

# 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

---

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

This page left intentionally blank

