

# Western States Water Resources Infrastructure Needs and Strategies



## Public/Private Sector Roles in Financing/ Building Projects

**Bruce C. Moore**  
**Acting Director, Surface Water Resources**  
Southern Nevada Water Authority

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# Challenges Southern Nevada Faces in Meeting Water Needs

- **Population almost triples from 1990-2008, then levels off**
- **Worse drought of 100 year record**
- **Lake Mead Elevation (3<sup>rd</sup> Intake)**
- **Climate Change**
- **Limited Water Resource Options**
- **Economic Recession**
  - **Reducing reserve fund**
  - **Downgrade to bond rating**

# Resource Overview

## SNWA's water resource portfolio includes:

- Conservation
- Colorado River Resources
- Colorado River Banked Resources
- Groundwater Resources
- Reclaimed Water Resources

**Note: Portfolio does not  
include an ocean front nor  
an agriculture buffer !**



**SNWA  
Regional  
Water System**



# Regional Water System

**Since 1991 Southern Nevada Water Authority has been the *regional* water provider in Southern Nevada.**

## **SNWA Member Agencies**

- **Big Bend Water District**
- **City of North Las Vegas**
- **City of Henderson**
- **Las Vegas Valley Water District**
- **City of Boulder City**
- **Clark County Water Reclamation District**
- **City of Las Vegas**

# Regional Water System

**Between 1995 and 2010, the SNWA completed a \$2.4 billion Capital Improvements Program, which added major components to the regional water system.**

# Regional Water System

**The regional system includes the facilities inherited from the Colorado River Commission and Bureau of Reclamation.**



**Lake Mead Intake 1**

**Completed: 1971**

**Approximate Construction**

**Cost: \$81 million plus another \$40 million  
in expansion and upgrades**



**Alfred Merritt Smith**

**Water Treatment Facility**

**Phase 1 Completed: 1971**

**The SNWA has invested more than  
\$200 million in expansion and upgrades**

# Regional Water System



**An additional treatment facility was required to meet production demands.**

**River Mountains Water Treatment Facility  
Completed: 2002  
More than \$450 million spent in design,  
construction and expansion**

**SNWA  
Revenues &  
Expenses**



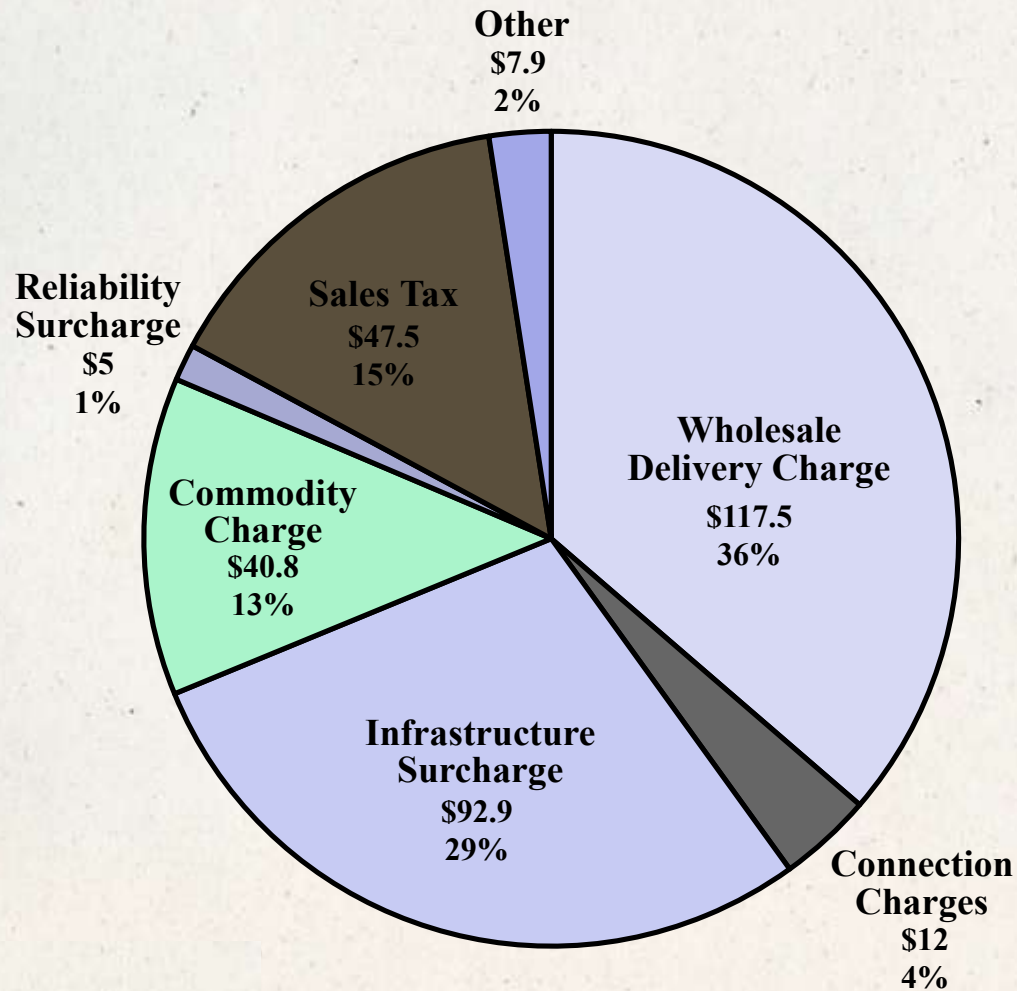
# Economic Downturn Impact To Revenue Streams (43% Decrease)

Source of Funds	2005/2006 Fiscal Year	2010/2011 Fiscal Year	Increase/ (Decrease)
Wholesale Delivery Charge	\$114,865,354	\$119,457,411	\$4,592,057
Regional Connection Charge	188,454,011	10,775,614	(177,678,397)
Regional Commodity Charge	10,773,616	32,853,776	22,080,160
Regional Reliability Surcharge	3,440,227	4,481,664	1,041,437
Sales Tax	53,649,620	43,121,602	(10,528,017)
<b>Total</b>	<b>\$371,182,828</b>	<b>\$210,690,068</b>	<b>\$(160,492,760)</b>

*Note: Figures may be slightly off due to rounding*

# SNWA Revenue Sources

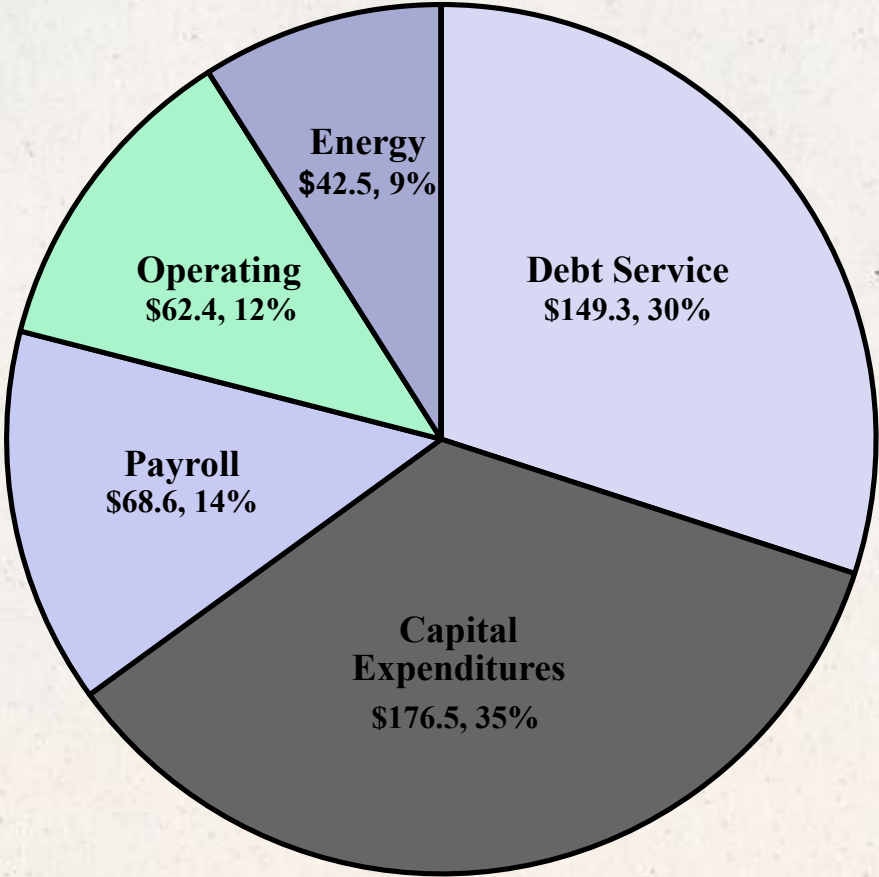
## SNWA Revenue Sources (2012/2013 budget)



\*Amounts in millions

# SNWA Expenses

## 2012/2013 Budget – Uses of Funds

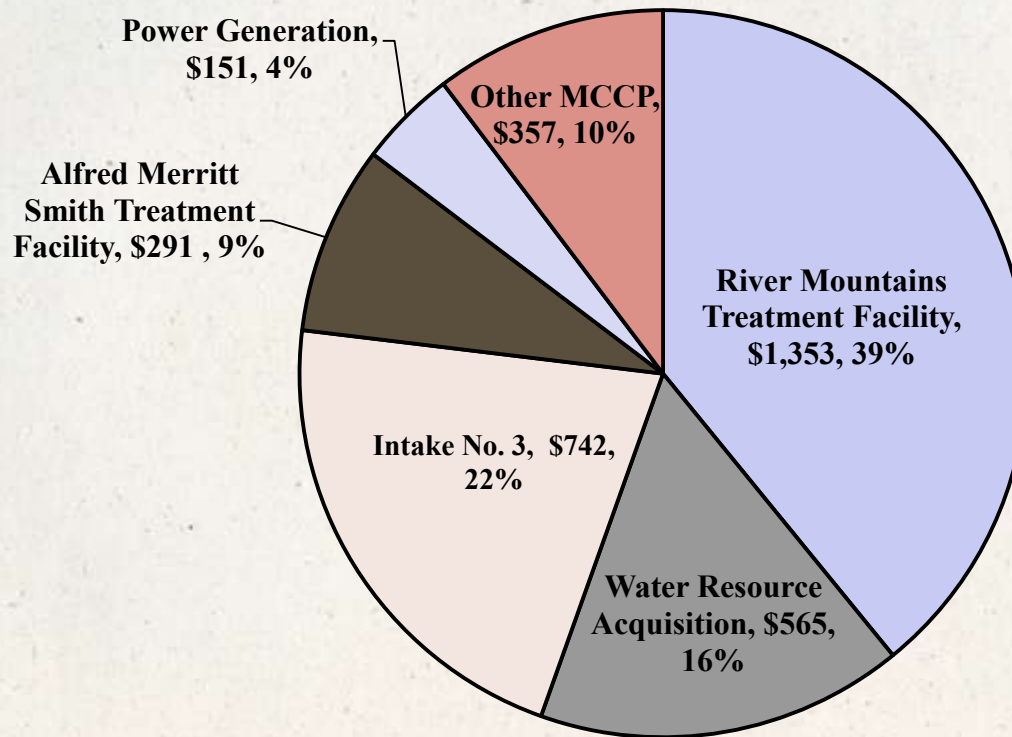


**TOTAL: \$499 million**

\*Amounts in millions

# SNWA Debt

To complete the infrastructure needed for the community, the SNWA incurred debt.



**Total Debt: \$3,459,000,000**

*Amount in millions*

# SNWA Expenses

## Debt Service

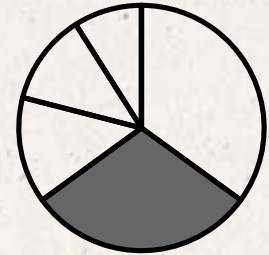


**Pays for SNWA projects built since 1996 and capital items acquired from the Colorado River Commission.**

- **River Mountains Water Treatment Plant**
- **Alfred Merritt Smith Treatment Plant**
- **Water resource acquisitions**
- **Intake No. 3**
- **Power generation (Silverhawk)**
- **Other capital projects including pumping stations, reservoirs major laterals and Intake No. 2**

# SNWA Expenses

## Capital Expenditures (Expended during fiscal year)



Capital  
Expenditures

- **Intake No. 3**
- **Upgrades, repairs, and replacement of existing facilities**
- **Las Vegas Wash activities**
- **Hydrologic studies, preliminary facility planning, and environmental analysis for the Groundwater Project**
- **Desalination studies**
- **Water Smart Landscaping rebates**

**SNWA  
Responses to  
Economic  
Downturn**



# SNWA Response to Economic Downturn

**The SNWA was not immune to impacts from a depressed economy.**

**Like other businesses across Southern Nevada, the SNWA made significant cuts in expenditures, deferred projects, and modified funding strategies to balance the budget and reduce impacts to rate payers.**

# SNWA Response to Economic Downturn

- **\$56 million in cuts and deferrals of operating costs**
- **\$395 million deferred projects**
- **\$57 million deferred Water Smart Landscape Program**
- **\$125 million by modifying AWBA payment schedule through 2014**
- **\$4.73 million extending Virgin and Muddy River Leases**
- **Approx. \$200 million in debt refinancing now and in the future**

**SNWA  
Future  
Financing  
Challenges**



# SNWA Future Financing Challenges

- **Northern Groundwater Project**
- **Major Infrastructure Additions, and Repairs and Replacements**
- **Major Augmentation Projects**
- **The SNWA will experience annual shortfalls in revenue beginning in 2016 if the current funding structure remains unchanged (21 member IRPAC)**



SOUTHERN NEVADA WATER AUTHORITY

