# Integrated Resource Planning Advisory Committee

**DECEMBER 5, 2012**

## Why Develop and Weight Attributes?

- **Provides a "common language" to support discussion**
- **Illustrates the complimentary and competing aspects of certain attributes**
- **Allows you to clearly communicate your stakeholders' interests and values**
- **Supports deeper understanding of other perspectives**
- **Facilitates evaluation of various rate alternatives and their impacts**

2

## PRESENTATION OVERVIEW

I. Revenue and Expenditure Overview

II. Bond Issuance Overview

III. SNWA Budget Profile

IV. Rate Model

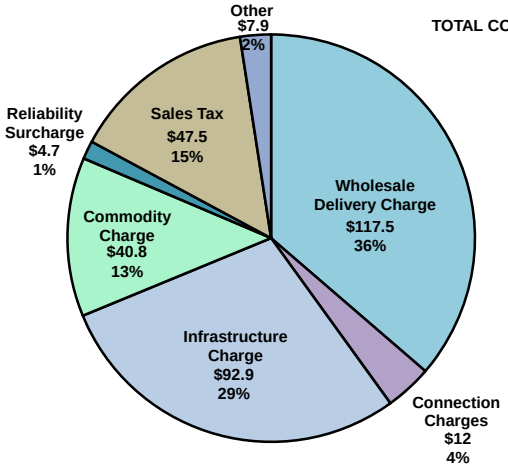
V. Conclusions and Next Steps

VI. Questions



## REVENUE AND EXPENDITURE OVERVIEW

## SNWA Revenue Mix Budget Year 2013

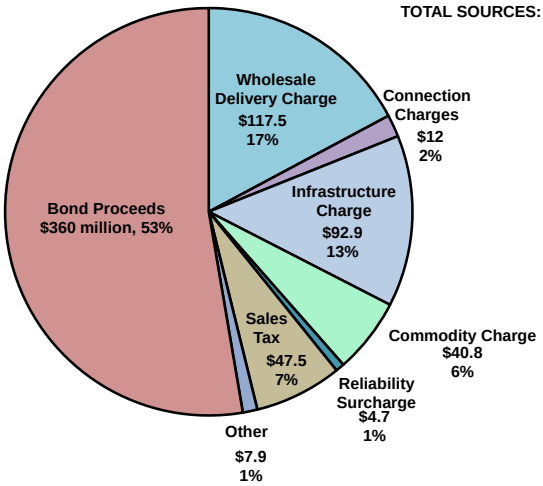



Amounts in millions

Page 5

## SNWA Funding Mix with Bond Proceeds

### FY 2013 Budget




Amounts in millions

Page 6

## Funding Sources

### Primary Revenue Components

- Wholesale Delivery Charge
- Sales Tax
- Reliability Surcharge
- Commodity Charge
- Infrastructure Charge
- Connection Charge



## Wholesale Delivery Charge

- Delivery charge paid by Boulder City, Henderson, North Las Vegas and Las Vegas Valley Water District
  - Nellis Air Force Base also pays a modified Wholesale Delivery Charge
- $293 per acre-foot
- Estimated 2013 sales: 407,815 acre-feet (including return-flow credits)
- Projected revenue: $117,500,000 (FY 2013 Budget)
- Used to fund expenditures not related to capital outlay for the improvement or expansion of Southern Nevada Water System (single largest expense is energy)
- Can be used to pay debt service for repair, replacement or reconstruction

## Sales Tax

| ¼ of 1% | Budget 2012-13 |
|---|---|
| SNWA | $44,400,000 |
| Las Vegas Wash | $3,100,000 |
| Other Recipients: | |
| Rural Clark County areas - | $ 2,600,000 |
| Wastewater Agencies - | $27,400,000 |

**Distribution methodology:**

- **Rural Clark County areas:** Proportionately based on service provider's service area assessed valuation to the total Clark County assessed valuation.
- **Las Vegas Wash:** 4 percent of total sales tax received
- **Remainder**:
  - SNWA – 62%
  - Wastewater Agencies – 38%

| | |
|---|---|
| Clark County Water Reclamation District | 19.75% |
| City of Las Vegas | 12.81% |
| City of Henderson | 5.44% |
| | 38.00% |

**1997 Legislative Session**: Sunset provision - $2.3 billion or June 30, 2025, whichever occurs first

**2011 Legislative Session:** Authorized County Commission to determine whether or not the cessation of the tax is advisable or not.

**Used primarily to pay debt service**

Page 9

## Reliability Surcharge

**Excise Tax on total water bill**

**Residential: 0.25 percent (At statutory limit)**

**Non-Residential: 2.50 percent (Statutory limit: 5.00 percent)**

**Revenue generated**

**Residential: $800,000 (FY 2013 Budget)**

**Non-Residential: $3,900,000 (FY 2013 Budget)**

**Used primarily to pay debt service.**

Page 10

## Commodity Charge

- **$0.30 per 1,000 gallons**
- **Revenue generated: $40,800,000 (FY 2013 Budget)**
- **Used primarily to pay debt service**

## Infrastructure Charge

- **Fixed charge based on size and type of meter**
  **Residential**
  **Non Residential**
  **Non Residential Fire**
- **Revenue generated: $78,800,000**
  **($93,000,000 before 50% fire meter credit) -FY 2013 Budget**
- **Used to pay debt service**

## Connection Charge

- **$4,870 per connection***
- **Revenue generated: $12,000,000 (FY 2013 Budget)**
- **Used to pay debt service**

*Connection charge for 5/8" and ¾" residential connection



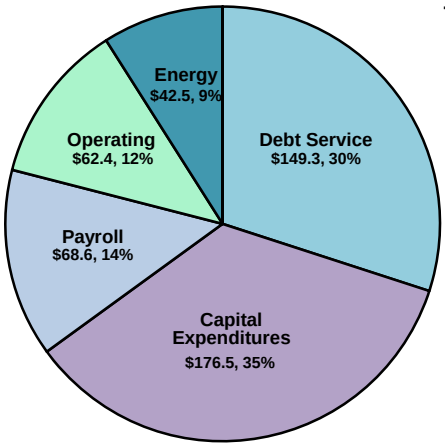
## Other Revenue

- **Groundwater Management Fees: $913,000 (FY 2013 Budget)**
- **Las Vegas Wash Program Fees: $500,000 (FY 2013 Budget)**
- **Interest Income: $1,700,000 (FY 2013 Budget)**

## How are SNWA Revenues Used?

### FY 2013 Budget – Uses of Funds

TOTAL: $499 million




*Amounts in millions



# BOND ISSUANCE OVERVIEW

# Debt Issuance Options

**The SNWA can issue the following types of debt:**

- **Taxable versus Tax-Exempt Debt and Private versus Public financing**

**Double Barreled General Obligation Bonds (GO)**

**Revenue-backed general obligation securities**

- **Full faith and credit and taxing power of the issuer is pledged for debt repayment, but the debt payments are expected to be paid from a designated revenue source other than *ad valorem* (property) taxes.**
- **The Clark County Bond Bank, the State of Nevada Bond Bank and the Las Vegas Valley Water District have all issued debt on behalf of SNWA.**
- **All but $5 million of the SNWA currently outstanding debt is GO backed.**

**Revenue Bonds**

- **Revenue bonds are obligations secured only by a designated "special" fund, which consists of monies from a designated source not derived from *ad valorem* (property) taxation.**

**Other**

- **Medium-term bonds**
- **Certificates of Participation (COPS)**
- **Nevada State Revolving Fund loans**



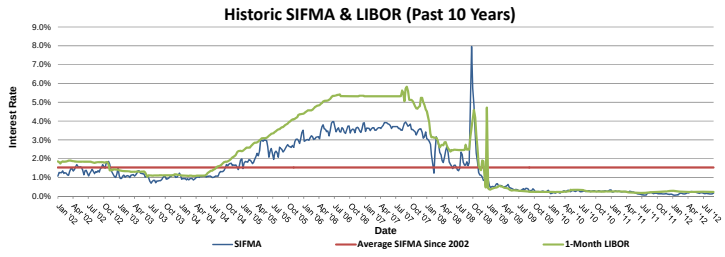
# Fixed vs. Variable Rate Debt

**Traditionally, the SNWA has issued mostly "fixed rate" debt.**

- **The interest on the loan will be "fixed" ahead of time and will not change**
- **Provides for certain known costs**

**Variable rate debt is structured with interest rate(s) that change daily or weekly along with certain indices.**

- **SIFMA is the standard tax-exempt index, 1-month LIBOR is the standard taxable index**
- **The movements of common variable rate indices have been volatile in the past few years, but are currently at historic lows**
- **Moves borrowing rates to the short end of the yield curve**
- **Hedge interest rate risk inherent in most capital structures**




LIBOR stands for London Interbank Offered Rate and represents a taxable short-term interest rate benchmark.
SIFMA stands for Securities Industry and Financial Markets Association and represents a tax-exempt high grade short-term index.

## Issuing Entity

**The SNWA is able to gain the benefit of general obligation pricing through the use of conduit issuers.**

**SNWA conduit issuers:**

- **Las Vegas Valley Water District**
- **Clark County Bond Bank**
- **State of Nevada**
- **State of Nevada Bond Bank**

**Total SNWA outstanding debt at Dec 1, 2012: $3.5 billion**

**(All but $5.060 million issued with the benefit of general obligation pricing)**



## Credit Ratings

| Agency | Moody's | S&P |
|---|---|---|
| LVVWD | Aa2 | AA+ |
| SNWA | n/a | A+ |
| Clark County | Aa1 | AA+ |
| State of Nevada | Aa2 | AA |

# LVVWD – Credit

Strong ratings from Moody's and S&P (Aa2 negative outlook, AA+ stable outlook)

| | Moody's | Standard & Poor's |
|---|---|---|
| Rating | Aa2 | AA+ |
| Outlook | Negative | Stable |

**CURRENT**

| CREDIT STRENGTHS | CREDIT CHALLENGES |
|---|---|
| • Large service area including the City of Las Vegas■■<br>• Large tax base despite significant declines amid recent housing and economic downturns■■<br>• Significant expenditure reductions implemented since 2009■■<br>• Strong financial policies and practices that have remained in place through economic cycles■<br>• Critical role as the sole water wholesale entity serving southern Nevada■■ | • Expected slow rebound, prolonged period of economic weakness ■■<br>• Low debt service coverage levels, relative to national peers and medians■<br>• Intermittent and uneven water rate increases■<br>• Unemployment rate of 11.6% is well above national average■■ |

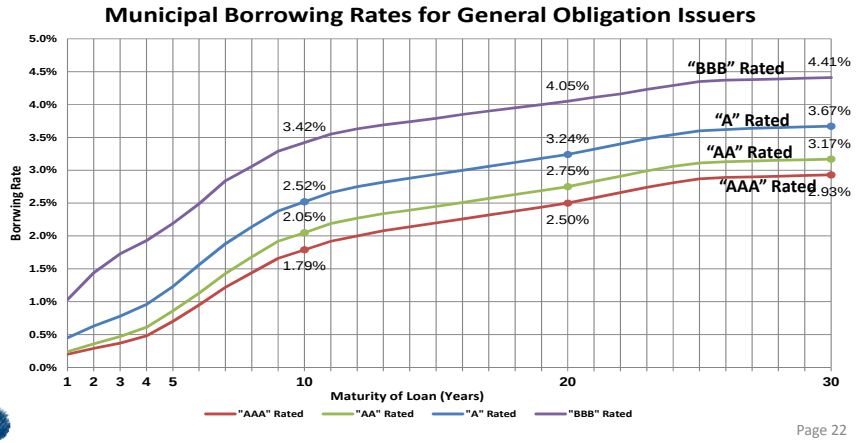
**NOTES**

| MOODY'S ■ | S&P ■ |
|---|---|
| • Rating could improve with significant strengthening of debt service coverage<br>• Rating could worsen if unwilling to adopt prudent rate increases | • Expects the District to continue to adjust rates as needed<br>• Not expected to raise or lower the rating within two-years<br>• Expects the District to continue to maintain strong reserve levels |

*■= Moody's Investors Service, 6/27/12 rating report; ■= Standard & Poor's, 6/25/12 rating report*

# Credit rating effects on borrowing rates

**Current borrowing rates for "BBB" rated entities are as much as 1.63 percentage points higher than for those rated "AAA"**



## Competitive vs. Negotiated Sales

**Competitive Sale**

- **A sale of municipal securities sold via an online auction system. The Bidder with the lowest True Interest Cost ("TIC") "wins" and buys the bonds.**

**Negotiated Sale**

- **The sale of the bonds is by negotiation and agreement with an underwriter or underwriting syndicate selected by the issuer before the sale.**



## Sale Strategy

**Mixing the use of competitive and negotiated sales** is the optimal approach for a Borrower's financing practice; combining the best attributes of competitive and negotiated sales.

- Empirical data show competitive sales usually produce lower borrowing costs
- Competitive sales provide benchmarks for future negotiated sales
- Negotiated sales motivate firms to bring innovative ideas to the Borrower
- Negotiated sales provide maximum flexibility to optimize the structure, timing & execution of transactions
- Rewarding firms that support the Borrower's competitive sales by including them in future negotiated sale syndicates results in better pricing

## Market Performance of SNWA Debt

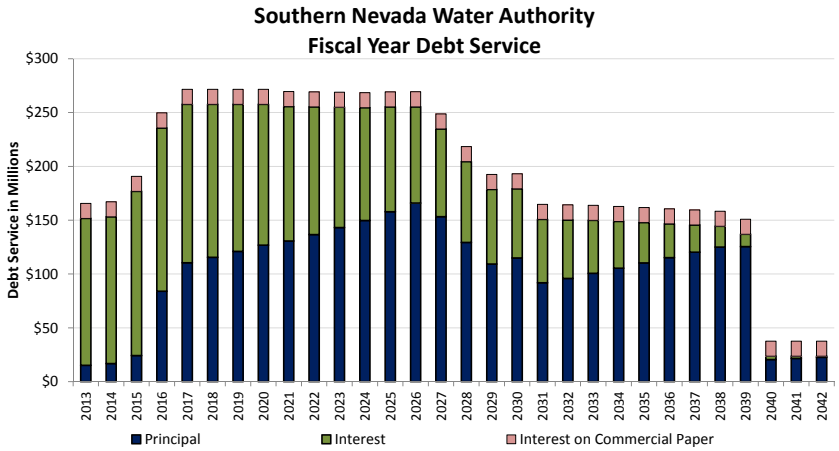
- **SNWA debt issued through the State, Clark County and the LVVWD is well received by investors.**
- **SNWA is able to benefit from the General Obligation pledges while repaying debt from water revenues.**
- **Strong water revenues and the ability to increase rates if needed for providing an essential service makes this a very attractive debt investment.**
- **Strong investor demand led to low interest rate cost, and allows SNWA to finance large capital projects over the life of its assets.**
- **The actual "user" is paying debt service through rates.**



## SNWA Outstanding Debt

| | Balance December 1, 2012 |
|---|---|
| State of Nevada (Self Supporting) | |
| CRC Refunding Bonds | $152,980,000 |
| SNWA Revenue and Refunding Bonds (State Bond Bank) | $194,870,000 |
| | $347,850,000 |
| Las Vegas Valley Water District (Self Supporting) | |
| Water and Refunding Bonds | $1,451,990,000 |
| Commercial Paper Notes | $400,000,000 |
| | $1,851,990,000 |
| Clark County (Bond Bank Bonds) | |
| Water and Refunding Bonds | $1,240,400,000 |
| State of Nevada | |
| State Revolving Fund Loans | $13,750,540 |
| SNWA Revenue Bonds | |
| Clean Renewable Energy Loan | $5,060,000 |
| Total Outstanding SNWA Obligations | $3,459,050,540 |

# SNWA Debt Profile




Note: (1) July 1 payments are included in prior fiscal year - effective cash outflow
(2) Debt Service shown includes debt service dedicated to the New Expansion Debt Service Fund as well as the Whole Sale Delivery Operations Fund.
(3) Debt service does not include the 35% interest subsidy from the federal government for the Authority's Build America Bonds.



# Debt Restructuring Options are limited

- **Even if the SNWA was able to reduce debt service payments through refinancing, a substantial increase in debt service in 2016 and 2017 remains.**
- **The debt service level from 2017 – 2026 is relatively level above $250 million. A restructuring to extend a portion of this debt beyond 2026 may result in higher cost debt and is subject to tax restrictions (if the underlying financed assets life is long enough).**

| Fiscal Year Ending | Principal | Interest | Debt Service | BAB Subsidy | Net Interest | Commercial Paper Interest | Debt Service |
|---|---|---|---|---|---|---|---|
| 6/30/2013 | $15,141,783 | $136,453,067 | $151,594,850 | ($10,867,007) | $125,586,059 | $14,000,000 | $154,727,843 |
| 6/30/2014 | 16,883,419 | 136,189,410 | 153,072,829 | (10,867,007) | 125,322,403 | 14,000,000 | 156,205,821 |
| 6/30/2015 | 24,301,543 | 152,456,258 | 176,757,801 | (10,867,007) | 141,589,250 | 14,000,000 | 179,890,794 |
| 6/30/2016 | 84,056,211 | 151,626,828 | 235,683,039 | (10,867,007) | 140,759,820 | 14,000,000 | 238,816,032 |
| 6/30/2017 | 110,467,477 | 147,182,973 | 257,650,450 | (10,867,007) | 136,315,966 | 14,000,000 | 260,783,443 |
| 6/30/2018 | 115,575,398 | 142,066,451 | 257,641,849 | (10,867,007) | 131,199,444 | 14,000,000 | 260,774,842 |
| 6/30/2019 | 121,020,034 | 136,620,055 | 257,640,089 | (10,867,007) | 125,753,048 | 14,000,000 | 260,773,082 |
| 6/30/2020 | 126,766,446 | 130,856,157 | 257,622,603 | (10,867,007) | 119,989,150 | 14,000,000 | 260,755,595 |
| 6/30/2021 | 130,740,212 | 124,788,900 | 255,529,113 | (10,867,007) | 113,921,893 | 14,000,000 | 258,662,105 |
| 6/30/2022 | 136,560,045 | 118,619,375 | 255,179,420 | (10,867,007) | 107,752,368 | 14,000,000 | 258,312,412 |
| 6/30/2023 | 143,182,500 | 111,687,984 | 254,870,484 | (10,867,007) | 100,820,976 | 14,000,000 | 258,003,476 |
| 6/30/2024 | 149,742,500 | 104,700,768 | 254,443,268 | (10,867,007) | 93,833,761 | 14,000,000 | 257,576,261 |
| 6/30/2025 | 157,907,500 | 97,318,346 | 255,225,846 | (10,867,007) | 86,451,339 | 14,000,000 | 258,358,839 |
| 6/30/2026 | 165,827,500 | 89,475,148 | 255,302,648 | (10,867,007) | 78,608,141 | 14,000,000 | 258,435,641 |
| 6/30/2027 | 153,212,500 | 81,500,145 | 234,712,645 | (10,867,007) | 70,633,138 | 14,000,000 | 237,845,638 |
| 6/30/2028 | 129,352,500 | 74,983,824 | 204,336,324 | (10,867,007) | 64,116,816 | 14,000,000 | 207,469,316 |
| 6/30/2029 | 109,292,500 | 69,181,517 | 178,474,017 | (10,867,007) | 58,314,510 | 14,000,000 | 181,607,010 |
| 6/30/2030 | 114,877,500 | 64,268,392 | 179,145,892 | (10,867,007) | 53,401,385 | 14,000,000 | 182,278,885 |
| 6/30/2031 | 91,837,500 | 58,880,767 | 150,718,267 | (10,867,007) | 48,013,760 | 14,000,000 | 153,851,260 |
| 6/30/2032 | 95,837,500 | 54,378,612 | 150,216,112 | (10,658,178) | 43,720,434 | 14,000,000 | 153,557,934 |
| 6/30/2033 | 100,690,000 | 49,125,863 | 149,815,863 | (10,020,505) | 39,105,359 | 14,000,000 | 153,795,359 |
| 6/30/2034 | 105,415,000 | 43,369,447 | 148,784,447 | (8,986,179) | 34,383,268 | 14,000,000 | 153,798,268 |
| 6/30/2035 | 110,245,000 | 37,467,436 | 147,712,436 | (7,916,300) | 29,551,137 | 14,000,000 | 153,796,137 |
| 6/30/2036 | 115,255,000 | 31,366,227 | 146,621,227 | (6,820,171) | 24,546,056 | 14,000,000 | 153,801,056 |
| 6/30/2037 | 120,245,000 | 25,226,384 | 145,471,384 | (5,674,067) | 19,552,316 | 14,000,000 | 153,797,316 |
| 6/30/2038 | 125,095,000 | 19,181,839 | 144,276,839 | (4,475,656) | 14,706,183 | 14,000,000 | 153,801,183 |
| 6/30/2039 | 125,460,000 | 11,438,250 | 136,898,250 | (2,614,027) | 8,824,222 | 14,000,000 | 148,284,222 |
| 6/30/2040 | 20,565,000 | 3,044,600 | 23,609,600 | - | 3,044,600 | 14,000,000 | 37,609,600 |
| 6/30/2041 | 21,530,000 | 2,076,000 | 23,606,000 | - | 2,076,000 | 14,000,000 | 37,606,000 |
| 6/30/2042 | 22,545,000 | 1,061,900 | 23,606,900 | - | 1,061,900 | 14,000,000 | 37,606,900 |
| **Total** | **$3,059,627,568** | **$2,406,592,924** | **$5,466,220,493** | **($263,638,223)** | **$2,142,954,701** | **$420,000,000** | **$5,622,582,270** |

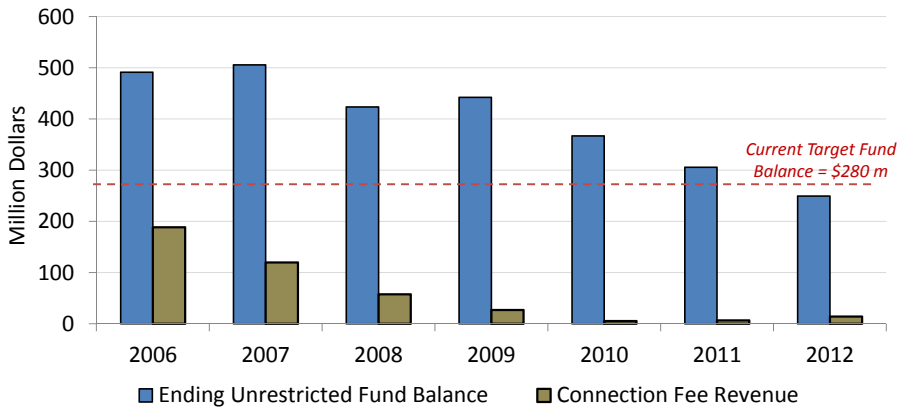
* Excludes the commercial paper repayment of principal.

# SNWA BUDGET PROFILE

## Historical Sources of Funds and Ending Fund Balance

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|---|
| **Sources of Funds** | | | | | | | |
| Wholesale Delivery Charge | $115,532,042 | $121,449,812 | $118,782,982 | $112,551,974 | $110,097,368 | $119,457,411 | $119,239,660 |
| Connection Charge | 188,454,011 | 119,561,208 | 57,318,104 | 26,789,155 | 5,309,547 | 6,602,728 | 13,892,856 |
| Water Charges | 14,213,843 | 18,829,058 | 18,777,117 | 18,791,878 | 22,538,155 | 37,335,440 | 45,915,806 |
| Infrastructure Charge | 0 | 0 | 0 | 0 | 0 | 0 | 16,193,130 |
| Sales Tax | 54,158,795 | 55,060,027 | 53,315,770 | 46,333,942 | 41,833,183 | 43,577,390 | 46,222,883 |
| Groundwater Program Fees | 1,952,143 | 1,953,768 | 1,976,911 | 2,047,626 | 872,104 | 894,502 | 867,716 |
| Las Vegas Wash Program Fees | 1,074,374 | 842,700 | 1,196,028 | 690,000 | 698,274 | 397,408 | 397,407 |
| Interest Income & Capitalized Interest | 13,474,740 | 41,088,297 | 30,676,718 | 13,607,423 | 1,789,048 | 1,375,082 | 1,565,109 |
| Other Revenues | 137,335,841 | 41,594,501 | 5,843,187 | 3,104,737 | 4,652,559 | 3,590,639 | 3,024,631 |
| **Total Sources of Funds** | **$526,195,789** | **$400,379,371** | **$287,886,817** | **$223,916,735** | **$187,790,238** | **$213,230,600** | **$247,319,198** |
| Annual Debt Service | $144,484,915 | $144,484,915 | $153,769,711 | $169,717,981 | $162,911,866 | $155,206,052 | $146,624,017 |
| Add Beginning Unrestricted Funds | $505,592,327 | $491,405,174 | $505,592,327 | $423,601,762 | $442,315,079 | $366,951,904 | $305,553,937 |
| Ending Unrestricted Funds | $491,405,174 | $505,592,327 | $423,601,762 | $442,315,079 | $366,951,904 | $305,553,937 | $249,517,307 |

## Connection Revenue and Fund Balance Decline






## New Expansion Debt Service Fund

**The New Expansion Debt Service sub-fund is used to account for SNWA's debt service.**

**SOURCES OF FUNDS:**

- **SNPLMA (when available)**
- **Connection Charge**
- **Commodity Charge**
- **Reliability Surcharge**
- **Sales Tax**
- **Infrastructure Charge**

**USES OF FUNDS:**

- **Paying off debt**
- **Portion of administrative costs such as capitalized labor**

## Fund Balance Principles

**Target fund balance is $280 million – represents approximately one year principal and interest**

- **Protects against revenue volatility**
- **Adequate fund balance is credit strength**
- **Provides financial flexibility**



## Modeled New Expansion Debt Service Fund 2012-2016 (No Action)

| Fiscal Year (in Thousands) | 2012 | 2013 | 2014 | 2015 | 2016 | Cumulative 2012-2016 |
|---|---|---|---|---|---|---|
| Operating Expenses for NEDS | ($11,607) | ($10,886) | ($11,300) | ($11,697) | ($12,107) | ($57,597) |
| Operating Cost formerly capitalized | | ($22,187) | ($23,074) | ($23,997) | ($24,957) | ($94,216) |
| Total Operating Expenses for NEDS Fund | ($11,607) | ($33,073) | ($34,374) | ($35,694) | ($37,064) | ($151,812) |
| Debt Service | | | | | | |
| Existing Debt Service (incl. Commercial Paper) | (137,397) | (139,595) | (140,728) | (140,808) | (192,728) | (751,256) |
| Series 2012B Bonds Debt Service | 0 | 0 | 0 | (23,610) | (23,607) | (47,217) |
| Total Debt Service | ($137,397) | ($139,595) | ($140,728) | ($164,418) | ($216,335) | ($798,473) |
| **Total Funding Requirement** | ($149,004) | ($172,668) | ($175,102) | ($200,112) | ($253,399) | ($950,285) |
| Expected Revenues (Base case) | | | | | | |
| Connection Charge | 13,791 | 10,776 | 10,776 | 10,889 | 11,011 | 57,242 |
| Commodity Charge (1) | 40,666 | 42,163 | 42,402 | 42,737 | 43,214 | 211,181 |
| Reliability Surcharge | 4,598 | 4,523 | 4,548 | 4,583 | 4,633 | 22,885 |
| Sales Tax | 45,131 | 43,642 | 45,170 | 46,751 | 48,387 | 229,082 |
| Other Revenues | 0 | 2,300 | 2,300 | 2,300 | 2,300 | 8,531 |
| Boulder City share of common previously capitalized cost | 0 | 580 | 591 | 614 | 639 | 2,424 |
| Interest Income | 478 | 2,802 | 2,931 | 3,058 | 2,959 | 12,228 |
| **Total Expected Revenue** | $103,995 | $106,786 | $108,717 | $110,932 | $113,143 | $543,573 |
| **Total Funding Gap before Infrastructure Charge** | ($45,009) | ($65,882) | ($66,385) | ($89,180) | ($140,257) | ($406,712) |
| Infrastructure Charge | 16,193 | 78,846 | 79,054 | 79,299 | 79,605 | 332,996 |
| **Total Funding Gap** | ($28,816) | $12,964 | $12,669 | ($9,881) | ($60,652) | ($73,716) |
| Beginning Fund Balance (Base Case) | $308,990 | $280,174 | $293,138 | $305,807 | $295,926 | |
| Ending Fund Balance (Base Case) | $280,174 | $293,138 | $305,807 | $295,926 | $235,274 | |

(1) The commodity charge income is adjusted for expected lower water consumption due to price elasticity effect from the increased water bill due to the infrastructure charge.

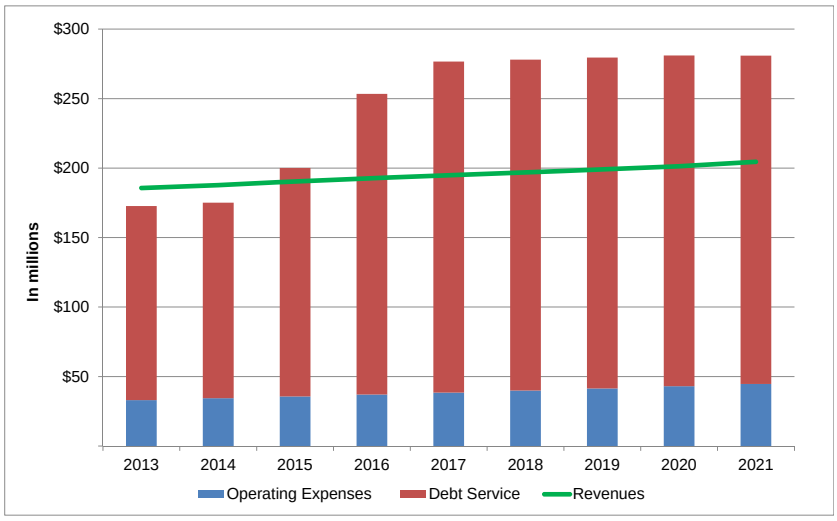
## Modeled New Expansion Debt Service Fund 2017-2021 (No Action)

| Fiscal Year (in Thousands) | 2017 | 2018 | 2019 | 2020 | 2021 | Cumulative 2012-2021 |
|---|---|---|---|---|---|---|
| Operating Expenses for NEDS | ($12,530) | ($12,968) | ($13,410) | ($13,868) | ($14,331) | ($124,704) |
| Operating Cost formerly capitalized | ($25,955) | ($26,994) | ($28,073) | ($29,196) | ($30,364) | ($234,799) |
| Total Operating Expenses for NEDS Fund | ($38,486) | ($39,961) | ($41,484) | ($43,064) | ($44,695) | ($359,502) |
| Debt Service | | | | | | |
| Existing Debt Service (incl. Commercial Paper) | (214,644) | (214,535) | (214,454) | (214,360) | (212,630) | (1,821,879) |
| Series 2012B Bonds Debt Service | (23,606) | (23,608) | (23,606) | (23,606) | (23,609) | (165,252) |
| Total Debt Service | ($238,249) | ($238,144) | ($238,060) | ($237,967) | ($236,239) | ($1,987,132) |
| **Total Funding Requirement** | ($276,735) | ($278,105) | ($279,543) | ($281,031) | ($280,935) | ($2,346,634) |
| Expected Revenues (Base case) | | | | | | |
| Connection Charge | 11,139 | 11,274 | 11,406 | 11,536 | 11,664 | 114,260 |
| Commodity Charge (1) | 43,716 | 44,246 | 44,766 | 45,276 | 45,777 | 434,961 |
| Reliability Surcharge | 4,686 | 4,742 | 4,796 | 4,850 | 4,902 | 46,860 |
| Sales Tax | 50,081 | 51,834 | 53,648 | 55,525 | 57,469 | 497,638 |
| Other Revenues | 2,300 | 2,300 | 2,300 | 2,300 | 2,300 | 20,031 |
| Boulder City share of common previously capitalized cost | 664 | 691 | 719 | 747 | 777 | 6,023 |
| Interest Income | 2,353 | 1,534 | 723 | 0 | 0 | 4,610 |
| **Total Expected Revenue** | $114,939 | $116,620 | $118,357 | $120,235 | $122,889 | $1,136,611 |
| **Total Funding Gap before Infrastructure Charge** | ($161,796) | ($161,485) | ($161,186) | ($160,796) | ($158,046) | ($1,210,022) |
| Infrastructure Charge | 79,963 | 80,320 | 80,678 | 81,104 | 81,631 | 736,693 |
| **Total Funding Gap** | ($81,834) | ($81,165) | ($80,508) | ($79,693) | ($76,415) | ($473,329) |
| Beginning Fund Balance (Base Case) | $235,274 | $153,441 | $72,276 | ($8,232) | ($87,925) | |
| Ending Fund Balance (Base Case) | $153,441 | $72,276 | ($8,232) | ($87,925) | ($164,339) | |

(1) The commodity charge income is adjusted for expected lower water consumption due to price elasticity effect from the increased water bill due to the infrastructure charge.

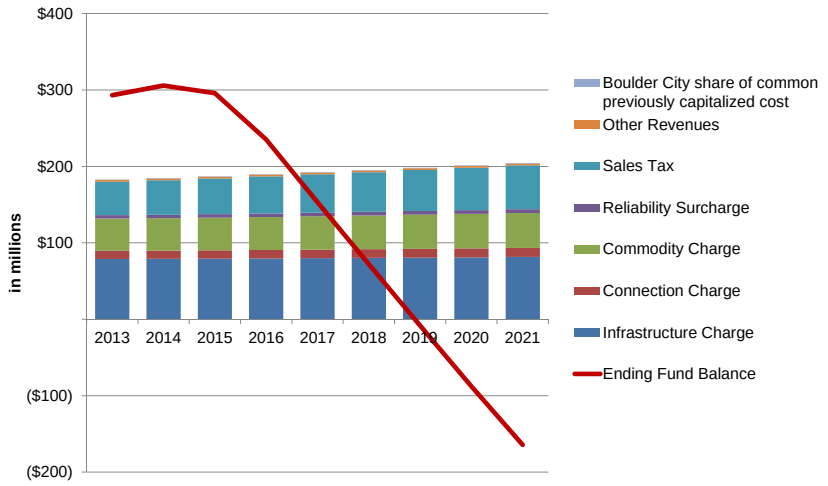


## Projected Debt and Expenditure Profile




Infrastructure surcharge revenues included.

## Projected Revenue Profile




Infrastructure surcharge revenues included.



## Essential shortfall beginning 2016

| Fiscal Year (in Thousands) | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | Cumulative 2016-2021 |
|---|---|---|---|---|---|---|---|
| Infrastructure Charge | 79,605 | 79,963 | 80,320 | 80,678 | 81,104 | 81,631 | 483,301 |
| Connection Charge | 11,011 | 11,139 | 11,274 | 11,406 | 11,536 | 11,664 | 68,028 |
| Commodity Charge | 43,214 | 43,716 | 44,246 | 44,766 | 45,276 | 45,777 | 266,993 |
| Reliability Surcharge | 4,633 | 4,686 | 4,742 | 4,796 | 4,850 | 4,902 | 28,609 |
| Sales Tax | 48,387 | 50,081 | 51,834 | 53,648 | 55,525 | 57,469 | 316,944 |
| Other Revenues | 2,300 | 2,300 | 2,300 | 2,300 | 2,300 | 2,300 | 13,800 |
| Boulder City share of common cost | 639 | 664 | 691 | 719 | 747 | 777 | 4,238 |
| Interest Income | 2,959 | 2,353 | 1,534 | 723 | 0 | 0 | 7,569 |
| Total Revenues | 192,747 | 194,901 | 196,940 | 199,035 | 201,338 | 204,520 | 1,189,482 |
| **Shortfall** | **($60,652)** | **($81,834)** | **($81,165)** | **($80,508)** | **($79,693)** | **($76,415)** | **($460,266)** |

## How did we deal with the problem in FY 2012?

**The SNWA identified the revenue and expenditure imbalance earlier on when the connection fee revenue declined dramatically.**

- ***Evaluated Expenditures.*** **The SNWA lowered its expenses and postponed capital projects, and reassessed which capital projects are needed to provide reliable availability of potable water in the valley.**
- ***Restructured Debt.*** **The SNWA restructured debt due in fiscal years 2012-2015 to later years to provide time for a potential recovery of revenues and time to asses the revenue components.**
- ***Interest Rates*****. Additionally, the SNWA was able to take advantage of historically low interest rates to refinance debt and to finance the completion of Intake No. 3.**



## How did we deal with the problem in FY 2012?

- ***Rate Study*****. The SNWA engaged a third party (Hobbs, Ong & Associates and Public Financial Management) to perform a rate study evaluating the existing rate structure and potential alternative rate structures.**
- ***New Revenue Source*****. The SNWA adopted the Infrastructure Charge based on meter size providing for a stable fixed revenue source to offset fixed debt service payments.**

## Changes Since Rate Study

- **Refinancing Opportunity**: The SNWA took advantage of a refinancing opportunity that saved approximately $14.3 million in debt service payments from 2013 through 2032.
- **Sold $360 million of debt** to finance the completion of Intake No. 3 at historically low interest cost, lowering debt service cost compared to conservative estimates by about $6.2 million; and taking advantage of capitalizing interest for two full years to mitigate the rate impact saving additional cash flows of approximately about $29 million in 2013 and 2014.
- **Infrastructure Charge Collections:** The rate study did not anticipate implementation of a new rate or rate increase in fiscal 2012. The SNWA began collecting infrastructure charge revenues in April 2012, and collected $16.1 million that improves the ending fund balance and partially mitigates the need for future rate increases.



## Changes Since Rate Study, con't.

- **Costs transferred:** For fiscal 2013 budget, $18.5 million of payroll costs transferred from the bond fund to the new expansion fund.
- **50% Fire-Line Credit:** The SNWA relieved the burden on commercial fire-line customers by applying a 50 percent credit to the fire meter charges which reduced annual revenues by about $14.1 million.

# RATE MODEL

## Considerations when setting rates

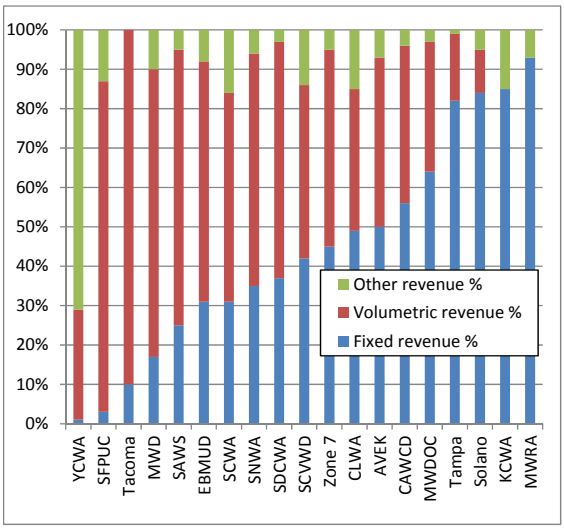
- Legality
- Sufficiency
- Equity and fairness
- Stability
- Flexibility
- Simplicity and affordability to administer
- Predictability
- Transparency

## A Number of Rate Alternatives were Considered

- Commodity Charge
- Land Parcel Charge
- Property Tax
- Fixed charge
- Combinations (e.g., fixed charge and Commodity Charge)



## Metropolitan Water Survey




Source: The Metropolitan Water District of Southern California's Peer Survey: Revenue Structure of Various Wholesale Water Agencies, April 2011.

## Metropolitan Water Survey – Acronym List

YCWA: Yuba County Water Authority (Marysville, CA) – north of Sacramento

SFPUC: San Francisco Public Utilities Commission

Tacoma: Tacoma Water (Washington)

MWD: Metropolitan Water District of Southern California

SAWS: San Antonio Water System (Texas)

EBMUD: East Bay Municipal Utility District (Oakland and surrounding cities)

SCWA: Sonoma County Water Agency

SDCWA: San Diego County Water Authority

SCVWD: Santa Clara Valley Water District

Zone 7: (Bay Area – Pleasanton, Livermore, Dublin)

CLWA: Castaic Lake Water Agency (Santa Clarita Valley, Ventura, CA)

AVEK – Antelope Valley-East Kern Water Agency (NE of Los Angeles, near Palmdale, CA)

CAWCD: Central Arizona Water Conservation District (AKA, CAP)

MWDOC: Municipal Water District of Orange County

Tampa: Tampa Bay Water

Solano: Solano County Water Agency (southwest of Sacramento)

KCWA: Kern County Water Authority (central California, near Bakersfield)

MWRA: Massachusetts Water Resources Authority



# CONCLUSIONS AND NEXT STEPS

## Conclusions

**The SNWA's Connection Charge revenue plummeted since the housing boom from $188 in 2006 million to $13 million in 2012.**

**The SNWA has proactively:**

- **Reduced O&M expenses**
- **Delayed expansion-related capital expenditures, focusing on those expenditures essential to provide reliable potable water to the two million people and 40 million visitors in the valley**
- **Refinanced debt for interest rate savings**
- **Restructured debt payments due in 2012 through 2015 to later years in order to allow for potential recovery of revenues and time to implement cost reductions and potential revenue enhancements**
- **Implemented the Infrastructure Charge to fund estimated revenue to expenditure gap through 2015**

**Despite these efforts, the SNWA faces substantial increases in expenses – primarily debt service increases – by 2016, resulting in estimated annual funding imbalance of $60 – 80 million or about $473 million through 2021.**



## Next Steps

Next Meeting Date:

**Wednesday, January 16**

**Meeting Discussions:**

- **Rate model assumptions and its results**
- **Alternative rate structures or rate levels**

**QUESTIONS?**