officer 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 Chief Financial Officer 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 Chief Financial Officer 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% to any firm. The Chief

Financial Officer will also determine the maximum amount to be designated to single firm (typically 60%, but this can be higher or lower, depending upon the size of the syndicate and the par amount of the transaction.) In addition, the Chief Financial Officer 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 Chief Financial Officer 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 Chief Financial Officer, 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 Chief Financial Officer, the definition of a retail order 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

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

- The Syndicate Policy Memo may include other relevant information (e.g., management fee or other fees, description of the sale timeline, etc.)

### **Selling Group**

The Chief Financial Officer 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 Chief Financial Officer 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 M CCP**

Response to NRS 350.013 1(c):

*(7) A discussion of its operational costs and revenue sources, for the ensuing 5 fiscal years, associated with each project included in its plan for capital improvement submitted pursuant to paragraph (c), if those costs and revenues are expected to affect the tax rate.*

As illustrated in the Net Pledged Revenues table in the Appendix of this document, operational costs are funded with water

revenues. It is the 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.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

- **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 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 (whichever is greater) when initially presented to the Board and escrow efficiency is at least 60%.

- 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% 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 SNWA debt issues will not extend beyond the useful life of the project or equipment financed. As appropriate, debt issued by the SNWA 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:

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

- Market volatility
- Current investor demand for insured bonds
- Level of insurance premiums
- Ability of the SNWA to purchase bond insurance from bond proceeds

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

**Fixed and Variable Rate Debt**

The SNWA may issue fixed rate debt or variable rate debt, including (but not limited to) Commercial Paper, Variable Rate Demand Obligations, Index Bonds, or Extendible Commercial Paper.

- Fixed rate debt includes bonds that are issued 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 either daily, weekly or monthly. This rate may be based on a 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 rate debt since the interest rate is based on a shorter term. But, variable rate debt has more interest rate risk as the interest rate is not set for the life of the bonds. In times of market stress, short-term interest rates have suffered significant increases, albeit for short periods of time.

Since variable rate debt has more interest rate risk, the LVVWD will not issue more than 25% of its debt in the form of variable rate debt. The Chief Financial Officer, in consultation with the General Counsel and the SNWA's Financial Advisors, will determine the appropriate form of variable rate debt, subject to the approval of the Board of Trustees.

**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 Chief Financial Officer that such program is the most cost-effective financing vehicle, and such determination is approved by the Board of Trustees.

Southern Nevada Water Authority  
Operating and Capital Budget  
Debt Management Policy  
Fiscal Year Ending June 30, 2017

## 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: Gina L. Neilson  
TITLE: Chief Financial Officer  
ADDRESS: 1001 South Valley View Boulevard  
Las Vegas, Nevada 89153  
TELEPHONE: (702) 862-3434

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

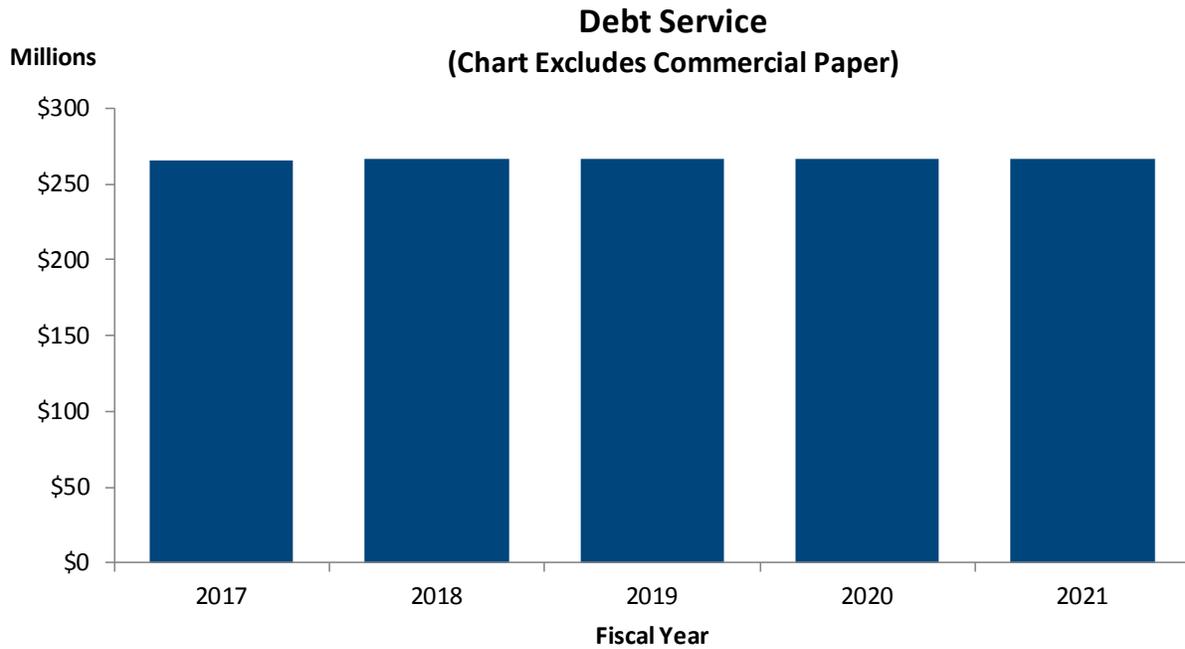
**Appendix**  
**Debt Service and Pledged Revenue Tables**

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 Existing Debt Service by Issuer

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
 Fiscal Year Ending June 30, 2017

**Five Year Schedule of Debt Service Requirements**  
 As of June 30, 2016

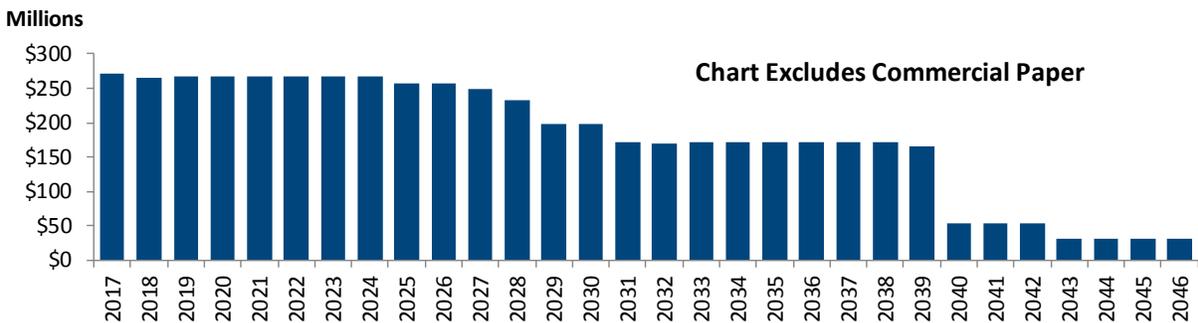
#	Fiscal Year	Commercial Paper	Bonds	Total Debt
1	2017	\$405,000,000	\$266,025,463	\$671,025,463
2	2018	-	266,220,098	266,220,098
3	2019	-	266,834,156	266,834,156
4	2020	-	266,802,663	266,802,663
5	2021	-	266,821,410	266,821,410



**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Debt Management Policy**  
Fiscal Year Ending June 30, 2017

**Combined Schedule of Debt Service Requirements**  
As of June 30, 2016

Fiscal Year	Principal	Interest	Total
2017	\$506,181,517	\$164,843,946	\$671,025,463
2018	114,844,439	151,375,659	266,220,098
2019	120,669,074	146,165,082	266,834,156
2020	126,290,486	140,512,177	266,802,663
2021	132,329,253	134,492,157	266,821,410
2022	138,739,085	128,146,318	266,885,403
2023	145,541,540	121,286,707	266,828,247
2024	152,251,540	114,139,938	266,391,478
2025	150,311,540	106,590,822	256,902,363
2026	158,006,540	98,844,993	256,851,534
2027	157,151,540	91,152,846	248,304,387
2028	148,286,540	83,953,650	232,240,190
2029	118,931,540	78,158,913	197,090,453
2030	124,978,270	72,726,906	197,705,176
2031	103,845,000	67,059,425	170,904,425
2032	108,475,000	62,135,925	170,610,925
2033	114,180,000	56,812,100	170,992,100
2034	119,680,000	51,266,130	170,946,130
2035	125,360,000	45,539,468	170,899,468
2036	131,275,000	39,590,630	170,865,630
2037	137,215,000	33,599,463	170,814,463
2038	143,070,000	27,699,610	170,769,610
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
<b>Total</b>	<b>\$ 3,662,587,907</b>	<b>\$ 2,079,250,954</b>	<b>\$ 5,741,838,861</b>



**Southern Nevada Water Authority  
Operating and Capital Budget  
Debt Management Policy  
Fiscal Year Ending June 30, 2017**

**Combined Schedule of Existing and Proposed Debt Service Requirements  
as of June 30, 2016**

Fiscal Year	Existing Debt			Proposed (New Money)		
	Principal	Interest	Total	Principal	Interest	Total
2017	\$ 506,181,517	\$ 164,843,946	\$ 671,025,463	\$ -	\$ -	\$ -
2018	114,844,439	151,375,659	266,220,098	-	-	-
2019	120,669,074	146,165,082	266,834,156	-	-	-
2020	126,290,486	140,512,177	266,802,663	-	-	-
2021	132,329,253	134,492,157	266,821,410	-	-	-
2022	138,739,085	128,146,318	266,885,403	-	-	-
2023	145,541,540	121,286,707	266,828,247	-	-	-
2024	152,251,540	114,139,938	266,391,478	-	-	-
2025	150,311,540	106,590,822	256,902,363	-	-	-
2026	158,006,540	98,844,993	256,851,534	-	-	-
2027	157,151,540	91,152,846	248,304,387	-	-	-
2028	148,286,540	83,953,650	232,240,190	-	-	-
2029	118,931,540	78,158,913	197,090,453	-	-	-
2030	124,978,270	72,726,906	197,705,176	-	-	-
2031	103,845,000	67,059,425	170,904,425	-	-	-
2032	108,475,000	62,135,925	170,610,925	-	-	-
2033	114,180,000	56,812,100	170,992,100	-	-	-
2034	119,680,000	51,266,130	170,946,130	-	-	-
2035	125,360,000	45,539,468	170,899,468	-	-	-
2036	131,275,000	39,590,630	170,865,630	-	-	-
2037	137,215,000	33,599,463	170,814,463	-	-	-
2038	143,070,000	27,699,610	170,769,610	-	-	-
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	\$ 3,662,587,907	\$ 2,079,250,954	\$ 5,741,838,861	\$ -	\$ -	\$ -

Fiscal Year	Total Existing & Proposed Debt		
	Principal	Interest	Total
2017	\$ 506,181,517	\$ 164,843,946	\$ 671,025,463
2018	114,844,439	151,375,659	266,220,098
2019	120,669,074	146,165,082	266,834,156
2020	126,290,486	140,512,177	266,802,663
2021	132,329,253	134,492,157	266,821,410
2022	138,739,085	128,146,318	266,885,403
2023	145,541,540	121,286,707	266,828,247
2024	152,251,540	114,139,938	266,391,478
2025	150,311,540	106,590,822	256,902,363
2026	158,006,540	98,844,993	256,851,534
2027	157,151,540	91,152,846	248,304,387
2028	148,286,540	83,953,650	232,240,190
2029	118,931,540	78,158,913	197,090,453
2030	124,978,270	72,726,906	197,705,176
2031	103,845,000	67,059,425	170,904,425
2032	108,475,000	62,135,925	170,610,925
2033	114,180,000	56,812,100	170,992,100
2034	119,680,000	51,266,130	170,946,130
2035	125,360,000	45,539,468	170,899,468
2036	131,275,000	39,590,630	170,865,630
2037	137,215,000	33,599,463	170,814,463
2038	143,070,000	27,699,610	170,769,610
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	\$ 3,662,587,907	\$ 2,079,250,954	\$ 5,741,838,861

**Southern Nevada Water Authority  
Operating and Capital Budget  
Debt Management Policy  
Fiscal Year Ending June 30, 2017**

**Net Pledged Revenues  
as of June 30, 2016**

Fiscal Year End	2013 Actual	2014 Actual	2015 Actual	2016 Budget	2017 Budget
<b>REVENUES</b>					
Wholesale Delivery Charges	\$ 117,534,578	\$ 121,045,154	\$ 121,100,263	\$ 122,401,411	\$ 122,759,977
Regional Connection Charges	22,915,416	44,819,669	66,015,927	53,765,118	68,446,150
Regional Infrastructure Charges	79,114,278	80,244,881	87,046,856	112,462,115	149,563,411
Regional Water Charges	45,641,138	48,209,644	53,761,657	62,768,239	69,133,694
Sales Tax	48,847,306	52,308,926	55,933,316	54,448,884	57,992,371
Groundwater Management Fees	863,417	842,191	882,331	874,637	873,661
Las Vegas Wash Revenues	397,708	397,408	404,578	416,715	416,715
Interest Income & Capitalized Int	1,923,641	2,309,538	1,592,657	1,283,700	2,936,847
Other Revenues <sup>1</sup>	3,909,310	4,269,154	4,011,544	9,471,951	84,503,833
<b>Total Revenues</b>	<b>321,146,792</b>	<b>354,446,565</b>	<b>390,749,129</b>	<b>417,892,771</b>	<b>556,626,659</b>
<b>OPERATING EXPENSES</b>					
Personnel & Related	43,880,414	50,216,887	49,951,688	66,684,688	71,530,308
Energy	36,347,165	53,409,820	35,071,725	37,524,906	38,008,556
Operating and Maintenance	27,943,415	34,483,860	42,471,373	36,628,270	49,192,884
Pay-as-you-go Capital Expenditures				22,197,482	23,734,000
<b>Total Operating Expenses</b>	<b>108,170,994</b>	<b>138,110,567</b>	<b>127,494,786</b>	<b>163,035,346</b>	<b>182,465,749</b>
<b>NET PLEDGED REVENUES</b>	<b>212,975,798</b>	<b>216,335,998</b>	<b>263,254,343</b>	<b>254,857,425</b>	<b>374,160,910</b>
Add Beginning Unrestricted Funds <sup>2</sup>	236,252,384	308,634,591	322,928,812	376,504,647	424,209,811
Net Available for Debt Service	449,228,182	524,970,589	586,183,155	631,362,072	798,370,721
<b>SNWA DEBT SERVICE <sup>3</sup></b>	<b>146,773,353</b>	<b>146,324,785</b>	<b>144,200,641</b>	<b>223,751,702</b>	<b>271,025,463</b>
<b>DEBT COVERAGE RATIO</b>	<b>3.1</b>	<b>3.6</b>	<b>4.1</b>	<b>2.8</b>	<b>2.9</b>
<b>SNWA REVENUE AND FUNDS AVAILABLE AFTER DEBT SERVICE</b>					
	<b><u>\$ 302,454,829</u></b>	<b><u>\$ 378,645,804</u></b>	<b><u>\$ 441,982,514</u></b>	<b><u>\$ 407,610,370</u></b>	<b><u>\$ 527,345,258</u></b>

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. Net of credits from the Build America Bonds (BABs).

**Southern Nevada Water Authority  
Operating and Capital Budget  
Debt Management Policy  
Fiscal Year Ending June 30, 2017**

**Schedule of Debt Service By Issuer**  
Fiscal Year Ending June 30, 2016

Fiscal Year	Southern Nevada Water Authority Through the Las Vegas Valley Water District			Southern Nevada Water Authority Through Clark County		
	Principal	Interest	Total	Principal	Interest	Total
2017	\$ 462,095,000	\$ 110,339,302	\$ 572,434,302	\$ 41,565,000	\$ 53,464,621	\$ 95,029,621
2018	70,035,000	99,020,301	169,055,301	42,200,000	51,402,239	93,602,239
2019	73,645,000	96,030,451	169,675,451	44,325,000	49,271,607	93,596,607
2020	76,960,000	92,709,278	169,669,278	46,540,000	47,033,225	93,573,225
2021	82,650,000	89,129,735	171,779,735	48,885,000	44,681,593	93,566,593
2022	86,930,000	85,277,956	172,207,956	51,340,000	42,210,836	93,550,836
2023	91,460,000	81,020,904	172,480,904	53,955,000	39,614,204	93,569,204
2024	95,885,000	76,601,200	172,486,200	56,240,000	36,887,138	93,127,138
2025	91,065,000	71,916,210	162,981,210	59,120,000	34,023,013	93,143,013
2026	95,715,000	67,181,506	162,896,506	62,165,000	31,011,888	93,176,888
2027	89,670,000	62,407,834	152,077,834	67,355,000	28,093,413	95,448,413
2028	56,245,000	58,344,813	114,589,813	70,195,000	25,283,038	95,478,038
2029	45,755,000	55,850,025	101,605,025	73,050,000	22,308,888	95,358,888
2030	47,075,000	53,589,050	100,664,050	77,840,000	19,137,856	96,977,856
2031	38,300,000	51,230,525	89,530,525	65,545,000	15,828,900	81,373,900
2032	56,690,000	49,324,700	106,014,700	51,785,000	12,811,225	64,596,225
2033	73,165,000	46,488,250	119,653,250	41,015,000	10,323,850	51,338,850
2034	76,815,000	42,795,980	119,610,980	42,865,000	8,470,150	51,335,150
2035	80,605,000	38,958,480	119,563,480	44,755,000	6,580,988	51,335,988
2036	84,550,000	34,977,055	119,527,055	46,725,000	4,613,575	51,338,575
2037	88,675,000	30,800,900	119,475,900	48,540,000	2,798,563	51,338,563
2038	117,500,000	26,421,110	143,921,110	25,570,000	1,278,500	26,848,500
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	\$ 2,466,460,000	\$ 1,483,573,654	\$ 3,950,033,654	\$ 1,161,575,000	\$ 587,129,303	\$ 1,748,704,303

**Southern Nevada Water Authority  
Operating and Capital Budget  
Debt Management Policy  
Fiscal Year Ending June 30, 2017**

**Schedule of Debt Service By Issuer**  
Fiscal Year Ending June 30, 2016

Fiscal Year	Southern Nevada Water Authority Through the State of Nevada			Total Debt Service		
	Principal	Interest	Total	Principal	Interest	Total
2017	\$ 2,521,517	\$ 1,040,024	\$ 3,561,541	\$ 506,181,517	\$ 164,843,946	\$ 671,025,463
2018	2,609,439	953,120	3,562,559	114,844,439	151,375,659	266,220,098
2019	2,699,074	863,024	3,562,099	120,669,074	146,165,082	266,834,156
2020	2,790,486	769,674	3,560,160	126,290,486	140,512,177	266,802,663
2021	794,253	680,829	1,475,082	132,329,253	134,492,157	266,821,410
2022	469,085	657,526	1,126,611	138,739,085	128,146,318	266,885,403
2023	126,540	651,600	778,140	145,541,540	121,286,707	266,828,247
2024	126,540	651,600	778,140	152,251,540	114,139,938	266,391,478
2025	126,540	651,600	778,140	150,311,540	106,590,822	256,902,363
2026	126,540	651,600	778,140	158,006,540	98,844,993	256,851,534
2027	126,540	651,600	778,140	157,151,540	91,152,846	248,304,387
2028	21,846,540	325,800	22,172,340	148,286,540	83,953,650	232,240,190
2029	126,540		126,540	118,931,540	78,158,913	197,090,453
2030	63,270		63,270	124,978,270	72,726,906	197,705,176
2031				103,845,000	67,059,425	170,904,425
2032				108,475,000	62,135,925	170,610,925
2033				114,180,000	56,812,100	170,992,100
2034				119,680,000	51,266,130	170,946,130
2035				125,360,000	45,539,468	170,899,468
2036				131,275,000	39,590,630	170,865,630
2037				137,215,000	33,599,463	170,814,463
2038				143,070,000	27,699,610	170,769,610
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
	\$ 34,552,907	\$ 8,547,998	\$ 43,100,905	\$ 3,662,587,907	\$ 2,079,250,954	\$ 5,741,838,861

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# SECTION 8

## STATISTICAL INFORMATION

Table of Contents .....	8-1
Demographic Statistics .....	8-2
Top Ten Employers .....	8-3
Clark County New Home Sales, Median New Home Price .....	8-4
Secured Tax Roll .....	8-5
Temperature & Rainfall.....	8-6
Charts: Average Rainfall and Comparison of Lake Elevations .....	8-7



SOUTHERN NEVADA WATER AUTHORITY®

FISCAL YEAR 2016-17

OPERATING AND CAPITAL BUDGET



**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Statistical Information**  
Fiscal Year Ending June 30, 2017

**Southern Nevada Water Authority**  
**Statistical Summary**

**Page Description**

8-1	Cover Page
8-2	Demographic Statistics
8-3	Top Ten Employers
8-4	Clark County New Home Sales, Median New 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, 2017

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

Calendar Year	Clark County Population <sup>(1)</sup>	Per Capita Income <sup>(2)</sup>	Clark County Personal Income (In Million \$) <sup>(2)</sup>	Median Household Income <sup>(3)</sup>
2015	2,118,353	N/A	N/A	N/A
2014	2,069,450	39,533	81,821.0	60,168
2013	2,034,140	37,424	76,125.7	52,394
2012	2,000,759	36,542	70,289.1	51,159
2011	1,967,926	35,680	67,738.3	48,927

Calendar Year	School Enrollment <sup>(4)</sup>	Total Labor Force <sup>(5)</sup>	Unemployment Rate <sup>(6)</sup>
2015	318,597	1,042,587	6.9%
2014	314,598	990,900	6.2%
2013	311,429	992,000	10.1%
2012	308,447	980,700	12.1%
2011	309,893	992,000	14.4%

Sources:

(1) Nevada State Demographer.

(2) U.S. Bureau of Economic Analysis as reported for the Las Vegas-Paradise MSA (which is comprised of Clark County). Updated November 20, 2015.

(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, 2017

**Top Ten Employers<sup>(1)(2)</sup>  
Clark County, Nevada  
Fiscal Year 2014-15**

<u>Employer Trade name</u>	<u>Employees</u>	<u>Ranking</u>	<u>% of Total Labor Force<sup>(4)</sup></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%
Ceasars 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%
Mirage Hotel & Casino	4,500 to 4,999	10	
State of Nevada	5,000 to 5,499	10	
<b>Total Labor Force</b>	<b>1,042,587</b>		

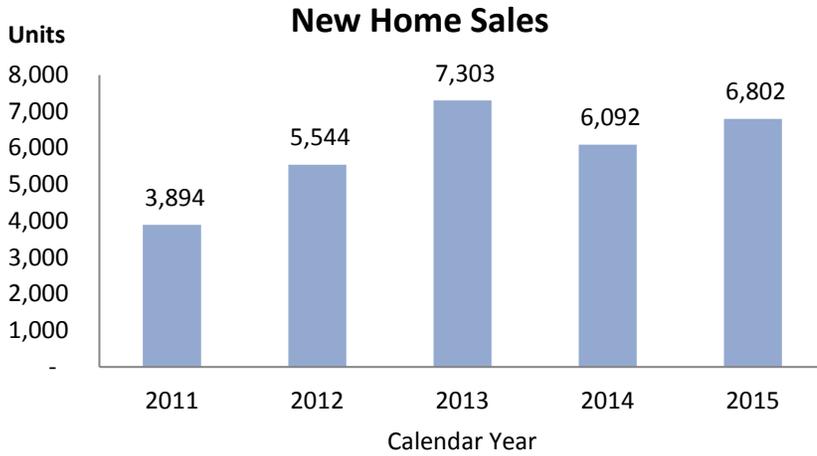
Sources:

(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, 2017

## Residential Real Estate Clark County, Nevada




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### New Home Median Price



Year	Units Sold	Median New Home Price
2011	3,894	\$ 212,250
2012	5,544	\$ 218,114
2013	7,303	\$ 298,601
2014	6,092	\$ 291,785
2015	6,802	\$ 310,814

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Statistical Information**  
 Fiscal Year Ending June 30, 2017

**Secured Tax Roll**  
**Clark County, Nevada**  
**2015 - 16**

<u>Taxpayer</u>	<u>Taxable Assessed</u>	<u>Taxable Appraised</u>
1. MGM Resorts International	\$ 2,703,139,671	\$ 7,723,256,203
2. Caesars Entertainment Corporation	1,614,924,522	4,614,070,063
3. Las Vegas Sands Corporation	846,732,437	2,419,235,534
4. Wynn Resorts Limited	751,015,950	2,145,759,857
5. Station Casinos Incorporated	499,998,241	1,428,566,403
6. Nevada Property 1 LLC	348,474,898	995,642,566
7. Howard Hughes Corporation	323,486,991	924,248,546
8. Boyd Gaming Corporation	273,408,531	781,167,231
9. Picerne Real Estate Group	206,135,866	588,959,617
10. Hilton Grand Vacations	200,839,731	573,827,803
	<u>\$ 7,768,156,838</u>	<u>\$ 22,194,733,823</u>

SOURCE: Clark County Assessor's Report Dated April 1, 2015

Southern Nevada Water Authority  
 Operating and Capital Budget  
 Statistical Information  
 Fiscal Year Ending June 30, 2017

## 2010-2015 Temperature and Rainfall

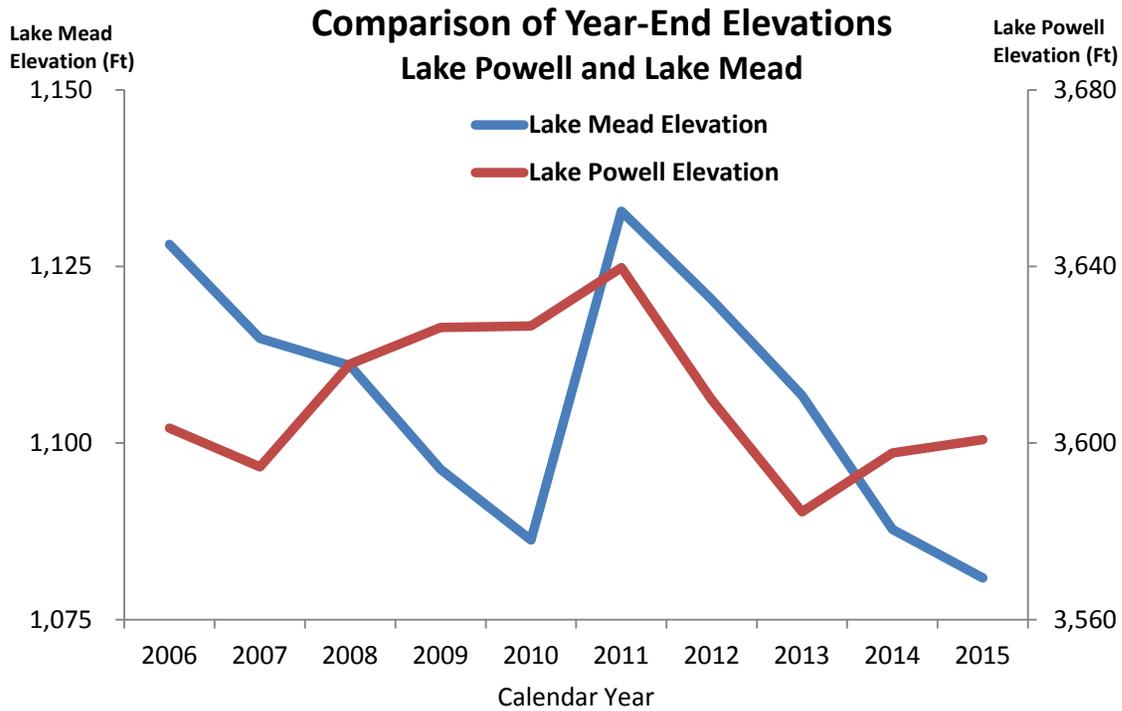
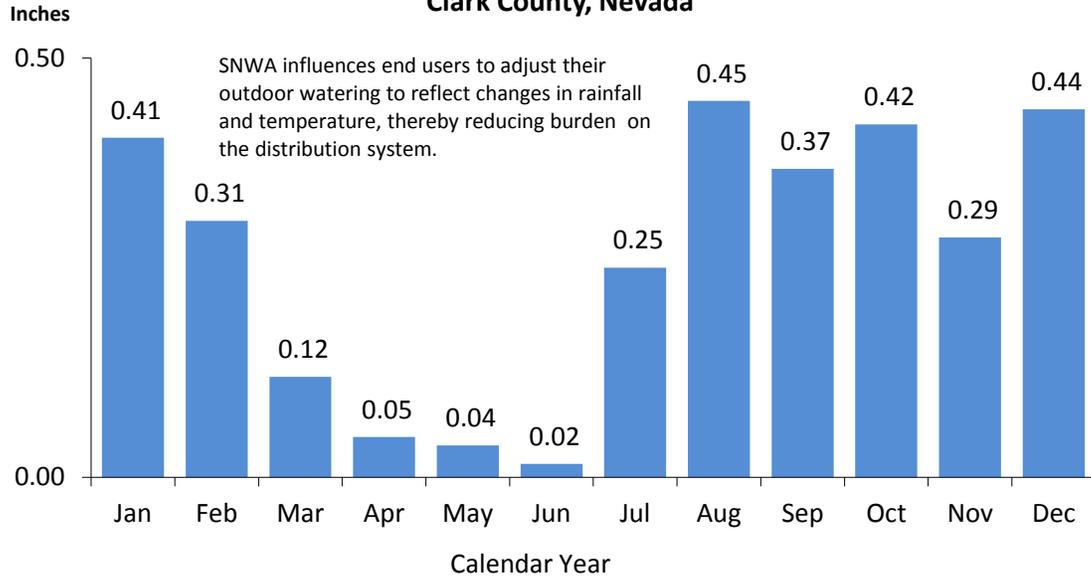
Average Maximum and Minimum Daily Temperature  
 in Degrees Fahrenheit and Monthly Rainfall in Inches

Month	2010			2011			2012		
	Temperature			Temperature			Temperature		
	Max.	Min.	Rainfall	Max.	Min.	Rainfall	Max.	Min.	Rainfall
January	65	33	2.0	74	27	0.0	68	34	0.0
February	70	37	1.1	71	26	0.1	74	38	0.1
March	82	40	0.2	88	39	0.2	86	37	0.2
April	88	45	0.1	93	41	0.0	99	44	0.0
May	96	49	0.0	96	51	0.0	107	52	0.0
June	110	64	0.0	110	60	0.0	108	68	0.0
July	113	77	0.0	112	74	0.8	114	71	0.2
August	108	65	0.0	112	74	0.0	112	68	2.3
September	108	65	0.0	105	64	0.8	102	68	1.2
October	96	49	0.8	95	49	0.2	99	50	0.9
November	86	30	0.0	79	38	0.1	83	37	0.0
December	70	30	1.8	65	28	0.1	72	30	0.5
<b>Average Annual Temperature/ Total Rainfall</b>	<b>91.0</b>	<b>48.7</b>	<b>5.9</b>	<b>91.7</b>	<b>47.6</b>	<b>2.3</b>	<b>93.7</b>	<b>49.8</b>	<b>5.3</b>

Month	2013			2014			2015		
	Temperature			Temperature			Temperature		
	Max.	Min.	Rainfall	Max.	Min.	Rainfall	Max.	Min.	Rainfall
January	65	23	0.4	73	34	0.0	73	29	0.9
February	71	35	0.0	81	34	0.3	79	38	0.5
March	87	44	0.2	86	45	0.0	91	41	0.3
April	99	48	0.0	92	43	0.0	95	49	0.3
May	102	58	0.0	105	56	0.0	104	51	0.2
June	117	73	0.0	111	70	0.0	113	67	0.0
July	115	75	0.3	112	77	0.2	109	74	0.2
August	109	70	0.3	107	69	0.4	110	73	0.7
September	102	57	0.4	106	64	0.6	105	67	0.0
October	92	47	0.0	93	55	0.0	98	57	1.2
November	79	42	1.4	84	37	0.0	86	32	0.2
December	69	26	0.1	68	30	0.3	70	29	0.0
<b>Average Annual Temperature/ Total Rainfall</b>	<b>92.3</b>	<b>49.8</b>	<b>3.0</b>	<b>93.2</b>	<b>51.2</b>	<b>1.81</b>	<b>94.4</b>	<b>50.6</b>	<b>4.5</b>

Southern Nevada Water Authority  
 Operating and Capital Budget  
 Statistical Information  
 Fiscal Year Ending June 30, 2017

## Average Rainfall Per Month Ten Year Span 2006 to 2015 Clark County, Nevada



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# SECTION 9

## FINANCIAL POLICIES

Financial Policy.....	9-1
Reserve Policy .....	9-5



SOUTHERN NEVADA WATER AUTHORITY®

FISCAL YEAR 2016-17

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.

<b>SOUTHERN NEVADA WATER AUTHORITY</b>	<b>SUBJECT:</b>  <b>SOUTHERN NEVADA WATER AUTHORITY RESERVE POLICY</b>	<b>NUMBER:</b>  11
		<b>ISSUE:</b>  1
<b>BOARD POLICY</b>	<b>APPROVED BY:</b>	
<b>ISSUING DEPARTMENT:</b>  <b>FINANCE</b>	<b>BOARD OF DIRECTORS</b> <b>January 21, 2016</b>	<b>PAGE:</b>  1 OF 2

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



SOUTHERN NEVADA WATER AUTHORITY®

FISCAL YEAR 2016-17

OPERATING AND CAPITAL BUDGET



**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Glossary**

Fiscal Year Ending June 30, 2017

**Accrual.** The act of recognizing a charge incurred in one accounting period that has not been paid by the end of it.

**Acre-Foot (af).** A water measurement equating to 325,851 gallons. An acre foot will supply the annual water needs of approximately 2 single family homes in the SNWA 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 the paying off of debt with a fixed repayment schedule in regular installments over a period of time.

**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 plan of revenue and expenditures over a given period of time, usually one year.

**Budget Calendar.** The schedule of key dates or milestones that the SNWA follows in the preparation and adoption of the budget.

**Budgetary Control.** The control or management of a governmental unit or enterprise in accordance with an approved budget for the purpose of keeping expenditures within the 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.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Glossary**

Fiscal Year Ending June 30, 2017

**Capital Expenditure.** Fixed assets to be acquired during a fiscal year, generally with a value of over \$10,000 and an estimated life of over three years.

**Capitalized Expenses.** 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 using less water in a more efficient manner. SNWA achieves the benefits of conservation through education of the end user, promoting water efficient hardware, and pricing signals.

**Construction Expenditures.** Generally, construction expenses that are spent on third party vendors who build, supervise, or provide materials used in the construction of capital assets.

**Construction In Progress (CIP).** An accountancy term that records the cost of construction work, which is not yet completed (typically, applied to capital budget items). A CIP item is not depreciated until the asset is placed in service. Normally, upon completion, a CIP item is reclassified, and the reclassified asset is capitalized and depreciated.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Glossary**

Fiscal Year Ending June 30, 2017

**Debt Issuance Proceeds.** Principal amount of debt issues. These proceeds are used to pay for major construction expenditures incurred by the SNWA.

**Debt Service Payments.** Funds used to pay annual debt payments and interest expense.

**Department.** A basic organizational unit of the SNWA that is functionally unique in its delivery of services.

**Depreciation.** The decrease in value of physical assets due to use and 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 2016-17 ends on June 30, 2017.

**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

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Glossary**

Fiscal Year Ending June 30, 2017

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 mid-2000's and lasted 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

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Glossary**

Fiscal Year Ending June 30, 2017

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 District 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.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Glossary**

Fiscal Year Ending June 30, 2017

**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.** The excess of an entity's assets over its liabilities. Net position was originally 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.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Glossary**

Fiscal Year Ending June 30, 2017

**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 for the purpose of storing it 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

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Glossary**

Fiscal Year Ending June 30, 2017

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.

**Southern Nevada Water Authority**  
**Operating and Capital Budget**  
**Glossary**

Fiscal Year Ending June 30, 2017

**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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