AGENDA

SOUTHERN NEVADA WATER AUTHORITY

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS

REGULAR MEETING
9:00 A.M. – MAY 16, 2013

BOARD CHAMBERS, SOUTHERN NEVADA WATER AUTHORITY
100 CITY PARKWAY, SEVENTH FLOOR, LAS VEGAS, NEVADA
(702) 258-3100

Board of Directors
Shari Buck, Chair
Mary Beth Scow, Vice Chair
Sam Bateman
Susan Brager
Bob Coffin
Duncan McCoy
Steve Sisolak

Patricia Mulroy, General Manager

The Southern Nevada Water Authority makes reasonable efforts to assist and accommodate persons with physical disabilities who desire to attend the meeting. For assistance, call Katie Horn at (702) 870-2011 at least 24 hours prior to the meeting.

THIS MEETING HAS BEEN PROPERLY NOTICED AND POSTED IN THE FOLLOWING LOCATIONS:

City of Boulder City, City Hall
401 California Street
Boulder City, Nevada

City of Henderson, City Hall
240 Water Street
Henderson, Nevada

City of North Las Vegas, City Hall
2250 Las Vegas Boulevard North
North Las Vegas, Nevada

City of Las Vegas, City Hall
495 South Main Street
Las Vegas, Nevada

Clark County Government Center
500 S. Grand Central Parkway
Las Vegas, Nevada

Clark County Water Reclamation District
5857 E. Flamingo Road
Las Vegas, Nevada

Southern Nevada Water Authority
100 City Parkway, Suite 700
Las Vegas, Nevada

Las Vegas Valley Water District
1001 S. Valley View Boulevard
Las Vegas, Nevada

All items on the agenda are for action by the Board of Directors, unless otherwise indicated. Items may be taken out of order. The board may combine two or more agenda items for consideration, and the board may remove an item from the agenda or delay discussions relating to an agenda item at any time.

CALL TO ORDER

COMMENTS BY THE GENERAL PUBLIC

NO ACTION MAY BE TAKEN: This is a period devoted to comments by the general public pertaining to items on this agenda. If you wish to speak to the Board about items within its jurisdiction, but not appearing on this agenda, you must wait until the "Comments by the General Public" period listed at the end of this agenda. Please limit your comments to three minutes or less and refrain from making comments that are repetitious, offensive, or amounting to personal attacks. No action may be taken upon a matter not listed on the posted agenda.

ITEM NO.

1. *For Possible Action:* Approve agenda with the inclusion of tabled and/or reconsidered items, emergency items and/or deletion of items, and approve the minutes of the regular meeting of April 18, 2013.

2. *For Possible Action:* Approve an increase in the Wholesale Delivery Charge, effective July 1, 2013, which was held from the meeting of April 18, 2013.

3. *For Possible Action:* Conduct a Public Hearing on the Tentative Budget for the Authority and subsequently adopt a Final Budget for fiscal year 2013/2014.

CONSENT AGENDA

4. *For Possible Action:* Approve an interlocal agreement among the City of Henderson, the City of Las Vegas, the City of North Las Vegas, Clark County, the Clark County Regional Flood Control District, the Clark County Water Reclamation District, and the Authority to establish funding allocations and the budget for Las Vegas Wash activities in fiscal year 2013/2014.

5. *For Possible Action:* Approve an interlocal agreement between the City of North Las Vegas and the Authority for the Authority to supply a portion of the City of North Las Vegas' power supply needs, including power supply assets, transmission assets and energy management services.

6. *For Possible Action:* Approve an amendment, in substantially the same form, to existing agreement, between the Bureau of Reclamation and the Authority to support the Authority's Water Smart Landscape Rebate Program.

BUSINESS AGENDA

7. *For Possible Action:* Approve and authorize the General Manager, or her designee, to sign a right-of-way grant offered by the Bureau of Land Management for the construction, operation, and maintenance of the Clark, Lincoln, and White Pine Counties Groundwater Development Project on federal lands, and to pay rental fees for the rights-of-way to the federal government.

8. *For Possible Action:* Approve a memorandum of understanding and cost recovery agreement between the Bureau of Land Management and the Authority for preparing the administrative record, environmental plans, tiered environmental compliance, and ancillary rights-of-way associated with the Clark, Lincoln, and White Pine Counties Groundwater Development Project.

9. *For Possible Action:* Approve the Service Agreement for Network Integration Transmission Service, Retail Access Transmission Service among Nevada Power Company doing business as NV Energy, the Colorado River Commission of Nevada, and the Authority, and the corresponding Letter of Agreement formalizing the Authority's Transmission Reduction Plan.

10. *For Possible Action:* Authorize the General Manager to sign an interlocal agreement among the City of Las Vegas, the City of Henderson, the Clark County Water Reclamation District, and the Authority to correct a disproportionate allocation of certain quarter-cent sales tax revenues designated for wastewater by reallocating 96 months of distributions, or take other action as appropriate.

11. *For Possible Action:* Adopt a resolution approving the issuance of Las Vegas Valley Water District refunding bonds to refinance outstanding bonds for the Authority.

12. *For Possible Action:* Receive an update on the progress of the Integrated Resource Planning Advisory Committee (IRPAC), modify the composition of the Technical Review Committee, and direct the IRPAC to make suggestions on appointments to the Technical Review Committee in advance of Board action to appoint the Technical Review Committee.

13. *For Information Only:* Receive an update from staff on water resources including, but not limited to, drought conditions in the Colorado River Basin, the results of the implementation of the Authority's Water Resource and Conservation Plans, activities on the Colorado River, the development of in-state water resources, and the status of the third intake project.

COMMENTS BY THE GENERAL PUBLIC

NO ACTION MAY BE TAKEN: At this time, the Board of Directors will hear general comments from the public on matters under the jurisdiction of the Southern Nevada Water Authority. Please limit your comments to three minutes or less and refrain from making comments that are repetitious, offensive, or amounting to personal attacks. No action may be taken upon a matter not listed on the posted agenda.

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
REGULAR MEETING
APRIL 18, 2013
MINUTES

CALL TO ORDER	9:01 a.m., Colorado River Conference Rooms, Southern Nevada Water Authority 100 City Parkway, Seventh Floor, Las Vegas, Nevada
BOARD MEMBERS PRESENT	Shari Buck, Chair Mary Beth Scow, Vice Chair Sam Bateman Susan Brager Bob Coffin Duncan McCoy Steve Sisolak
BOARD MEMBERS ABSENT	None
STAFF PRESENT	Pat Mulroy, Greg Walch, John Entsminger, Ron Zegers, Phil Speight, Zane Marshall
OTHERS PRESENT	Guy Hobbs

Unless otherwise indicated, all members present voted in the affirmative.

COMMENTS BY THE GENERAL PUBLIC

Ed Uehling, Las Vegas, expressed concerns regarding agenda item number three and advised the Board to not approve an increase to the Wholesale Delivery Charge.

Brian McAnallen, Las Vegas Metro Chamber of Commerce, addressed agenda item number three and noted his concerns that the agenda item and backup information did not include more detailed information. He was also concerned that it was not posted as a public hearing. Mr. McAnallen also addressed item number five, noting it was a step in the right direction, but he would like to expand the committee to five members and add structure to the process.

1. Approval of Agenda & Minutes

FINAL ACTION: A motion was made by Vice Chair Scow to approve the agenda for this meeting and the minutes of the regular meeting of March 21, 2013. The motion was approved.

Agenda item number 2 was moved to the end of the agenda.

3. Approve an increase in the Wholesale Delivery Charge, effective July 1, 2013.

Ms. Mulroy explained the process undertaken to determine the need for an increase to the Wholesale Delivery Charge. Finance staff members from the SNWA's purveyor members review the operating costs of the Southern Nevada Water System and project those costs five years into the future. The SNWA's member agencies are aware that an increase to the Wholesale Delivery Charge of $10 is necessary to cover increased power costs, and have already absorbed this increase into their upcoming budgets. The increase will not require any of the purveyor members to increase water rates this year.

Chairwoman Buck reiterated that the finance officers of the SNWA's purveyor member agencies have been involved throughout this process, and keep their respective staff and elected officials aware of budget impacts.

Director Sisolak noted that the item was not posted as a public hearing, but would like to open it up for public comment. He recognized the Integrated Resource Planning Advisory Committee (IRPAC), and their efforts to analyze the SNWA's existing rate structure and make recommendations. He also noted concerns about a financial workgroup comprised of member agency finance staff, IRPAC and future rate advisory committees working on similar issues.

Director Sisolak asked who represented the Big Bend Water District within the SNWA's financial workgroup. Ms. Mulroy explained that Big Bend is not affected by the SNWA's Wholesale Delivery Charge because they do not receive their water from the Southern Nevada Water System, and therefore, do not require a representative. Director Sisolak asked who represented the Las Vegas Valley Water District, and Ms. Mulroy responded the finance director for the Las Vegas Valley Water District.

Ms. Mulroy went on to explain that the Wholesale Delivery Charge is only one component that is considered when the SNWA's member agencies analyze the need for a rate increase.

Director Brager requested a report that summarizes the discussions and outcomes of the SNWA's financial workgroup meetings. She also noted her intentions to make the most educated decisions possible – a decision that could have been informed by such report. Ms. Mulroy noted that the Board could make the decision to hold the item until its May meeting.

Ms. Mulroy went on to inform the Board that staff anticipates treatment and pumping costs to increase due to lowering lake levels. She noted the possibility of only a 7.4 million acre-feet release to Lake Mead, which could cause lake levels to drop more than eight feet. Director Brager suggested informing the public about this type of information so future rate increases come without surprise.

Director Coffin asked that the City of Las Vegas be invited to participate in the SNWA financial workgroup meetings.

Director McCoy noted that Boulder City has planned for these rate increases within their upcoming budgets. He also noted that discussions regarding the cost of water from the public don't typically take place at SNWA meetings, but at the meetings of purveyor members.

Vice Chair Scow noted that she was not opposed to waiting until May to vote on the item, which would allow members of the public to participate in the SNWA's Budget Workshop and gather more information.

Director Bateman asked Ms. Mulroy to clarify a mention of an earlier discussion regarding a $30 increase to the Wholesale Delivery Charge. Ms. Mulroy explained that the SNWA and its member agencies have known that additional increases to the Wholesale Delivery Charge were required due to debt restructuring activities in 2008/2009 and anticipated power increases. As a result, the member agencies decided to take the increase with incremental increases of $10 rather than a large single increase.

Chairman Buck then opened the item for public comment.

Ed Uehling, Las Vegas, was not satisfied with staff's explanation for the increase to the Wholesale Delivery Charge. He recommended that Colorado River users curtail their use by 25 percent to protect Lake Mead's water elevations.

Brian McAnallen, Las Vegas Metro Chamber of Commerce, wanted to see the information provided by staff included in the agenda item when it was posted as a means to provide more information to the public. He noted that he understood the need for the increase, but would like to see more transparency within the posted documents.

FINAL ACTION: A motion was made by Director Brager to table the item until the May 16, 2013, SNWA Board of Directors meeting. The motion was approved.

4. Approve the Third Amended and Restated Agreement for Interstate Water Banking among the Arizona Water Banking Authority, the Colorado River Commission of Nevada, and the Authority for the storage and recovery of Colorado River water in Arizona.

John Entsminger provided the Board with a brief history of water banking efforts in Arizona, specifically noting an agreement executed in 2005 with the Arizona Water Banking Authority guaranteeing storage of 1.25 million acre-feet of Colorado River water for consumptive use. Since that time, the SNWA has also pursued other temporary resources including the Brock Reservoir and a separate water banking arrangement with California. Mr. Entsminger outlined the terms of the third amendment to the Arizona water banking agreement, which will relieve the SNWA of the remaining payment obligation, but retains the SNWA's ability to bank water with Arizona in the future.

Chairwoman Buck asked Ms. Mulroy to confirm that the SNWA has approximately 1.2 million acre-feet stored between the Arizona Water Bank and other temporary supplies. Ms. Mulroy said yes, and reminded the Board that banking water was done for two reasons: reliability during times of high growth and drought protection. Unlike other bridge supplies, the Arizona Water Bank is available during drought.

Director Sisolak asked Ms. Mulroy to discuss the reasons why banking in California is free, unlike banking in Arizona. Ms. Mulroy explained that the California water bank is virtual; California uses Nevada's unused apportionment while they are developing more permanent supplies. When Nevada needs the water, California will curtail use to allow Nevada to draw its banked supply. Director Sisolak asked what would happen if Arizona refused Nevada to make a withdrawal. Ms. Mulroy stated the federal government cosigned the banking agreements and would not permit Arizona to obstruct Nevada's access to the resource.

FINAL ACTION: A motion was made by Director Brager to follow staff's recommendation. The motion was approved.

5. **Appoint a Technical Review Committee to review any data being utilized by the Integrated Resource Planning Advisory Committee for the purposes of : verifying the reasonableness and adequacy of assumptions used to drive the water rate model, including assumptions regarding rates of growth for population, sales tax revenue, connection charge revenue, general inflation related to operating expenditures, and water consumption; and verifying the impact analysis on various user groups to assure the impacts being reviewed by the Integrated Resource Planning Advisory Committee adequately reflect the spectrum of impacts.**

Ms. Mulroy explained this item is a result from meetings with the Las Vegas Metro Chamber of Commerce over concerns about the rate model assumptions being used by the Integrated Resource Planning Advisory Committee (IRPAC) to analyze the range of modeled impacts to ratepayers and form recommendations to the Board.

Director Sisolak suggested increasing the committee to five. He also asked if this committee would serve future committees similar to the existing IRPAC. Ms. Mulroy noted that the technical review committee's intention is to support only this IRPAC process; future rate increases may necessitate a separate stakeholder committee. At that time, it would be the Board's discretion to establish stakeholder advisory committees and create technical review committees to support those future processes.

Guy Hobbs discussed the challenges of finding three economists who have rate making experience to serve pro-bono on the committee.

Director McCoy noted the Board's effort to appoint individuals that represented a broad cross section of community members to IRPAC. He punctuated the challenges of finding qualified individuals with technical backgrounds to serve voluntarily and also warned that a review made by a technical group may muddy the recommendations of the IRPAC. He recognized that the Board will be responsible for the final decision and appreciates additional review of committee information.

Director Scow agreed with the suggestion to open the committee to five individuals, and was comfortable with an additional review committee that is tied to IRPAC.

FINAL ACTION: A motion was made by Director Sisolak to establish a technical review committee consisting of a minimum of three to a maximum of five individuals. The motion was approved.

The meeting recessed at 10:08 a.m. and was reconvened at 10:08 a.m. to hold the Budget Workshop.

2. *For Possible Action:* Receive an overview and discuss the Fiscal Year 2013/2014 Tentative Budget.

Pat Mulroy reviewed the 2013/2014 tentative budget with the Board. A copy of the presentation she gave is attached to these minutes. She noted that many of the issues within the presentation are currently being discussed by IRPAC, specifically the 2016 debt spike. Ms. Mulroy also gave a brief update on the SNWA's landholdings in eastern Nevada.

Director Coffin asked if the SNWA could provide more detail about the ranch income and expenses. Ms. Mulroy noted that she could provide that information. He asked if there are any additional properties for sale in eastern Nevada that could yield lucrative earnings from ranching operations. Ms. Mulroy noted that the SNWA purchases ranch properties specifically for the water rights. Director Coffin asked if there were other properties that offered substantial water rights available for sale. Ms. Mulroy replied that the SNWA has been approached with offers, however, they have been at a significant cost.

Director Sisolak asked why the SNWA maintains only a few goats, in comparison to other livestock on the ranches. Zane Marshall, director of Water and Environmental Resources, explained that the goats act as surrogate mothers for orphaned lambs and also provide weed control on the ranches.

Chairwoman Buck asked if Ms. Mulroy could make a comment about the decision made by Utah's governor to not sign the Utah-Nevada agreement. Ms. Mulroy explained that she could not discuss the item because it was not on the agenda and noted that if discussed, it would need to be in closed session.

NO ACTION NECESSARY.

Public Comment
There were no persons wishing to speak.

Adjournment
There being no further business to come before the board, the meeting adjourned at 10:23 a.m.

APPROVED:

Shari Buck, Chair

Patricia Mulroy, General Manager

Copies of all original agenda items and minutes, including all attachments, are on file in the General Manager's office at the Las Vegas Valley Water District, 1001 South Valley View Boulevard, Las Vegas, Nevada.

Third Amended Agreement for Interstate Water Banking

April 18, 2013

Background

Demonstration Project (1993)

50,000 acre-feet (AF) of Colorado River water stored by the Central Arizona Water Conservation District for the SNWA.

Agreement for Interstate Water Banking among Arizona Water Banking Authority, Colorado River Commission and SNWA (2001)

- The AWBA agreed to use best efforts to bank 1.2 million acre-feet (MAF) and recover water at the SNWA's request at cost.
- The SNWA to pay storage and recovery costs annually.

Background, con't.

2005 Amended Agreement for Interstate Banking

- **The Arizona Water Banking Authority (AWBA) guaranteed storage of 1.25 MAF of Colorado River water for consumptive use (2.125 MAF diversion), including previously-stored water.**
- **Established the SNWA's payment schedule for storage:**
  - $100 million following execution of agreement
  - $230 million paid in annual payments of $23 million from 2009 – 2018

2009 Second Amended Agreement for Interstate Banking

Allowed the AWBA and SNWA to defer annual payments for six years (annual payments would resume in 2015).

To date, the SNWA has banked 600,651 acre-feet (1,021,107 acre-feet diversion).

Additional Interim-Stored Resources

Resource	Current Storage (AF)
Brock Reservoir	400,000
California Interstate Bank	111,000
Extraordinary Conservation (ICS) (stored in Lake Mead)	108,000
Yuma Desalting Plant Pilot	3,050
Bi-national Conservation	23,750
Total	***645,800 acre-feet***

2013 Third Amended Agreement for Interstate Banking Highlights

- To date, the SNWA has paid $122,738,945 (including $10 million in payments under the 2001 Agreement) to AWBA for interstate banking.
- In 2015, the SNWA is relieved of the remaining $217.3 million obligation, previously scheduled to resume with annual payments to AWBA.
- The SNWA retains the ability to bank water with AWBA in the future.
- Additional storage will be determined on an annual basis, and future storage payments will be presented for SNWA Board consideration.
- The SNWA to pay the AWBA an annual administrative cost of $20,000 for maintenance of storage credits.

Southern Nevada Water Authority

2013/2014 Fiscal Year Budget Workshop

April 18, 2013

Fiscal Year 2013/2014 Budget Process

Key Dates

April 15 – Tentative Fiscal Year 2013/2014 budget submitted to State

April 18 – Budget Workshop

May 16 – Public Hearing

June 1 – Deadline to file approved Fiscal Year 2013/2014 budget with State

Fiscal Year 2013/2014 Budget Highlights

- Uses of funds are projected to decline $45.1 million (9%)
- Sources of funds are projected to increase $4.2 million (1.3%)
- Wholesale Delivery Charge is budgeted to increase $10 per acre-foot ($293 to $303)
- Last year's budget did not include the fireline credit

Fiscal Year 2013/2014 – Sources of Funds

	Budget		Difference
	2012-2013	2013-2014	$
Wholesale Delivery Charge	$ 117.5	$ 122.0	$ 4.5
Regional Infrastructure Charge	92.9	77.4	(15.5)
Sales Tax	47.5	51.3	3.8
Regional Water Rates	45.5	44.0	(1.5)
Regional Connection Charge	12.0	13.1	1.1
Grants and All Other Sources	8.8	20.6	11.8
TOTAL SOURCES	$324.2	$328.4	$4.2

*Amounts in million dollars

Fiscal Year 2013/2014 – Sources of Funds

Fiscal Year 2013/2014 – Uses of Funds

	Budget 2012-2013	Budget 2013-2014	Difference $
Debt Service Payments	$ 149.3	$ 150.7	$ 1.4
Construction Expenditures	176.5	127.7	(48.8)
Labor	68.6	68.6	(0.0)
Energy	42.5	44.3	1.8
Capitalized Expenses	35.3	34.9	(0.4)
Operating Expenses	27.0	27.9	0.9
TOTAL USES	$499.2	$454.1	($45.1)
Beginning Fund Balance		530.3	
Ending Fund Balance		$404.6	

*Amounts in million dollars

Fiscal Year 2013/2014 – Uses of Funds

Wholesale Delivery Charge

- In May 2011, the SNWA Board approved a Wholesale Delivery Charge increase of $10 per acre-foot ($283 to $293).
- The factors driving a three-year increase of $10 per year have changed:
  - Lower than expected debt costs for the Silverhawk Generating Station.
  - Refunding of SNWS debt softened the spike in FY 2012/2013.
- Member agency staff recommended foregoing a FY 2012/2013 increase (the rate remained at $293 per acre-foot).
- In 2013, the charge is budgeted to increase $10 per acre-foot ($293 to $303).

Wholesale Delivery Charge

	2012/2013 Budget	2013/2014 Budget	Difference $
SOURCES OF FUNDS			
Wholesale Delivery Charge	$ 117,498,863	$ 121,958,169	$ 4,459,306
Interest Income	63,684	48,480	(15,204)
Other Revenues	(29,588)	581,817	612,405
TOTAL SOURCES OF FUNDS	$ 117,532,959	$ 122,588,466	$ 5,056,507
USES OF FUNDS			
Energy	$ 39,311,358	$ 41,484,548	$ 2,173,190
Labor	35,630,802	36,487,968	857,166
Operating Expenses	24,744,329	25,744,060	999,731
Debt Service Payments	13,494,249	13,711,411	217,162
TOTAL USES OF FUNDS	$ 113,180,738	$ 117,427,987	$ 4,247,249
TOTAL SOURCES IN EXCESS (LESS THAN) TOTAL USES	$ 4,352,221	$ 5,161,479	$ 809,258
Beginning Fund Balance		19,500,000	
Ending Fund Balance		$ 24,661,479	

New Expansion Debt Service

	2012/2013 Budget	2013/2014 Budget	Difference $
SOURCES OF FUNDS			
Regional Connection Charge	$ 12,033,087	$ 13,142,254	$ 1,109,167
Regional Infrastructure Charge	92,932,293	77,399,956	(15,532,337)
Regional Commodity Charge	40,797,784	39,257,838	(1,539,946)
Regional Reliability Surcharge	4,695,142	4,783,017	87,875
Interfund Loan	34,493,515	(3,468,216)	(37,961,731)
Sales Tax	44,449,482	47,953,191	3,503,709
Other Revenues	4,268,327	1,102,305	(3,166,022)
Grant Proceeds		504,500	504,500
Interest Income	791,588	660,455	(131,133)
TOTAL SOURCES OF FUNDS	$ 234,461,218	$ 181,335,300	$ (53,125,918)
USES OF FUNDS			
Labor	$ 21,269,923	$ 22,445,831	$ 1,175,908
Capitalized Expenses	7,579,920	10,307,762	2,727,842
Debt Service Payments	135,799,991	137,002,809	1,202,818
TOTAL USES OF FUNDS	$ 164,649,834	$ 169,756,402	$ 5,106,568
TOTAL SOURCES IN EXCESS (LESS THAN) TOTAL USES	$ 69,811,384	$ 11,578,898	$ (58,232,486)

New Expansion Debt Service

	2012/2013 Budget	2013/2014 Budget
TOTAL SOURCES OF FUNDS	$ 234,461,218	$ 181,335,300
TOTAL USES OF FUNDS	164,649,834	169,756,402
TOTAL SOURCES IN EXCESS (LESS THAN) TOTAL USES	$ 69,811,384	$ 11,578,898
Beginning Fund Balance		295,000,000
Ending Fund Balance		$ 306,578,898

Major Construction and Capital Plan

	2012/2013 Budget	2013/2014 Budget	Difference $
SOURCES OF FUNDS			
Debt Issuance Proceeds	$ 360,000,000	$ -	$ (360,000,000)
Interest Income	899,536	327,901	(571,635)
Interfund Loan	(39,600,000)	-	39,600,000
Grant Proceeds	-	60,000	60,000
TOTAL SOURCES OF FUNDS	$ 321,299,536	$ 387,901	$ (320,911,635)
USES OF FUNDS			
Labor	$ 9,750,194	$ 7,906,713	$ (1,843,481)
Capitalized Expenses	27,834,826	24,620,909	(3,213,917)
Energy	3,156,536	2,833,787	(322,749)
Construction Expenditures	168,706,854	107,177,187	(61,529,667)
TOTAL USES OF FUNDS	$ 209,448,410	$ 142,538,596	$ (66,909,814)
TOTAL SOURCES IN EXCESS (LESS THAN) TOTAL USES	$ 111,851,126	$ (142,150,695)	$ (254,001,821)
Beginning Fund Balance		214,200,000	
Ending Fund Balance		$ 72,049,305	

Groundwater Management Program

	2012/2013 Budget	2013/2014 Budget	Difference $
SOURCES OF FUNDS			
Groundwater Management Fees	$ 913,359	$ 913,345	$ (14)
Interest Income	6,306	5,285	(1,021)
TOTAL SOURCES OF FUNDS	$ 919,665	$ 918,630	$ (1,035)
USES OF FUNDS			
Labor	$ 380,825	$ 465,562	$ 84,737
Operating Expenses	784,150	793,658	9,508
TOTAL USES OF FUNDS	$ 1,164,975	$ 1,259,220	$ 94,245
TOTAL SOURCES IN EXCESS (LESS THAN) TOTAL USES	$ (245,310)	$ (340,590)	$ (95,280)
Beginning Fund Balance		1,400,000	
Ending Fund Balance		$ 1,059,410	

Las Vegas Wash

	2012/2013 Budget	2013/2014 Budget	Difference $
SOURCES OF FUNDS			
LV Wash Program Fees	$ 827,931	$ 1,175,803	$ 347,872
Sales Tax	3,090,490	3,344,599	254,109
Interfund Loan	5,106,485	3,468,216	(1,638,269)
Interest Earnings	1,809	762	(1,047)
Grant Proceeds	1,099,750	15,206,600	14,106,850
TOTAL SOURCES OF FUNDS	$ 10,126,465	$ 23,195,980	$ 13,069,515
USES OF FUNDS			
Labor	$ 1,606,545	$ 1,301,635	$ (304,910)
Operating Expenses	1,463,354	1,329,202	(134,152)
Construction Expenditures	7,745,015	20,500,000	12,754,985
TOTAL USES OF FUNDS	$ 10,814,914	$ 23,130,837	$ 12,315,923
TOTAL SOURCES IN EXCESS (LESS THAN) TOTAL USES	$ (688,449)	$ 65,143	$ 753,592
Beginning Fund Balance		200,000	
Ending Fund Balance		$ 265,143	

Fiscal Year 2013/2014 Summary

	Budget 2012-2013	Budget 2013-2014	Difference $
SOURCES OF FUNDS			
Wholesale Delivery Charge	$ 117.5	$ 122.0	$ 4.5
Regional Infrastructure Charge	92.9	77.4	(15.5)
Sales Tax	47.5	51.3	3.8
Regional Water Rates	45.5	44.0	(1.5)
Regional Connection Charge	12.0	13.1	1.1
Grants/Other Sources	8.8	20.6	11.8
Total Sources of Funds	$ 324.2	$ 328.4	$ 4.2
USES OF FUNDS			
Debt Service Payments	$ 149.3	$ 150.7	$ 1.4
Construction Expenditures	176.5	127.7	(48.8)
Labor	68.6	68.6	(0.0)
Energy	42.5	44.3	1.8
Capitalized Expenses	35.3	34.9	(0.4)
Operating Expenses	27.0	27.9	0.9
Total Uses of Funds	$ 499.2	$ 454.1	$ (45.1)

*Amounts in million dollars

Fiscal Year 2013/2014 Summary

	Budget 2012-2013	Budget 2013-2014	Difference $
Total Sources of Funds	$ 324.2	$ 328.4	$ 4.2
Total Uses of Funds	499.2	454.1	(45.1)
Total Sources in Excess of (Less Than) Total Uses	$ (175.0)	$ (125.7)	$ 49.3
Beginning Fund Balance		530.3	
Ending Fund Balance		$404.6	

*Amounts in million dollars

Ranches

Overview

In 2006 and 2007, the SNWA purchased seven properties in Spring Valley to support in-state groundwater development activities.

- The properties provide valuable water rights as a tool for environmental resource management activities.
- The properties were acquired in support of the proposed Clark, Lincoln and White Pine Counties Groundwater Development Project.
- The land, water, infrastructure and livestock assets associated with the properties will be used to avoid, minimize and mitigate potential impacts from groundwater development.
- The Huntsman property is the only property paid for with bond proceeds ($8 million).

Ranch Assets

Water Rights: ~65,700 AFY
7,200 AFY groundwater
23,800 AFY supplemental groundwater
34,700 AFY surface water

Land: ~956,500 acres
23,500 acres deeded property
933,000 acres grazing permits

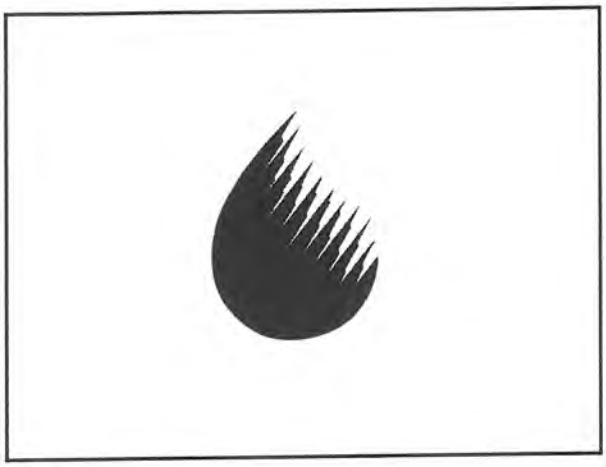
Livestock: 6,248 head*
1,342 Cattle
4,844 Sheep
34 Goats
28 Horses

Agriculture: ~6,100 acres
2,100 acres Alfalfa/Hay Production
4,000+ acres Sub-irrigated Meadows and Wetlands

*As of 3/1/13

Ranch Financial Summary

	2013 Budget	2013 Projected
Revenue	2,188,290	2,345,971
Expenses	1,553,177	1,553,177
Cost of Goods Sold	500,000	513,726
Net Income	**135,113**	**279,068**
Huntsman Debt Service		(190,400)



SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

May 16, 2013

Subject: Wholesale Delivery Charge	**Director's Backup**
Petitioner: Philip D. Speight, Deputy General Manager, Administration	
Recommendations: That the Board of Directors consider and approve an adjustment in the Wholesale Delivery Charge to $303 per acre-foot for treated water and $232 per acre-foot for untreated water, effective July 1, 2013, which was held from the meeting of April 18, 2013.	

Fiscal Impact:
Approval of this action will adjust the Wholesale Delivery Charge paid by purveyor members for treated Colorado River water from $293 to $303 (3.4 percent) per acre-foot and the Wholesale Delivery Charge for untreated water from $220 to $232 (5.4 percent) per acre-foot, effective July 1, 2013. This modification is projected to increase Authority revenues and purveyor member expenses by approximately $4.5 million for the fiscal year ending June 30, 2014.

Background:
The Authority's 2012 Amended Facilities and Operations (F&O) Agreement provides for the establishment of a Wholesale Delivery Charge to fund costs associated with the operations and maintenance of the Southern Nevada Water System. According to the F&O Agreement, the Authority is to set the Wholesale Delivery Charge at levels that will provide rate stability over a multi-year period. The charge is paid only by the Authority's purveyor member agencies that receive water from the Southern Nevada Water System, including the Las Vegas Valley Water District and the cities of Henderson, North Las Vegas and Boulder City. The annual budgets of these purveyor members reflect any anticipated adjustments to the Wholesale Delivery Charge.

The F&O agreement requires the finance officers for the Authority's purveyor members to meet annually to evaluate the Southern Nevada Water System's (SNWS) current and anticipated operating costs over a five-year planning horizon. Due to anticipated impacts of the Authority's 2016 debt service increase attributed to the expiration of short-term cash relief experienced by recent debt restructuring, rising operating costs, and foreseeable increases in the cost of electrical power, the finance officers have recommended gradual increases to the Wholesale Delivery Charge, rather than a larger increase in 2016. Gradual increases allow the Authority's purveyor members to absorb the increases over time, rather than taking an immediate and significant increase.

AGENDA ITEM # 2

This item was held by the Board of Directors at its meeting of April 18, 2013. At this time, the Board is being asked to approve an adjustment in the Wholesale Delivery Charge from $293 to $303 per acre-foot for treated water and from $220 to $232 per acre-foot for untreated water. This action was recommended by the Authority's purveyor members at their annual Financial Work Group meeting on January 30, 2013. While it is not a statutory requirement for the Board to conduct a public hearing for increases to the Wholesale Delivery Charge, it is at the Board's discretion to open the item for public comment.

The increase to the Wholesale Delivery Charge is authorized pursuant to Section 6(c) of the SNWA 1995 Amended Cooperative Agreement and Section 7.5 of the 2012 Amended Facilities and Operations Agreement. The office of the General Counsel has reviewed and approved this item.

Respectfully submitted:

P Mulroy

Patricia Mulroy, General Manager
PM:JJE:PDS:JRB:kah

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

May 16, 2013

Subject: Conduct Public Hearing	**Director's Backup**
Petitioner: Philip D. Speight, Deputy General Manager, Administration	
Recommendations: That the Board of Directors conduct a Public Hearing on the Tentative Budget for the Authority and subsequently adopt a Final Budget for fiscal year 2013/2014.	

Fiscal Impact:
The approval of a Final Budget will establish revenue and expenditure levels for the Authority for fiscal year 2013/2014.

Background:
Pursuant to Nevada Revised Statutes (NRS) 354, the Authority filed a Tentative Budget with the State Department of Taxation on April 15, 2013. On April 18, 2013, the Board of Directors conducted a budget workshop that was open to the public. The Tentative Budget has been reviewed by the Department of Taxation for compliance with State law, regulations, and guidelines. A delineation of budget components was provided to the Board in the General Manager's Information Report No. 35.

NRS requires that the Authority conduct a Public Hearing on the Tentative Budget on the third Thursday in May (May 16, 2013). Notice of this hearing has been published in the *Las Vegas Sun* and the *Las Vegas Review-Journal* in accordance with the law.

Subsequent to conducting the Public Hearing, the Board may adopt a Final Budget for the Authority. The Final Budget for fiscal year 2013/2014 must be sent to the Nevada Department of Taxation no later than June 1, 2013.

The Board is being asked to conduct a Public Hearing on the Authority's Tentative Budget and, after the Public Hearing is closed, adopt a Final Budget for fiscal year 2013/2014.

This action is authorized pursuant to NRS Chapter 354 and Section 22 of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved this agenda item.

Respectfully submitted:

P Mulroy

Patricia Mulroy, General Manager
PM:JJE:PDS:jw
Attachment

AGENDA ITEM # 3

SOUTHERN NEVADA WATER AUTHORITY
GENERAL MANAGER'S INFORMATION REPORT

DATE: April 15, 2013 No. 35

SUBJECT: SOUTHERN NEVADA WATER AUTHORITY TENTATIVE OPERATING AND CAPITAL BUDGET FOR FISCAL YEAR 2013/2014

Attached for your review is the Tentative Operating and Capital Budget of the Southern Nevada Water Authority (SNWA) for fiscal year 2013/2014, which was submitted on April 15, 2013, to the State of Nevada Department of Taxation.

EXECUTIVE SUMMARY

For the past several years, the SNWA has balanced the challenges of managing the region's water resources during a time of sustained drought and ensuring the organization's financial stability through poor economic conditions at local, state and national levels.

As drought conditions on the Colorado River persist, operating challenges and the prospect of future water shortages are closer to becoming a reality. For this reason, the SNWA continues to implement initiatives and safeguards to help conserve and diversify available water supplies and protect Southern Nevada's existing and future water resources.

In addition, the SNWA continues working to safeguard financial sustainability. Significant efforts are being made to manage and secure SNWA's financial resources and to ensure that funding continues for critical water infrastructure.

Nearly 2 million residents and 40 million visitors annually depend on SNWA to effectively and efficiently provide a safe and reliable water supply, regardless of economic hurdles or uncertainty on the Colorado River. The 2013/2014 fiscal year budget reflects the current and future objectives that will maintain a safe and reliable water supply for Southern Nevada.

Drought and Water Resources

The Colorado River provides ninety percent of Southern Nevada's water supply. While 2011 was considered a wet water year (inflows to Lake Powell were 139 percent of average), water year 2012 was the third-driest year on record since 1963. As of January 2013, low inflows have reduced overall Colorado River system storage by 10 percent compared to January 2012. As a result, Lake Mead water levels are approximately 90 feet lower than water levels recorded in 2000 and projections indicate that below-average conditions will continue throughout 2013. Due to implications associated with decreasing lake levels, including water quality and potential water shortage declarations, the organization continues to move forward with the development and diversification of water resources.

Water Rights Hearings

On March 22, 2012, the State Engineer ruled for the second time on SNWA's applications for groundwater rights in four east-central Nevada valleys, granting a total of 83,988 acre-feet per year. While this was not the full amount requested by SNWA, it did increase the amount previously allotted by 5,233 acre-feet per year.

Minute 319
The U.S. and Mexico entered into the Minute 319 agreement on November 20, 2012. Under the five-year pact, Mexico will share in surpluses and shortages on the Colorado River. Further, SNWA, the Metropolitan Water District of Southern California and the Central Arizona Project agreed to fund conservation measures and water infrastructure improvements in Mexico. In return, the three entities will receive 95,000 acre-feet of water over five years -- 23,750 acre-feet of which will go to SNWA. In addition, Mexico has agreed to reduce its Colorado River allocation by up to 125,000 acre-feet should Lake Mead levels drop to 1,075 feet or lower.

Colorado River Basin Supply and Demand Study
The U.S. Bureau of Reclamation released the Colorado River Basin Water Supply and Demand Study (Study) in December 2012. The Study identifies current and future imbalances within the Colorado River System, predicts the impact that climate change will have on available resources and evaluates strategies to tackle these issues. It also addresses future water supplies and demands and assesses the future reliability of the Colorado River System as a whole. SNWA staff made significant contributions to the study by providing statistical information, helping to identify system imbalances and making recommendations to resolve the issues. The Study will serve as a foundation for continued collaboration with the other Basin states in addressing Colorado River shortages.

Record of Decision
On December 28, 2012, the Bureau of Land Management issued a Record of Decision by which the Department of the Interior granted SNWA rights-of-way applications for the construction, operation, maintenance and termination of a water pipeline and associated appurtenances for the Clark, Lincoln and White Pine Counties Groundwater Development Project. The decision allows SNWA rights-of-way in all of the basins where SNWA water rights are currently permitted. If conditions on the Colorado River continue to deteriorate, the SNWA Board will consider whether to begin construction of the Groundwater Development Project.

Financial Considerations/Capital Funding
Major initiatives for fiscal year 2013/2014 include the continuation of Major Construction and Capital Plan (MCCP) projects, water resource and technology leadership activities and evaluation of present economic conditions.

Construction of Intake No. 3 is scheduled for completion in 2014 and continues to represent the majority of SNWA's capital commitments for the upcoming fiscal year. Once complete, this project will provide access to better water quality and greater long-term protection for Southern Nevada's primary water-storage supply. Other projects, which include system control improvements and water resource acquisition and development, represent a minimal portion of SNWA's overall budget but are still critical to achieving a balance between water supply and infrastructure needs in Southern Nevada.

Fiscal Year 2013/2014 Objectives

- Progress continues on the construction of Intake No. 3, which has a projected completion goal in 2014. While project costs for fiscal year 2013/2014 are projected to be approximately $47 million lower than they were in the 2013 MCCP budget, that amount may increase due to work scheduled for 2013 being postponed until 2014.

- The SNWA will continue its collaboration with other Colorado River stakeholders to address the issues emerging as a result of the Basin Study, the deepening of the drought conditions, and efforts to implement Minute 319.

- After receiving rights-of-way and groundwater rights related to the Clark, Lincoln and White Pine Counties Groundwater Development Project, the organization will continue to support efforts as the process enters the legal-challenge phase.

- SNWA will continue our existing relationships with state, federal and international partners to advance and promote water-related technical development and innovative water resource solutions. The information and scientific data exchanged through these relationships support the implementation of new technologies and establishment of strategic initiatives necessary to provide a reliable drinking water supply.

- It is anticipated that the Integrated Resource Planning Advisory Committee (IRPAC) process will complete the financial phase of its work in late 2013. IRPAC continues to develop recommendations and solutions regarding water resource development and management, facilities, funding, planning, conservation and water quality.

- Through continued reductions and deferrals the SNWA will continue to responsibly respond to current economic conditions and evaluate revenue needs.

Southern Nevada has been particularly hard hit during the downturn in the national economy. The current financial climate has contributed to the declines in many of the organization's key funding sources:

- Sales tax collections, which peaked in calendar year 2006, declined 23 percent in the three subsequent years. Collections for calendar year 2012 are 12.2 percent more than for calendar year 2009 when sales tax collections were at their lowest level during the downturn but still lag the peak year by 13.5 percent.
- SNWA regional connection charges which plummeted 98 percent from more than $188 million in fiscal year 2006 slightly recovered to $13.8 million in fiscal year 2012.
- Annual revenue from the Southern Nevada Public Land Management Act which had been as high as $135 million in fiscal 2006 produced no revenue in fiscal 2012.

Fortunately, during the years prior to the economic downturn, the SNWA was able to build a fund balance that has provided operating revenue for the organization during these trying times. Proper management of these funds significantly contributed to the SNWA being able to maintain its strong financial rating as well as meet annual debt service requirements.

In 2011, legislation was approved that authorized the Board of County Commissioners to vote to continue a 0.25 percent infrastructure sales tax in Clark County. The Integrated Resource Planning Advisory Committee is expected to recommend whether or not to extend this sales tax provision.

For continued financial and operational integrity, the SNWA achieved budget reductions and implemented cost-saving measures. The following is a recap of those measures:

- Reduced operational costs by $56 million. Since 2009, the SNWA has reduced workforce expenditures by $26 million (25 percent) and reduced 226 staff.
- Deferred more than $409 million in new capital projects.

- Had previously negotiated a modified payment schedule with the Arizona Water Bank, deferring $125 million in payments, and extending the payment schedule without incurring any additional costs or interest obligations. At the April meeting, the Board will consider a further amendment that will eliminate the financial obligation while still allowing us to store water in Arizona when funds are available.
- Renegotiated leases for Virgin and Muddy River water for years 2012-2014 at a price 40 percent lower than the existing lease price, saving $4.73 million.
- Debt refinancing activity is providing approximately $116 million in cash-flow relief through fiscal year 2012/2013. An additional $149 million in cash-flow relief will be realized in future years.

Even with these actions, a shortage remained between projected revenues and SNWA's financial obligations due primarily to debt service and capital expenditures. In 2011, the SNWA Board of Directors hired an independent firm to review existing revenue streams and develop rate options for critical water infrastructure projects. Those options were presented in a Rate Analysis Report to the SNWA Board in January 2012. After the completion of a public-outreach process, a new fixed-rate infrastructure charge, based on meter size and type, was adopted by the Board on February 29, 2012. It is projected that the infrastructure charge will generate $76.6 million in fiscal 2012/2013, its first full year of implementation.

Integrated Resource Planning Advisory Committee
In May 2012, the SNWA Board appointed 21 individuals to a citizens' advisory committee to help guide future water-resource planning for Southern Nevada. IRPAC represents a cross-section of community residents, businesses, chambers of commerce, education, environmental and financial sectors. It is anticipated that the committee will work with SNWA member agencies and the public to solicit stakeholder and resident input regarding resource development and management, facilities, funding, rates and fees, planning, conservation and water quality. Once evaluations are complete, the group will make formal recommendations to the SNWA Board.

Because regional economic indicators continue to lag slightly behind national trends, the SNWA will continue its conservative approach in planning, forecasting and budgeting, as demonstrated in the 2013/2014 fiscal year budget.

Conservation
While the instability of the Colorado River highlights the need for the development of additional water resources for Southern Nevada, water use efficiency via conservation continues to be a consistently dependable element within SNWA's resource portfolio and a top priority for the organization. SNWA's conservation programs remain among the most aggressive and successful in the nation. Due to land-use codes and water-use ordinances adopted by local governments, as well as the implementation of permanent conservation measures, water use continues to decline.

The SNWA achieved an average single family residential consumptive use of 75 gallons per capita per day (GPCD) in 2012 and continues to make progress toward additional savings. Last year, Southern Nevada's water consumption was approximately 36 billion gallons less than a decade ago, despite the addition of more than 400,000 new residents during that span. Community participation in the Water Smart Landscapes Rebate Program continues with 162 million square feet of grass converted to water-smart landscaping since the program's inception in 1999.

WHOLESALE DELIVERY OPERATIONS

The Wholesale Delivery Operations sub-fund is projected to have an opening balance of $19.5 million forecast for the beginning of fiscal 2013/2014. This is the amount remaining from previous years' collection of wholesale delivery charges less expenses incurred in those years. The 2013/2014 budget projects that operational revenues will cover the year's expenses, plus improve the Wholesale Delivery Operations balance by $5.2 million by fiscal year end.

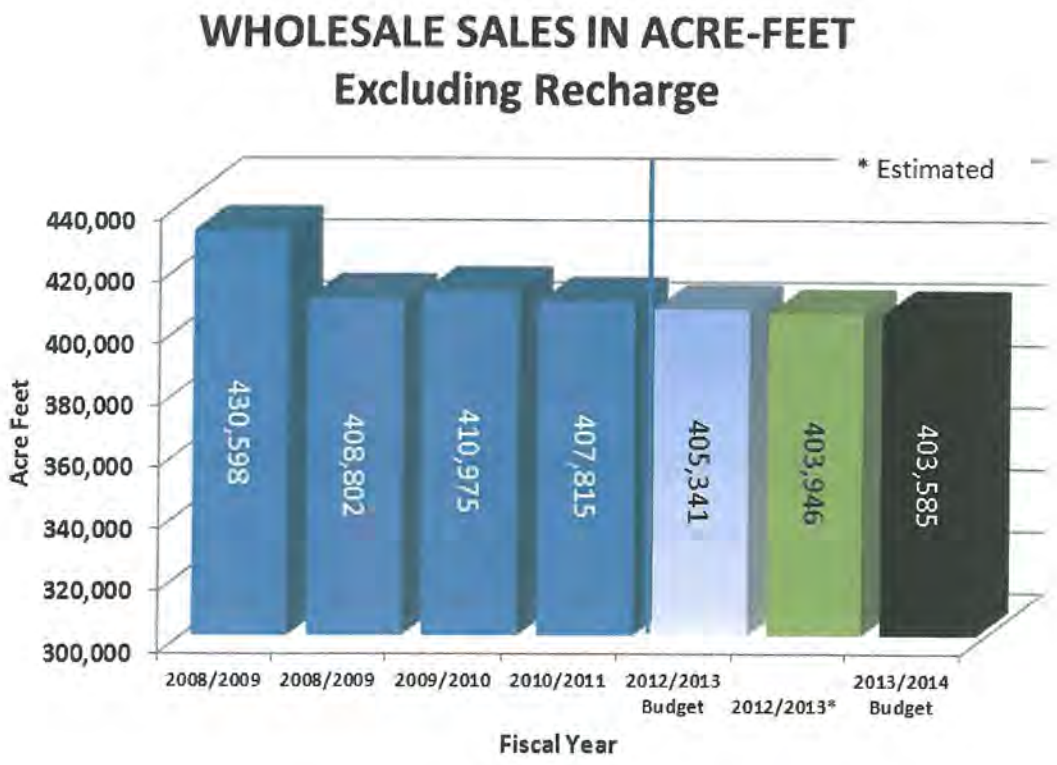
Wholesale Delivery Charge

The Financial Work Group (FWG) of SNWA met on January 30, 2013, and reviewed projections of revenues and expenses for a five-year period. The FWG was concerned about debt service covered by the wholesale delivery charge which is projected to increase $5.5 million (62.6 percent) in fiscal 2015/2016. Debt issues that were restructured in the past several years to provide short-term cash flow relief are scheduled to resume their regular payment schedules in fiscal 2015/2016.

After considering current fund balance, projections of water sales and expenses over the next five year period, and the impact that the increased debt service will have, the FWG is recommending that the wholesale delivery charge be increased by $10 (3.4 percent) per acre-foot in fiscal 2013/2014. The additional revenues generated by this increase will be used to help offset the anticipated increase in debt service payments.

Water Deliveries

Water deliveries continue to decline slightly as the following chart shows:



Estimated sales of 403,585 acre-feet for fiscal 2013/2014 are 1,756 acre-feet (-0.4 percent) lower than budgeted for fiscal 2012/2013. The budgeted amount assumes that no in-valley recharge additions will be made in fiscal 2013/2014. If deliveries do not allow the SNWA to use its full 300,000 acre-foot annual allocation of Colorado River water during this year, the SNWA will use all other means possible to store the unused water for future use.

Energy

Energy continues to be the single largest expense in the wholesale delivery charge. The energy program used by the SNWA provides a stable energy price that reduces price volatility. The SNWA's "model clearing price" program established a price of $63/megawatt hour (MWh) as the average price the SNWA will pay for energy. The $63 rate, which has been in place since 2004, is reviewed periodically for relevance and adequacy. The rate covers actual power costs, including debt service for the partial acquisition of the Silverhawk Power Station, the Pioneer energy portfolio, and other renewable generation assets. In addition, the rate pays for operating expenses of the SNWA Energy Management Department.

The SNWA has a 25-percent interest in the Silverhawk Power Station (managed by NV Energy on behalf of the SNWA) which provides the SNWA with 75 megawatts (MW) of firm delivered power through June 1, 2013, further stabilizing long-term prices. The SNWA also utilizes approximately 20 MW of Nevada's Colorado River hydropower rights at a fully-loaded cost of about $35/MWh through the Colorado River Commission.

Fiscal 2013/2014's power costs are expected to increase $2.1 million (5.5 percent) when compared to fiscal year 2012/2013. The increase is driven solely by a transmission rate increase. SNWA has saved approximately $58 million in energy costs as a result of supplying their energy needs on the open market.

The SNWA is committed to incorporating renewable energy resources into its power portfolio whenever feasible and continues to investigate renewable energy projects using wind, solar, biodiesel and geothermal resources to meet longer-term energy needs.

Operating Expenses and Debt Service

Operating expenses include labor, chemicals, fees to the Colorado River Commission and Bureau of Reclamation, supplies needed for the repair and maintenance of the pumping and distribution system and other sundry items. These costs are expected to increase $0.1 million (0.2 percent). Debt service is expected to increase $0.2 million (1.6 percent). This slight increase is attributed to an adjustment made for the June 2012 refunding issue. When the fiscal 2012/2013 budget was assembled, the amortization schedule for this issue was still in the preliminary stages.

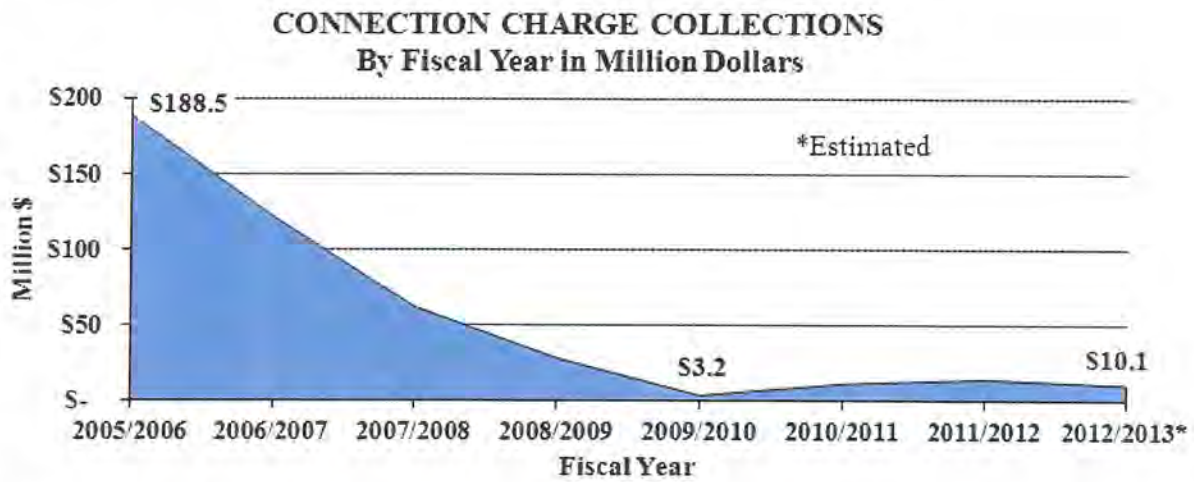
NEW EXPANSION DEBT SERVICE

The SNWA New Expansion Debt Service sub fund is projected to have a beginning balance of $295 million. The fund balance provides the SNWA with the capacity to meet existing debt service requirements and maintain a debt coverage ratio consistent with bond covenants.

Revenue for the New Expansion Debt Service Fund comes from the SNWA Regional Connection Charge, SNWA Infrastructure Surcharge, SNWA Commodity Charge, SNWA Reliability Surcharge, and sales tax proceeds.

SNWA Regional Connection Charge

Net collections of the SNWA Regional Connection Charge have stabilized in recent years but are significantly below peak collections:



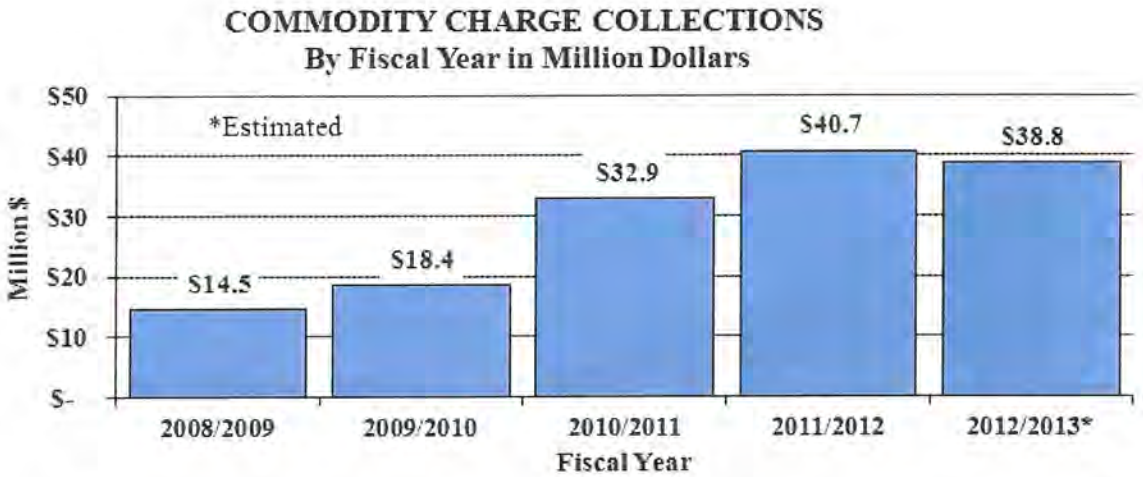
The projection for fiscal 2013/2014 continues the current trend of stable but historically low connection charges. SNWA Connection Charge revenues are budgeted at $13.1 million for fiscal 2013/2014 which is $1.1 million (9.2 percent) higher than fiscal 2012/2013's budgeted amount.

SNWA Infrastructure Surcharge

The SNWA Board approved a fixed-rate SNWA Infrastructure Surcharge on February 29, 2012, and approved a credit for non-residential fire lines on July 19, 2012. The Infrastructure Surcharge provides needed financial relief for the significant decline in SNWA Connection Charge collections.

The projected collections of SNWA Infrastructure Surcharge for fiscal 2013/2014 are $77.3 million. This amount is $15.6 million (-16.8 percent) lower than amounts budgeted in fiscal 2012/2013. Last year's budget used amounts shown in the rate analysis report that established the Infrastructure Surcharge and did not anticipate an adjustment to fire line customers which was approved on July 19, 2012, two months after the budget was filed. Additionally the fiscal 2013/2014 amount reflects the history of collections of this relatively new charge. To date, SNWA has been able to collect approximately 97 percent of the amount projected in the rate analysis report.

SNWA Regional Commodity Charge & SNWA Reliability Surcharge
Collection of SNWA Regional Commodity Charges improved in recent years, due in large part to rate increases enacted in calendar years 2010 and 2011.



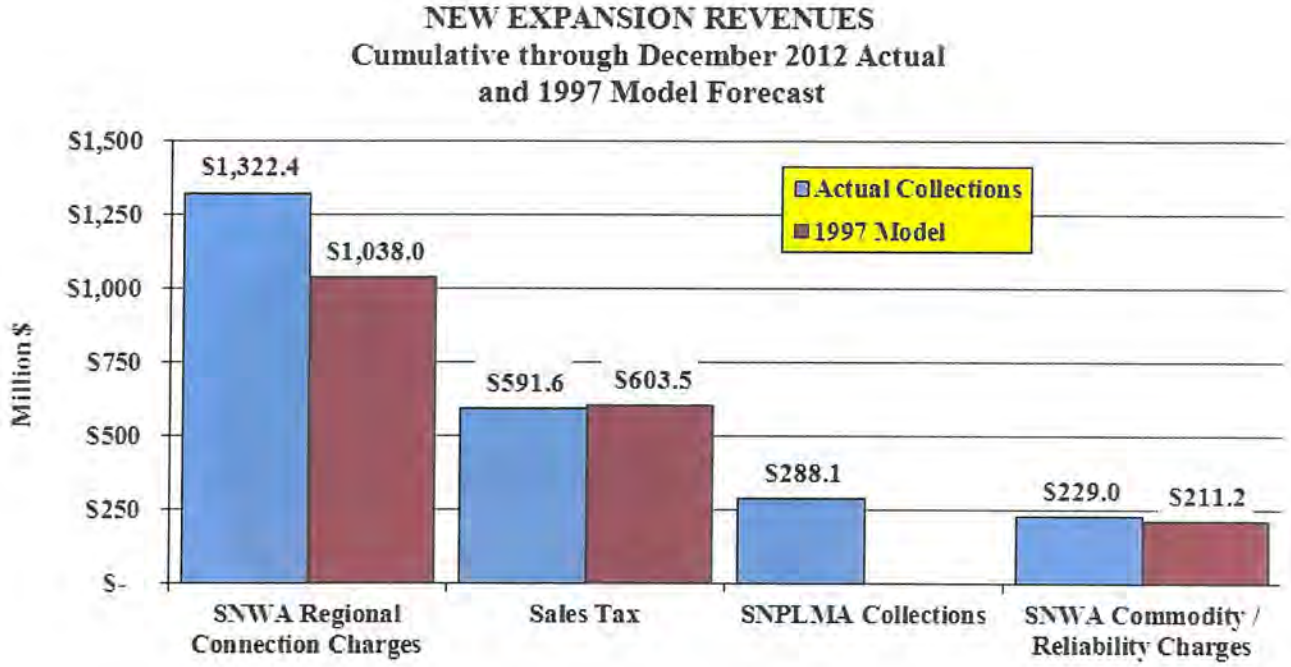
The fiscal 2013/2014 budget projects SNWA Commodity Charge collections to be $39.3 million. This amount is similar to 2012/2013 projections.

The SNWA Reliability Surcharge is based on 0.25 percent of a residential customer's total water bill and 2.5 percent of a non-residential customer's bill. In fiscal 2013/2014 this source of revenue is projected to be flat at $4.8 million, reflecting continued lower unit sales per customer and virtually no growth in the number of customer accounts.

Sales Tax Collections
Sales tax revenues are improving but are less than peak amounts. When comparing recent collections to previous periods, sales tax revenues have increased in 27 of the last 28 months. While this trend is encouraging, the SNWA still takes a conservative approach in forecasting future revenue from sales tax. The fiscal 2013/2014 budget projects $48 million in sales tax collections for the New Expansion Debt Service Fund. This amount is $3.5 million higher than fiscal 2012/2013 budget projections and more closely reflects the current collection trend.

Cumulative Revenue Trends
Despite present-day challenges in predicting regional revenues, total collections to date continue to exceed long-term projections originally developed nearly two decades ago. Connection charge revenues are 27.4 percent ahead of 1997 projections, primarily due to greater than expected growth in the Las Vegas Valley during the first ten years of the plan. In addition, the $287 million in revenue received from the Southern Nevada Public Lands Management Act was not part of the original forecast.

The following chart compares the 1997 forecast with the amount of New Expansion revenues actually collected to date.



The 1997 forecast assumed that the Las Vegas Valley would grow at a rate of approximately 2 - 3 percent each year. Instead, the Valley maintained consistent growth in the range of 5 - 6 percent per year from 1997 to 2005. In addition, the 1997 forecast assumed that each residential connection would use about 0.85 acre-feet of water per year. Actual use declined to approximately half that amount, or about 0.45 acre-feet per year per residential connection. Declines continue due to smaller lot sizes, regional conservation activities, and economic factors.

The 1997 forecast also did not include some major capital expenditures that the SNWA has encountered during the past 15 years due to the prolonged drought. Conservation expenses, the acquisition of additional water rights, and Intake No. 3 were not included in the original forecast. However, these large capital expenses have been partially funded by the revenues that exceeded original projections.

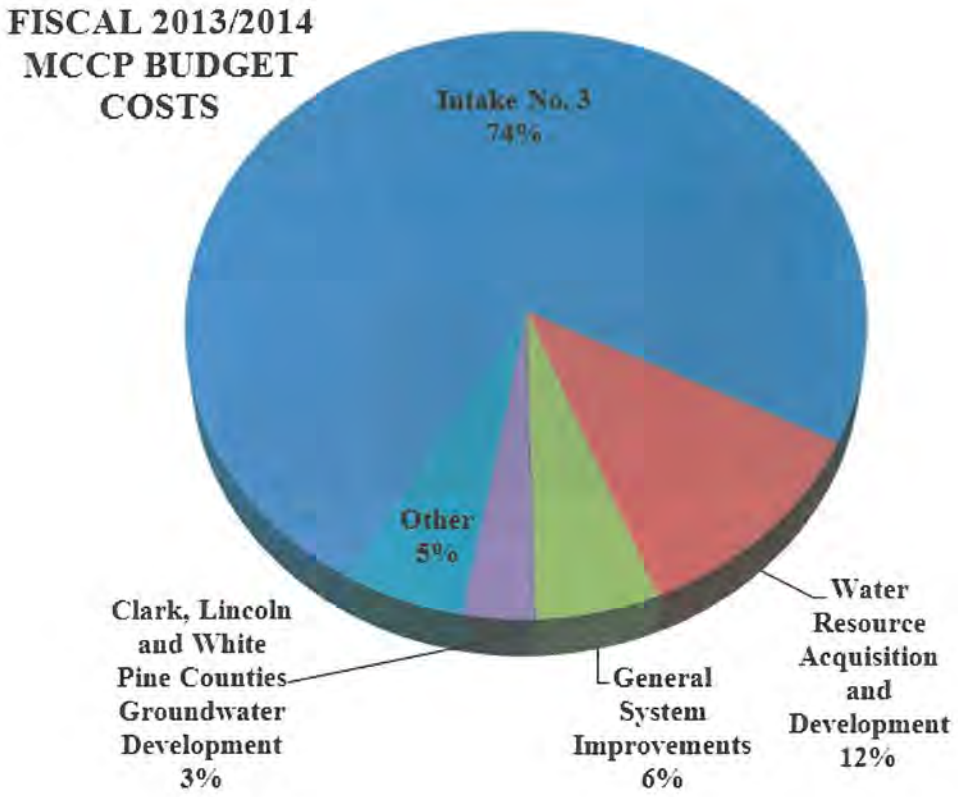
Labor and Capitalized Expenses
Beginning with the fiscal 2012/2013 budget, SNWA began paying for capitalized labor through the New Expansion Debt Service sub-fund. The only exception to this will be SNWA's Engineering Department which will still have its labor paid by bond proceeds. Labor costs in this sub-fund are projected to increase by $2.5 million. The increase arises mainly from a fine-tuning of allocation methods between the sub funds and more closely represents historical trends. Likewise the increase in capitalized expenses follows historical trends and is only $3,956 higher than amounts actually spent in fiscal 2011/2012.

MAJOR CONSTRUCTION AND CAPITAL PLAN (MCCP)

The MCCP sub-fund is projected to have a beginning balance of $214.2 million. The fund balance consists entirely of unused bond proceeds from the July 2012 debt issue. The balance will be sufficient to cover all of fiscal 2013/2014's projected capital expenses.

Construction and related expenditures for the MCCP in fiscal year 2013/2014 are projected to be $142.5 million. For fiscal year 2013/2014, the SNWA will continue construction of Intake No. 3 and

dedicate funds for securing additional water resources for future use. The following chart shows the major projects that will be funded by the MCCP sub fund in fiscal year 2013/2014.



LAS VEGAS VALLEY GROUNDWATER MANAGEMENT PROGRAM

The Las Vegas Valley Groundwater Management Program sub-fund is projected to have a beginning fund balance of $1.4 million. This is the amount remaining from collection of groundwater fees, less expenses incurred in previous years. During the 2013/2014 fiscal year, it is estimated that the beginning balance and fee collections will be sufficient to support the annual projects and expenses of the Groundwater Management Program, projected at $1.3 million.

LAS VEGAS WASH

The Las Vegas Wash sub-fund will have a beginning balance of $0.2 million. During the fiscal year, the fund is projected to receive $3.3 million in sales tax proceeds and $15.2 million from various grants. These monies will be used to partially fund $20.5 million in capital projects in the Las Vegas Wash. An additional $3.5 million will be available through a temporary interfund loan from the New Expansion Debt Service Fund. Also, $1.2 million in Las Vegas Wash program fees are projected to be received during the fiscal year. These fees and the existing fund balance will be used to pay the projected $2.6 million net operating expenses.

FINANCIAL SUMMARY

The below chart shows beginning and ending balances, and summarizes sources and uses of funds of the SNWA by activity, for fiscal year 2013/2014.

Southern Nevada Water Authority

Budget Summary

Fiscal 2013 / 2014

In Million Dollars

	Sub fund					
	Wholesale Delivery Operations	New Expansion Debt Service	Major Construction and Capital Plan	Las Vegas Valley Groundwater Management Program	Las Vegas Wash	Total
Beginning Balance (July 1, 2013)	**$ 19.5**	**$ 295.0**	**$ 214.2**	**$ 1.4**	**$ 0.2**	**$ 530.3**
Sources of Funds						
Wholesale Delivery Charge	$ 122.0	$ -	$ -	$ -	$ -	$ 122.0
Regional Connection Charge	-	13.1	-	-	-	13.1
Infrastructure Charge	-	77.4	-	-	-	77.4
Regional Commodity Charge	-	39.3	-	-	-	39.3
Reliability Surcharge	-	4.8	-	-	-	4.8
Sales Tax	-	48.0	-	-	3.3	51.3
Groundwater Management Fees	-	-	-	0.9	-	0.9
LV Wash Program Fees	(0.5)	-	-	-	1.2	0.7
Intra Fund Loans	-	(3.5)	-	-	3.5	-
Interest Income	0.0	0.7	0.3	0.0	0.0	1.0
Other Revenues	1.1	1.5	0.1	-	15.2	17.9
Total Sources of Funds	$ 122.6	$ 181.3	$ 0.4	$ 0.9	$ 23.2	$ 328.4
Uses of Funds						
Energy	$ 41.5	$ -	$ 2.8	$ -	$ -	$ 44.3
Payroll	36.5	22.4	7.9	0.5	1.3	68.6
Operating Expenses	25.7	-	-	0.8	1.3	27.9
Capitalized Expenses	-	10.3	24.6	-	-	34.9
Construction Expenditures	-	-	107.2	-	20.5	127.7
Debt Service	13.7	137.0	-	-	-	150.7
Total Uses of Funds	$ 117.4	$ 169.7	$ 142.5	$ 1.3	$ 23.1	$ 454.1
Fiscal Year Net Change	$ 5.2	$ 11.6	$ (142.1)	$ (0.4)	$ 0.1	$ (125.7)
Ending Balance (June 30, 2014)	**$ 24.7**	**$ 306.6**	**$ 72.1**	**$ 1.0**	**$ 0.3**	**$ 404.6**

Amounts may be slightly off due to rounding

Budgeted reductions and deferrals described previously, as well as the addition of the SNWA Infrastructure Surcharge, are helping the New Expansion Debt Service sub-fund reserves to remain sufficient. Healthy reserves are crucial in maintaining a favorable bond rating, which contributes to lower overall debt costs and future funding can be procured to complete essential projects.

APPROVAL

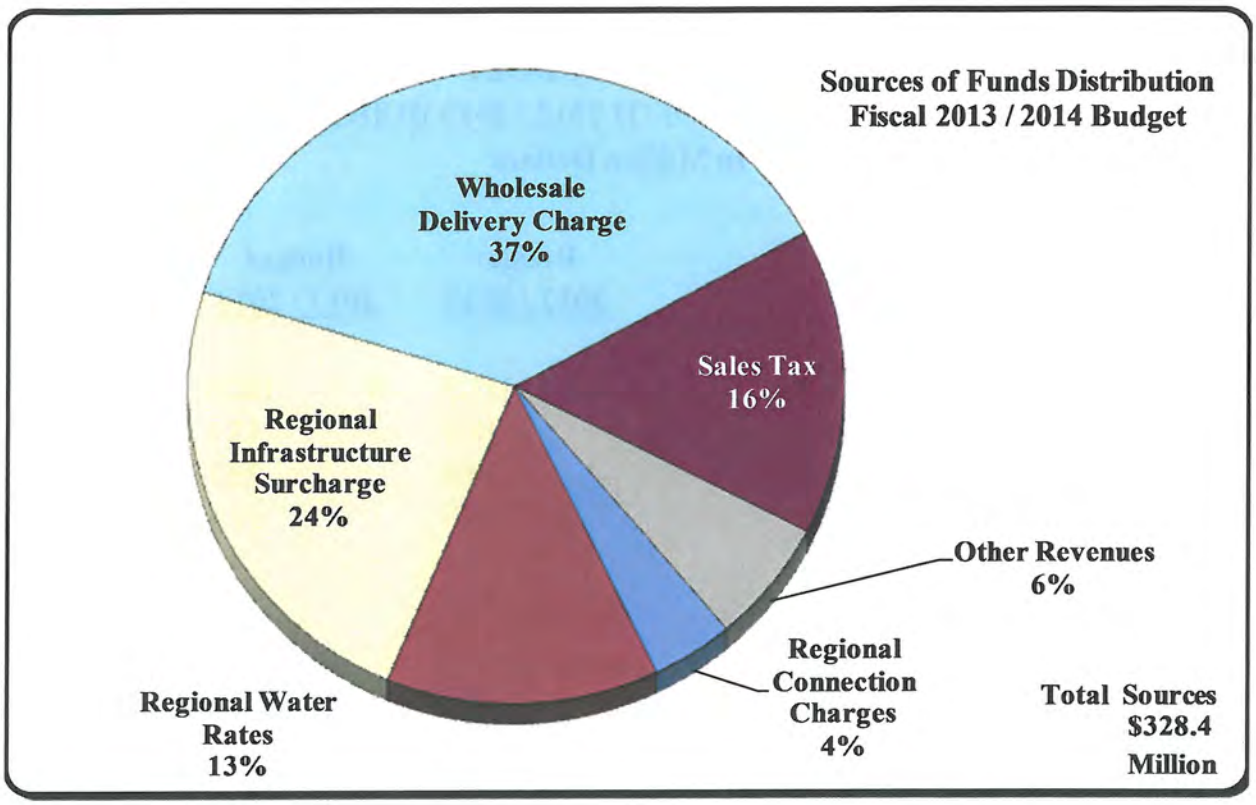
The public hearing for this budget is scheduled for 9:00 a.m., Thursday, May 16, 2013, in the Colorado River Conference Rooms, 100 City Parkway, Seventh Floor, Las Vegas, Nevada.

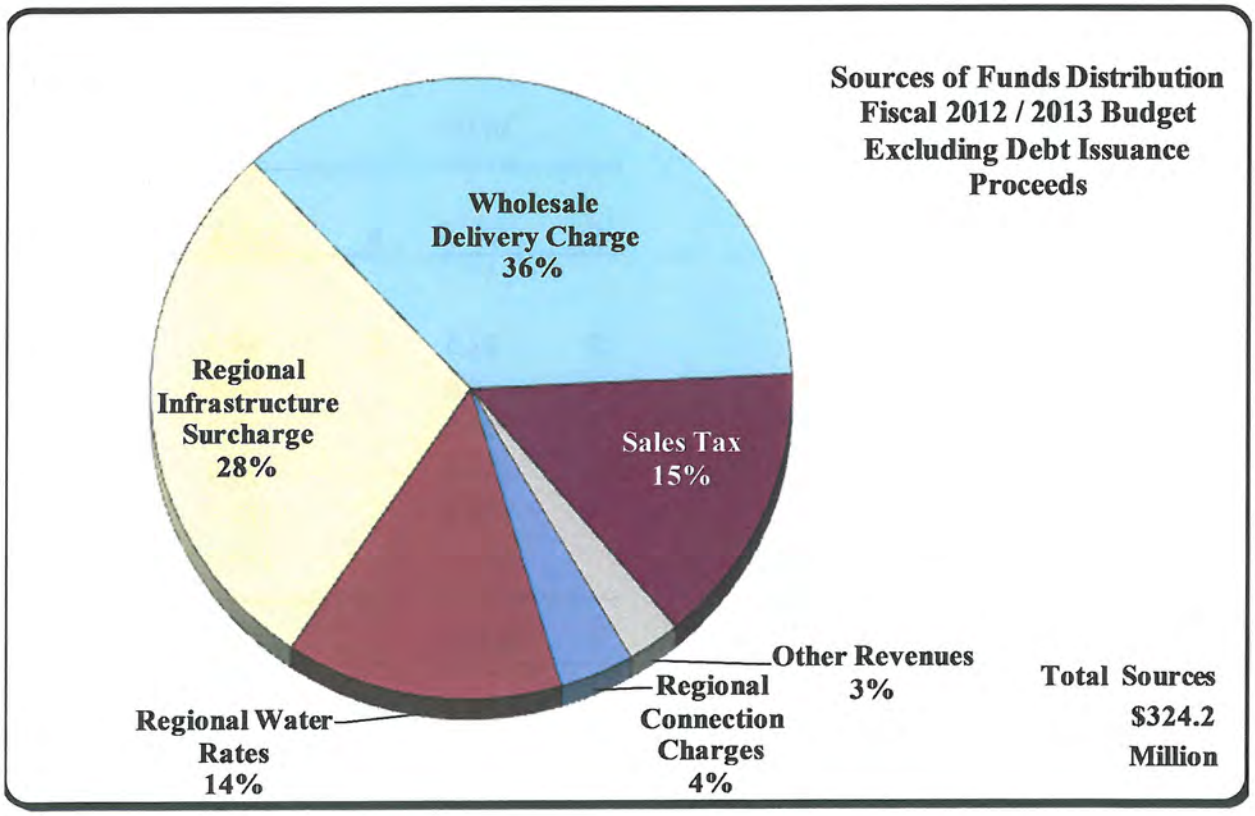
PATRICIA MULROY, GENERAL MANAGER

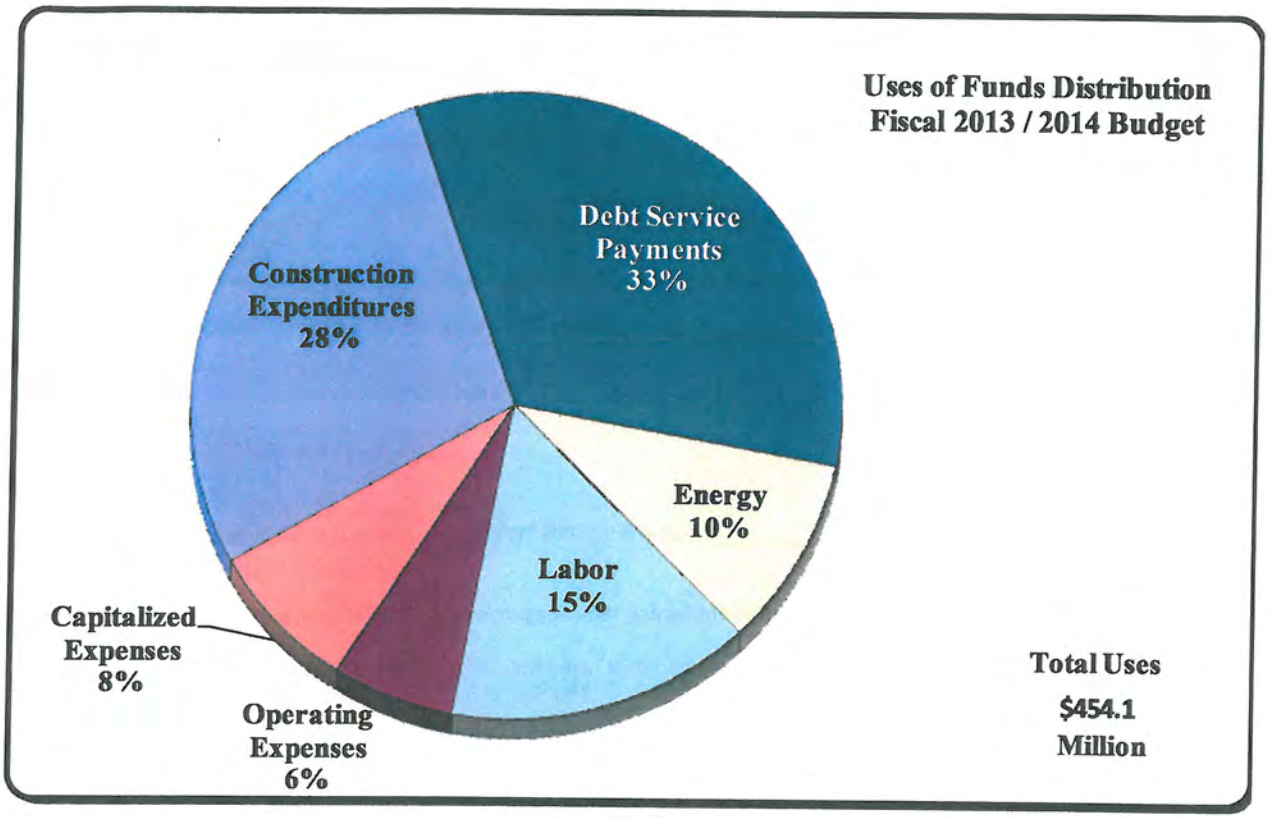
SOUTHERN NEVADA WATER AUTHORITY
2013 / 2014 BUDGET
COMPARISON WITH 2012 / 2013 BUDGET
In Million Dollars

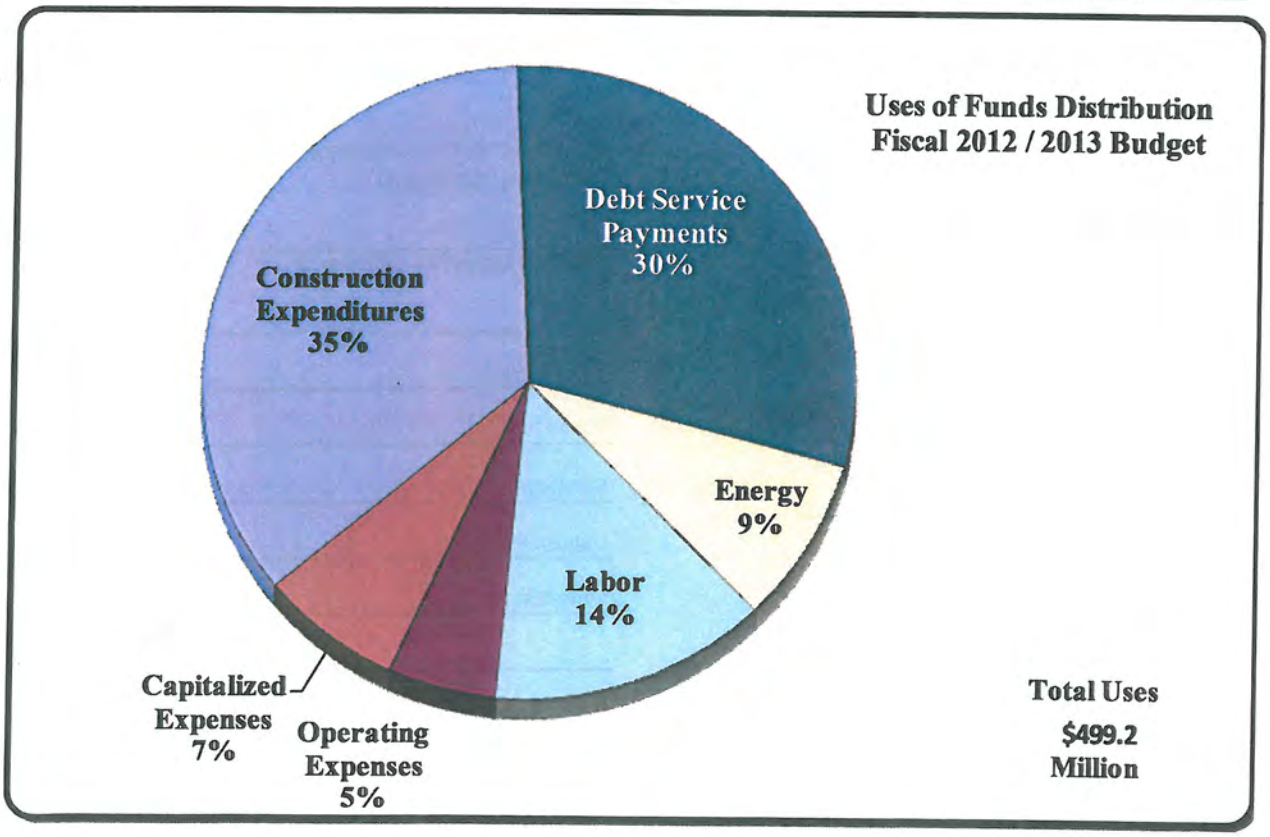
	Budget 2012 / 2013	Budget 2013 / 2014	Increase (Decrease)
SOURCES OF FUNDS			
Wholesale Delivery Charge	$ 117.5	$ 122.0	$ 4.5
Regional Connection Charge	12.0	13.1	1.1
Regional Commodity Charge	40.8	39.3	(1.5)
Regional Infrastructure Surcharge	92.9	77.4	(15.5)
Regional Reliability Surcharge	4.7	4.8	0.1
Sales Tax	47.5	51.3	3.8
Interest Income	1.7	1.0	(0.7)
Groundwater Management Fees	0.9	0.9	(0.0)
Las Vegas Wash Program Fees	0.5	0.7	0.2
Grant Proceeds	1.1	15.8	14.7
Other Sources	4.6	2.1	(2.5)
Total Sources before Debt Proceeds	$ 324.2	$ 328.4	$ 4.2
Debt Issuance Proceeds	360.0	-	(360.0)
TOTAL SOURCES OF FUNDS	**$ 684.2**	**$ 328.4**	**$ (355.8)**
USES OF FUNDS			
Energy	$ 42.5	$ 44.3	$ 1.8
Labor	68.6	68.6	(0.0)
Operating Expenses	27.0	27.9	0.9
Capitalized Expenses	35.3	34.9	(0.4)
Construction Expenditures	176.5	127.7	(48.8)
Debt Service Payments	149.3	150.7	1.4
TOTAL USES OF FUNDS	**$ 499.2**	**$ 454.1**	**$ (45.1)**
TOTAL SOURCES IN EXCESS OF (LESS THAN) TOTAL USES	**$ 185.1**	**$ (125.7)**	**$ (310.7)**

Amounts may be slightly off due to rounding


Sources of Funds Distribution
Fiscal 2013 / 2014 Budget
Wholesale Delivery Charge 37%
Sales Tax 16%
Regional Infrastructure Surcharge 24%
Other Revenues 6%
Regional Connection Charges 4%
Regional Water Rates 13%
Total Sources $328.4 Million


Sources of Funds Distribution
Fiscal 2012 / 2013 Budget
Excluding Debt Issuance Proceeds
Wholesale Delivery Charge 36%
Regional Infrastructure Surcharge 28%
Sales Tax 15%
Other Revenues 3%
Regional Connection Charges 4%
Regional Water Rates 14%
Total Sources $324.2 Million


Uses of Funds Distribution
Fiscal 2013 / 2014 Budget
Debt Service Payments 33%
Construction Expenditures 28%
Energy 10%
Labor 15%
Capitalized Expenses 8%
Operating Expenses 6%
Total Uses
$454.1 Million


Uses of Funds Distribution
Fiscal 2012 / 2013 Budget
Debt Service Payments 30%
Construction Expenditures 35%
Energy 9%
Labor 14%
Capitalized Expenses 7%
Operating Expenses 5%
Total Uses
$499.2 Million

STATE OF NEVADA
DEPARTMENT OF TAXATION

Web Site: http://tax.state.nv.us
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
ROBERT R. BARENGO
Chair, Nevada Tax Commission
CHRISTOPHER G. NIELSEN
Executive Director

LAS VEGAS OFFICE
Grant Sawyer Office Building, Suite1300
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

Nevada Department of Taxation
1550 College Parkway, Suite 115
Carson City, NV 89706-7921

Southern Nevada Water Authority herewith submits the (TENTATIVE) — (FINAL) budget for the fiscal year ending June 30, 2014

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 $ 263,288,258

Copies of this budget have been filed for public record and inspection in the offices enumerated in NRS 354.596 (Local Government Budget and Finance Act).

CERTIFICATION

I Philip D. Speight
(Printed Name)
Deputy General Manager of Administration
(Title)
certify that all applicable funds and financial operations of this Local Government are listed herein

Signed Philip D. Speight

Dated: 4-15-13

APPROVED BY THE GOVERNING BOARD
Shari Buck, Chairwoman

Mary Beth Scow, Vice Chairwoman

Sam Bateman

Susan Brager

Bob Coffin

Duncan McCoy

Steve Sisolak

SCHEDULED PUBLIC HEARING:

Date and Time 5/16/13 9:00 AM Publication Date 5/6/2013

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

FULL TIME EQUIVALENT EMPLOYEES BY FUNCTION

	ACTUAL PRIOR YEAR ENDING 06/30/12	ESTIMATED CURRENT YEAR ENDING 06/30/13	BUDGET YEAR ENDING 06/30/14
General Government			
Judicial			
Public Safety			
Public Works			
Sanitation			
Health			
Welfare			
Culture and Recreation			
Community Support			
TOTAL GENERAL GOVERNMENT	498.00	496.14	475.37
Utilities			
Hospitals			
Transit Systems			
Airports			
Other			
TOTAL	498.00	496.14	475.37

POPULATION (AS OF JULY 1)	2,002,000	2,057,000	2,112,000
SOURCE OF POPULATION ESTIMATE*	Center for Business & Econ Research UNLV	Center for Business & Econ Research UNLV	Center for Business & Econ Research 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	N/A	N/A	N/A

*** 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

SCHEDULE A-2 PROPRIETARY AND NONEXPENDABLE TRUST FUNDS

Budget For Fiscal Year Ending June 30, 2014

Budget Summary for Southern Nevada Water Authority
(Local Government)

FUND NAME	*	OPERATING REVENUES (1)	OPERATING EXPENSES (2) **	NONOPERATING REVENUES (3)	NONOPERATING EXPENSES (4)	OPERATING TRANSFERS IN (5)	OPERATING TRANSFERS OUT(6)	NET INCOME (7)
Southern Nevada Water Authority Proprietary Fund		$125,692,439	$203,220,075	$202,406,937	$60,068,183			$64,811,119
TOTAL								

* FUND TYPES: E - Enterprise
I - Internal Service
N - Nonexpendable Trust

** Include Depreciation

Page: 3
Form 7
11/1/2012

PROPRIETARY FUND	(1) ACTUAL PRIOR YEAR ENDING 6/30/2012	(2) ESTIMATED CURRENT YEAR ENDING 6/30/2013	(3) BUDGET YEAR ENDING 06/30/14 TENTATIVE APPROVED	(4) FINAL APPROVED
OPERATING REVENUE				
Wholesale Delivery Charge	$119,239,660	$117,498,863	$121,958,169	
Groundwater Program Revenue	867,716	913,359	913,345	
Purveyor Administration Cost Billings	318,886	301,584	1,013,138	
Las Vegas Wash Revenues	397,407	496,759	705,482	
Other Operating Revenue	2,705,745	1,099,750	1,102,305	
Total Operating Revenue	$123,529,414	$120,310,315	$125,692,439	$0
OPERATING EXPENSE				
Personnel and Related	$43,450,464	$43,405,732	$43,868,607	
Energy	44,527,798	39,311,358	41,484,548	
Other	37,685,150	38,991,833	37,866,920	
Depreciation/Amortization	74,918,789	76,000,000	80,000,000	
Total Operating Expense	$200,582,201	$197,708,923	$203,220,075	$0
Operating Income or (Loss)	($77,052,787)	($77,398,608)	($77,527,636)	$0
NONOPERATING REVENUES				
Interest Earned	$869,505	$1,762,923	$714,982	
Property Taxes		-		
Subsidies				
Consolidated Tax				
Capital Contributions	135,679,772	197,998,278	201,691,955	
other	37,112	-	-	
Total Nonoperating Revenues	$136,586,389	$199,761,201	$202,406,937	$0
NONOPERATING EXPENSES				
Interest Expense	$56,700,015	$61,726,000	$60,068,183	
Amortization of Refunding Costs	2,254,389	-	-	
Amortization of Debt Issuance Costs	4,052,766	-	-	
Total Nonoperating Expenses	$63,007,170	$61,726,000	$60,068,183	$0
Net Income before Operating Transfers	($3,473,568)	$60,636,593	$64,811,119	$0
Operating Transfers (Schedule T)				
In				
Out				
Net Operating Transfers	$0	$0	$0	$0
NET INCOME	($3,473,568)	$60,636,593	$64,811,119	$0
			OK	

Southern Nevada Water Authority
(Local Government)

SCHEDULE F-1 REVENUES, EXPENSES AND NET INCOME

FUND Enterprise

Page: 4
Form 19
11/1/2012

PROPRIETARY FUND	(1) ACTUAL PRIOR YEAR ENDING 6/30/2012	(2) ESTIMATED CURRENT YEAR ENDING 6/30/2013	(3) BUDGET YEAR ENDING 06/30/14 TENTATIVE APPROVED	(4) FINAL APPROVED
A. CASH FLOWS FROM OPERATING ACTIVITIES:				
General and Administrative/Resources Charges	$1,179,012	$301,584	$1,013,138	
Groundwater Management Fees	867,716	913,359	913,345	
Las Vegas Wash Revenues	397,407	496,759	705,482	
Wholesale Delivery Charges	114,883,588	117,498,863	121,958,169	
Other Revenues	2,102,013	1,099,750	1,102,305	
Cash Payments to Suppliers of Goods and Services	(118,462,066)	(121,708,923)	(123,220,075)	
a. Net cash provided by (or used for) operating activities	$967,670	($1,398,608)	$2,472,364	$0
B. CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:				
b. Net cash provided by (or used for) noncapital financing activities	$0	$0	$0	$0
C. CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:				
Purchase or Construction of Capital Assets	($133,490,427)	($209,448,410)	($142,538,596)	
Proceeds from Disposal of Property and Equipment	45,163			
Proceeds of Debt Issuance	4,832,439,536	3,860,000,000	2,900,000,000	
Principal Paid on Debt	(4,850,140,752)	(3,515,715,006)	(2,916,872,459)	
Interest Paid on Debt	(140,829,557)	(144,446,242)	(133,841,761)	
Capital Contributions	115,188,720	197,998,278	201,691,955	
Credit Payment Income	10,867,008	10,867,008	10,867,008	
c. Net cash provided by (or used for) capital and related financing activities	($165,920,309)	$199,255,628	($80,693,853)	$0
D. CASH FLOWS FROM INVESTING ACTIVITIES:				
Purchases of Investment Securities	($176,011,316)	($250,000,000)	($165,000,000)	
Proceeds from Sales or Maturities of Investment Securities	55,250,000	190,370,124	102,506,507	
Investment Earnings	761,815	1,762,923	714,982	
d. Net cash provided by (or used in) investing activities	($119,999,501)	($57,866,953)	($61,778,511)	$0
NET INCREASE (DECREASE) in cash and cash equivalents (a+b+c+d)	($284,952,140)	$139,990,067	($140,000,000)	$0
CASH AND CASH EQUIVALENTS AT JULY 1, 20xx	374,962,073	90,009,933	230,000,000	230,000,000
CASH AND CASH EQUIVALENTS AT JUNE 30, 20xx	$90,009,933	$230,000,000	$90,000,000	$230,000,000

Southern Nevada Water Authority
(Local Government)

SCHEDULE F-2 STATEMENT OF CASH FLOWS

FUND_____ Enterprise_____

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

* - Type
1 - General Obligation Bonds
2 - G.O. Revenue Supported Bonds
3 - G.O. Special Assessment Bonds
4 - Revenue Bonds
5 - Medium-Term Financing
6 - Medium-Term Financing Lease Purchase
7 - Capital Leases
8 - Special Assessment Bonds
9 - Mortgages
10 - Other (Specify Type)
11 - Proposed (Specify Type)

(1) NAME OF BOND OR LOAN List and Subtotal By	(2) *	(3) TERM	(4) ORIGINAL AMOUNT OF ISSUE	(5) ISSUE DATE	(6) FINAL PAYMENT DATE	(7) INTEREST RATE	(8) BEGINNING OUTSTANDING BALANCE 7/1/2013	(9) REQUIREMENTS FOR FISCAL YEAR ENDING 06/30/14 INTEREST PAYABLE	(10) PRINCIPAL PAYABLE	(11) (9)+(10) TOTAL
State Revolving fund Loan 1	2	20 Years	$12,269,695	12/30/99	2/1/20	3.61%	$5,318,736	$185,918	$680,745	$866,663
State Revolving Fund Loan 2	2	20 Years	$10,000,000	6/29/01	7/1/21	3.46%	$5,094,549	$171,768	$525,174	$696,941
LVVWD 2005F Refunding Bonds	2	21 Years	$249,365,000	5/1/05	12/1/26	5.00%	$173,520,000	$8,676,000	$0	$8,676,000
LVVWD 2005H Refunding Bonds	2	22 Years	$36,130,000	4/15/05	6/30/27	4.75%	$31,620,000	$1,501,950	$0	$1,501,950
LVVWD 2005I Refunding Bonds	2	24 Years	$65,300,000	4/15/05	9/15/29	4.81%	$47,755,000	$2,266,938	$0	$2,266,938
SNWA 2006 Refunding Bonds	2	24 Years	$242,880,000	5/1/06	6/1/30	4.74%	$210,210,000	$9,806,469	$0	$9,806,469
CRC 2006D Refunding Bonds	2	18 Years	$111,840,000	7/15/06	7/1/24	4.96%	$66,200,000	$3,270,763	$0	$3,270,763
SNWA 1106 Bonds	2	30 Years	$604,140,000	11/1/06	11/1/36	4.41%	$533,020,000	$23,702,163	$0	$23,702,163
LVVWD 2008B Refunding Bonds	2	20 Years	$171,720,000	6/1/08	12/1/28	4.57%	$116,335,000	$5,623,931	$0	$5,623,931
SNWA 2008 Bonds	2	30 Years	$400,000,000	7/2/08	6/1/38	5.00%	$362,155,000	$18,107,750	$0	$18,107,750
SNWA 2008 Clean Energy	2	15 Years	$6,440,000	7/30/08	12/15/22	1.17%	$4,600,000	$51,129	$460,000	$511,129
LVVWD TECP Notes	2	N/A	$400,000,000	3/10/04	N/A	2.00%	$400,000,000	$8,000,000	$400,000,000	$408,000,000
LVVWD 2009A Bonds	2	30 Years	$90,000,000	8/10/09	6/1/39	7.10%*	$90,000,000	$4,348,076	$0	$4,348,076
LVVWD 2009B Bonds	2	30 Years	$10,000,000	8/10/09	6/1/39	4.73%	$10,000,000	$473,313	$350,000	$823,313
SNWA 2009 Refunding	2	20 Years	$50,000,000	11/10/09	6/1/30	5.00%	$48,220,000	$2,411,000	$1,865,000	$4,276,000
SNWA 2009 Water Rev Bond	4	20 Years	$2,750,000	11/10/09	7/1/30	0.00%	$2,087,917	$0	$126,540	$126,540

Continued on next page

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

* - Type
1 - General Obligation Bonds
2 - G.O. Revenue Supported Bonds
3 - G.O. Special Assessment Bonds
4 - Revenue Bonds
5 - Medium-Term Financing
6 - Medium-Term Financing Lease Purchase
7 - Capital Leases
8 - Special Assessment Bonds
9 - Mortgages
10 - Other (Specify Type)
11 - Proposed (Specify Type)

(1) NAME OF BOND OR LOAN List and Subtotal By	(2) *	(3) TERM	(4) ORIGINAL AMOUNT OF ISSUE	(5) ISSUE DATE	(6) FINAL PAYMENT DATE	(7) INTEREST RATE	(8) BEGINNING OUTSTANDING BALANCE 1/0/1900	(9) REQUIREMENTS FOR FISCAL YEAR ENDING 01/00/00 INTEREST PAYABLE	(10) PRINCIPAL PAYABLE	(11) (9)+(10) TOTAL
LVVWD 2009C Bonds	2	30 Years	$348,115,000	12/23/09	6/1/39	7.08%*	$348,115,000	$16,778,939	$0	$16,778,939
LVVWD 2009D Bonds	2	21 Years	$71,965,000	12/23/09	6/1/30	4.99%	$69,185,000	$3,453,738	$2,920,000	$6,373,738
CRC 2010B Bonds	2	10 Years	$7,405,000	6/24/10	6/1/20	3.63%	$7,405,000	$273,615	$945,000	$1,218,615
LVVWD 2011A Bonds	2	16 Years	$58,110,000	5/20/11	6/1/26	4.88%	$58,110,000	$2,705,755	$0	$2,705,755
LVVWD 2011B Bonds	2	27 Years	$129,650,000	10/19/11	6/1/37	5.56%	$129,650,000	$5,277,078	$0	$5,277,078
LVVWD 2011C Bonds	2	19 Years	$267,815,000	10/19/11	6/1/30	4.75%	$258,995,000	$12,682,663	$9,000,000	$21,682,663
SNWA 2012A Refunding	2	20 Years	$85,015,000	6/26/12	6/1/32	4.06%	$85,015,000	$3,455,600	$0	$3,455,600
LVVWD 2012B	2	30 Years	$360,000,000	7/31/12	6/1/42	3.93%	$360,000,000	$0	$0	$0
State 2013A Refunding	2	15 Years	$21,720,000	2/20/13	8/1/27	3.00%	$21,720,000	$617,210	$0	$617,210
TOTAL ALL DEBT SERVICE			$3,812,629,695				$3,444,331,202	$133,841,761	$416,872,459	$550,714,220

SCHEDULE C-1 - INDEBTEDNESS

Southern Nevada Water Aut Budget Fiscal Year 2013-2014
(Local Government)

Operating Interest	$ 60,068,182.54
Capitalized Interest	73,773,578.91
Total Interest	$ 133,841,761.45

Local Government: Southern Nevada Water Authority
Contact: Phil Speight
E-mail Address: phil.speight@lvwd.com
Daytime Telephone: 702-258-3106

42 Total Number of Existing Contracts

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2013-14	Proposed Expenditure FY 2014-15	Reason or need for contract:
1	Utility Resources	05/15/97	upon notice	$ 300,000.00	$ 300,000.00	PUC Consultant
2	Faiss Foley Warren	07/17/03	07/31/13	$ 60,000.00	$ -	Outreach support for watershed protection initiatives and water resource programs
3	Eureka Vet Service	02/01/08	12/31/14	$ 11,000.00	$ 11,000.00	Veternarian services
4	Kramer Levin Naftalis & Frankel	08/31/09	upon notice	$ 100,000.00	$ 100,000.00	Bankruptcy consulting
5	R&R Partners	11/05/09	10/31/15	$ 2,300,000.00	$ 2,300,000.00	Professional services for water conservation promotion
6	Hispana Comunicacion	02/16/10	01/31/15	$ 158,550.00	$ 266,200.00	SNWA Hispanic oriented advertising and marketing services
7	Piercy Bowler Taylor & Kern	03/02/10	06/03/15	$ 124,000.00	$ 124,000.00	Auditing Services
8	Lewis & Roca	03/22/10	upon notice	$ 100,000.00	$ 100,000.00	Legal Services
9	Kay Brothers	05/05/10	upon notice	$ 100,000.00	$ 100,000.00	Consulting services on water issues
10	Stratus Consulting	11/17/10	09/30/17	$ 34,000.00	$ 34,000.00	Support for WUCA workshop and whitepaper
11	Atkins North America Inc	07/28/11	upon notice	$ 50,000.00	$ 50,000.00	Surverying services
12	PhycoTech Inc	10/25/11	upon notice	$ 50,000.00	$ 50,000.00	Water Quality Analysis for Phytoplankton
13	C. Joseph Guild III	01/31/12	upon notice	$ 64,000.00	$ 64,000.00	Ranch and Agricultural Consulting
14	Spring Valley Associates	04/12/07	12/31/15	$ 850,000.00	$ 850,000.00	Ranch Operations and Maintenance Services
15	C. Joseph Guild III	01/02/12	upon notice	$ 92,000.00	$ 92,000.00	Natural Resource and Water Issues Consulting
16	R&R Public Affairs	01/22/12	01/21/17	$ 75,000.00	$ 75,000.00	Consulting services for state and federal natural resource issues
17	Leonard, Street & Deinard	02/22/12	upon notice	$ 100,000.00	$ 100,000.00	Special Counsel to the Authority on general electricity matters
18	Hobbs, Ong and Associates	04/19/12	upon notice	$ 150,000.00	$ 150,000.00	Financial advisory services
19	South Dakota Agricultural Labs	12/01/12	11/30/14	$ 3,000.00	$ 1,500.00	Analyze low level selenium concentrations
20	Nevada Conservation Corps	11/20/12	11/30/14	$ 20,000.00	$ 10,000.00	Reduce streamside vegetation in Warm Springs Natural Area
21	Purdue Marion and Associates	12/04/12	12/31/13	$ 53,000.00	$ -	Program strategy, message development and graphic design for solar rooftop initiative
22	Cross Sciences, Inc	11/01/12	12/31/13	$ 9,000.00	$ -	Team Coordination of solar rooftop initiative

Continued on next page

Local Government: Southern Nevada Water Authority
Contact: Phil Speight
E-mail Address: phil.speight@lvwd.com
Daytime Telephone: 702-258-3106

42 Total Number of Existing Contracts

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2013-14	Proposed Expenditure FY 2014-15	Reason or need for contract:
23	Tri County Weed Control	01/09/13	12/31/17	$ 45,000.00	$ 45,000.00	Weed control in Warm Springs Nat Area
24	Laguna Productions	02/21/13	02/20/19	$ 145,000.00	$ 145,000.00	Production assistance
25	CDM Smith, Inc.	05/07/12	12/31/13	$ 125,000.00	$ -	Facilitation services
26	Holland & Hart	12/18/03	upon notice	$ 250,000.00	$ 250,000.00	Environmental compliance consulting
27	Argus Engineering	02/12/13	02/11/16	$ 100,000.00	$ 100,000.00	Professional and support services for SNWS' SCADA system software
28	Taggart and Taggart	02/20/03	upon notice	$ 1,000,000.00	$ 1,000,000.00	Legal services
29	Stanka Consulting	01/01/07	upon notice	$ 150,000.00	$ 150,000.00	Water Rights Assessments and Reviews
30	A-1 Mechanical, Inc.	02/27/12	02/28/17	$ 120,000.00	$ 120,000.00	HVAC services, repairs and parts
31	Simplex Grinnell LP	06/13/12	06/30/17	$ 50,077.00	$ 50,077.00	Fire systems maintenance
32	Safe Electronics, Inc.	06/13/12	06/30/17	$ 42,000.00	$ 42,000.00	Fire systems maintenance
33	G&G Systems	06/13/12	06/30/17	$ 38,484.00	$ 38,484.00	Fire systems maintenance
34	ABC Fire & Cylinder	06/13/12	06/30/17	$ 17,800.00	$ 17,800.00	Fire systems maintenance
35	Geological Mapping, Inc.	09/27/12	08/31/13	$ 8,700.00	$ -	Mapping and report development
36	Michael J Brennan	08/23/12	07/01/18	$ 100,000.00	$ 100,000.00	Environmental compliance consulting
37	Holland & Hart	08/23/12	08/23/20	$ 100,000.00	$ 100,000.00	Nevada Power integrated resource plan litigation
38	Warren Turkett	06/25/12	upon notice	$ 81,680.00	$ 81,680.00	Lower Colorado River water quality database
39	Holland & Hart	05/22/12	05/22/19	$ 100,000.00	$ 100,000.00	Litigation related services
40	Artisan Spatial Technology, LLC	05/09/12	05/09/14	$ 83,000.00	$ -	Water rights surveying for Northern Resources
41	Snell & Wilmer, LLP	04/11/12	04/11/20	$ 100,000.00	$ 100,000.00	Glen Canyon Dam environmental compliance
42	University of Colorado	02/13/12	03/01/14	$ 38,400.00	$ -	Algae culturing, testing, literature review
	Total Proposed Expenditures			**$ 7,498,691.00**	**$ 7,217,783.00**	

Local Government: Southern Nevada Water Authority
Contact: Phil Speight
E-mail Address: phil.speight@lvwwd.com
Daytime Telephone: 702-258-3106

Total Number of Privatization Contracts: 0

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Duration (Months/ Years)	Proposed Expenditure FY 2013-14	Proposed Expenditure FY 2014-15	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										
11	Total									

SOUTHERN NEVADA
WATER AUTHORITY

Operating & Capital Budget

Fiscal Year End June 30, 2014

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Shari Buck, Chairwoman, City of North Las Vegas Mayor
Mary Beth Scow, County Commissioner, Vice Chairwoman, (representing Las Vegas Valley Water District)
Sam Bateman, City of Henderson Councilman
Susan Brager, 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)

Patricia Mulroy
General Manager

Philip D. Speight
Deputy General Manager
Acting Chief Financial Officer

Prepared by the Finance Department
Randall Buie, SNWA Controller
1001 South Valley View Blvd., Las Vegas, Nevada 89153
702-258-3939 www.snwa.com

GOVERNMENT FINANCE OFFICERS ASSOCIATION

Distinguished Budget Presentation Award

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Southern Nevada Water Authority

Nevada

For the Fiscal Year Beginning

July 1, 2012

President

Executive Director

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Southern Nevada Water Authority
Operating and Capital Budget

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PLEASE NOTE -- This budget document is the compilation of different financial and planning documents from throughout the SNWA organization. As such these documents take different forms in presentation and style.

SECTION 2
STRATEGIC PLAN

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SOUTHERN NEVADA WATER AUTHORITY

FISCAL YEAR 2013/2014
OPERATING AND CAPITAL BUDGET

INTRODUCTION

The Southern Nevada Water Authority (SNWA or Authority) was formed in 1991 to manage Southern Nevada's water needs on a regional basis. SNWA is comprised of seven member agencies, including the City of Henderson, City of Las Vegas, City of North Las Vegas, Big Bend Water District, Clark County Water Reclamation District and the Las Vegas Valley Water District (LVVWD).

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. From its inception, the SNWA has worked to acquire additional water resources, manage existing and future water resources, construct and operate regional water facilities and promote water conservation.

The SNWA is governed by a seven- member board of directors, which is comprised of one elected official from each governing board of the SNWA's seven member agencies. While the Board of Directors sets policy direction for the SNWA, LVVWD is responsible for the day-to-day management of the organization through an agreement between the SNWA member agencies.

Strategic Plan

In the fall of 1992, LVVWD (the eventual operating agent of SNWA) initiated its first comprehensive strategic planning process for the organization. Their Board of Directors provided initial policy direction for the process, while input from employees and an assessment of LVVWD's role in the community established the underlying principles of the plan. In the spring of 1997, SNWA in coordination with LVVWD reviewed and revised the original plan, incorporating changes reflecting LVVWD's relation with SNWA. At the end of the nineties, as many of the challenges facing the community began to change, SNWA once again revisited its strategic plan. As a result, senior management established new organizational goals, while cross- functional teams comprised of management and staff met to identify strategies. Staff also initiated strategic planning meetings with SNWA member agency representatives. As a result, the member agencies identified a series of goals to guide the future of the SNWA. This exercise laid the foundation for a common understanding between LVVWD and SNWA, ensuring alignment of their respective goals.

CURRENT ENVIRONMENT

Drought

The Colorado River Basin – indeed, much of the western United States – continues to experience severe drought conditions. This directly affects Southern Nevada's existing and future water supply, 90 percent of which is tied to the Colorado River and Lake Mead. Several years of below-average snow pack and runoff in the Upper Colorado River Basin has significantly reduced available storage in Lake Mead. Never in recorded history have water levels in Lake Mead declined to those observed today.

Water supplies are not expected to substantially recover in the near term. It is estimated that several years of above average runoff would be needed before water levels in Lake Mead begin to rise again. Although possible, the probability of this occurring anytime soon is unlikely.

In the meantime, SNWA member agencies have taken steps to mitigate the effects of the drought. In 2002, an initial regional drought plan was developed and adopted by each of the SNWA member agencies in 2003. The plan is constantly reviewed and updated (last update February, 2009)

The plan identifies three stages of drought (Watch, Alert and Emergency) and establishes

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specific measures to be taken for the first two stages. A 28- member Citizens Advisory Committee was formed to develop various recommendations for Drought Emergency. Following acceptance of the committee's report by the SNWA Board of Directors, the recommendations were turned over to a Drought Code Implementation Team, comprised of SNWA member agency staff, for feasibility review and analysis. This led to the original Drought Plan and its subsequent updates.

The entities have implemented the drought plan measures for "drought watch" and "drought alert," including more stringent watering restrictions, incentives for consumers to use water efficient appliances and landscaping, and educational programs and messages. SNWA purveyors also increased water rates to help curb outdoor water use and increase water efficiency.

As the drought continues to underscore the importance of regional conservation initiatives, public outreach and education will play a key role in shaping a common understanding and actionable response to the effects of drought on the area's limited water resources.

Water Quality

Water quality is a principal focus of SNWA operations. As technology advances, so do the treatment processes for ensuring high quality drinking water is delivered to the public.

Significant improvements to water quality have been made with the implementation of ozonation facilities at the Alfred Merritt Smith and the River Mountains water treatment facilities. Ozonation is one of the strongest disinfectant processes used in the water industry. Beginning in 2003, ozone began supplementing chlorine treatment. Ozonation improves water taste, clarity, and effectively eliminates Cryptosporidium and other naturally occurring organisms that are difficult to control using chlorine treatment alone.

As treatment systems continue to improve, the ability of science to detect contaminants in water at low concentrations also increases. This in turn creates the potential for new or increased public concerns over perceived water quality.

In addition, aesthetic water quality perceptions such as taste and smell have a direct impact on customer satisfaction. Other potential water quality changes include new regulations related to disinfection byproducts, pharmaceuticals and personal care products.

To address these issues, SNWA will continue to monitor water supplies closely to meet current and future water quality standards and communicate regularly with customers on the status and quality of the water supply.

Water Resources

In 1996, the SNWA Board adopted a comprehensive water resource plan to identify and prioritize future water resource options for the SNWA purveyor members. This plan is reviewed annually (last update May 2009).

The current plan lists Southern Nevada's Colorado River apportionment, Interim Surplus, banked groundwater and water conservation as current resource priorities. Other long-term resources identified in the plan include transfers and exchanges, shallow groundwater resources and water from the Muddy and Virgin rivers.

Conservation continues to be the Valley's most vital and accessible resource, since it depends more on our own efforts and less on influences outside our community. The region achieved its 2010 water conservation goal of 25 percent overall reduction two years early. With ongoing changes in water use behavior, continued community support and greater water waste enforcement SNWA is striving to

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further improve in this much needed area. A continued emphasis will be placed on public education, outreach, and incentive and enforcement programs that are designed to assist the community in reaching its long and short-term conservation goals.

Expectations of Government

Public agencies are frequently called upon to demonstrate proactive and responsive leadership on emerging issues. This includes using open, inclusive and transparent decision-making processes that involve the local community wherever possible.

SNWA's purveyor members have a long history of involving residents and the business community in important decisions that can affect them. The members involve stakeholders in policy formation through the use of formal and informal processes, including citizens' advisory committees, task forces and workshops. SNWA also supports citizen advisory processes that are designed to increase public awareness of and participation in regional water-related issues, including drought, conservation, water quality, environmental issues, groundwater management and water facility construction.

Power

Water and power are inextricably linked; water is needed to produce power and power is essential to treat and deliver water to customers. Ensuring that affordable and reliable electric power is available is critical for water operations on both the local and regional level.

Between 2000 and 2003, unstable energy markets throughout the West prompted SNWA to seek new, more affordable and reliable power resources. To this end, SNWA has acquired portfolios of short and long-term power resources, making substantial investments in power transmission and generation systems. SNWA is also committed to the use of renewable energy wherever viable and will continue to seek ways to promote its use.

Sustainability

Ensuring the availability of limited natural resources well into the future requires communities and individuals to think, act and respond accordingly – recognizing that already strained resources may become even more so in the future. Living in a sustainable manner means balancing individual and community needs with what nature can provide. Sustainability goes beyond managing important and familiar natural resources, such as water and natural gas. It also recognizes the importance of developing renewable resources and protecting the natural environment, including sensitive or endangered plants and animals.

SNWA strives to be a leader in developing and implementing policies and standards of conduct that further the achievement of sustainability. This is evidenced through continued practice of environmentally sensitive design, conservation, recycling, habitat restoration/mitigation and community education – practices that extend the availability of resources well into the future.

SNWA will continue to emphasize making the most productive use of resources that are available through the sustainable use of limited natural resources. By engaging the community in positive, environmentally responsible decisions, SNWA will contribute to a more sustainable future in all of its actions and roles.

MISSION – VISION - VALUES

SNWA's mission, vision and values recognize the current environment in which the organization operates. Taking these factors into account strengthens the Authority's

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ability to respond to dynamic internal and external influences.

Mission

To manage the region's water resources and develop solutions that will ensure adequate future water supplies for the Las Vegas Valley.

Vision
Our vision states the ultimate picture of what we are striving to achieve:

"PEOPLE LEADING THE WAY"

- To partner with our diverse community in sustaining water resources
- To provide quality service that exceeds expectations
- To be stewards of resources for future generations

Values

Our values identify the standards we exhibit in attitude and behavior:

- Respect for People
- Integrity
- Service
- Excellence

Specific behaviors to support each Value, and our Code of Ethics, are included in this document.

GOALS

Goals are statements of purpose and identify what we want to accomplish.

1. Enhance and expand communications and collaboration within and among member agencies and the SNWA.
2. Achieve broad community support for water conservation based on an understanding of environmental concerns related to water resource issues.
3. Participate in and work to influence all strategies, issues and concerns that affect the water quality and water resources for the SNWA.
4. Provide water resources and regional facilities that reliably meet the needs of the member agencies.
5. Ensure organizational efficiency to achieve rate stability and customer value.
6. Achieve broad community support in water quality goals.

Each goal is described below with accompanying strategies (specific, short-term actions that support implementation of goals).

GOAL 1 Enhance and expand communications and collaboration within and among member agencies and the SNWA.

The formation of the SNWA created a unified voice regarding Southern Nevada's water resource issues, enhancing the region's ability to communicate and negotiate with neighboring Colorado River Basin states, the federal government and others. Maintaining this relationship requires the member agencies to be aware of policies, procedures and other issues that may impact not only their respective entities, but also the SNWA as a whole.

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The Authority will continue to actively engage its partners by practicing open, two-way communication. This will be achieved through continued use of established communication forums such as interagency meetings and information sharing sessions, including management and technical meetings.

This goal goes beyond simply enhancing the exchange of information; it embraces the desire of the member agencies to actively participate in those decisions that may potentially impact individual jurisdictions. This goal also recognizes the need to encourage communication and collaboration in an effort to enhance and maintain a more dynamic, positive partnership.

STRATEGIES

- Create an organization-wide continuous improvement program.
- Ensure organizational values and ethics are embedded in all aspects of member agency relations.
- Seek broader input before decisions are made.
- Develop web-based communication tools to increase communication between and among member agencies and the SNWA.
- Encourage increased and consistent communication among member agencies by developing a forum for member agency and staff input, comments and concerns.
- Develop an efficient structure and programs that will increase SNWA member agency interaction and strengthen relationships between and among member agencies.

GOAL 2 Achieve broad community support for water conservation based on an understanding of environmental concerns related to water resource issues.

The Las Vegas Valley is located in the Mojave Desert, the most arid environment in North America. To protect and sustain life in this harsh region, Southern Nevada must use the area's limited water resources responsibly. As the community continues to evolve, additional water resources are needed to meet new and changing water demands.

The most accessible source of additional water is water that is saved through conservation. Through extensive community involvement the Authority has increased awareness, established conservation targets and enhanced programs to assist the community in achieving its conservation goals.

While education and incentive programs encourage some people to conserve, the Authority acknowledges more must be done. To address this, the Authority supports the SNWA Drought Plan by implementing its conservation measures and by building in-house programs and implementing pricing structures that encourage conservation.

The Authority will support SNWA member agencies by engaging regional stakeholders along the Colorado River and by developing a regional approach to conserve water resources. The Authority is committed to working with SNWA member agencies in furthering the community's conservation ethic, positively contributing to the region's overall water resource base and building collaborative relationships with all partners along the Colorado River Basin.

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STRATEGIES

- Develop policies and structures to partner in the implementation and development of regional water conservation programs.
- Develop targeted user-specific conservation programs.
- Educate staff, key partners and the public about water conservation.

GOAL 3 Participate in and work to influence all strategies, issues and concerns that affect the water quality and water resources for the SNWA.

The Authority acknowledges and embraces its interdependent relationship with other stakeholders within the Las Vegas Valley watershed. SNWA supports the need for cooperation and collaboration in overseeing the critical issues governing the region's water supplies – recognizing that water in the western United States, and particularly in watersheds along the Colorado River Basin, is a valuable resource that needs to be carefully managed.

Potential issues such as overuse, disparate reclamation, recharge practices and wetland protection measures are concerns that may expose the local and regional water supplies to unwarranted risks. In order to maintain a viable ecosystem that equitably serves the needs of all customers throughout the region the Authority will employ the assistance of its member agencies and partner with other agencies and organizations to craft and implement consistent and sustainable policies and procedures. The Authority will also support these efforts by engaging the community and seeking its support for these activities.

STRATEGIES

- Identify and investigate issues or concerns affecting water quality and water resources.
- Ensure communication of process.
- Develop and implement consensus-based actions.

GOAL 4 Provide water resources and regional facilities that reliably meet the needs of the member agencies.

Even with efficient water use, current projections for Southern Nevada indicate the need to develop and acquire additional supplies to meet future demands.

The Authority is actively engaged in safeguarding current water supplies and securing additional resources throughout the region. The SNWA Board adopted its first Water Resource Plan in 1996. The plan assesses current and future water demands and identifies resources to meet those needs. The plan is reviewed annually and updated as needed. The most recent update to the plan was in 2010

The Authority works to ensure sound, effective and prudent management of current and future water resources in order to satisfy the needs of the community. This includes developing and implementing the Water Resource Plan to ensure the availability of adequate water resources, and effectively managing existing water resources.

The Authority serves its customers and supports the SNWA member agencies by planning, designing, constructing, maintaining and operating local and regional water supply, treatment and distribution infrastructure.

Rapid growth, the drought and emerging water quality, policy and environmental issues

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require the Authority to anticipate and adapt to changing conditions and needs. To meet aggressive construction schedules, the Authority must collaborate with other local, state and federal jurisdictions, as well as the SNWA member agencies.

Capital infrastructure is a long-term investment. As such, progressive operating and maintenance programs play a key role in minimizing operational costs and protecting SNWA capital investments.

Implementation of this goal will require continued emphasis on the use of in-state solutions, just-in-time scheduling and innovative facility retirement and replacement programs that moderate the need for new capital at any one time.

STRATEGIES

- Continue to develop good public understanding of water resource issues.
- Assist the community in determining its water needs to meet desired quality of life in the Mojave Desert.
- Continue to improve the process for managing demand and determining priorities for the distribution of water to member agencies in a shortage situation.
- Identify, prioritize and aggressively pursue potential water resources and refine the balanced portfolio of short-term and long-term water resources.
- Ensure necessary facilities are in place to develop in-state water resources.
- Manage existing water resources effectively to maximize their availability.
- Reduce the vulnerability of the water system to a potential threat.
- Provide new facilities in time to meet all demands that cannot be met, effectively using existing facilities.
- Address community and environmental concerns when planning, designing, constructing and operating facilities.
- Plan for a safe, reliable and effective operations and maintenance in proposed and existing facilities.

GOAL 5 Ensure organizational efficiency to achieve rate stability and customer value.

As a public entity that is committed to continuous improvement, the Authority strives to enhance customer value. Through the use of employee-directed, cross-functional teams, the Authority can emphasize its ability to identify, assess and implement improvements; adapt and respond to customer needs, and do more with existing funding streams, thereby maximizing customer value.

By encouraging employees to accept more responsibility and accountability for cost and service performance, the Authority will streamline internal processes, enhance customer interactions, build mutually beneficial relationships, and improve the use of SNWA resources.

The Authority will deliver value to the SNWA member agencies by providing reliable, high quality service; remaining sensitive to customer perceptions and expectations; continually seeking cost-effective approaches; and using appropriate financial mechanisms to ensure rate stability.

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STRATEGIES

- Optimize the utilization of resources and assets.
- Further enhance the organizational culture where employees form the foundation for value based decisions.
- Develop methods to further organizational accountability.

GOAL 6 Achieve broad community support in water quality goals.

The Authority is committed to providing high quality potable water supplies that meet or exceed Safe Drinking Water Act Standards.

Over 90% of Southern Nevada's water supply comes from Lake Mead through the Southern Nevada Water System (SNWS), which is operated by the Authority on behalf of the SNWA and its member agencies. The system consists of intake and treatment facilities, pumping plants, tunnel systems and pipelines. It can treat and deliver up to 900 million gallons of water a day. To ensure high water, the Authority monitors, tests and maintains the system on a continual basis.

Achieving water quality goals goes beyond simple regulatory compliance. It includes raising customer awareness of water quality issues, managing customer preferences and creating opportunities for public involvement in water quality issues. To achieve SNWA customer-supported water quality goals, the Authority is committed to identifying customer water quality concerns, creating opportunities for public Involvement, and increasing customer awareness and understanding of pertinent water quality issues and solutions.

STRATEGIES

- Identify water quality concerns among SNWA member agencies.
- Proactively educate customers about water quality issues.
- Maintain a proactive approach in operational programs.
- Identify and study existing and emerging water quality issues.

BEHAVIORAL STATEMENTS

Respect for People

As employees of SNWA we will --

- Treat everyone with courtesy, fairness, dignity, respect and compassion
- Not engage in favoritism and will apply the same rules to everyone
- Genuinely listen and encourage an open and free exchange of ideas
- Acknowledge and appreciate others' talents, experience and contributions
- Praise in public and criticize in private, addressing the action, not the person
- Resolve issues impartially, without retaliation
- Avoid displays of arrogance, rudeness, vulgarity, anger or superiority
- Respect others' property and work space

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Integrity

As employees who demonstrate integrity we will --

- Demonstrate honest and ethical behavior in business transactions and management practices
- Stand behind promises that are made and follow through on commitments
- Accept responsibility for actions
- Focus on finding solutions rather than placing the blame
- Not take credit for other people's work
- Maintain confidentiality and be trustworthy
- Not participate in gossip or pettiness
- Stand up for what we believe in, even under pressure
- Encourage and acknowledge all constructive feedback

Service

To assure the Authority offers the best customer service possible, as employees we will --

- Act to provide reliable information and solve customer problems in a timely manner
- Effectively listen to and demonstrate courtesy and sensitivity to customer's needs
- Give equal service and not engage in favoritism
- Encourage interdepartmental cooperation to improve service
- Provide the resources necessary to do an effective job
- Not compromise the quality of Service
- Work proactively to prevent Problems
- Provide efficient and cost effective service
- Strive to exceed expectations

Excellence

To assure excellence in our job performance, we will --

- Perform at our best ability while striving for continual improvement
- Demonstrate confidence, a positive attitude, self-discipline and initiative
- Take responsibility for working safely
- Do the job right the first time
- Make sure the goals are well defined and clearly understood
- Set the example for excellence in how work should be done
- Encourage a high standard of performance
- Encourage people to participate in training and professional development
- Consider and supports new ideas, creativity and innovation
- Support and encourage empowerment through effective training and delegation of tasks

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OUR PROFESSIONAL CODE OF ETHICS

As People Leading the Way, we will --

- Demonstrate personal and professional integrity to inspire confidence and trust within the organization and community
- Provide the highest quality service and value to our internal and external customers
- Demonstrate behavior that promotes conservation and sustainability
- Recognize and respect the diversity of our co-workers and customers
- Practice and encourage open, responsible communication
- Maintain an environment free from intimidation and retaliation
- Avoid conflicts of interest and other activities that compromise the integrity of the organization
- Strive for continuous professional development and excellence
- Give a full day's work for a full day's pay

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SECTION 3

INTRODUCTION AND BACKGROUND

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SOUTHERN NEVADA WATER AUTHORITY

FISCAL YEAR 2013/2014
OPERATING AND CAPITAL BUDGET

PURPOSES AND POWERS

The Southern Nevada Water Authority (SNWA or the Authority) 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 Authority 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 Authority is governed equally by a seven-member Board of Directors (Board) composed of one director from each member agency, and the Authority 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, LVVWD's GM was also appointed GM of the Authority, and the LVVWD was named Operating Agent for the Authority. The GM has three Deputy General Managers aiding her overseeing the operations of LVVWD and the Authority. Collectively, the GM and DGMs are known as Executive Management (EM).

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

The Board of the Authority 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 Authority. Each member made an initial contribution to the Authority for operating and administrative expenses in the amount of $15,000. Assessments for additional funds needed by the Authority, 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 Authority 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 will contribute $35,000 to the Authority operations during the fiscal year ended June 30, 2013.

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 Authority effective January 1, 1996. Along with the assets, the CRC transferred all books and records in its possession relating to the project and its facilities. In addition to the assets, all liabilities of the CRC related to the SNWS were to be transferred to the Authority as well.

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 Authority. To record the transfer, the Authority 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 Authority and CRC. The

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CRC detail property listing was posted to the Authority Property Ledger.

INTERGOVERNMENTAL RELATIONSHIPS

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

Major Water Purveyors. The Authority 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;

LVVWD	70.2%
City of Henderson	15.6%
City of North Las Vegas	11.3%
City of Boulder City	2.6%
Nellis Air Force Base	0.3%

Wastewater Treatment Agencies. Wastewater treatment agencies in the Authority 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 the Authority 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 that would benefit 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 that diverts 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 Colorado River Commission. The Bureau built the transmission facilities, which are referred to as the Robert B. Griffith Water Project. The CRC built the treatment facilities, which are known as the Alfred Merritt Smith Water Treatment Facility. The SNWS was owned by CRC and operated under contract by LVVWD. On January 1, 1996 the assets and liabilities of the SNWS as well as responsibility for operations were transferred from CRC to the Authority. LVVWD continues to operate the SNWS under contract with the Authority. The projects in the Authority'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 CRC entered into a water delivery and repayment contract with the Bureau to repay those costs plus interest. The terms of the repayment

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contract required 50 annual payments at 3.25% 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% 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%. In 1995 the Authority 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 Authority 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 Authority, 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%, which was the yield on the 30-year Treasury bond as of September 30, 1999. On July 3, 2001 the Authority 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 Deferred Amount on Refunding and amortized over the life of the Authority's 0601 Bond Issue, which provided the funds for this prepayment. Because the Authority used proceeds of the 0601 Bond Issue with an interest rate of 5.31% to prepay the federal repayment contracts with an interest rate of 3.25%, the cash flow saving to the Authority 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.

ORGANIZATIONAL STRUCTURE

LVVWD operates the Authority under contract; however the two entities are legally separate. LVVWD pays substantially all expenses on behalf of the Authority including the cost of employees allocated to the Authority and is reimbursed monthly for these costs. SNWA has no employees of its own. The organizational chart on the following page shows the Authority organization and how the different departments are arranged. For a further breakdown per department, please see Section 6, Department Budget Narratives.

FINANCIAL STRUCTURE AND CONTROLS

Proprietary Fund Type - Enterprise Fund. The Authority'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 that comprise 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 Authority 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

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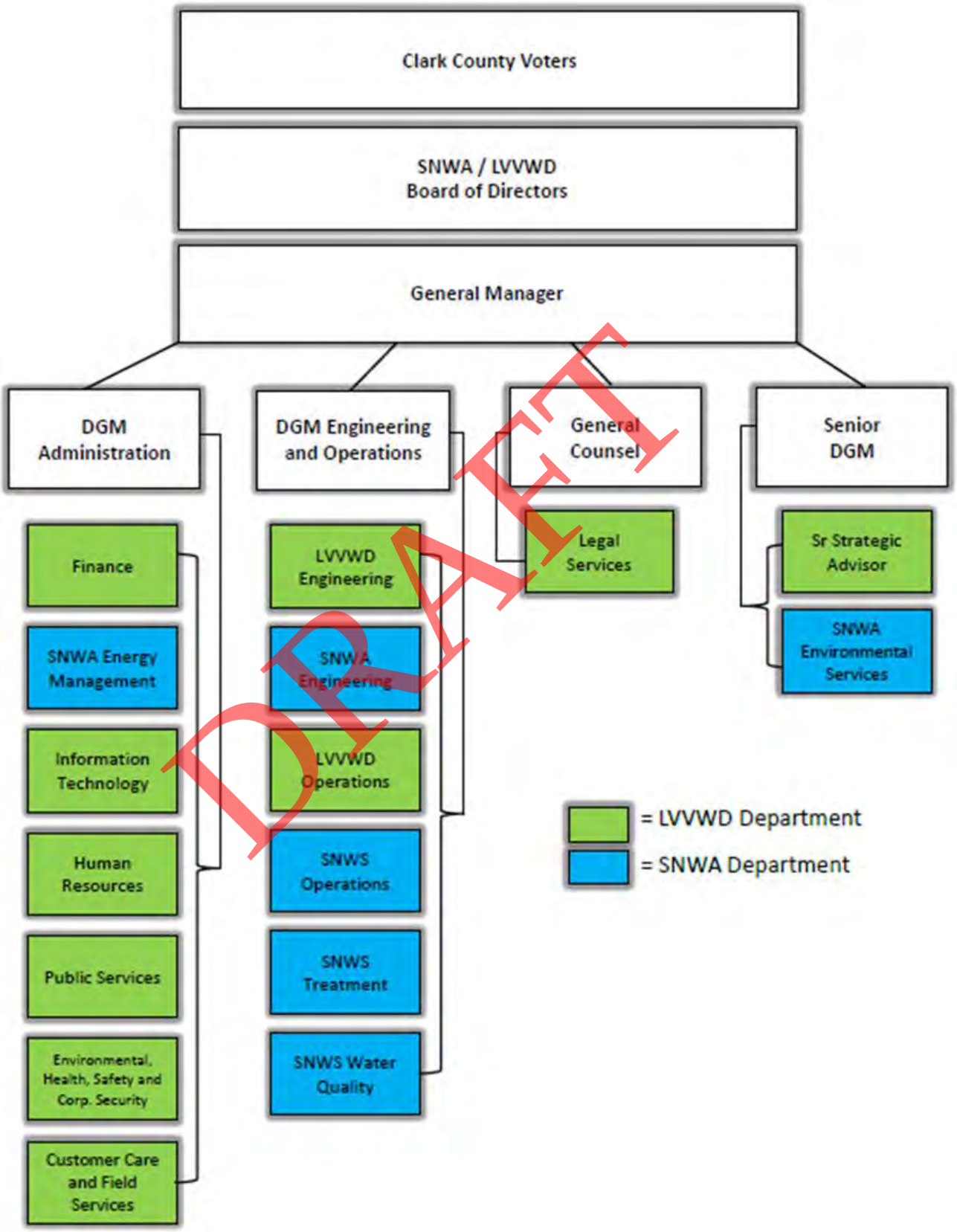
Clark County Voters
SNWA / LVVWD
Board of Directors
General Manager
DGM
Administration
DGM Engineering
and Operations
General
Counsel
Senior
DGM
Finance
SNWA Energy
Management
Information
Technology
Human
Resources
Public Services
Environmental,
Health, Safety and
Corp. Security
Customer Care
and Field
Services
LVVWD
Engineering
SNWA
Engineering
LVVWD
Operations
SNWS
Operations
SNWS
Treatment
SNWS Water
Quality
Legal
Services
Sr Strategic
Advisor
SNWA
Environmental
Services
= LVVWD Department
= SNWA Department
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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 that are 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 Authority's accounting system, consideration is given to 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 that 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 Authority's internal accounting controls safeguard assets and provide reasonable assurance of proper recording of financial transactions. The Authority will continue to identify ways in which it can strengthen its control procedures.

Debt Administration. It is the general intent of the Authority that rates and charges are adequate to provide for all costs, and that reliance on property taxes is to be avoided. Ad valorem taxes have never been needed to support the Authority's operations or debt service. The reader is encouraged to see section 9, Debt Management Policy, for a full discussion of debt objectives and guidelines (page 9-1).

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 Authority was authorized to sell bonds directly to the state bond bank. Additionally SNWA issues bonds through the Clark County bond bank and through LVVWD. As a result of legislation approved by the 1999 Legislature, Clark County established a bond bank to assist municipalities within Clark County. LVVWD issues short-term or variable rate debt for 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. LVVWD general obligation debt is rated "Aa2" by Moody's and "AA+" by Standard & Poor's. SNWA has received an Issuer Credit Rating of "A+" from Standard and Poor's; however it is expected that the Authority will still use the state and county bond banks and LVVWD to issue debt. The Authority obtained the credit rating primarily at the request of parties who wished to enter into long term purchased power agreements with the Authority and needed an evaluation of the Authority's credit worthiness.

As of June 2013 the Authority has $3.4 billion in outstanding general obligation debt, of which $339 million is debt that the State of Nevada sold for the Authority, $1.24 billion is debt that LVVWD has sold for the Authority, and $1.86 billion is debt the Authority sold through the county bond bank. All debt is backed by a pledge of the Authority's revenue. All applicable bond covenants such as ratios of net income to debt service, sinking funds,

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and insurance coverage have been met or exceeded.

Cash Management. Funds not immediately required to pay for operating or capital expenditures are invested in U.S. Government and agency securities and other money market instruments. Nothing in the Cooperative Agreement that created the Authority or the Facilities and Operations Agreement that governs the Authority's relationship with its purveyor members dictates permitted investments. Also, there is no applicable Nevada law. However, the Authority 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 Authority and are insured or collateralized with securities held by a third party in the name of the Authority.

Risk Management. SNWA employs a multifaceted approach to risk management, which includes transfer, elimination, avoidance, reduction, and/or assumption of risk of loss. SNWA purchases insurance from the commercial insurance market on real and personal property, including earthquake and flood, with common policy restrictions covering direct physical loss of, or damage to, buildings, fixtures, equipment, boilers, machinery, and supplies. The blanket limit of liability under the property insurance program is $500 million (flood coverage limited to $25 million, earthquake coverage limited to $50 million) with a deductible of $1 million for all properties valued over $25 million and $100,000 for all properties valued under $25 million for all losses except earthquake, flood and underground communications, water transmission and distribution lines, which have a $100,000 deductible. This program also provides terrorism insurance for all locations with a blanket limit of $500 million for all terrorist acts. SNWA self-insures the first $1 million for automobile and general liability exposure and purchases excess liability insurance in the amount of $30 million. It also purchases employee fidelity insurance in the amount of $1 million and other miscellaneous coverages.

In contracts, SNWA obtains indemnification and hold harmless agreements. These agreements require that contractors name SNWA as an additional insured under the indemnitor's insurance coverage, usually in the amount of $1 million to $10 million for commercial general and automobile liability insurance. 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. The cost of settlements and awards has not exceeded insurance coverage for any of the past five fiscal years.

CAPITAL PROJECT STRUCTURE AND CONTROLS

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

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future community water demands. The Authority 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 the Authority water facilities. Where facility capacities are insufficient to meet projected demands, the Authority 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 Authority meets at least monthly with it 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, a formal advisory committee composed of representatives of the Authority and the Authority Purveyor Members. Upon endorsement by the Work Group, new projects are incorporated into amendments to the Authority capital plans and are presented to the Board for approval. If the amended capital plan requires an increase in the total cost of the plan, then the amended capital plan must also be approved by the governing body of each Purveyor Member.

Execution of Capital Plan. After approval of the capital plan by the Board, the Authority Engineering assembles a staging plan for each project and develops specifications that can 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 approval date the Finance department and the Authority Engineering encumber the total amount of the contract. Change orders are submitted to the Board as needed with full explanations as to why the change is necessary.

SNWA Engineering issues capital plans annually. The most recent capital plans can be viewed in Part III of this 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. The Finance department also tracks expenditures and encumbrances for capital projects and plans future debt service issues on these calculations.

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

BUDGET CONTROLS AND PROCESS

Basis of Accounting. The Authority's single proprietary fund'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 cash basis. In addition, the budget is broken

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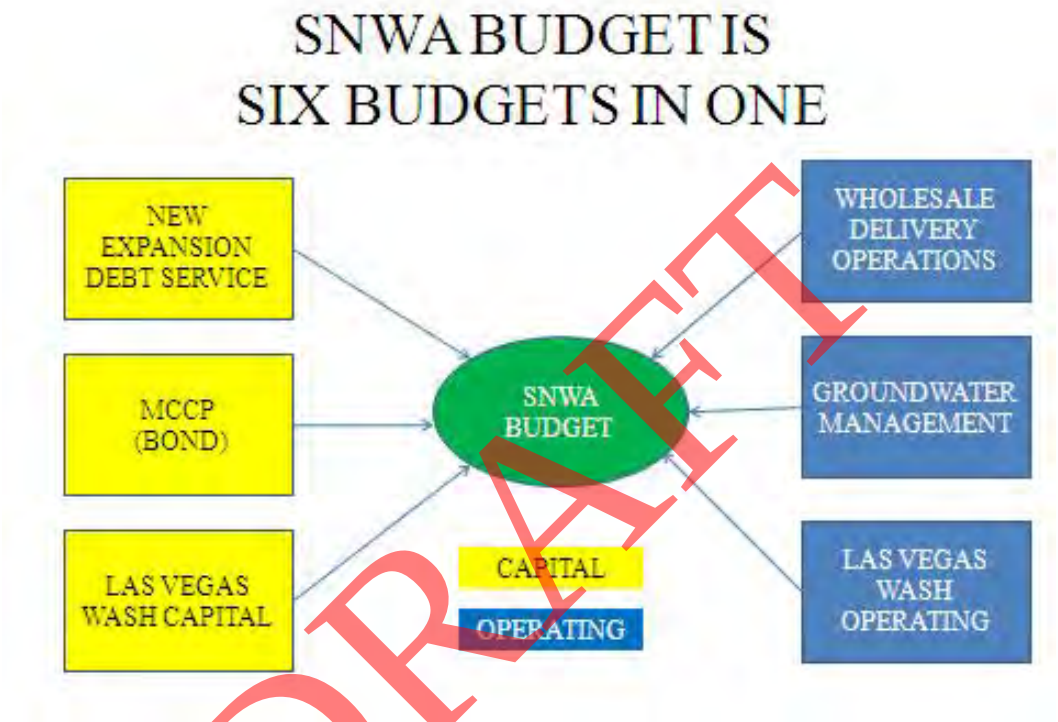
into sub funds of the single proprietary fund, which shows beginning balance, sources of funds, uses of funds, and ending balance. The Authority is an enterprise fund; the sub funds are an internal cost control that aids management in insuring that revenues and expenses for major projects are properly matched. The Authority maintains six separate sub funds. Three track the financial activity of SNWA's capital programs while the other three track day to day operations.



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Sub fund balances are reconciled to the audited CAFR.

Budgetary Controls. By state statutes, the Authority's budget is approved annually, following a public hearing by the 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 Authority is encouraged to but is not required by law to adopt a balanced budget. A balanced budget is defined as a budget where revenues are equal to or exceed expenses. Throughout the budget process, the Authority examines projected financial needs and determines whether or not fees and charges should be adjusted to make funds available for those needs.

Budgetary controls are established at various levels in order to have effective control over the necessary expenditure. These levels always include departments and divisions and, in some instances, sections. Most disbursements are made through the issuance of purchase orders. Purchases of new furniture, vehicles, and communication equipment are administered by the Support Services Department. Computer equipment purchases are administered under the authority

of the director of the Information Systems Department. Financial Services (FS) prepares monthly and quarterly variance reports by department and division. Division managers are accountable for over/under expenditures. New positions are controlled by the Human Resources (HR) Department.

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

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. Payroll is estimated 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.

On the third Thursday in May, the Authority'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.

SNWA BUDGET CALENDAR FOR THE FISCAL YEAR 2013-2014

Dec. 3, 2012 -- Budget instructions and calendar are sent to department directors and managers guiding the preparation of new capital, payroll and operating expense budgets.

Dec. 6 to 13, 2012 -- FS staff meets with Department directors to discuss and coordinate budget process and budget schedule.

Dec. 13, 2012 -- FS transmits operating expense histories for the prior two years and current year budget to departments to assist them in the preparation of their budgets.

Dec. 17, 2012 -- HR distributes position control lists to departments to verify existing permanent positions.

Dec. 17, 2012 to Jan. 10, 2013 -- Departments meet with HR to determine appropriate position classifications and salary/pay rates.

Jan. 3, 2013 -- FS distributes SNWA payroll charges survey to LVVWD departments incurring payroll expense on behalf of the SNWA.

Jan. 3 to 17, 2013 -- FS meets with department directors and managers to assist them in preparing their operating expense budgets.

Jan. 10, 2013 -- Departments submit to HR any changes to position control lists.

Jan. 17, 2013 -- Departments submit to HR

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final requests for interns, temporary and summer hire positions.

Jan. 24, 2013 -- Departments submit to FS their final operating capital requests and operating expense budgets.

Jan. 31, 2013 -- Departments submit to FS their estimated SNWA capitalized labor and overtime charges. HR forwards list of existing intern, temporary, and summer hire position renewals to FS.

Feb. 4, 2013 -- FS sends budget narrative instructions to departments.

Feb. 14, 2013 -- Draft copies of capital and operating budgets are sent to department directors for their review and approval.

Feb. 20, 2013 -- FS begins to assist departments in preparing data for EM presentations.

Mar. 4, 2013 -- Departments submit their budget narratives and performance measures to FS who begins to draft budget document.

Mar. 11, 2013 -- FS staff conducts budget overview briefing for EM.

Mar. 18, 2013 -- EM conduct budget meetings with departments to review proposed budgets.

Mar. 19 to 28, 2013 -- EM conduct final review and make final budget decisions with department directors.

Apr. 15, 2013 -- Preliminary Budget is filed with the State Department of Taxation and the Board of Directors (Board).

Apr. 16 to May 6, 2013 -- Budget workshop is conducted for Board.

Apr. 25, 2013 -- FS completes proposed budget documents for the Board.

May 9, 2013-- FS publishes notice of public hearings on proposed budgets in local newspapers.

May 16, 2013 -- Board conducts a public hearing on the proposed budget for possible adoption.

May 30, 2013 -- FS sends adopted budget to the Nevada State Department of Taxation.

Jun. 3, 2013 -- Adopted budget is sent to department directors and managers.

Jun. 27, 2013 -- FS completes final approved budget documents and publishes annual summary fiscal report in local newspapers.

Aug. 8, 2013 -- FS submits proof of publication of fiscal report to Department of Taxation.

Aug. 15, 2013 -- Budget Award submittal to Government Finance Officers; Association.

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 Board must adopt a resolution providing for an augmentation at a regular meeting of the 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.

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SECTION 4

OPERATING AND CAPITAL BUDGET PLAN

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SOUTHERN NEVADA WATER AUTHORITY

FISCAL YEAR 2013/2014
OPERATING AND CAPITAL BUDGET

Operating and Capital Budget Plan

Fiscal Year Ending June 30, 2014

INTRODUCTION

The Southern Nevada Water Authority's (SNWA or the Authority) budget is built by function (sub fund). The Authority uses these sub funds strictly as an internal cost accounting control. The State of Nevada recognizes the Authority as an enterprise fund and as such requires the Authority to use enterprise (single fund) accounting. Breaking the costs into sub fund functions is an internal discipline that assists the Authority in analyzing and controlling its costs throughout the year.

As described in the introduction and background, SNWA has seven member agencies. Four of these members (the Las Vegas Valley Water District, the City of Henderson, the City of North Las Vegas, and the City of Boulder City) purchase potable water from SNWA and collect capital fees. These four members are collectively known as the SNWA purveyors.

SNWA uses five sub funds. Three are classified as capital sub funds while two are operating sub funds –

CAPITAL SUB FUNDS

New Expansion Debt Service sub fund – Collects capital fees and taxes from purveyors and the State. These funds are used to pay debt service and selected operating expenses.

Major Construction and Capital sub fund – Pays construction costs from bond proceeds.

Las Vegas Wash sub fund– Although this is a hybrid sub fund that pays both capital and operating expenses, the major function of this sub fund is to pay construction costs of the Las Vegas Wash.

OPERATING SUB FUNDS

Wholesale Delivery Operations sub fund – Pays for costs for delivery and treatment of potable water through volumetric water charges to purveyors.

Groundwater Management sub fund – Collects revenues and expenses for SNWA's groundwater management fund.

The Operating and Capital Budget Plan section presents the approved fiscal year (FY) 2013/2014 budget as a whole and examines each sub fund's budget in detail.

SUMMARY

The 2013/2014 budget continues to recognize the challenging financial times in which the Authority does business. However it also recognizes that even with the difficult economy, services must be provided and construction that protects future interests must continue. Departments have been asked to provide the leanest budget possible and have responded with no new personnel requests and reductions in construction expenditures and operating expenses.

The Authority's 2013/2014 total sources of funds are projected to decrease $355.9 million (-52.0%) compared to the adopted 2012/2013 budget. Removing the effect of bond proceeds, total revenues are projected to increase $4.1 million (1.3%). The major factors causing this movement are increases in grant proceeds ($14.7 million, more than 100%), sales tax ($3.8 million, 7.9%), regional connection charges ($1.1 million, 9.2%) and wholesale delivery charge ($4.5 million, 3.8%), and decreases in regional infrastructure surcharge ($15.6 million, -16.8%) and regional commodity charges ($1.5 million, -3.8%). The other four categories of sources of funds are projected to decrease 23.1% ($2.9 million).

The Authority's 2013/2014 total uses of funds are projected to decrease $45.2 million (-9.0%) compared to the adopted 2012/2013 budget. The primary driver for the reduction is construction expenditures

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($48.8 million, -27.6%). All other categories are projected to increase a combined $3.6 million (1.1%).

The following pages display the Authority's actual revenues and expenses for 2011/2012, approved 2012/2013 budget, and approved 2013/2014 budget. **Figures A and B** take the information in Table 1 and show the distributions of revenue and expense categories as compared to the total budget. **Table 1** gives an overview of the Authority's revenues and expenses for the three year period. **Tables 2, 3 and 4** show the budget's cash flow summary by sub fund. The beginning and ending balance numbers (fund balance) are approximations of SNWA's cash and cash equivalent balances for the designated periods. These overview tables specifically show the individual sub fund components described in detail later in this section and show the interrelationship between the different functions of the Authority. **Figures C through H** show the ending fund balance by sub fund for from FY 2004/2005 to the projected balance for FY 2013/2014.

Figure A
Sources of Funds Distribution Excluding Debt Proceeds
2011 / 2012 Actual and
2012 / 2013 to 2013 /2014 Annual Budget

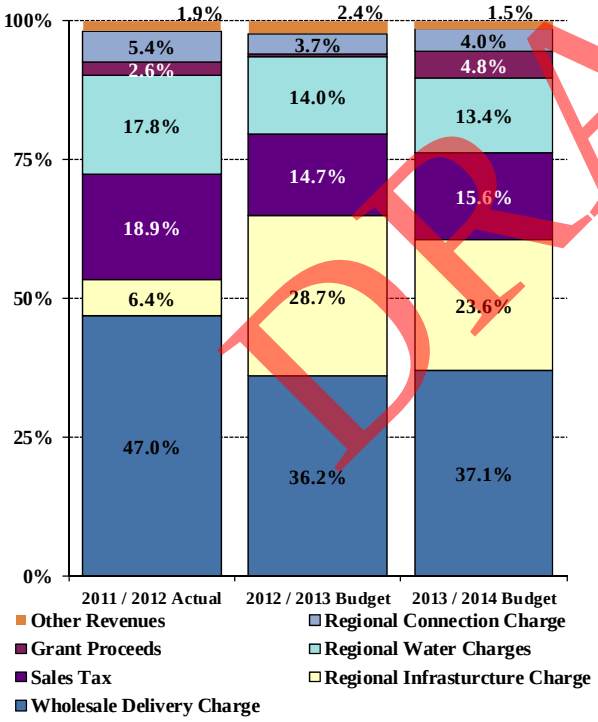

Figure B
Uses of Funds Distribution
2011 / 2012 Actual and
2012 / 2013 to 2013 /2014 Annual Budget

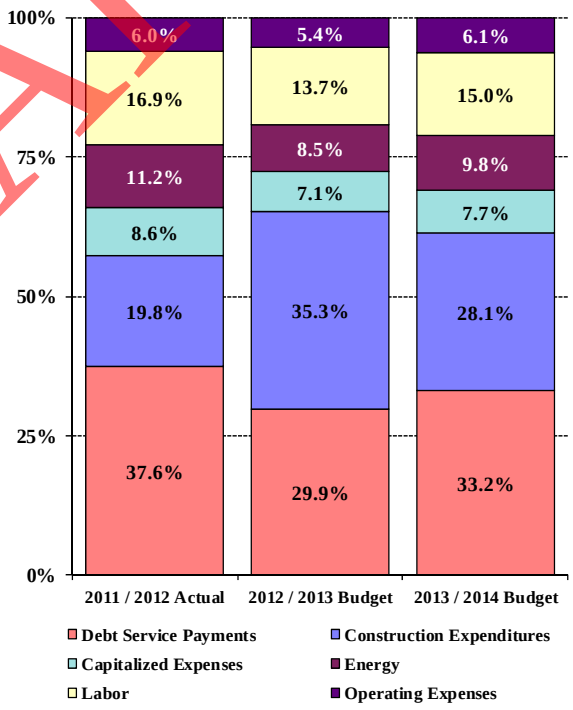

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TABLE 1
2013 / 2014 BUDGET -- SUMMARY
COMPARISON WITH 2011 / 2012 ACTUALS
AND 2012 / 2013 BUDGET

	Actual 2011 / 2012 See Table 4	Budget 2012 / 2013 See Table 3	Budget 2013 / 2014 See Table 2
SOURCES OF FUNDS			
Wholesale Delivery Charge	$ 119,224,888	$ 117,498,863	$ 121,958,169
Regional Connection Charge	13,791,082	12,033,087	13,142,254
Regional Infrastructure Charge	16,193,130	92,932,293	77,399,956
Regional Commodity Charge	40,666,192	40,797,784	39,257,838
Regional Reliability Surcharge	4,597,701	4,695,142	4,783,017
Sales Tax	48,107,349	47,539,972	51,297,790
Interest Income	543,127	1,762,923	1,042,883
Groundwater Management Fees	925,189	913,359	913,345
Las Vegas Wash Program Fees	479,639	496,759	705,482
Debt Issuance Proceeds	999,536	360,000,000	-
Grant Proceeds	6,489,931	1,099,750	15,811,100
Other Revenues	2,854,932	4,569,911	2,115,443
TOTAL SOURCES OF FUNDS	$ 254,872,696	$ 684,339,843	$ 328,427,277
USES OF FUNDS			
Energy	$ 44,527,798	$ 42,467,894	$ 44,318,335
Labor	66,879,617	68,638,289	68,607,709
Operating Expenses	23,608,735	26,991,833	27,866,920
Capitalized Expenses	34,075,575	35,414,746	34,928,671
Construction Expenditures	78,628,191	176,451,869	127,677,187
Debt Service Payments	149,025,174	149,294,240	150,714,220
TOTAL USES OF FUNDS	$ 396,745,090	$ 499,258,871	$ 454,113,042
TOTAL SOURCES IN EXCESS OF (LESS THAN) TOTAL USES	**$ (141,872,394)**	**$ 185,080,972**	**$ (125,685,765)**

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TABLE 2
SOUTHERN NEVADA WATER AUTHORITY
2013 / 2014 BUDGET -- SUMMARY BY SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2014

	Capital Sub Fund	
	New Expansion Debt Service	**Major Construction & Capital Plan**
SOURCES OF FUNDS		
Wholesale Delivery Charge	$ -	$ -
Regional Connection Charge	13,142,254	-
Regional Infrastructure Charge	77,399,956	-
Regional Commodity Charge	39,257,838	-
Regional Reliability Surcharge	4,783,017	-
Sales Tax	47,953,191	-
Interest Income	660,455	327,901
Groundwater Management Fees	-	-
Las Vegas Wash Program Fees	-	-
Interfund Loan	(3,468,216)	-
Grant Proceeds	504,500	60,000
Other Revenues	1,102,305	-
TOTAL SOURCES OF FUNDS	**$ 181,335,300**	**$ 387,901**
USES OF FUNDS		
Energy	$ -	$ 2,833,787
Labor	22,445,831	7,906,713
Operating Expenses	-	-
Capitalized Expenses	10,307,762	24,620,909
Construction Expenditures	-	107,177,187
Debt Service Payments	137,002,809	-
TOTAL USES OF FUNDS	**$ 169,756,402**	**$ 142,538,596**
TOTAL SOURCES IN EXCESS OF (LESS THAN) TOTAL USES	**$ 11,578,898**	**$ (142,150,695)**
Beginning Balance (July 1, 2013 Projected)*	$ 295,000,000	$ 214,200,000
Ending Balance (June 30, 2014 Projected)	$ 306,578,898	$ 72,049,305

continued on next page

* Will differ from June 30, 2013 Projected Ending Balance in Table 3 due to projected variances in the fiscal 2012 / 2013 budget.

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TABLE 2 (continued)
SOUTHERN NEVADA WATER AUTHORITY
2013 / 2014 BUDGET -- SUMMARY BY SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2014

	Capital Sub Fund (continued)	
	Las Vegas Wash	**Total Capital Sub Funds**
SOURCES OF FUNDS		
Wholesale Delivery Charge	$ -	$ -
Regional Connection Charge	-	13,142,254
Regional Infrastructure Charge	-	77,399,956
Regional Commodity Charge	-	39,257,838
Regional Reliability Surcharge	-	4,783,017
Sales Tax	3,344,599	51,297,790
Interest Income	762	989,118
Groundwater Management Fees	-	-
Las Vegas Wash Program Fees	1,175,803	1,175,803
Interfund Loan	3,468,216	-
Grant Proceeds	15,206,600	15,771,100
Other Revenues	-	1,102,305
TOTAL SOURCES OF FUNDS	**$ 23,195,980**	**$ 204,919,181**
USES OF FUNDS		
Energy	$ -	$ 2,833,787
Labor	1,301,635	31,654,179
Operating Expenses	1,329,202	1,329,202
Capitalized Expenses	-	34,928,671
Construction Expenditures	20,500,000	127,677,187
Debt Service Payments	-	137,002,809
TOTAL USES OF FUNDS	**$ 23,130,837**	**$ 335,425,835**
TOTAL SOURCES IN EXCESS OF (LESS THAN) TOTAL USES	**$ 65,143**	**$ (130,506,654)**
Beginning Balance (July 1, 2013 Projected)*	$ 200,000	$ 509,400,000
Ending Balance (June 30, 2014 Projected)	$ 265,143	378,893,346

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* Will differ from June 30, 2013 Projected Ending Balance in Table 3 due to projected variances in the fiscal 2012 / 2013 budget.

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TABLE 2 (continued)
SOUTHERN NEVADA WATER AUTHORITY
2013 / 2014 BUDGET -- SUMMARY BY SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2014

	Operations Sub Funds	
	Wholesale Delivery Operations	**Groundwater Management**
SOURCES OF FUNDS		
Wholesale Delivery Charge	$ 121,958,169	$ -
Regional Connection Charge	-	-
Regional Infrastructure Charge	-	-
Regional Commodity Charge	-	-
Regional Reliability Surcharge	-	-
Sales Tax	-	-
Interest Income	48,480	5,285
Groundwater Management Fees	-	913,345
Las Vegas Wash Program Fees	(470,321)	-
Interfund Loan	-	-
Grant Proceeds	40,000	-
Other Revenues	1,013,138	-
TOTAL SOURCES OF FUNDS	**$ 122,589,466**	**$ 918,630**
USES OF FUNDS		
Energy	$ 41,484,548	$ -
Labor	36,487,968	465,562
Operating Expenses	25,744,060	793,658
Capitalized Expenses	-	-
Construction Expenditures	-	-
Debt Service Payments	13,711,411	-
TOTAL USES OF FUNDS	**$ 117,427,987**	**$ 1,259,220**
TOTAL SOURCES IN EXCESS OF (LESS THAN) TOTAL USES	**$ 5,161,479**	**$ (340,590)**
Beginning Balance (July 1, 2013 Projected)*	$ 19,500,000	$ 1,400,000
Ending Balance (June 30, 2014 Projected)	$ 24,661,479	$ 1,059,410

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* Will differ from June 30, 2013 Projected Ending Balance in Table 3 due to projected variances in the fiscal 2012 / 2013 budget.

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TABLE 2 (continued)
SOUTHERN NEVADA WATER AUTHORITY
2013 / 2014 BUDGET -- SUMMARY BY SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2014

		Total Operations Sub Funds		Total Annual Budget
SOURCES OF FUNDS				
Wholesale Delivery Charge	$	121,958,169	$	121,958,169
Regional Connection Charge		-		13,142,254
Regional Infrastructure Charge		-		77,399,956
Regional Commodity Charge		-		39,257,838
Regional Reliability Surcharge		-		4,783,017
Sales Tax		-		51,297,790
Interest Income		53,765		1,042,883
Groundwater Management Fees		913,345		913,345
Las Vegas Wash Program Fees		(470,321)		705,482
Interfund Loan		-		-
Grant Proceeds		40,000		15,811,100
Other Revenues		1,013,138		2,115,443
TOTAL SOURCES OF FUNDS	**$**	**123,508,096**	**$**	**328,427,277**
USES OF FUNDS				
Energy	$	41,484,548	$	44,318,335
Labor		36,953,530		68,607,709
Operating Expenses		26,537,718		27,866,920
Capitalized Expenses		-		34,928,671
Construction Expenditures		-		127,677,187
Debt Service Payments		13,711,411		150,714,220
TOTAL USES OF FUNDS	**$**	**118,687,207**	**$**	**454,113,042**
TOTAL SOURCES IN EXCESS OF (LESS THAN) TOTAL USES	**$**	**4,820,889**	**$**	**(125,685,765)**
Beginning Balance (July 1, 2013 Projected)*	$	20,900,000	$	530,300,000
Ending Balance (June 30, 2014 Projected)	$	25,720,889	$	404,614,235

* Will differ from June 30, 2013 Projected Ending Balance in Table 3 due to projected variances in the fiscal 2012 / 2013 budget.

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TABLE 3
SOUTHERN NEVADA WATER AUTHORITY
2012 / 2013 BUDGET -- SUMMARY BY SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2013

	Capital Sub Fund	
	New Expansion Debt Service	**Major Construction & Capital Plan**
SOURCES OF FUNDS		
Wholesale Delivery Charge	$ -	$ -
Regional Connection Charge	12,033,087	-
Regional Infrastructure Charge	92,932,293	-
Regional Commodity Charge	40,797,784	-
Regional Reliability Surcharge	4,695,142	-
Sales Tax	44,449,482	-
Interest Income	791,588	899,536
Groundwater Management Fees	-	-
Las Vegas Wash Program Fees	-	-
Debt Issuance Proceeds	-	360,000,000
Interfund Loan	34,493,515	(39,600,000)
Grant Proceeds	-	-
Other Revenues	4,268,327	-
TOTAL SOURCES OF FUNDS	**$ 234,461,218**	**$ 321,299,536**
USES OF FUNDS		
Energy	$ -	$ 3,156,536
Labor	21,269,923	9,750,194
Operating Expenses	-	-
Capitalized Expenses	7,579,920	27,834,826
Construction Expenditures	-	168,706,854
Debt Service Payments	135,799,991	-
TOTAL USES OF FUNDS	**$ 164,649,834**	**$ 209,448,410**
TOTAL SOURCES IN EXCESS OF (LESS THAN) TOTAL USES	**$ 69,811,384**	**$ 111,851,126**
Beginning Balance (July 1, 2012 Projected)*	$ 228,400,000	$ -
Ending Balance (June 30, 2013 Projected)	$ 298,211,384	$ 111,851,126

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*Fiscal 2012 / 2013 budget prepared before the end of fiscal 2011/2012 year. Beginning balances shown above were the projected beginning balances as presented in last year's budget and do not match June 30, 2012 ending balances as shown in Table 4.

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TABLE 3 (continued)
SOUTHERN NEVADA WATER AUTHORITY
2012 / 2013 BUDGET -- SUMMARY BY SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2013

	Capital Sub Fund (continued)	
	Las Vegas Wash	**Total Capital Sub Funds**
SOURCES OF FUNDS		
Wholesale Delivery Charge	$ -	$ -
Regional Connection Charge	-	12,033,087
Regional Infrastructure Charge	-	92,932,293
Regional Commodity Charge	-	40,797,784
Regional Reliability Surcharge	-	4,695,142
Sales Tax	3,090,490	47,539,972
Interest Income	1,809	1,692,933
Groundwater Management Fees	-	-
Las Vegas Wash Program Fees	827,931	827,931
Debt Issuance Proceeds	-	360,000,000
Interfund Loan	5,106,485	-
Grant Proceeds	1,099,750	1,099,750
Other Revenues	-	4,268,327
TOTAL SOURCES OF FUNDS	**$ 10,126,465**	**$ 565,887,219**
USES OF FUNDS		
Energy	$ -	$ 3,156,536
Labor	1,606,545	32,626,662
Operating Expenses	1,463,354	1,463,354
Capitalized Expenses	-	35,414,746
Construction Expenditures	7,745,015	176,451,869
Debt Service Payments	-	135,799,991
TOTAL USES OF FUNDS	**$ 10,814,914**	**$ 384,913,158**
TOTAL SOURCES IN EXCESS OF (LESS THAN) TOTAL USES	**$ (688,449)**	**$ 180,974,061**
Beginning Balance (July 1, 2012 Projected)*	$ 800,000	$ 229,200,000
Ending Balance (June 30, 2013 Projected)	$ 111,551	410,174,061

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*Fiscal 2012 / 2013 budget prepared before the end of fiscal 2011/2012 year. Beginning balances shown above were the projected beginning balances as presented in last year's budget and do not match June 30, 2012 ending balances as shown in Table 4.

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TABLE 3 (continued)
SOUTHERN NEVADA WATER AUTHORITY
2012 / 2013 BUDGET -- SUMMARY BY SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2013

	Operations Sub Funds	
	Wholesale Delivery Operations	**Groundwater Management**
SOURCES OF FUNDS		
Wholesale Delivery Charge	$ 117,498,863	$ -
Regional Connection Charge	-	-
Regional Infrastructure Charge	-	-
Regional Commodity Charge	-	-
Regional Reliability Surcharge	-	-
Sales Tax	-	-
Interest Income	63,684	6,306
Groundwater Management Fees	-	913,359
Las Vegas Wash Program Fees	(331,172)	-
Debt Issuance Proceeds	-	-
Interfund Loan	-	-
Grant Proceeds	-	-
Other Revenues	301,584	-
TOTAL SOURCES OF FUNDS	**$ 117,532,959**	**$ 919,665**
USES OF FUNDS		
Energy	$ 39,311,358	$ -
Labor	35,630,802	380,825
Operating Expenses	24,744,329	784,150
Capitalized Expenses	-	-
Construction Expenditures	-	-
Debt Service Payments	13,494,249	-
TOTAL USES OF FUNDS	**$ 113,180,738**	**$ 1,164,975**
TOTAL SOURCES IN EXCESS OF (LESS THAN) TOTAL USES	**$ 4,352,221**	**$ (245,310)**
Beginning Balance (July 1, 2012 Projected)*	$ 20,600,000	$ 1,100,000
Ending Balance (June 30, 2013 Projected)	$ 24,952,221	$ 854,690

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*Fiscal 2012 / 2013 budget prepared before the end of fiscal 2011/2012 year. Beginning balances shown above were the projected beginning balances as presented in last year's budget and do not match June 30, 2012 ending balances as shown in Table 4.

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TABLE 3 (continued)
SOUTHERN NEVADA WATER AUTHORITY
2012 / 2013 BUDGET -- SUMMARY BY SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2013

		Total Operations Sub Funds		Total Annual Budget
SOURCES OF FUNDS				
Wholesale Delivery Charge	$	117,498,863	$	117,498,863
Regional Connection Charge		-		12,033,087
Regional Infrastructure Charge		-		92,932,293
Regional Commodity Charge		-		40,797,784
Regional Reliability Surcharge		-		4,695,142
Sales Tax		-		47,539,972
Interest Income		69,990		1,762,923
Groundwater Management Fees		913,359		913,359
Las Vegas Wash Program Fees		(331,172)		496,759
Debt Issuance Proceeds		-		360,000,000
Interfund Loan		-		-
Grant Proceeds		-		1,099,750
Other Revenues		301,584		4,569,911
TOTAL SOURCES OF FUNDS	**$**	**118,452,624**	**$**	**684,339,843**
USES OF FUNDS				
Energy	$	39,311,358	$	42,467,894
Labor		36,011,627		68,638,289
Operating Expenses		25,528,479		26,991,833
Capitalized Expenses		-		35,414,746
Construction Expenditures		-		176,451,869
Debt Service Payments		13,494,249		149,294,240
TOTAL USES OF FUNDS	**$**	**114,345,713**	**$**	**499,258,871**
TOTAL SOURCES IN EXCESS OF (LESS THAN) TOTAL USES	**$**	**4,106,911**	**$**	**185,080,972**
Beginning Balance (July 1, 2012 Projected)*	$	21,700,000	$	250,900,000
Ending Balance (June 30, 2013 Projected)	$	25,806,911	$	435,980,972

*Fiscal 2012 / 2013 budget prepared before the end of fiscal 2011/2012 year. Beginning balances shown above were the projected beginning balances as presented in last year's budget and do not match June 30, 2012 ending balances as shown in Table 4.

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TABLE 4
SOUTHERN NEVADA WATER AUTHORITY
2011 / 2012 BUDGET -- SUMMARY BY SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2012

	Capital Sub Fund	
	New Expansion Debt Service	**Major Construction & Capital Plan**
SOURCES OF FUNDS		
Wholesale Delivery Charge	$ -	$ -
Regional Connection Charge	13,791,082	-
Regional Infrastructure Charge	16,193,130	-
Regional Commodity Charge	40,666,192	-
Regional Reliability Surcharge	4,597,701	-
Sales Tax	45,131,729	-
Interest Income	490,310	56,609
Groundwater Management Fees	-	-
Las Vegas Wash Program Fees	-	-
Debt Issuance Proceeds	-	999,536
Grant Proceeds		601,074
Interfund Loan	(41,892,966)	41,492,826
Other Revenues	2,394,223	
TOTAL SOURCES OF FUNDS	**$ 81,371,401**	**$ 43,150,045**
USES OF FUNDS		
Energy	$ -	$ -
Labor	5,343,187	24,071,575
Operating Expenses	-	-
Capitalized Expenses	10,303,806	23,771,769
Construction Expenditures	-	69,388,378
Debt Service Payments	137,396,943	-
TOTAL USES OF FUNDS	**$ 153,043,936**	**$ 117,231,722**
TOTAL SOURCES IN EXCESS OF (LESS THAN) TOTAL USES	**$ (71,672,535)**	**$ (74,081,677)**
Beginning Balance (July 1, 2011)	$ 308,990,461	$ 78,299,224
Ending Balance (June 30, 2012)	$ 237,317,927	$ 4,217,548

Amounts may be slightly off due to rounding

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TABLE 4 (continued)
SOUTHERN NEVADA WATER AUTHORITY
2011 / 2012 BUDGET -- SUMMARY BY SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2012

	Capital Sub Fund (continued)	
	Las Vegas Wash	**Total Capital Sub Funds**
SOURCES OF FUNDS		
Wholesale Delivery Charge	$ -	$ -
Regional Connection Charge	-	13,791,082
Regional Infrastructure Charge	-	16,193,130
Regional Commodity Charge	-	40,666,192
Regional Reliability Surcharge	-	4,597,701
Sales Tax	2,975,620	48,107,349
Interest Income	(12,362)	534,557
Groundwater Management Fees	-	-
Las Vegas Wash Program Fees	744,577	744,577
Debt Issuance Proceeds	-	999,536
Grant Proceeds	5,888,857	6,489,931
Interfund Loan	400,140	-
Other Revenues		2,394,223
TOTAL SOURCES OF FUNDS	**$ 9,996,832**	**$ 134,518,278**
USES OF FUNDS		
Energy	$ -	$ -
Labor	1,167,577	30,582,339
Operating Expenses	462,350	462,350
Capitalized Expenses	-	34,075,575
Construction Expenditures	9,239,813	78,628,191
Debt Service Payments	-	137,396,943
TOTAL USES OF FUNDS	**$ 10,869,740**	**$ 281,145,398**
TOTAL SOURCES IN EXCESS OF (LESS THAN) TOTAL USES	**$ (872,908)**	**$ (146,627,120)**
Beginning Balance (July 1, 2011)	$ 872,908	$ 388,162,593
Ending Balance (June 30, 2012)	$ -	241,535,475

Amounts may be slightly off due to rounding

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TABLE 4 (continued)
SOUTHERN NEVADA WATER AUTHORITY
2011 / 2012 BUDGET -- SUMMARY BY SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2012

	Operations Sub Funds	
	Wholesale Delivery Operations	**Groundwater Management**
SOURCES OF FUNDS		
Wholesale Delivery Charge	$ 119,224,888	$ -
Regional Connection Charge	-	-
Regional Infrastructure Charge	-	-
Regional Commodity Charge	-	-
Regional Reliability Surcharge	-	-
Sales Tax	-	-
Interest Income	6,796	1,774
Groundwater Management Fees	-	925,189
Las Vegas Wash Program Fees	(264,938)	-
Debt Issuance Proceeds	-	-
Grant Proceeds	-	-
Interfund Loan	-	-
Other Revenues	460,709	-
TOTAL SOURCES OF FUNDS	**$ 119,427,455**	**$ 926,963**
USES OF FUNDS		
Energy	$ 44,527,798	$ -
Labor	36,130,518	166,760
Operating Expenses	22,679,955	466,430
Capitalized Expenses	-	-
Construction Expenditures	-	-
Debt Service Payments	11,628,231	-
TOTAL USES OF FUNDS	**$ 114,966,502**	**$ 633,190**
TOTAL SOURCES IN EXCESS OF (LESS THAN) TOTAL USES	**$ 4,460,953**	**$ 293,773**
Beginning Balance (July 1, 2011)	$ 18,779,865	$ 1,317,157
Ending Balance (June 30, 2012)	$ 23,240,818	$ 1,610,930

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TABLE 4 (continued)
SOUTHERN NEVADA WATER AUTHORITY
2011 / 2012 BUDGET -- SUMMARY BY SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2012

		Total Operations Sub Funds		Total Annual Budget
SOURCES OF FUNDS				
Wholesale Delivery Charge	$	119,224,888	$	119,224,888
Regional Connection Charge		-		13,791,082
Regional Infrastructure Charge		-		16,193,130
Regional Commodity Charge		-		40,666,192
Regional Reliability Surcharge		-		4,597,701
Sales Tax		-		48,107,349
Interest Income		8,570		543,127
Groundwater Management Fees		925,189		925,189
Las Vegas Wash Program Fees		(264,938)		479,639
Debt Issuance Proceeds		-		999,536
Grant Proceeds		-		6,489,931
Interfund Loan		-		-
Other Revenues		460,709		2,854,932
TOTAL SOURCES OF FUNDS	**$**	**120,354,418**	**$**	**254,872,696**
USES OF FUNDS				
Energy	$	44,527,798	$	44,527,798
Labor		36,297,278		66,879,617
Operating Expenses		23,146,385		23,608,735
Capitalized Expenses		-		34,075,575
Construction Expenditures		-		78,628,191
Debt Service Payments		11,628,231		149,025,174
TOTAL USES OF FUNDS	**$**	**115,599,692**	**$**	**396,745,090**
TOTAL SOURCES IN EXCESS OF (LESS THAN) TOTAL USES	**$**	**4,754,726**	**$**	**(141,872,394)**
Beginning Balance (July 1, 2011)	$	20,097,022	$	408,259,615
Ending Balance (June 30, 2012)	$	24,851,748	$	266,387,223

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Operating and Capital Budget Plan

Fiscal Year Ending June 30, 2014

Figure C
New Expansion Debt Service Sub Fund
Ending Balance

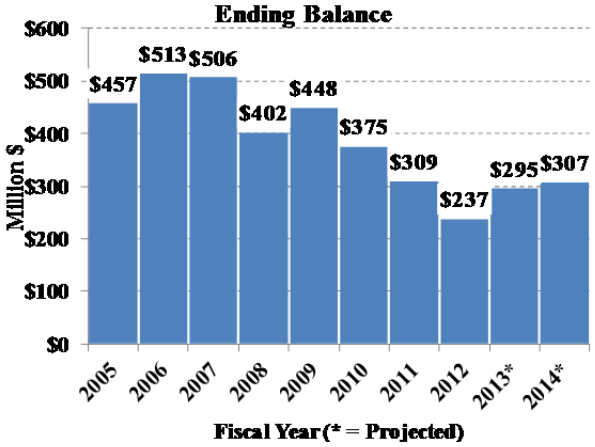


Figure D
MCCP / Bond Sub Fund
Ending Balance

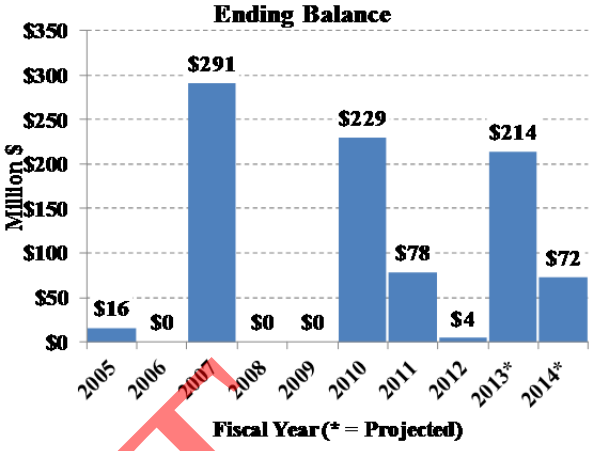


Figure E
Las Vegas Wash Sub Fund
Ending Balance

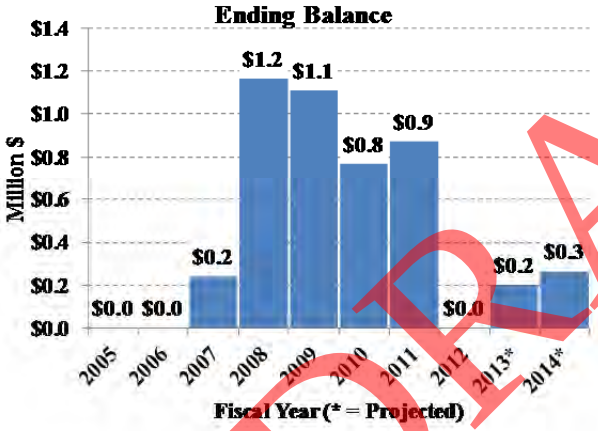


Figure F
Wholesale Delivery Operations Sub Fund
Ending Balance

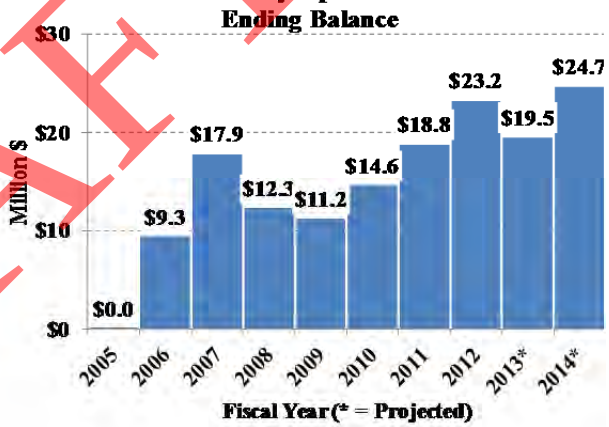


Figure G
Groundwater Management Sub Fund
Ending Balance

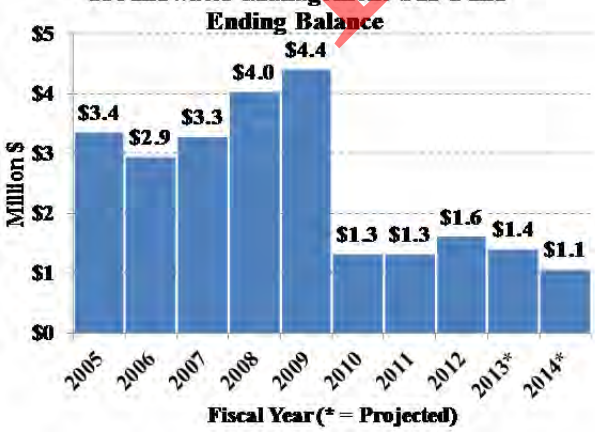
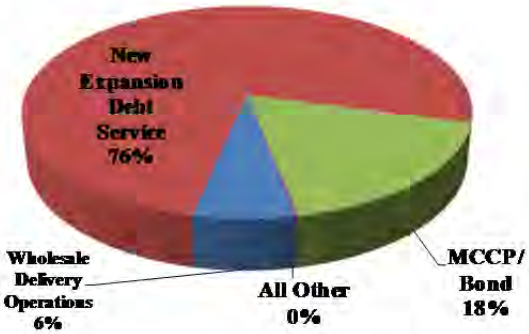


Figure H
Ending Balance
June 30, 2014 Projected



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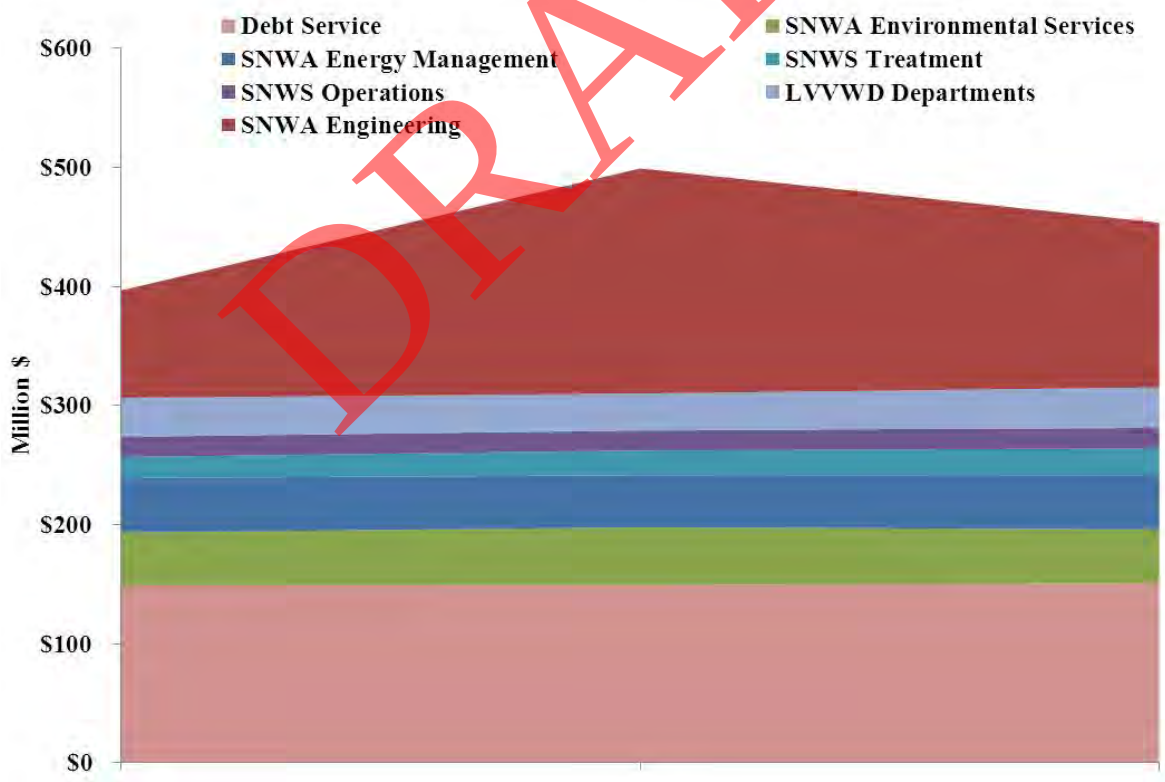
Ending balance is a representation of cash and investment balances and differs substantially from net position. Please see "Net Position" later in this section.

DEPARTMENTS

The Authority consists of six different departments which are fully described in section 6. In brief, there are three Southern Nevada Water System (SNWS) departments (SNWS Operations, SNWS Treatment, and SNWS Water Quality) whose primary tasks relate to the treatment and delivery of water to purveyor members. The SNWA Engineering department primarily is responsible for the planning and construction of improvements and extensions of SNWA's water treatment and distribution system. Finally the SNWA Environmental Department and the departments from the Las Vegas Valley Water District (LVVWD) work on a variety of projects.

Revenues generated by SNWA are not department specific. Most expenses are created by the actions on one or more of the departments listed above. Figure I below shows departmental participation in costs. Debt service is an expense that is not assigned a specific department.

Figure I
Annual Expenses by Department



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CAPITAL SUB FUNDS

NEW EXPANSION DEBT SERVICE (NEDS) SUB FUND

The NEDS sub fund tracks revenues and expenses relating to debt service incurred from the expansion of the Authority's transmission and distribution system. Revenues acquired from regional connection, commodity, infrastructure and reliability fees as well as sales tax receipts and grant moneys are posted to this sub fund. In addition to paying scheduled debt service payments, this sub fund pays some capitalized labor costs and operational costs for several departments. Also the sub fund can use funds for pay-as-you-go capital expenditures.

Table 5 on the following page presents the NEDS sources and uses of funds.

Regional Connection Charge (RCnC). The RCnC is a charge assessed for new connections to the regional potable water system. The Authority's purveyor members collect these charges when customers apply for new water services. RCnC receipts collected by purveyor members are remitted to the Authority monthly. The RCnC historically has provided the majority of the funding for the Authority's Major Construction and Capital Plan.

From March 1996 to January 2000 the RCnC was based on meter size. In order to more accurately equate this charge with demand placed on the regional water system, a change was made in February 2000 to base the charge on customer type and land usage as well as meter size.

Construction activity in the Authority's service area has declined significantly in recent years. RCnC collections, once one of SNWA's major revenue sources, are still considerably lower than during the peak period of the mid 2000s. Figure J graphically shows the decline in the number of connections sold annually by SNWA's purveyor members and the slight recovery that has occurred in recent years.

RCnC revenue depends primarily on new construction. Also, the per-unit RCnC rate is projected to increase over time as dictated by a comprehensive financial model created and operated by the Authority. However the Authority has made an executive decision not to raise the per-unit RCnC until local economic factors improve.

The 2013/2014 projection of RCnC revenue is $1.1 million (9.2%) higher than the 2012/2013 budgeted amount and reflects current collection trends. While the 2013/2014 amount is still significantly less than collections experienced in the middle of the last decade, it does show a slight recovery in this important revenue source.

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TABLE 5
2013 / 2014 BUDGET -- SUMMARY
NEW EXPANSION DEBT SERVICE SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2014

	2011/2012 Actual	2012/2013 Budget	2013/2014 Budget
SOURCES OF FUNDS			
Regional Connection Charge	$ 13,791,082	$ 12,033,087	$ 13,142,254
Regional Infrastructure Charge	16,193,130	92,932,293	77,399,956
Regional Commodity Charge	40,666,192	40,797,784	39,257,838
Regional Reliability Surcharge	4,597,701	4,695,142	4,783,017
Interfund Loan	(41,892,966)	34,493,515	(3,468,216)
Sales Tax	45,131,729	44,449,482	47,953,191
Other Revenues	2,394,223	4,268,327	1,102,305
Grant Proceeds	-	-	504,500
Interest Income	490,310	791,588	660,455
TOTAL SOURCES OF FUNDS	**$ 81,371,401**	**$ 234,461,218**	**$ 181,335,300**
USES OF FUNDS			
Labor	$ 5,343,187	$ 21,269,923	$ 22,445,831
Capitalized Expenses	10,303,806	7,579,920	10,307,762
Debt Service Payments	137,396,943	135,799,991	137,002,809
TOTAL USES OF FUNDS	**$ 153,043,936**	**$ 164,649,834**	**$ 169,756,402**
TOTAL SOURCES IN EXCESS (LESS THAN) TOTAL USES	**$ (71,672,535)**	**$ 69,811,384**	**$ 11,578,898**

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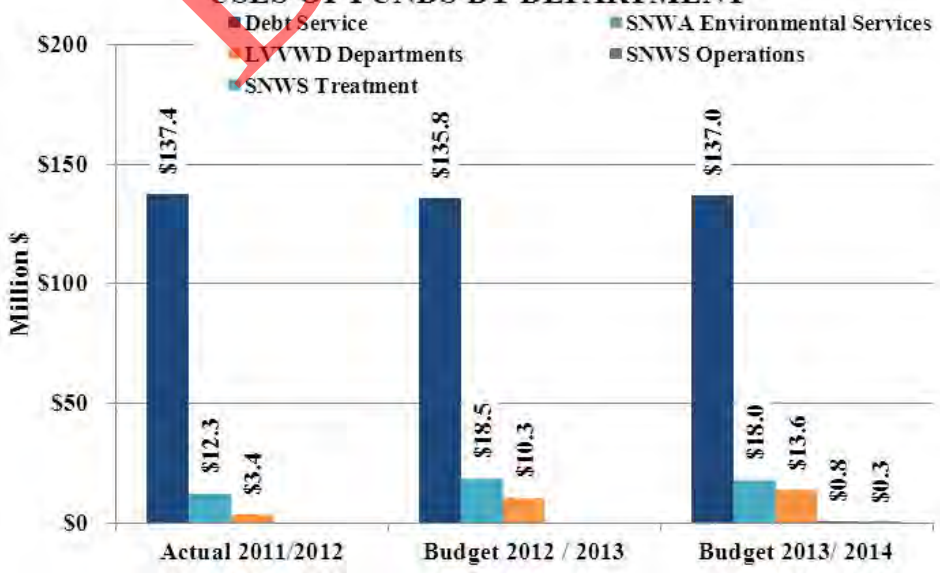
Figure K
NEW EXPANSION DEBT SERVICE
USES OF FUNDS BY DEPARTMENT



The amount also reflects recent trends that show minor improvement in the local economy.

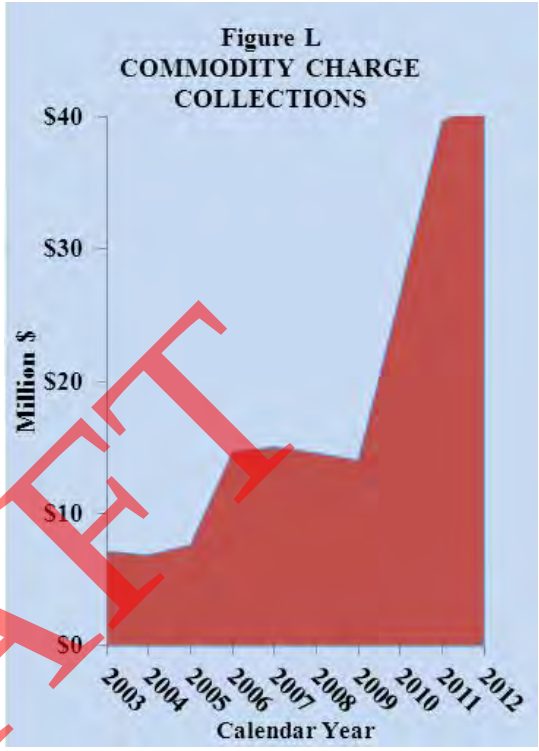
Regional Infrastructure Surcharge (IS). On February 2012, the Board of Directors of SNWA (Board) approved a regional infrastructure charge. This charge was needed to compensate for the vast reduction in RCnC as described earlier. The IS is applied by SNWA purveyor members to retail bills and is assessed based on meter size and customer class. Consumption is not considered in the application of the rate. Revenue is remitted to the Authority on a monthly basis.

After the IS was established in 2012, the Board decided to give a special credit to owners of fire line services. The credit, which equated to 50% of the current IS charge for the fire line, is scheduled to be in effect for 36 months. The credit had not been established at the time that the 2012/2013 budget was prepared.

Fiscal 2013/2014 will be the second full year that this fee will be collected. For fiscal 2012/2013 collections are trending at an annual pace of $77 million which includes two months of collections without the fire line reduction mentioned above. Since SNWA forecasts nearly zero growth in connections, the trending amount is shown as the projected amount for fiscal 2013/2014 less the fire line adjustment.

Regional Commodity Charge (RCmC). The RCmC went into effect in November 1996. The charge is collected by purveyor members and remitted to the Authority monthly. The RCmC is applied to retail water bills. It was initially set at $0.05 per 1,000 gallons and remained unchanged until November, 2005, when it was increased to $0.10 per 1,000 gallons. The RCmC was increased to $0.20 per 1,000 gallons on January, 2010 and to $0.30 per 1,000 gallons on January, 2011.

The rate increases resulted in significant revenue growth from RCmC as shown in Figure L.



Total RCmC for FY 2013/2014 is projected to decrease $1.5 million (-3.8%). The decrease reflects the projected reduced water sales described in the Wholesale Delivery Operations (WDO) section.

Regional Reliability Surcharge (RRS). The RRS is a surcharge based on the total water bill of the Authority's purveyor members. Recognizing that the need for reliability is different for different classes of customer, the rate is 0.25% for residential customers and ten times more, or 2.5%, for commercial customers. The RRS went into effect in April 1998. These revenues are collected by purveyor members from retail billings and are remitted to the Authority monthly.

The RRS for FY 2013/2014 is projected to increase slightly ($0.1 million, 1.9%). Because the RRS is based on the total water

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bill charged to an end user by a purveyor, this revenue source will increase when a purveyor approves a retail rate increase, when the Authority increases the RCmC and when additional customers are added to the system. The RSS will decrease when customers conserve water or when sales decline for other reasons. The budgeted amount is based upon a study of historical trends.

Interfund Loan. The NEDS sub fund can provide loans to the following sub funds – 1) the WDO sub fund to aid in providing a stable electricity charge to the wholesale delivery charge, 2) the Las Vegas Wash sub fund to fund capital projects, and 3) the Major Construction and Capital sub fund to fund capital projects while new-money bond issues are being finalized.

The 2013/2014 budget projects that the NEDS will loan the Las Vegas Wash capital sub fund $3.5 million. Neither the Major Construction and Capital sub fund nor the WDO sub fund will need to borrow from the NEDS in fiscal 2013/2014.

Sales Tax. The Clark County Water and Wastewater Infrastructure Sales Tax went into effect on April 1, 1999. This increased the sales tax rate in Clark County from 7.0% to 7.25%. The tax is collected by the Nevada Department of Taxation (DOT) and remitted to the Authority monthly. Of the gross amount received from the DOT, approximately 3.3% is forwarded to rural areas in the county, 4.0% is held in reserve by the Authority to fund needed capital improvements in the Las Vegas Wash, and the remaining 92.7% is available to fund water and waste water capital improvements in the Authority's service area. Sales tax is intended to reduce the increases required in the RCnC and the RCmC.

By agreement with the wastewater agencies in the Authority's service area, SNWA received 100% 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.

Sales tax retained by the NEDS over the last ten calendar years is graphically displayed in Figure M.

The 2013/2014 projection of sales tax revenue is $3.5 million (7.9%) higher than the 2012/2013 budget. Sales tax revenues are improving but are still down from peak amounts. When comparing recent collections to their corresponding month of the previous year, sales tax revenues have increased in 29 of the last 30 months (through February, 2013). The 2013/2014 budget forecasts stronger collections in the upcoming year based on this trend and other historical components.

Other Revenues. These minor revenues come mainly from the Authority's northern resource holdings and miscellaneous billings

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to purveyor members. The 2013/2014 projection shows a $3.2 million (-74.2%) decrease over the 2012/2013 budget. The decrease is mainly attributable to reclassification of revenues previously shown in this category to categories that more closely describe their foundation.

Grant Proceeds. The NEDS receives a small amount of grant proceeds to aid the Conversation division in their vital work.

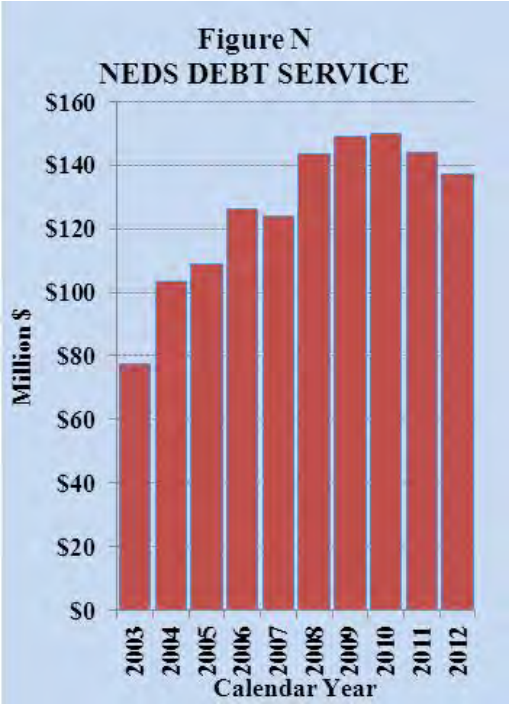
Interest Income. Interest income is revenue earned on previous connection charge collections and other revenue items for this sub fund that have yet to be used for construction or debt retirement. The Authority operates a comprehensive program that attempts to maximize the earnings on any funds awaiting use in the construction programs while minimizing the risk of arbitrage penalties from regulatory establishments. Interest income will decrease $0.1 million (-16.6%) over the 2012/2013 budget reflecting a continued weak investment market.

Labor. Beginning in fiscal 2012/2013, the NEDS paid all capitalized labor except that generated by the SNWA Engineering department on a pay-as-you-go basis. The IS charge established in 2012 will help pay for this additional labor in the sub fund. Prior to fiscal 2012/2013, NEDS only paid for labor supporting the Authority's conservation and northern resources activities. Because of this change in policy, labor costs for fiscal 2012/2013 jumped dramatically. Labor for fiscal 2013/2014 is projected to increase $1.2 million (5.5%). The increase is attributed to a reclass of labor between the NEDS and the MCCP sub funds.

Capitalized Expenses. Capitalized expenses in the NEDS include expenses attributed to the Authority's conservation programs such as rebate programs for irrigation clocks, swimming pool covers, and use of commercial car washes, and operating expenses from the Authority's northern resources operations. Expenses are anticipated to increase $2.7 million (36.0%) over the 2012/2013 budget. The vast majority of this increase comes from the District's Public Services department's expansion of the Water Works Museum at the Springs Preserve and additional requests for capital items at the Authority's northern resources operations.

Debt Service Payments. This reflects any debt issues that are directly associated with construction and expansion of the Authority treatment and transmission system. Included here are projects in the Authority's Major Construction and Capital Plan whose debt service is not covered by the WDO sub fund. This consists of fourteen bonds in their entirety, the partial debt service of eight other debt issues, and a major portion of the Authority's commercial paper program.

Figure N shows the recent history of debt service expenses in the NEDS.



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Growth in the early 2000's was a function of increasing SNWA's distribution system to supply infrastructure to southern Nevada's growing population. The slight decline since 2010 reflects SNWA's aggressive efforts to restructure debt for cash flow relief and to refinance debt to take advantage of historically low borrowing costs.

Debt service payments are anticipated to increase $1.2 million (0.9%) compared to the 2012/2013 budget. The vast majority of the increase is due to a reduced credit payment income reimbursement from the Federal government on SNWA's Build America Bonds. The Authority continues its mission of refunding coupons from existing bonds whenever practical to obtain short term cash flow relief if needed or long term cash savings.

MAJOR CONSTRUCTION AND CAPITAL PLAN (MCCP) SUB FUND

The MCCP sub fund receives bond proceeds and pays construction costs related to the Authority's transmission and distribution system as well as costs associated with obtaining additional water resources for the Authority's area.

Table 6 on the following page presents the MCCP sources and uses of funds.

Debt Issuance Proceeds. The Authority follows a comprehensive cash management program to provide needed construction and operation funds at the lowest cost possible. Debt issues are usually sized to fund projected construction costs for eighteen to twenty four months. The Authority sizes bond issues to provide maximum capital expense coverage while minimizing the possibility of any possible arbitrage penalties.

No new debt issues are planned for fiscal 2013/2014. The most recent bond issue (July 2012) should provide sufficient funds for SNWA's capital projects during the year.

Interest Income. Interest income is revenue earned from interest earnings on debt proceeds yet to be used for construction. Interest income is anticipated to decrease $0.6 million (-63.5%) during the 2013/2014 budget period. As the proceeds from the July 2012 are used, there will be less money to invest.

Interfund Loan. As described above in the NEDS segment, the MCCP can borrow money from NEDS if it runs out of construction funds before a new-money bond issue is finalized. Such was the case from April to July 2012 when the MCCP borrowed $38.6 million of the projected $39.6 million from NEDS and repaid the sub fund with proceeds from the LVVWD 2012B bond issue. Bond funds should be sufficient in fiscal 2013/2014 to the need of a loan from NEDS.

Grant Proceeds. This minor category of revenues anticipates the minimal grants that MCCP receives.

Labor. The labor category reflects internal labor costs associated with the Authority's construction programs and WaterSmart Landscaping (WSL) program. Beginning with the fiscal 2012/2013 budget, capitalized labor from all departments except SNWA Engineering is being paid on a pay-as-you-go basis with capital revenues from the NEDS (see NEDS above). This led to the dramatic reduction in labor costs for fiscal 2012/2013. For fiscal 2013/2014, labor is anticipated to decrease $1.8 million (-18.9%) reflecting SNWA's continuing effort

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TABLE 6
2013 / 2014 BUDGET -- SUMMARY
MAJOR CONSTRUCTION AND CAPITAL PLAN SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2014

	2011/2012 Actual	2012/2013 Budget	2013/2014 Budget
SOURCES OF FUNDS			
Debt Issuance Proceeds	$ 999,536	$ 360,000,000	$ -
Interest Income	56,609	899,536	327,901
Interfund Loan	41,492,826	(39,600,000)	-
Grant Proceeds	-	-	60,000
TOTAL SOURCES OF FUNDS	**$ 42,548,971**	**$ 321,299,536**	**$ 387,901**
USES OF FUNDS			
Labor	$ 24,071,575	$ 9,750,194	$ 7,906,713
Capitalized Expenses	23,771,769	27,834,826	24,620,909
Energy	-	3,156,536	2,833,787
Construction Expenditures	69,388,378	168,706,854	107,177,187
TOTAL USES OF FUNDS	**$ 117,231,722**	**$ 209,448,410**	**$ 142,538,596**
TOTAL SOURCES IN EXCESS (LESS THAN) TOTAL USES	**$ (74,682,751)**	**$ 111,851,126**	**$ (142,150,695)**

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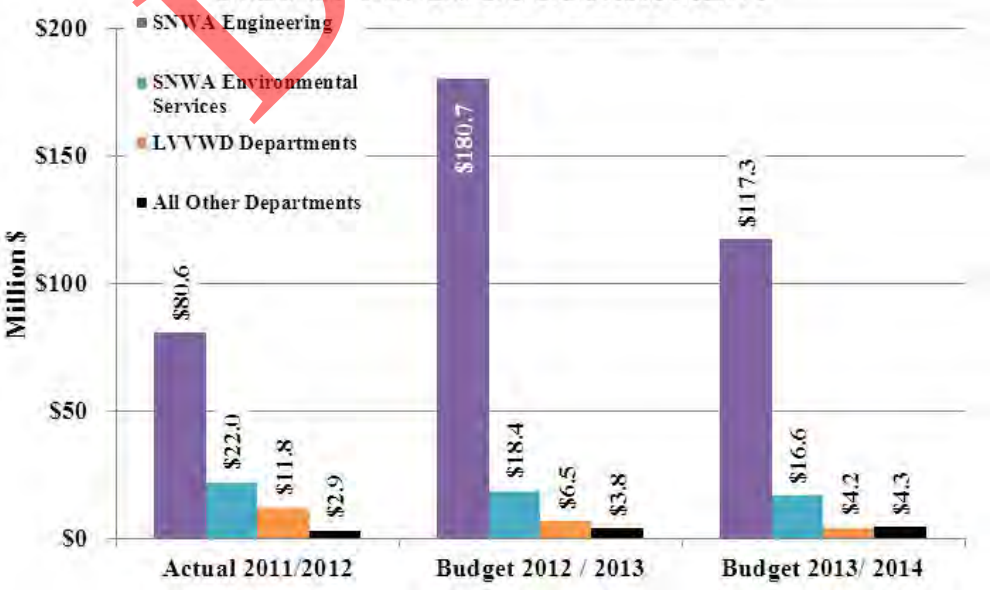
Figure O
MCCP / BOND
USES OF FUNDS BY DEPARTMENT



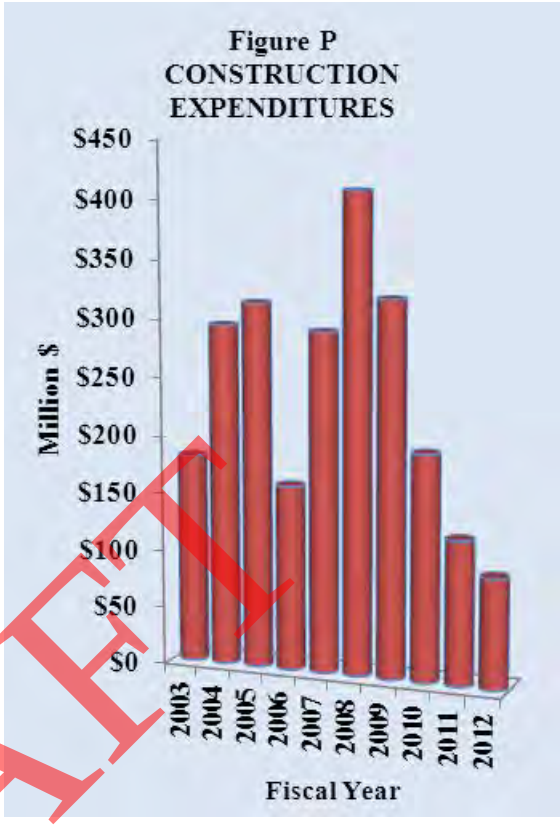
to trim labor costs whenever possible and ensure that the proper revenue sources are paying labor specific to a sub fund's undertaking.

Capitalized Expenses. These expenses, paid with bond proceeds, are shown in the SNWA's capital plan. Although operating in nature, these costs will be capitalized as they relate to capital activity with the company. Examples of these costs include WSL rebates, professional and technical services related to capital actions, legal fees and expenses, rent expenses for the SNWA Engineering staff, and research and studies. This cost category is projected to decrease $3.2 million (-11.5%) in fiscal 2013/2014. The majority of the decrease is a reclassification. Some costs that were displayed in last year's budget as MCCP capitalized expenses are now being shown in their proper sub funds. SNWA is continually refining its recordkeeping to make certain that revenues and expenses are properly classified and reported.

Energy. Capitalized energy will be used during construction of a tunnel that will house Intake No. 3. Energy expenses for MCCP are projected to decrease $0.3 million (-10.2%) in fiscal 2013/2014.

Construction Expenditures. Construction expenditures mainly represent payments to outside contractors involved in major projects from the Authority's Board approved capital plan (see section 7). Some examples of these capital costs are construction costs for transmission and distribution systems, payments for construction of an additional intake in Lake Mead and resource payments for water acquisition in various portions of the state.

Figure P shows the volume on construction expenditures over the past ten fiscal years.



The timing of construction expenditures is based primarily on the projection of water resources needed to service expected residential and visitor population and the underlying capital to provide water services to the Authority's purveyors.

Construction expenditures to be paid with debt proceeds from this sub fund are projected to decrease a hefty $61.5 million (-36.5%) in 2013/2014. The reduction is the result of several factors – 1) projected capital costs for Intake No. 3 at Lake Mead are $42.5 million less than projections for fiscal 2012/2013 and 2) the Authority's Finance and Engineering departments made a concentrated effort in the previous twelve months to identify cost components of the MCCP and to accurately categorize these costs in both the Board approved MCCP and annual financial budget.

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Construction Expenditures / Capital Expenditures. Since the Authority pays for construction expenditures in three different sub funds (NEDS, MCCP and Las Vegas Wash), this section has been designated as the area to describe capital expenditures in detail since the majority of dollars are spent through the MCCP sub fund.

The Authority defines capital expenditures as fixed assets having a value of over $5,000 and an estimated life of over three years. In general, routine capital expenditures are shown in the "capitalized expenses" portions of the budget. As mentioned previously these expenses include capital items with average lives less than ten years and items that must be replaced frequently as well as costs associated with the construction of major capital items. Examples of these items include vehicles, pumps, water treatment equipment, professional services contracts and ancillary expenses. The total of these items is usually low compared to construction expenditures and rarely affects the budget adversely.

Capital costs that are not routine and have longer useful lives are accounted for in the Authority's annual capital plans for its two major projects –

- ***Major Construction and Capital Plan (Section 7)*** covers costs associated with building the River Mountains water treatment facility, its associated transmission additions and improvements, the Lake Mead Intake No. 3, the acquisition of additional water resources, and support and maintenance of existing facilities.

- ***Las Vegas Wash Capital Plan (Section 8)*** covers costs associated with supporting long term enhancement and management of the Las Vegas Wash.

Las Vegas Wash capital expenses are paid mainly with sales tax revenues. See Las Vegas Wash later in this section. Capitalized labor from all departments except SNWA Engineering is paid through the NEDS. All other construction expenditures are paid by the MCCP. By paying for costs on a pay-as-you-go basis through the NEDS, the Authority attempts to minimize financing costs for capital expenditures while maintaining financial stability.

Table 7 on the following page shows a summary of major capital expenditures presented in the fiscal 2013/2014 budget. All expenditures in the MCCP sub fund (payroll, operating expenses, construction expenses, etc.) are included in the grand totals of the chart.

As seen in the table, approximately 70% of projected capital costs will be spent on two major projects – 070F Lake Mead Intake No. 3 and 090F Water Resource Acquisition. A brief description follows. The reader is also directed to Section 7 where 070F (page 7-19 to 7-20) and 090F (page 7-8) are explained in greater detail.

<u>070F Intake No. 3</u>

070F is a capital project that will place a third intake pipe at a low level of Lake Mead to allow the Authority to continue drawing water from the lake as its elevation continues to fall from the current extended drought. Its scheduled completion date is calendar 2014. Since the new intake will not require its own pumping facilities during its initial years and since the vast majority of the capital will be buried underground and will be relatively new, no additional increase in operating expenses are anticipated in the foreseeable future for its use. The only thing that possibly could be attributed to Intake No. 3 is internal labor which is currently being capitalized during the construction project. It is possible (though

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TABLE 7
MAJOR NON ROUTINE CONSTRUCTION EXPENDITURES *
Fiscal Year Ending June 30, 2014
In Million Dollars

	Project Number	SUB FUND PAYING EXPENSES ** NEDS	MCCP	Las Vegas Wash	Total
MAJOR CONSTRUCTION AND CAPITAL PLAN					
Lake Mead Intake #3	070F	$0.0	$101.6		$101.6
Water Resource Acquisition	090F	19.8	15.6		35.4
Groundwater Development	090G	12.7	2.8		15.5
13 Additional Projects	xxxx	0.3	22.6		22.9
Total MCCP		$32.8	$142.5	$0.0	$175.3
LAS VEGAS WASH					
Three Kids Weir	810K			$10.1	$10.1
Archery Weir	810Z			5.0	5.0
Silver Bowl Weir	810U			4.8	4.8
All Other Projects	xxxx			0.6	0.6
Total Las Vegas Wash		$0.0	$0.0	$20.5	$20.5
TOTAL EXPENDITURES		**$32.8**	**$142.5**	**$20.5**	**$195.8**

* Unlike the Authority's Capital Plan, the annual budget is not built per project. Numbers shown in this chart are estimates.
** Total subfund expenses less debt service for NEDS.

TABLE 8
ESTIMATED OPERATING IMPACT OF NON ROUTINE CAPITAL ADDITIONS
PROJECTED FOR THE FIVE FISCAL YEARS 2014 TO 2018

Fiscal Year of Capital Asset Addition	Estimated Annual Expenses Related to Capital Additions 2015	2016	2017	2018	2019
070F	$ 300,000	$ 619,200	$ 639,014	$ 659,463	$ 680,566
090F	-	-	-	-	-
All other					
2014	-	4,695,383	5,273,892	6,157,601	7,473,292
2015		-	197,133	213,010	239,254
2016			-	-	-
2017				-	-
2018					-
	$ 300,000	$ 5,314,583	$ 6,110,040	$ 7,030,074	$ 8,393,112

The reader must understand caveats described in this document before utilizing information in this table.

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not probable) that about half of workers could be charging their time to operational costs after the project completes. This would add approximately $600,000 to annual operating costs with a similar amount in succeeding years, adjusted for inflation.

090F Water Resource Acquisition

090F is a capital project whose primary purpose is to acquire and develop water rights as well as promote conservation through turf rebates and other consumer conservation programs. With the stagnant growth currently seen in the Las Vegas valley and the declining water sales as explained later in the WDO portion of this section, the conservation portion of this capital project actually decreases operational costs. While most operational costs are fixed on a volumetric basis, energy and chemical units do decrease when fewer acre-feet are pumped. Of course these costs can escalate if the suppliers of chemicals or energy decide to raise their per-unit costs. Naturally, increases such as this are out of the control of SNWA. The Authority therefore assumes that the unit savings in the future will be negated by cost increases by the suppliers thereby making total impact on operational costs from conservation to be zero. Water rights that are developed will only turn into additional operational expenses if demand increases. Since projections for growth in the valley show lackluster growth for the immediate future, the Authority believes that the near term impact of water rights on operating expenses will be negligible.

Projecting long term additional operating expenses of future capital projects including the ones described above is tenuous at best. Capital projects are instituted for two major reasons – 1) to ensure that end users have a reliable, consistent source of water and 2) to deliver that water in the most economical manner possible. Very few of the projects shown in Sections 7 and 8 are unique and stand alone on their own. 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 operating costs for one section of the project may cause a reduction in another connected portion.

The Authority'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. And the Authority uses internal cost controls to ensure that operation funds are spent in the most conscientious manner possible. But even with comprehensive controls such as these, estimating long range operating costs especially in current financial conditions rarely provides dependable data.

The Government Finance Officers' Association requires that –

> *The (budget) document should describe if and to what extent significant nonroutine capital expenditures will affect the entity's current and future operating budget and the services that the entity provides. This criterion asks for the identification of significant financial impacts. The entity may make its own determination of what is "significant".*

The Authority chooses to define "significant" as additional operating costs that might occur in the next five years. Table 8 on the preceding page presents a five year estimate of these impacts. With the exception of the major projects previously described, most of the amounts were calculated using historical ratios of

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TABLE 9
2013 / 2014 BUDGET -- SUMMARY
LAS VEGAS WASH OPERATIONS SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2014

	2011/2012 Actual	2012/2013 Budget	2013/2014 Budget
SOURCES OF FUNDS			
LV Wash Program Fees	$ 744,577	$ 827,931	$ 1,175,803
Sales Tax	2,975,620	3,090,490	3,344,599
Interfund Loan	400,140	5,106,485	3,468,216
Interest Earnings	(12,362)	1,809	762
Grant Proceeds	5,888,857	1,099,750	15,206,600
TOTAL SOURCES OF FUNDS	**$ 9,996,832**	**$ 10,126,465**	**$ 23,195,980**
USES OF FUNDS			
Labor	$ 1,167,577	$ 1,606,545	$ 1,301,635
Operating Expenses	462,350	1,463,354	1,329,202
Construction Expenditures	9,239,813	7,745,015	20,500,000
TOTAL USES OF FUNDS	**$ 10,869,740**	**$ 10,814,914**	**$ 23,130,837**
TOTAL SOURCES IN EXCESS (LESS THAN) TOTAL USES	**$ (872,908)**	**$ (688,449)**	**$ 65,143**

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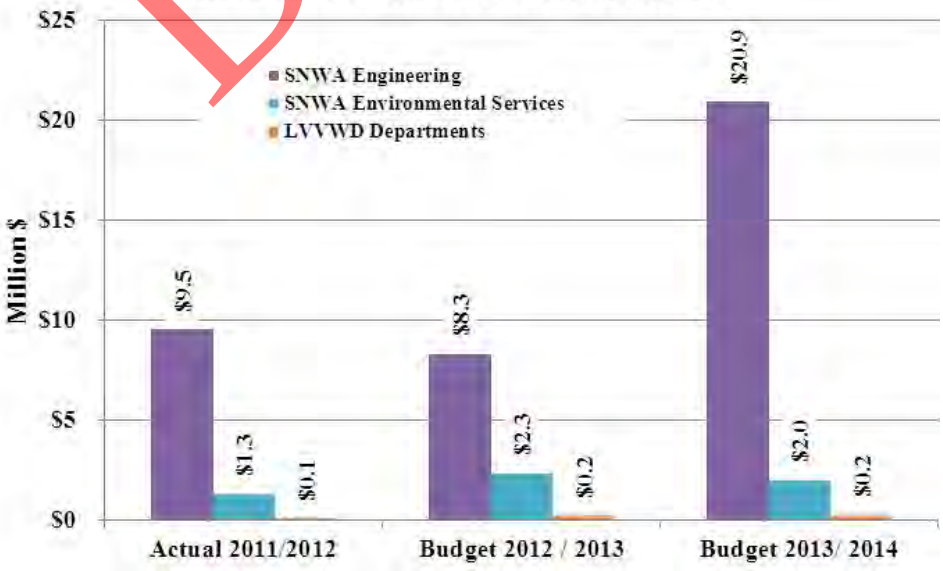
Figure Q
LAS VEGAS WASH
USES OF FUNDS BY DEPARTMENT



operating cost per unit of new capital, were increased for anticipated future inflation, and were decreased for projected savings and benefits that the projects may provide. Please note that there are no major capital projects scheduled to be completed in fiscal years 2016 through 2018 thereby resulting in no projected increase in operating expenses for those capital years.

The Authority does not levy taxes and only receives sales taxes as described in the NEDS section. The sales tax rate is capped and cannot be increased. Revenue sources shown in this section and other sub fund sections within the budget plan are constantly reviewed for adequacy. The Authority has never had to reduce spending in one sub fund to pay for the expenses of another sub fund, and does not anticipate having to do this in the near future even in the current challenging economic climate.

LAS VEGAS WASH (LVW) SUB FUND

The LVW sub fund tracks capital and operational revenues and expenses pertaining to 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.

As shown on page 3-8, the Authority maintains two separate sub funds for the LVW – one capital and one operating. However since the operating fund is so small compared to the remainder of the budget, its sources and uses are presented here to reduce redundancy of description.

Table 9 on the preceding page presents the LVW sources and uses of funds.

Las Vegas Wash Program Fees. The Authority 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 that establishes funding of the LVW annual operations. Each participant will be billed for budgeted costs according to the interlocal agreement. The program fees are projected to increase $0.3 million in fiscal 2013/2014. The increase in billed fees is primarily a result of an increase in operating expenses and a slight decrease in expected grant proceeds which can specifically be used for operations.

Sales Tax. As explained in the NEDS section, 4.0% of the collected sales tax is retained by the LVW sub fund. Sales tax can only be used for construction expenditures, not for labor or operating expenses. The increase of $0.3 million for 2013/2014 reflects projection techniques described in the NEDS section.

Interfund Loan. As described previously the LVW sub fund borrows money from the NEDS for construction expenses. The LVW sub fund expects to reimburse the NEDS sub fund with future sales tax revenues and program fees. The LVW is projected to borrow $3.5 million in fiscal 2013/2014.

Interest Earnings. Interest earnings are minimal in this sub fund as the sub fund balance is rarely significant.

Grant Proceeds. Historically the LVW has attempted to acquire grant moneys from federal and state sources to help defray some construction costs. The amount shown in the 2013/2014 budget is much larger than in previous years and represents secured grants. As explained below, the LVW expects to increase construction activity

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which in turn will lead to increased grant proceeds when compared to previous years. This increase is totally attributable to grants that can be used for construction. As mentioned previously, grants obtained to help pay for operations costs are projected to be down slightly.

Labor. Labor costs are incurred for both the construction and operation of the specifically for the LVW project. Labor costs are projected to decrease $0.3 million in 2013/2014.

Operating Expenses. This category supports the daily tasks of the LVW operations. Costs are projected to decrease of $0.1 million in 2013/2014.

Construction Expenditures. These expenses are capital expenditures that provide the following benefits for the LVW program – channel bed stabilization, bank protection, revegetation, and other comprehensive programs. The increase in this line item's cost ($12.8 million, 164.7%) reflects the current work plan's estimated cash flows needs for the LVW and the anticipated ramp-up of construction activity for fiscal 2013/2014. Details of the larger capital projects can be found previously in this section (Table 7) or in the LVW CIP in Section 8.

OPERATING SUB FUNDS

WHOLESALE DELIVERY OPERATIONS (WDO) SUB FUND

The WDO sub fund tracks revenues and expenses incurred from the production and sale of potable water. The cities of Boulder City, Henderson and North Las Vegas, as well as LVVWD pay a per acre-foot charge for potable water delivered to them during the fiscal year. In addition the Big Bend Water District, the Clark County Water Reclamation District and the City of Las Vegas pay predetermined annual fees to cover anticipated expenses that benefit all of the Authority.

Table 10 on the following page presents the WDO sources and uses of funds.

Wholesale Delivery Charge (WDC). The WDC is the charge for treated Colorado River water that is delivered by the Authority to its purveyor members. Those purveyor members then sell that water to end-users. SNWA has no retail customers.

The Authority makes a concentrated effort to keep the WDC as low as possible. As explained in Power section following, the Authority has established a financing plan to bring stability to the WDC's major cost component, power.

Annually, financial representatives from the purveyors engaged in the retail sale of water meet to examine projections of water sales and operating expenses for the upcoming five years. At this time, costs and operations are analyzed and discussed, and a recommendation for the WDC is agreed upon. That recommendation is then taken to the Board along with the operating and capital budget for approval.

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TABLE 10
2013 / 2014 BUDGET -- SUMMARY
WHOLESALE DELIVERY OPERATIONS SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2014

	2011/2012 Actual	2012/2013 Budget	2013/2014 Budget
SOURCES OF FUNDS			
Wholesale Delivery Charge	$ 119,224,888	$ 117,498,863	$ 121,958,169
Interest Income	6,796	63,684	48,480
Other Revenues	195,771	(29,588)	582,817
TOTAL SOURCES OF FUNDS	**$ 119,427,455**	**$ 117,532,959**	**$ 122,589,466**
USES OF FUNDS			
Energy	$ 44,527,798	$ 39,311,358	$ 41,484,548
Labor	36,130,518	35,630,802	36,487,968
Operating Expenses	22,679,955	24,744,329	25,744,060
Debt Service Payments	11,628,231	13,494,249	13,711,411
TOTAL USES OF FUNDS	**$ 114,966,502**	**$ 113,180,738**	**$ 117,427,987**
TOTAL SOURCES IN EXCESS (LESS THAN) TOTAL USES	**$ 4,460,953**	**$ 4,352,221**	**$ 5,161,479**

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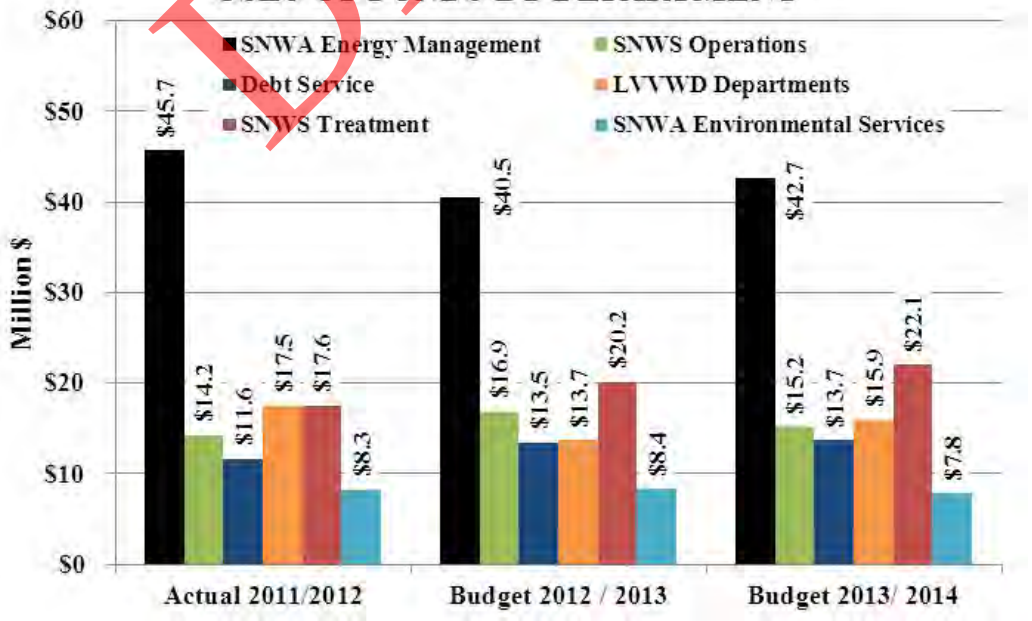
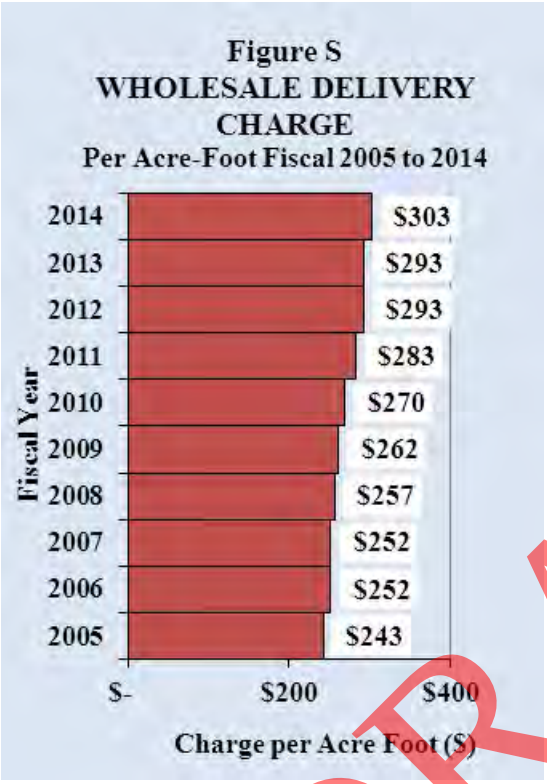
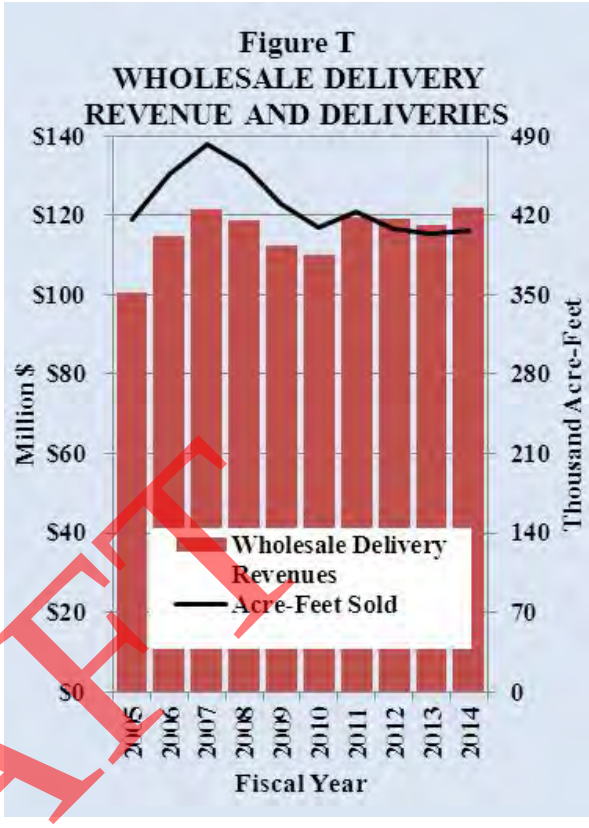
Figure R
WHOLESALE DELIVERY OPERATIONS
USES OF FUNDS BY DEPARTMENT



For fiscal 2013/2014 the WDC will increase $10 (3.4%) to $303 per acre-foot. Figure S shows how the WDC has grown in price over the last ten years.



Rate increases in recent years have kept total WDO revenues relatively stable during periods of declining usage. Figure T shows total WDC revenues and water deliveries for a ten year period. Notice that rate increases from the previous figure occurred in years where usage dropped but revenue stayed constant or increased slightly.



The $4.5 million (3.8%) increase in FY 2014's projected WDC revenue is solely the result of the per-unit price increase. Acre-feet delivery is projected to be relatively flat for fiscal 2013/2014.

Interest Income. Interest income is revenue earned from interest earnings on accumulated operating cash balances. Interest is projected to be a minor revenue source in fiscal 2013/2014 reflecting market interest rates on securities that SNWA is allowed to invest in via its investment policy.

Other Revenues. This consists of non-water sales revenues from the Authority's purveyors ($0.4 million), reimbursements of power expenses from non-SNWA purchasers ($0.7 million) and is reduced by the WDO's contribution to the Las Vegas Wash sub fund (-$0.5 million). The reduction is placed in this category to insure that the consolidated budget accurately reflects Las Vegas Wash contribution inflows from purveyors other than SNWA itself.

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Energy. Energy continues to be the single largest expense in the wholesale delivery charge. The Authority's Energy Department projects that approximately 5.4% fewer MWhs will be used in the 2013/2014 budget year due mainly the reduction in acre-feet projected to be sold. However the cost per MWh is projected increase about 8.3% when compared to the previous year. The combination of these factors results in a projected increase in energy costs of $2.2 million (5.5%).

Labor. Labor costs include wages, salaries, and all benefits. Labor expense is anticipated to increase $0.9 million (2.4%) over the fiscal 2012/2013 budget. The increase arises mainly from the reclassification of LVVWD employees. The fiscal 2013/2014 budget uses historical trends and input from the various departments to more closely reflect actual payroll amounts by sub fund.

Operating Expenses. Operating expenses for the WDO include, but are not limited to, water chemicals, data processing hardware and software, repair and replacement parts, and general and technical fees to outside research and professional companies. Additionally capital items such as vehicles, water treatment equipment, major repair items for the chlorine and water pumping systems and items with short useful lives are included in this amount. Expenses in this category are anticipated to increase by $1.0 million (4.0%) compared to the 2012/2013. The increase reflects inflationary pressures on consumable items used by SNWA's operations and treatment staff. SNWA is continuing working to reduce costs during the state's major recession without sacrificing quality of product or service.

Debt Service Payments. This reflects any debt issues that are directly associated with the current water delivery system. This consists of one bond issue in its entirety and the partial debt service of eight other debt issues. The $0.2 million (1.6%) increase in debt service payments mainly arises from anticipated increased costs in the Authority's commercial paper program.

GROUNDWATER PROGRAM (GW) SUB FUND

The GW sub fund tracks revenues and expenses incurred from the Authority's program to protect and manage the Las Vegas valley's primary groundwater supply. The program has established a permanent recharge program, increased water quality monitoring, and set up an inventory of active and abandoned wells.

Table 11 on the following page presents the GW sources and uses of funds.

Groundwater Management Fees. The groundwater management 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 Authority will have no recharge water available for purchase for the GW in 2013/2014. Consequently, the Authority will not charge the $17 portion of the groundwater management fee. This will be the third year that the recharge component will not be charged. Revenue is projected to be consistent with fiscal 2012/2013.

Interest Income. The Authority invests any idle funds as dictated by the Authority investment policy. Interest income, which is a function of the cash balance of the sub fund, is expected to be a minor income item in fiscal 2013/2014 budget year.

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TABLE 11
2013 / 2014 BUDGET -- SUMMARY
GROUNDWATER PROGRAM SUB FUND
FOR THE FISCAL YEAR ENDING JUNE 30, 2014

	2011/2012 Actual	2012/2013 Budget	2013/2014 Budget
SOURCES OF FUNDS			
Groundwater Management Fees	$ 925,189	$ 913,359	$ 913,345
Interest Income	1,774	6,306	5,285
TOTAL SOURCES OF FUNDS	**$ 926,963**	**$ 919,665**	**$ 918,630**
USES OF FUNDS			
Labor	$ 166,760	$ 380,825	$ 465,562
Operating Expenses	466,430	784,150	793,658
TOTAL USES OF FUNDS	**$ 633,190**	**$ 1,164,975**	**$ 1,259,220**
TOTAL SOURCES IN EXCESS (LESS THAN) TOTAL USES	**$ 293,773**	**$ (245,310)**	**$ (340,590)**

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Labor. Labor costs are incurred from staff in charge of updating groundwater databases, doing research into the quality and disposition issues of groundwater, and managing the groundwater recharge program. Costs for this classification are projected to increase $0.1 million (22.3%). SNWA has employed a concentrated effort in ensure that the individual sub funds pay expenses that are directly beneficial to them. The increase in labor costs comes from this analysis.

Operating Expenses. These expenses include but are not limited to costs associated with well conversions, plugging and abandonment, and costs from the recharge and conservation programs as they relate to the GM program. This category is expected to increase a modest $9,000.

NET POSITION

Net position is defined simply as the excess of an entity's assets over its liabilities. An enterprise net position differs dramatically from other governmental agencies' fund balances as the enterprise net position closely approximates a private corporation's retained earnings section. As such, net position is affected by operating items as presented in this document as well as other financial resources and expenditures.

Tables 2 to 4 previously presented the changes in cash balance for fiscal 2013/2014 by sub fund. Net position contains cash balances as well as net retained assets from previous years' activity. Additionally, net position is affected by certain items that are not budgeted in SNWA's cash basis

Table 12 on the following page summarizes the estimated change in net position for the 2013/2014 budget as shown in the Authority's State report which can be found on page 5-4.

Operating Revenues. This classification consists of wholesale delivery charge, net income from ranch operations, program fees collected from the operation of the Las Vegas Wash and groundwater management fees.

Capital Contributions. This classification consists of regional connection, commodity, reliability and infrastructure surcharge revenues as well as grant receipts.

Interest Earned. This classification represents interest earned on investments. The amount is reduced by any interest income that is used to offset capitalized interest expense.

Payroll and Related. This classification includes all non-capitalized labor costs.

Energy. As explained earlier in the budget plan, this classification consists of actual costs of energy obtained on the open market. The amount does not contain any energy costs that are anticipated to be incurred by capital projects.

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 Authority's treatment and distribution system and through the Las Vegas Wash and groundwater management program.

Depreciation Expense. This is an estimate of depreciation (a non-cash expense) that will be incurred in fiscal 2013/2014.

Capitalized Expenses. As explained previously, these expenses are identical to operating expenses, except that they are spent in the process of constructing and / or acquiring capital assets.

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Construction Expenditures. Construction expenditures mainly represent payments to outside contractors involved in major projects from the Authority's Board approved capital plan.

TABLE 12
SOUTHERN NEVADA WATER AUTHORITY
NET POSITION DETAIL FOR FISCAL YEAR 2013 / 2014

	Invested in Capital Assets, Net of Related Debt	Restricted	Unrestricted	Total Net Position
Estimated Net Position July 1, 2013	$ 859,513,931	$ 188,918,832	$ 284,490,287	$ 1,332,923,050
From Revenues, Expenses, and Net Income Schedule (RENI), Page 5-4				
Operating Revenue	$ -	$ -	$ 125,692,439	$ 125,692,439
Capital Contributions		1,200,000	200,491,955	201,691,955
Interest Earned	(327,901)		1,042,883	714,982
Payroll and Related	24,739,102		(68,607,709)	(43,868,607)
Energy	2,833,787		(44,318,335)	(41,484,548)
Operating Expenses			(37,866,920)	(37,866,920)
Depreciation Expense	(80,000,000)			(80,000,000)
Interest Expense (Debt Service)	90,646,037		(150,714,220)	(60,068,183)
Subtotal from RENI	$ 37,891,025	$ 1,200,000	$ 25,720,093	$ 64,811,119
Items not on RENI				
Capitalized Expenses	$ 34,928,671	$ (34,928,671)	$ -	$ -
Construction Expenditures	127,677,187	(127,677,187)		-
Subtotal Items non on RENI	$ 162,605,858	$ (162,605,858)	$ -	$ -
Estimated Net Position June 30, 2014	$ 1,060,010,814	$ 27,512,974	$ 310,210,380	$ 1,397,734,169

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Table 13 attempts to take the revenue and cost categories shown in Table 12 and display which sub fund(s) contributed to the amounts. Since the operating and capital budget is built on a cash basis and the net position chart is built on the basis of generally accepted accounting principles, some reconciling items are necessary. These are described in the table's footnotes.

TABLE 13
SOUTHERN NEVADA WATER AUTHORITY
NET POSITION DETAIL BY SUB FUND
FOR FISCAL YEAR 2013 / 2014

	New Expansion Debt Service	Major Construction & Capital	Las Vegas Wash	Wholesale Delivery Operations
Items Changing Net Position				
Operating Revenue	$ 1,102,305	$ -	$ 1,175,803	$ 122,500,986
Capital Contributions	183,040,756	60,000	18,551,199	40,000
Interest Earned	660,455	327,901	762	48,480
Payroll and Related	(22,445,831)	(7,906,713)	(1,301,635)	(36,487,968)
Energy		(2,833,787)		(41,484,548)
Operating Expenses			(1,329,202)	(25,744,060)
Depreciation Expense				
Interest Expense (Debt Service)	(137,002,809)			(13,711,411)
Items Changing Net Position	**$ 25,354,876**	**$ (10,352,599)**	**$ 17,096,927**	**$ 5,161,479**
Items Not Changing Net Position				
Interfund Loan	$ (3,468,216)		$ 3,468,216	
Capitalized Expenses	(10,307,762)	(24,620,909)	-	
Construction Expenditures	-	(107,177,187)	(20,500,000)	
Items Not Changing Net Position	**$ (13,775,978)**	**$ (131,798,096)**	**$ (17,031,784)**	**$ -**
Net Movement per Sub Fund	**$ 11,578,898**	**$ (142,150,695)**	**$ 65,143**	**$ 5,161,479**

Continued on next page

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TABLE 13
SOUTHERN NEVADA WATER AUTHORITY
NET POSITION DETAIL BY SUB FUND
FOR FISCAL YEAR 2013 / 2014
(continued)

	Ground-water Management	2013/2014 Budget and Adjustments	Total Net Position Annual Movement	Foot-note
Items Changing Net Position				
Operating Revenue	$ 913,345		$ 125,692,439	
Capital Contributions			201,691,955	
Interest Earned	5,285	(327,901)	714,982	(1)
Payroll and Related	(465,562)	24,739,102	(43,868,607)	(1)
Energy		2,833,787	(41,484,548)	(1)
Operating Expenses	(793,658)	(10,000,000)	(37,866,920)	(2)
Depreciation Expense		(80,000,000)	(80,000,000)	(3)
Interest Expense (Debt Service)		90,646,037	(60,068,183)	(4)
Items Changing Net Position	**$ (340,590)**	**$ 27,891,025**	**$ 64,811,118**	
Items Not Changing Net Position				
Interfund Loan		-	$ -	
Capitalized Expenses		34,928,671	-	(5)
Construction Expenditures		127,677,187	-	(5)
Items Not Changing Net Position	**$ -**	**$162,605,858**	**$ -**	
Net Movement per Sub Fund	**$ (340,590)**	**$190,496,883**	**$ 64,811,118**	

(1) Under GAAP, these amounts would be capitalized and would not appear on the statement of net position. Under a cash budget, they are shown in the same sub fund that provides the appropriate revenues to pay the expenses. Interest earned would reduce capitalized labor.

(2) These expenses, while operating capital in nature, are shown as operating expenses in GAAP statements.

(3) Depreciation is not shown in a cash basis budget.

(4) Cash basis budgeting projects total annual debt service. This adjustment reflects principal paid and interest expense that is capitalized.

(5) Cash basis budgeting shows these outflows of resources as a use. However they do not increase or decrease net position.

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SECTION 5

STATE BUDGET DOCUMENTS

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SOUTHERN NEVADA WATER AUTHORITY

FISCAL YEAR 2013/2014
OPERATING AND CAPITAL BUDGET

STATE OF NEVADA
DEPARTMENT OF TAXATION
Web Site: http://tax.state.nv.us
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
ROBERT R. BARENGO
Chair, Nevada Tax Commission
CHRISTOPHER G. NIELSEN
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

Nevada Department of Taxation
1550 College Parkway, Suite 115
Carson City, NV 89706-7921

Southern Nevada Water Authority herewith submits the (TENTATIVE) --- (FINAL) budget for the fiscal year ending June 30, 2014

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 $ 263,288,258

Copies of this budget have been filed for public record and inspection in the offices enumerated in NRS 354.596 (Local Government Budget and Finance Act).

CERTIFICATION

I Philip D. Speight
(Printed Name)
Deputy General Manager of Administration
(Title)
certify that all applicable funds and financial operations of this Local Government are listed herein

Signed Philip D. Speight

Dated: 4-15-13

APPROVED BY THE GOVERNING BOARD
Shari Buck, Chairwoman

Mary Beth Scow, Vice Chairwoman

Sam Bateman

Susan Brager

Bob Coffin

Duncan McCoy

Steve Sisolak

SCHEDULED PUBLIC HEARING:

Date and Time 5/16/13 9:00 AM Publication Date 5/6/2013

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

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FULL TIME EQUIVALENT EMPLOYEES BY FUNCTION

	ACTUAL PRIOR YEAR ENDING 06/30/12	ESTIMATED CURRENT YEAR ENDING 06/30/13	BUDGET YEAR ENDING 06/30/14
General Government			
Judicial			
Public Safety			
Public Works			
Sanitation			
Health			
Welfare			
Culture and Recreation			
Community Support			
TOTAL GENERAL GOVERNMENT	498.00	496.14	475.37
Utilities			
Hospitals			
Transit Systems			
Airports			
Other			
TOTAL	498.00	496.14	475.37

POPULATION (AS OF JULY 1)	2,002,000	2,057,000	2,112,000
SOURCE OF POPULATION ESTIMATE*	Center for Business & Econ Research UNLV	Center for Business & Econ Research UNLV	Center for Business & Econ Research 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	N/A	N/A	N/A

*** 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

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SCHEDULE A-2 PROPRIETARY AND NONEXPENDABLE TRUST FUNDS

Budget For Fiscal Year Ending June 30, 2014

Budget Summary for Southern Nevada Water Authority
(Local Government)

FUND NAME	*	OPERATING REVENUES (1)	OPERATING EXPENSES (2) **	NONOPERATING REVENUES (3)	NONOPERATING EXPENSES (4)	OPERATING TRANSFERS IN (5)	OPERATING TRANSFERS OUT(6)	NET INCOME (7)
Southern Nevada Water Authority Proprietary Fund		$125,692,439	$203,220,075	$202,406,937	$60,068,183			$64,811,119
TOTAL								

* FUND TYPES: E - Enterprise
I - Internal Service
N - Nonexpendable Trust

** Include Depreciation

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Form 7
11/1/2012

DRAFT

PROPRIETARY FUND	(1) ACTUAL PRIOR YEAR ENDING 6/30/2012	(2) ESTIMATED CURRENT YEAR ENDING 6/30/2013	(3) BUDGET YEAR ENDING 06/30/14 TENTATIVE APPROVED	(4) FINAL APPROVED
OPERATING REVENUE				
Wholesale Delivery Charge	$119,239,660	$117,498,863	$121,958,169	
Groundwater Program Revenue	867,716	913,359	913,345	
Purveyor Administration Cost Billings	318,886	301,584	1,013,138	
Las Vegas Wash Revenues	397,407	496,759	705,482	
Other Operating Revenue	2,705,745	1,099,750	1,102,305	
Total Operating Revenue	$123,529,414	$120,310,315	$125,692,439	$0
OPERATING EXPENSE				
Personnel and Related	$43,450,464	$43,405,732	$43,868,607	
Energy	44,527,798	39,311,358	41,484,548	
Other	37,685,150	38,991,833	37,866,920	
Depreciation/Amortization	74,918,789	76,000,000	80,000,000	
Total Operating Expense	$200,582,201	$197,708,923	$203,220,075	$0
Operating Income or (Loss)	($77,052,787)	($77,398,608)	($77,527,636)	$0
NONOPERATING REVENUES				
Interest Earned	$869,505	$1,762,923	$714,982	
Property Taxes		-		
Subsidies				
Consolidated Tax				
Capital Contributions	135,679,772	197,998,278	201,691,955	
other	37,112	-	-	
Total Nonoperating Revenues	$136,586,389	$199,761,201	$202,406,937	$0
NONOPERATING EXPENSES				
Interest Expense	$56,700,015	$61,726,000	$60,068,183	
Amortization of Refunding Costs	2,254,389	-	-	
Amortization of Debt Issuance Costs	4,052,766	-	-	
Total Nonoperating Expenses	$63,007,170	$61,726,000	$60,068,183	$0
Net Income before Operating Transfers	($3,473,568)	$60,636,593	$64,811,119	$0
Operating Transfers (Schedule T)				
In				
Out				
Net Operating Transfers	$0	$0	$0	$0
NET INCOME	($3,473,568)	$60,636,593	$64,811,119	$0
			OK	

Southern Nevada Water Authority
(Local Government)

SCHEDULE F-1 REVENUES, EXPENSES AND NET INCOME

FUND Enterprise

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Form 19
11/1/2012

DRAFT

PROPRIETARY FUND	(1) ACTUAL PRIOR YEAR ENDING 6/30/2012	(2) ESTIMATED CURRENT YEAR ENDING 6/30/2013	(3) BUDGET YEAR ENDING 06/30/14 TENTATIVE APPROVED	(4) FINAL APPROVED
A. CASH FLOWS FROM OPERATING ACTIVITIES:				
General and Administrative/Resources Charges	$1,179,012	$301,584	$1,013,138	
Groundwater Management Fees	867,716	913,359	913,345	
Las Vegas Wash Revenues	397,407	496,759	705,482	
Wholesale Delivery Charges	114,883,588	117,498,863	121,958,169	
Other Revenues	2,102,013	1,099,750	1,102,305	
Cash Payments to Suppliers of Goods and Services	(118,462,066)	(121,708,923)	(123,220,075)	
a. Net cash provided by (or used for) operating activities	$967,670	($1,398,608)	$2,472,364	$0
B. CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:				
b. Net cash provided by (or used for) noncapital financing activities	$0	$0	$0	$0
C. CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:				
Purchase or Construction of Capital Assets	($133,490,427)	($209,448,410)	($142,538,596)	
Proceeds from Disposal of Property and Equipment	45,163			
Proceeds of Debt Issuance	4,832,439,536	3,860,000,000	2,900,000,000	
Principal Paid on Debt	(4,850,140,752)	(3,515,715,006)	(2,916,872,459)	
Interest Paid on Debt	(140,829,557)	(144,446,242)	(133,841,761)	
Capital Contributions	115,188,720	197,998,278	201,691,955	
Credit Payment Income	10,867,008	10,867,008	10,867,008	
c. Net cash provided by (or used for) capital and related financing activities	($165,920,309)	$199,255,628	($80,693,853)	$0
D. CASH FLOWS FROM INVESTING ACTIVITIES:				
Purchases of Investment Securities	($176,011,316)	($250,000,000)	($165,000,000)	
Proceeds from Sales or Maturities of Investment Securities	55,250,000	190,370,124	102,506,507	
Investment Earnings	761,815	1,762,923	714,982	
d. Net cash provided by (or used in) investing activities	($119,999,501)	($57,866,953)	($61,778,511)	$0
NET INCREASE (DECREASE) in cash and cash equivalents (a+b+c+d)	($284,952,140)	$139,990,067	($140,000,000)	$0
CASH AND CASH EQUIVALENTS AT JULY 1, 20xx	374,962,073	90,009,933	230,000,000	230,000,000
CASH AND CASH EQUIVALENTS AT JUNE 30, 20xx	$90,009,933	$230,000,000	$90,000,000	$230,000,000

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Southern Nevada Water Authority
(Local Government)

SCHEDULE F-2 STATEMENT OF CASH FLOWS

FUND_____Enterprise_____

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Form 20
11/1/2012

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

* - Type
1 - General Obligation Bonds
2 - G.O. Revenue Supported Bonds
3 - G.O. Special Assessment Bonds
4 - Revenue Bonds
5 - Medium-Term Financing
6 - Medium-Term Financing Lease Purchase
7 - Capital Leases
8 - Special Assessment Bonds
9 - Mortgages
10 - Other (Specify Type)
11 - Proposed (Specify Type)

(1) NAME OF BOND OR LOAN List and Subtotal By Fu	(2) *	(3) TERM	(4) ORIGINAL AMOUNT OF ISSUE	(5) ISSUE DATE	(6) FINAL PAYMENT DATE	(7) INTEREST RATE	(8) BEGINNING OUTSTANDING BALANCE 7/1/2013	(9) REQUIREMENTS FOR FISCAL YEAR ENDING 06/30/14 INTEREST PAYABLE	(10) PRINCIPAL PAYABLE	(11) (9)+(10) TOTAL
State Revolving fund Loan 1	2	20 Years	$12,269,695	12/30/99	2/1/20	3.61%	$5,318,736	$185,918	$680,745	$866,663
State Revolving Fund Loan 2	2	20 Years	$10,000,000	6/29/01	7/1/21	3.46%	$5,094,549	$171,768	$525,174	$696,941
LVVWD 2005F Refunding Bonds	2	21 Years	$249,365,000	5/1/05	12/1/26	5.00%	$173,520,000	$8,676,000	$0	$8,676,000
LVVWD 2005H Refunding Bonds	2	22 Years	$36,130,000	4/15/05	6/30/27	4.75%	$31,620,000	$1,501,950	$0	$1,501,950
LVVWD 2005I Refunding Bonds	2	24 Years	$65,300,000	4/15/05	9/15/29	4.81%	$47,755,000	$2,266,938	$0	$2,266,938
SNWA 2006 Refunding Bonds	2	24 Years	$242,880,000	5/1/06	6/1/30	4.74%	$210,210,000	$9,806,469	$0	$9,806,469
CRC 2006D Refunding Bonds	2	18 Years	$111,840,000	7/15/06	7/1/24	4.96%	$66,200,000	$3,270,763	$0	$3,270,763
SNWA 1106 Bonds	2	30 Years	$604,140,000	11/1/06	11/1/36	4.41%	$533,020,000	$23,702,163	$0	$23,702,163
LVVWD 2008B Refunding Bonds	2	20 Years	$171,720,000	6/1/08	12/1/28	4.57%	$116,335,000	$5,623,931	$0	$5,623,931
SNWA 2008 Bonds	2	30 Years	$400,000,000	7/2/08	6/1/38	5.00%	$362,155,000	$18,107,750	$0	$18,107,750
SNWA 2008 Clean Energy	2	15 Years	$6,440,000	7/30/08	12/15/22	1.17%	$4,600,000	$51,129	$460,000	$511,129
LVVWD TECP Notes	2	N/A	$400,000,000	3/10/04	N/A	2.00%	$400,000,000	$8,000,000	$400,000,000	$408,000,000
LVVWD 2009A Bonds	2	30 Years	$90,000,000	8/10/09	6/1/39	7.10%*	$90,000,000	$4,348,076	$0	$4,348,076
LVVWD 2009B Bonds	2	30 Years	$10,000,000	8/10/09	6/1/39	4.73%	$10,000,000	$473,313	$350,000	$823,313
SNWA 2009 Refunding	2	20 Years	$50,000,000	11/10/09	6/1/30	5.00%	$48,220,000	$2,411,000	$1,865,000	$4,276,000
SNWA 2009 Water Rev Bond	4	20 Years	$2,750,000	11/10/09	7/1/30	0.00%	$2,087,917	$0	$126,540	$126,540
LVVWD 2009C Bonds	2	30 Years	$348,115,000	12/23/09	6/1/39	7.08%*	$348,115,000	$16,778,939	$0	$16,778,939
LVVWD 2009D Bonds	2	21 Years	$71,965,000	12/23/09	6/1/30	4.99%	$69,185,000	$3,453,738	$2,920,000	$6,373,738
CRC 2010B Bonds	2	10 Years	$7,405,000	6/24/10	6/1/20	3.63%	$7,405,000	$273,615	$945,000	$1,218,615
LVVWD 2011A Bonds	2	16 Years	$58,110,000	5/20/11	6/1/26	4.88%	$58,110,000	$2,705,755	$0	$2,705,755
LVVWD 2011B Bonds	2	27 Years	$129,650,000	10/19/11	6/1/37	5.56%	$129,650,000	$5,277,078	$0	$5,277,078
LVVWD 2011C Bonds	2	19 Years	$267,815,000	10/19/11	6/1/30	4.75%	$258,995,000	$12,682,663	$9,000,000	$21,682,663
SNWA 2012A Refunding	2	20 Years	$85,015,000	6/26/12	6/1/32	4.06%	$85,015,000	$3,455,600	$0	$3,455,600
LVVWD 2012B	2	30 Years	$360,000,000	7/31/12	6/1/42	3.93%	$360,000,000	$0	$0	$0
State 2013A Refunding	2	15 Years	$21,720,000	2/20/13	8/1/27	3.00%	$21,720,000	$617,210	$0	$617,210
TOTAL ALL DEBT SERVICE			$3,812,629,695				$3,444,331,202	$133,841,761	$416,872,459	$550,714,220

SCHEDULE C-1 - INDEBTEDNESS

Southern Nevada Water Autho Budget Fiscal Year 2013-2014
(Local Government)

Operating Interest	$	60,068,182.54
Capitalized Interest		73,773,578.91
Total Interest	$	133,841,761.45

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Form 22
11/1/2012

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Schedule of Existing Contracts
Budget Year 2013-2014

Local Government: Southern Nevada Water Authority
Contact: Phil Speight
E-mail Address: phil.speight@lvvwd.com
Daytime Telephone: 702-258-3106

61 Total Number of Existing Contracts

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Proposed Expenditure FY 2013-14	Proposed Expenditure FY 2014-15	Reason or need for contract:
1	Utility Resources	05/15/97	upon notice	$ 300,000.00	$ 300,000.00	PUC Consultant
2	Faiss Foley Warren	07/17/03	07/31/13	$ 60,000.00	$ -	Outreach support for watershed protection initiatives and water resource programs
3	Eureka Vet Service	02/01/08	12/31/14	$ 11,000.00	$ 11,000.00	Veternarian services
4	Kramer Levin Naftalis & Frankel	08/31/09	upon notice	$ 100,000.00	$ 100,000.00	Bankruptcy consulting
5	R&R Partners	11/05/09	10/31/15	$ 2,300,000.00	$ 2,300,000.00	Professional services for water conservation promotion
6	Hispana Comunicacion	02/16/10	01/31/15	$ 158,550.00	$ 266,200.00	SNWA Hispanic oriented advertising and marketing services
7	Piercy Bowler Taylor & Kern	03/02/10	06/03/15	$ 124,000.00	$ 124,000.00	Auditing Services
8	Lewis & Roca	03/22/10	upon notice	$ 100,000.00	$ 100,000.00	Legal Services
9	Kay Brothers	05/05/10	upon notice	$ 100,000.00	$ 100,000.00	Consulting services on water issues
10	Stratus Consulting	11/17/10	09/30/17	$ 34,000.00	$ 34,000.00	Support for WUCA workshop and whitepaper
11	Atkins North America Inc	07/28/11	upon notice	$ 50,000.00	$ 50,000.00	Surverying services
12	Soil Tech	09/01/11	08/31/16	$ 150,000.00	$ 150,000.00	Revegetation of Las Vegas Wash
13	PhycoTech Inc	10/25/11	upon notice	$ 50,000.00	$ 50,000.00	Water Quality Analysis for Phytoplankton
14	C. Joseph Guild III	01/31/12	upon notice	$ 64,000.00	$ 64,000.00	Ranch and Agricultural Consulting
15	Spring Valley Associates	04/12/07	12/31/15	$ 850,000.00	$ 850,000.00	Ranch Operations and Maintenance Services
16	C. Joseph Guild III	01/02/12	upon notice	$ 92,000.00	$ 92,000.00	Natural Resource and Water Issues Consulting
17	R&R Public Affairs	01/22/12	01/21/17	$ 75,000.00	$ 75,000.00	Consulting services for state and federal natural resource issues
18	Leonard, Street & Deinard	02/22/12	upon notice	$ 100,000.00	$ 100,000.00	Special Counsel to the Authority on general electricity matters
19	Hobbs, Ong and Associates	04/19/12	upon notice	$ 150,000.00	$ 150,000.00	Financial advisory services
20	Conservation District of Southern NV	07/31/12	07/31/17	$ 85,000.00	$ 85,000.00	Warm Springs Nat Area property management
22	HRA Inc	09/19/11	09/30/13	$ 35,000.00	$ -	Archaelogical Investigations in LV Wash
23	Muddy River Reg Env Inpact	11/27/12	11/30/17	$ 60,000.00	$ 60,000.00	Weed removal services
24	South Dakota Agricultural Labs	12/01/12	11/30/14	$ 3,000.00	$ 1,500.00	Analyze low level selenium concentrations
25	Nevada Conservation Corps	11/20/12	11/30/14	$ 20,000.00	$ 10,000.00	Reduce streamside vegetation in Warm Springs Natural Area
26	Purdue Marion and Associates	12/04/12	12/31/13	$ 53,000.00	$ -	Program strategy, message development and graphic design for solar rooftop initiative
27	Cross Sciences, Inc	11/01/12	12/31/13	$ 9,000.00	$ -	Team Coordination of solar rooftop initiative
28	Tri County Weed Control	01/09/13	12/31/17	$ 45,000.00	$ 45,000.00	Weed control in Warm Springs Nat Area
29	Laguna Productions	02/21/13	02/20/19	$ 145,000.00	$ 145,000.00	Production assistance
30	Sanborn Map Company	01/01/13	12/31/15	$ 130,000.00	$ 75,000.00	Digital imagery services
31	CDM Smith, Inc.	05/07/12	12/31/13	$ 125,000.00	$ -	Facilitation services
32	Holland & Hart	12/18/03	upon notice	$ 250,000.00	$ 250,000.00	Environmental compliance consulting

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Form 31
1-12-11

Schedule of Existing Contracts
Budget Year 2013-2014

Local Government: Southern Nevada Water Authority
Contact: Phil Speight
E-mail Address: phil.speight@lvvwd.com
Daytime Telephone: 702-258-3106

61 Total Number of Existing Contracts

33	Argus Engineering	02/12/13	02/11/16	$ 100,000.00	$ 100,000.00	Professional and support services for SNWS' SCADA system software
34	Taggart and Taggart	02/20/03	upon notice	$ 1,000,000.00	$ 1,000,000.00	Legal services
35	Stanka Consulting	01/01/07	upon notice	$ 150,000.00	$ 150,000.00	Water Rights Assessments and Reviews
36	A-1 Mechanical, Inc.	02/27/12	02/28/17	$ 120,000.00	$ 120,000.00	HVAC services, repairs and parts
37	Simplex Grinnell LP	06/13/12	06/30/17	$ 50,077.00	$ 50,077.00	Fire systems maintenance
38	Safe Electronics, Inc.	06/13/12	06/30/17	$ 42,000.00	$ 42,000.00	Fire systems maintenance
39	G&G Systems	06/13/12	06/30/17	$ 38,484.00	$ 38,484.00	Fire systems maintenance
40	ABC Fire & Cylinder	06/13/12	06/30/17	$ 17,800.00	$ 17,800.00	Fire systems maintenance
41	D4, LLC	12/03/12	10/01/13	$ 20,000.00	$ -	Arbitration document processing
42	Ircos, LLC	11/06/12	upon notice	$ 100,000.00	$ 100,000.00	Insurance coverage expertise
43	Michael Gay Sr, P.E.	10/11/12	upon notice	$ 100,000.00	$ 100,000.00	Arbitration preparation
44	FTI Consulting, Inc.	10/11/12	upon notice	$ 100,000.00	$ 100,000.00	Forensic accounting expertise
45	Geological Mapping, Inc.	09/27/12	08/31/13	$ 8,700.00	$ -	Mapping and report development
46	Michael J Brennan	08/23/12	07/01/18	$ 100,000.00	$ 100,000.00	Environmental compliance consulting
47	Holland & Hart	08/23/12	08/23/20	$ 100,000.00	$ 100,000.00	Nevada Power integrated resource plan litigation
48	Orange Legal Technologies	08/20/12	upon notice	$ 75,000.00	$ 75,000.00	Administrative record compilation
49	James Duffy O'Connor	08/06/12	upon notice	$ 100,000.00	$ 100,000.00	Arbitration panel member
50	Kenneth C. Gibbs	08/06/12	upon notice	$ 100,000.00	$ 100,000.00	Arbitration panel member
51	John W. Hinchey	08/06/12	upon notice	$ 100,000.00	$ 100,000.00	Arbitration panel member
52	Balance Environmental	06/26/12	upon notice	$ 65,000.00	$ 65,000.00	Ute ladies tresses surveys for ESPA Sec. 7
53	Warren Turkett	06/25/12	upon notice	$ 81,680.00	$ 81,680.00	Lower Colorado River water quality database
54	Robert W Johnson, LLC	06/06/12	06/06/15	$ 80,000.00	$ 80,000.00	Water availability outreach and planning services
55	Holland & Hart	05/22/12	05/22/19	$ 100,000.00	$ 100,000.00	Litigation related services
56	Artisan Spatial Technology, LLC	05/09/12	05/09/14	$ 83,000.00	$ -	Water rights surveying for Northern Resources
57	Digital Mapping, Inc. (DMI)	04/26/12	04/01/14	$ 48,600.00	$ -	Digital imagery services
58	Snell & Wilmer, LLP	04/11/12	04/11/20	$ 100,000.00	$ 100,000.00	Glen Canyon Dam environmental compliance
59	ASM Affiliates, Inc	04/06/12	upon notice	$ 98,830.00	$ 98,830.00	Tribal and Endagered Species Act consultation
60	University of Colorado	02/13/12	03/01/14	$ 38,400.00	$ -	Algae culturing, testing, literature review
61	EMA, Inc.	02/19/09	12/31/14	$ 2,850,000.00	$ 575,000.00	Professional services to support implementation of a new SCADA system
	Total Proposed Expenditures			**$ 11,796,121.00**	**$ 9,081,571.00**	

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Form 31
1-12-11

Schedule of Privatization Contracts
Budget Year 2013-2014

Local Government: Southern Nevada Water Authority
Contact: Phil Speight
E-mail Address: phil.speight@lvvwd.com
Daytime Telephone: 702-258-3106

Total Number of Privatization Contracts: 0

Line	Vendor	Effective Date of Contract	Termination Date of Contract	Duration (Months/ Years)	Proposed Expenditure FY 2013-14	Proposed Expenditure FY 2014-15	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										
11	Total									

Attach additional sheets if necessary.

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Southern Nevada Water Authority

SUMMARY OF VARIANCES BETWEEN CAFR BASED BUDGET* (PAGE 5-4) AND CASH BASED BUDGET* (PAGE 4-3)

Category	CAFR Based Budget	Adjustments	Foot-note #	Cash Based Budget
SOURCES OF FUNDS				
Wholesale Delivery Charge	$121,958,169			$121,958,169
Groundwater Program Revenue	913,345			913,345
Las Vegas Wash Revenues	705,482			705,482
Other Operating Revenue	1,102,305			
Purveyor Administration Cost Billings	1,013,138			
Other Revenues				2,115,443
Interest Income	714,982	$327,901	(1)	1,042,883
Capital Contributions	201,691,955			
Regional Connection Charge				13,142,254
Regional Infrastructure Charge			(2)	77,399,956
Regional Commodity Charge				39,257,838
Reliability Surcharge				4,783,017
Sales Tax				51,297,790
Grant Proceeds				15,811,100
TOTAL SOURCES OF FUNDS	**$328,099,376**	**$327,901**		**$328,427,277**
USES OF FUNDS				
Energy	$41,484,548	$2,833,787	(3)	$44,318,335
Payroll	43,868,607	24,739,102	(3)	68,607,709
Operating Expenses	37,866,920	(10,000,000)	(3)	27,866,920
Capitalized Expenses		34,928,671	(3)	34,928,671
Depreciation	80,000,000	(80,000,000)	(4)	
Cap/Const Expenditures		127,677,187	(5)	127,677,187
Debt Service	60,068,183	90,646,037	(6)	150,714,220
TOTAL USES OF FUNDS	**$263,288,258**	**$190,824,784**		**$454,113,042**
NET	**$64,811,119**	**($190,496,883)**		**($125,685,765)**

Footnotes on Following Page

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Southern Nevada Water Authority

SUMMARY OF VARIANCES BETWEEN CAFR BASED BUDGET* (PAGE 5-4) AND CASH BASED BUDGET* (PAGE 4-3)

FOOTNOTES --

* Budget shown in the State document (Page 5-4) is based on full accrual accounting following generally accepted accounting principals. It deals with only the operating issues of the company and does not show capital expenses through bond funds or pay-as-you-go capital applications. The cash based budget presented throughout this document is a full cash budget showing effects of both capital expenditures and operating expenditures.

(1) Difference attributed to capitalized interest which would not be shown as an expense in GAAP statements..

(2) State document requires that these revenues be shown as capital contributions. Since they are a vital part of the company's revenue stream, the budget document shows the components and gives detailed explanations as to their projected levels and intended uses.

(3) Fully loaded cash budget contains expenses intended to be spent on capital projects.

(4) Depreciation is not a cash item and is not projected in the cash budget.

(5) State document shows budget as an operating budget. These expenses are capital in nature.

(6) The CAFR budget shows only non capitalized interest. The fully loaded cash budget shows full debt service including non capitalized interest, capitalized interest, and principal payments.

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SECTION 6

DEPARTMENT BUDGET NARRATIVES

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SOUTHERN NEVADA WATER AUTHORITY

FISCAL YEAR 2013/2014
OPERATING AND CAPITAL BUDGET

RECONCILITAION OF DEPARTMENTAL BUDGETS

This section describes the various departments and work specialties within the Southern Nevada Water Authority (SNWA). Within each department's descriptions is a chart showing their requested share of the total budget shown in section 4 of this document.

The tables following this introduction take the amounts shown in the departmental budget descriptions and show their relation to the final budget requests or actual expenditures.

Please note –

- SNWA Energy Management's budget request for power costs includes associated debt service. As described in the operating and capital budget plan, SNWA uses a "model clearing price" (MCP) to establish the amount of power costs that will be covered by the wholesale delivery charge. This MCP consists of actual power expenses anticipated during the year along with the operation and maintenance costs and any payback of the interfund loan. When SNWA Energy Management submits their departmental budget, operation and maintenance costs are removed from the requested power costs, but debt service remains. Since the consolidated budget shows an exclusive line for debt service, the requested power costs must be reduced in the consolidated budget to avoid double counting this expenses. The following tables make this adjustment for both of the budget years presented.

- SNWA has two costs which are not assigned to any one specific department. Debt service and recharge purchases are added to the budget in addition to all departmental requests to complete the all-inclusive SNWA budget requests. In addition no department presents any revenue item in their budgets. These line items are calculated outside the departmental process and are thoroughly described in the operating and capital budget plan.

- SNWA departments are in a constant state of reapportionment and realignment. Actual 2011 / 2012 and Budget 2012 / 2013 costs have been restated to as closely as possible reflect current corporate structure. Some assumptions have had to be made during the reallocation that might affect the department presentation but will have no effect on the company as a whole.

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TABLE I
SOUTHERN NEVADA WATER AUTHORITY
DEPARTMENTAL BUDGETS AND THEIR EFFECT
ON TOTAL USE OF FUNDS BUDGET
FISCAL 2013 / 2014

		SNWA			
		Energy Management	Engineering	Environmental Resources	SNWS Operations
Energy		$ 49,308,382	$ -	$ -	$ -
Labor		959,628	8,330,548	16,522,195	11,372,435
Operating & Capitalized Expenses	(1)	269,938	2,330,172	29,000,872	5,982,178
Construction Expenditures		-	120,010,571	5,707,616	1,959,000
		$ 50,537,948	130,671,290	$ 51,230,683	$ 19,313,613

		SNWS Treatment	LVVWD Departments	TOTALS
Energy		$ -	$ -	$ 49,308,382
Labor		14,060,686	17,362,216	68,607,709
Operating & Capitalized Expenses	(1)	8,536,720	16,675,711	62,795,591
Construction Expenditures		-	-	127,677,187
		$ 22,597,406	$ 34,037,927	$ 308,388,868

		Totals As Above	Adjustments $	Adjustments Footnotes	Totals per Budget Plan
Energy		$ 49,308,382	$ (4,990,047)	(2)	$ 44,318,335
Labor		68,607,709			68,607,709
Operating & Capitalized Expenses	(1)	62,795,591			62,795,591
Construction Expenditures		127,677,187			127,677,187
Debt Service Payments		-	150,714,220	(3)	150,714,220
		$ 308,388,868	$ 145,724,173		$ 454,113,042

Amounts may be slightly off due to rounding

(1) Combination of materials and supplies, maintenance and repairs, rentals and leases, other employee expense, other operating expense, and capital outlay as shown in the departmental budgets.
(2) The budgeted power costs shown here are larger than the ones shown in the budget plan. Departmental budgeted power numbers are calculated to include their proportional share of debt service. To avoid double count, debt service is removed from power shown in the budget plan section.
(3) No specific department shows this cost item in their budgets.

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TABLE II
SOUTHERN NEVADA WATER AUTHORITY
DEPARTMENTAL BUDGETS AND THEIR EFFECT
ON TOTAL USE OF FUNDS BUDGET
FISCAL 2012 / 2013

		SNWA			
		Energy Management	Engineering	Environmental Resources	SNWS Operations
Energy		$ 47,527,951	$ -	$ -	$ -
Labor		936,864	10,325,187	18,466,795	11,451,319
Operating & Capitalized Expenses	(1)	259,219	2,274,185	30,134,768	5,464,997
Construction Expenditures		-	172,384,132	4,067,737	-
		$ 48,724,034	$ 184,983,504	$ 52,669,300	$ 16,916,316

		SNWS Treatment	LVVWD Departments	TOTALS
Energy		$ -	$ -	$ 47,527,951
Labor		13,166,241	14,291,883	68,638,289
Operating & Capitalized Expenses	(1)	7,624,510	16,648,900	62,406,579
Construction Expenditures		-	-	176,451,869
		$ 20,790,751	$ -	$ 355,024,688

		Totals As Above	Adjustments $	Adjustments Footnotes	Totals per Budget Plan
Energy		$ 47,527,951	$ (5,060,057)	(2)	$ 42,467,894
Labor		68,638,289			68,638,289
Operating & Capitalized Expenses	(1)	62,406,579			62,406,579
Construction Expenditures		176,451,869			176,451,869
Debt Service Payments		-	149,294,240	(3)	149,294,240
		$ 355,024,688	$ 144,234,183		$ 499,258,871

Amounts may be slightly off due to rounding

(1) Combination of materials and supplies, maintenance and repairs, rentals and leases, other employee expense, other operating expense, and capital outlay as shown in the departmental budgets.
(2) The budgeted power costs shown here are larger than the ones shown in the budget plan. Departmental budgeted power numbers are calculated to include their proportional share of debt service. To avoid double count, debt service is removed from power shown in the budget plan section.
(3) No specific department shows these cost items in their budgets.

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TABLE III
SOUTHERN NEVADA WATER AUTHORITY
DEPARTMENTAL ACTUALS AND THEIR EFFECT
ON TOTAL ACTUAL USE OF FUNDS BUDGET
FISCAL 2011 / 2012

		SNWA			
		Energy Management	Engineering	Environmental Resources	SNWS Operations
Energy		$ 44,527,798	$ -	$ -	$ -
Labor		926,820	9,600,065	16,878,966	12,763,518
Operating & Capitalized Expenses	(1)	239,169	1,939,748	27,507,996	4,140,498
Construction Expenditures		-	78,628,191	-	-
		$ 45,693,787	$ 90,168,004	$ 44,386,962	$ 16,904,016

		SNWS Treatment	LVVWD Departments	TOTALS
Energy		$ -	$ -	$ 44,527,798
Labor		12,786,604	13,923,644	66,879,616
Operating & Capitalized Expenses	(1)	5,020,286	18,836,613	57,684,310
Construction Expenditures		-	-	78,628,191
		$ 17,806,890	$ -	$ 32,760,256	$ 247,719,916

		Totals As Above	Adjustments $	Adjustments Footnotes	Totals per Budget Plan
Energy		$ 44,527,798	$ -		$ 44,527,798
Labor		66,879,616			66,879,616
Operating & Capitalized Expenses	(1)	57,684,310			57,684,310
Construction Expenditures		78,628,191			78,628,191
Debt Service Payments		-	149,025,174	(2)	149,025,174
		$ 247,719,916	$ 149,025,174		$ 396,745,090

Amounts may be slightly off due to rounding

(1) Combination of materials and supplies, maintenance and repairs, rentals and leases, other employee expense, other operating expense, and capital outlay as shown in the departmental budgets.
(2) No specific department shows these cost items in their budgets.

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SNWA ENERGY MANAGEMENT
Level: 2200

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MISSION

Manage a portfolio of energy resources for the Southern Nevada Water Authority (SNWA) and its' member agencies that is reliable and yields predictable prices while considering the overall value we place on sustainability and cost minimization.

DEPARTMENT DESCRIPTION

The SNWA Energy Management Department (the Department) was established in FY-2005/2006 and is responsible for the procurement and management of the energy resources that are necessary to pump, treat, and deliver water to the member agencies. Personnel from the Colorado River Commission of Nevada (CRC) act as agents of the SNWA in the procurement and management of those resources.

The primary function of the Department is to maintain a portfolio of energy resources that meets all of the water-pumping and water treatment related electrical load requirements of the SNWA and the member agencies that elect to purchase energy from the Department. Currently, the Las Vegas Valley Water District (LVVWD), the City of Las Vegas, the City of Henderson, and the Clark County Water Reclamation District purchase energy from the Department for a portion of their electrical loads. The City of North Las Vegas is evaluating whether to participate in the energy supply program. Key functions within the Department include administrative support, energy procurement, project planning and management, energy risk management, analysis, forecasting, and accounting.

In December of 2009, the SNWA Board approved a contract with the Silver State Energy Association (SSEA) which will allow the SNWA to transition its power management activities from the CRC to the SSEA. The SSEA, which was formed under the cooperative laws of the state of Nevada, is comprised of the following organizations: SNWA, CRC, Lincoln County Power District No. 1, Overton Power District No. 5, and the City of Boulder City. Existing personnel from both the SNWA and the CRC will continue to staff the SSEA organization. In June of 2011, the SSEA began providing energy to the City of Boulder City. The SNWA plans to transition a substantial portion of its power management activities to the SSEA by April 1, 2013.

BUDGET OBJECTIVES AND HIGHLIGHTS

The 2013/2014 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 procurement and management of energy resources for the LVVWD are contained in the LVVWD's budget. The majority of budget funding is for energy and other commodities that are purchased from the energy and financial marketplace. Other expenditures include transmission, distribution, and ancillary services, operation and maintenance expenses associated with transmission assets and generating assets, and administrative and general expenses for CRC and SNWA personnel.

The Department is also pursuing the development of additional energy resources as described below:

Sustainability Initiatives - The SNWA is currently working on the following renewable energy and energy efficiency projects which will contribute to its overall supply portfolio.

Small Solar Photovoltaic (PV) and Energy Efficiency: In 2012, the SNWA received a grant from the State Energy Office to evaluate financing alternatives for the installation of PVs on rooftops and for energy efficiency retrofits. In 2013, the SNWA intends to implement new financing vehicles to support small solar installations and energy efficiency upgrades.

Research & Development: The SNWA is working with Sandia Labs to set up a solar photovoltaic regional test center. The current plan is for the University of Nevada, Las Vegas (UNLV) to monitor and collect data from the systems.

Electric Power Transmission Facilities - The SNWA is considering various renewable supply alternatives located in Eastern Nevada to satisfy its future resource needs. The SNWA is working cooperatively with the SSEA to develop the Eastern Nevada Transmission Project , a 230 kV transmission system that is planned to bring power from one or more of these resources to Southern Nevada and allow for the interconnection of certain SSEA members' electrical systems with the Mead Substation in Southern Nevada.

For fiscal year 2013-2014, the total budget for the SNWA Energy Department is expected to be approximately $49.3 million as detailed below. Of the amount $2.8 million is associated with capital construction of Intake No. 3 and will be paid with capital revenues while the remaining with the remaining $46.5 million deals with the day to day delivery of consumable power and will be recovered through the wholesale water delivery charge.

Please see Budget Expenditure Details on Following Page

DEPARTMENT PERFORMANCE

The Department is generally organized into the following four functional areas:

The *Energy Procurement Function* interfaces directly with the energy marketplace through their marketing and trading efforts. A supply portfolio that meets the SNWA and participating member agency load requirements is procured and managed consistent with the SNWA's Risk Management Policies and Procedures. Energy products and services are secured that best meet the aggregate load requirements and hedge overall price risk while supporting the overall Department mission. The majority of the daily trading, scheduling, and real-time operations are currently outsourced, but personnel monitor the effectiveness of these services and evaluate their effectiveness in meeting current and future needs.

The *Energy Risk Management, Planning & Analysis Function* supports the planning, risk, and analysis functions of the Department. The responsibilities of this function include

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Budget Expenditure Details

	2011 - 2012 Actual	2012 - 2013 Budget	2013 - 2014 Budget
Salaries and Wages	$ 926,820	$936,864	$ 959,628
Energy *	44,527,798	47,527,951	49,308,382
Materials and Supplies	728	6,000	13,000
Rentals and Leases	232,426	243,469	247,688
Other Employee Expense	5,581	8,500	8,500
Other Operating Expense	434	1,250	750
Total	$ 45,693,787	$ 48,724,034	$ 50,537,948

Full Time Equivalent Positions

2011 - 2012	2012 - 2013	2013 - 2014
5.00	5.00	5.00

* The budgeted power costs shown here are larger than the ones shown in the budget plan. Budgeted power numbers are calculated to include their proportional share of debt service. To avoid double count, debt service is removed from power shown in the budget plan section.

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developing and coordinating long and short range resource plans and energy forecasts and preparing a variety of studies related to power supply and analysis. As part of their risk management activities, personnel prepare a variety of reports, economic analyses, and credit reviews and develop critical model inputs including forward price curves.

The *Accounting, Billing & Settlements Function* support the procurement and risk management functions of the Department. They perform a variety of reporting, billing, and accounting tasks including the settlement of the CRC's and SNWA's energy accounts, the invoicing of energy suppliers and customers, and the preparation of a variety of specialized accounting reports.

The *Project Planning & Management Function* is responsible for planning activities that are associated with the procurement of, or construction of, electrical power facilities such as traditional generation facilities, renewable energy facilities, and electrical energy delivery systems.

In addition to the core functions listed above, the Department plays a role in various functions performed by other groups within the SNWA, LVVWD, and CRC organizations. Personnel provide input on legal and regulatory initiatives; support environmental permitting and compliance activities; provide support for major SNWA water initiatives; provide direction and approve expenditures on the 69 kV and 230 kV transmission system operated by the CRC; and provide feedback to the Southern Nevada Water System operations concerning opportunities for cost savings.

The Department measures its overall success based on its compliance with the energy risk management policy established by the SNWA Board of Directors. The board adopted policy states:

> **"The SNWA will manage its energy related operations to reflect its low tolerance for risk and to maximize certainty of energy delivery at a known and budgeted cost."**

As indicated by the policy statement, energy price certainty over a long period of time is of critical importance to the SNWA and its member agencies. For this reason, the SNWA's energy portfolio has been "hedged" through calendar

year 2017 in accordance with its risk management procedures. The SNWA hedges its portfolio 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. 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 the time of delivery. Because the SNWA portfolio is substantially hedged through 2017, changes in the market price of energy are expected to have little or no effect on the SNWA's expected costs during the hedged period.

At the direction of the SNWA Board of Directors, energy risk management procedures were put in place to ensure the SNWA, its agents, and its contractors adhere to a commitment to provide stable energy costs to the SNWA and its member agencies. In addition to establishing the procedures, a Risk Control Committee, chaired by the SNWA's Director of Finance, was established to provide additional risk management oversight. The committee meets at least once a quarter to review standardized reports, to monitor adherence to risk management procedures and to discuss energy risk related issues.

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STRATEGIC PLAN OBJECTIVES AND ACCOMPLISHMENTS

SNWA Strategic Plan Goal – Enhance and expand communications and collaboration within and among member agencies and the SNWA.

2013/2014 Department Goals

- Optimize the energy operations of the SNWA and the member agencies that have elected to procure their energy from the Department.
- Develop internal tools and/or streamline internal processes that will allow us to produce energy information that is accurate, understandable, and easily accessible to our internal and external customers.
- Seek new opportunities to help the SNWA's member agencies further their sustainability initiatives.

2013/2014 Performance Objectives

- Continue to provide reports, analysis, and price signals to our customers that encourage efficient operations.
- Create educational and outreach opportunities for our customers.
- Act in a consulting role to support government agencies in their development of renewable energy and energy efficiency projects.
- Continue working on a project to establish a solar PV Regional Test Center.
- Implement new financing vehicle to support small solar installations and energy efficiency upgrades.
- Continue to work with the SNWA ranch properties to implement additional solar installations.
- Complete the migration of the City of North Las Vegas' loads to the Energy Supply Program.
- Support the member agencies' efforts to obtain an allocation of power from Hoover Dam made available through legislation passed in 2011.
- Continue to implement no cost or low cost improvements to internal and third-party systems that make them more accurate, efficient, and/or user friendly.

2012/2013 Major Accomplishments

- Worked with Clark County Water Reclamation District on their evaluation of potential performance contractors to facilitate energy efficient and renewable energy upgrades.
- Helped the City of Las Vegas evaluate whether to upsize their 3 Megawatt (MW)

solar facility to 5 MW and whether to connect some or all of it behind the meter.

- Initiated a project to create a solar PV Regional Test Center (RTC). Began working with Sandia Labs to set up the RTC and involve UNLV in the monitoring and data collection of the systems.
- Developed financing options to streamline the installation of rooftop solar projects.
- Installed a small solar PV facility at the SNWA Wahoo Ranch.
- Conducted a three part educational series for the member agencies.
- Worked with the City of North Las Vegas to help them evaluate their participation in the Energy Supply Program.
- Worked with the member agencies to evaluate whether to pursue an allocation of Hoover power from the federal government made available through legislation passed in 2011.
- Negotiated and completed key agreements to transfer a substantial portion of the SNWA's loads and all of the City of Boulder City's loads to the balancing area of Western Area Power Administration.

SNWA Strategic Plan Goal – Provide water resources and regional facilities that reliably meet the needs of the member agencies.

2013/2014 Department Goals

- Reduce or eliminate unexpected changes to the SNWA wholesale water delivery charge attributable to energy cost fluctuations.
- Seek new electric generation and transmission capital projects and purchased resources that reliably meet the water pumping needs of the member agencies.
- Further the goals of the SSEA to become a full service public utility provider for its members.

2013/2014 Performance Objectives

- Continue to develop a more thorough understanding of our financial performance and identify opportunities to enhance financial performance.
- Maintain a hedged energy portfolio for our customers within compliance requirements.
- Complete the migration of the SNWA loads to SSEA service.
- Obtain an accounting package for the SSEA and migrate the SSEA's financial records to the system.
- Establish the SSEA's ability to trade with the market.
- Complete the migration of most of the SNWA loads and all of the Boulder City loads to the Western Area Power Administration Balancing Area.
- Seek opportunities to obtain physical or virtual transmission to interconnect the SSEA Member systems.

2012/2013 Major Accomplishments

- Completed contracts with Nevada Energy to extend the Silverhawk Power Exchange Agreement beyond May 31, 2013.
- Maintained a hedged energy portfolio for our customers within compliance requirements.
- Negotiated a key agreement with Western Area Power Administration to enable the SNWA and the City of Boulder City to move into the Western BA and receive monetary credit for their unused Hoover capacity.
- Received a grant from the State Energy Office to evaluate financing alternatives for the installation of solar PV on rooftops and for energy efficiency retrofits.
- Negotiated and completed several contracts to allow the SSEA to begin serving the SNWA loads.

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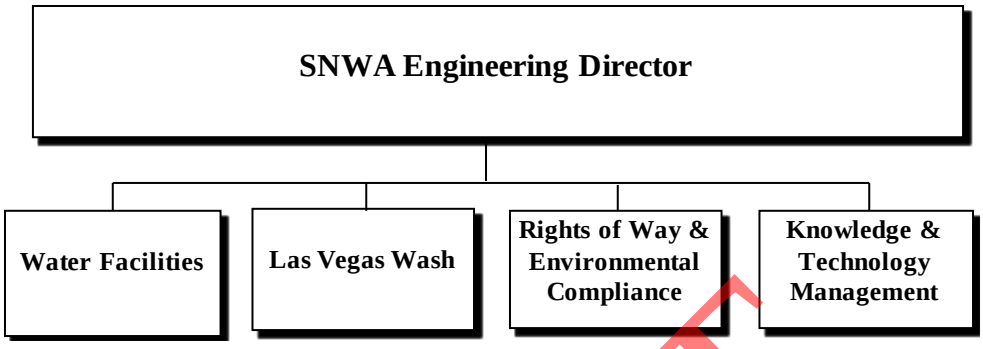
SNWA ENGINEERING
Level: 3400



MISSION

To plan, design, construct and improve facilities that reliably, resourcefully and responsibly meet Southern Nevada's water needs.

DEPARTMENT DESCRIPTION

The Southern Nevada Water Authority (SNWA) Engineering Department is responsible for implementing projects for capital improvements to the regional water supply system, the Southern Nevada Water System (SNWS). These SNWS improvements 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 addition, SNWA Engineering is responsible for the planning, design and construction of facilities that provide erosion protection in the Las Vegas Wash, as defined in the Las Vegas Wash Capital Improvements Plan (Wash CIP). Using its project and construction management resources and systems, SNWA Engineering also offers support services to other departments of SNWA for their operating capital projects.

BUDGET OBJECTIVES AND HIGHLIGHTS

The 2013/2014 SNWA Engineering Department budget objectives continue to center on planning, designing and constructing the facilities needed to assure a reliable, quality water supply for Southern Nevada. The success of these efforts is represented by completion of 180 projects valued at approximately $2.5 billion since 1995. Design and construction work for the projects of the Wash CIP continue to be accomplished commensurate with funding available from grants and the designated portion of the local sales tax.

SNWA Engineering continues its transition from short-term reliance on outside contractor resources to utilization of SNWA's own internal resources to accomplish long-term engineering work, which is more economical than hiring contractors. During the ongoing economic slow-down, in-house staff has stepped in as much as possible to replace contractors in accomplishing design and construction activities that are critical to long-term objectives. The 2013/2014 budget again does not include any new full-time positions, but does include staff temporarily assigned from other departments to aid in reducing outside contractors.

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Budget Expenditure Details

	2011 - 2012 Actual	2012 - 2013 Budget	2013 - 2014 Budget
Salaries and Wages	$ 9,600,065	$ 10,325,187	$ 8,330,548
Materials and Supplies	77,536	101,000	130,200
Maintenance and Repairs	19,254	600	600
Rentals and Leases	1,725,754	2,020,235	1,999,882
Other Employee Expense	27,519	60,650	64,690
Other Operating Expense	89,685	59,700	81,800
Capital Outlay		32,000	53,000
Major Construction	78,628,191	172,384,132	120,010,571
Total	$ 90,168,004	$ 184,983,504	$ 130,671,290

Full Time Equivalent Positions

2011 - 2012	2012 - 2013	2013 - 2014
70.00	70.83	51.54

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DEPARTMENT PERFORMANCE

The SNWA Engineering Department is generally organized around five functional areas.

Water Facilities. This area is the primary focus and commands the majority of the Engineering Department's resources. It involves management and implementation of all approved water facilities projects, such as intakes, wells, treatment facilities, pipelines, pumping stations, rate-of-flow-control stations, reservoirs and other ancillary systems needed to deliver water to purveyor members. It also involves support for projects to maintain and upgrade existing facilities.

Las Vegas Wash. A small team has focused responsibility for implementing projects identified in the Wash CIP to reduce sediment flowing into Lake Mead by protecting the Las Vegas Wash from erosion damage.

Rights-of-Way and Environmental Compliance. Each project requires support services in obtaining rights-of-way and permits necessary to construct projects and for environmental activities necessary to comply with requirements for approval to occupy federal lands. During 2009, the rights-of-way teams for LVVWD and SNWA were consolidated in the SNWA Engineering Department and the consolidated teams coordinate to serve the needs of both organizations. In 2012, the permitting teams for both LVVWD and SNWA were located in the LVVWD Engineering Department where they serve the permitting needs of both organizations.

Knowledge and Technology Management. The *Knowledge and Technology Management Team* provides geo-referenced facility mapping, data management, application development, and computer support services to all department teams in coordination with other departments of the organization.

The figure on the preceding page compares completed projects to active and planned projects for each of the SNWA's capital plans. The chart gives perspective for the magnitude of the department's activities and provides an indication of the magnitude of project expenditures that have been deferred in response to economic conditions experienced over recent years.

STRATEGIC PLAN OBJECTIVES AND ACCOMPLISHMENTS

SNWA Strategic Plan Goal – Provide water resources and regional facilities that reliably meet the needs of the member agencies.

2013/2014 Department Goals

- Construct the new facilities defined by the MCCP and Wash CIP.

2013/2014 Performance Objectives

- Complete design and construction of projects according to the budgets and schedules identified in the MCCP and Wash CIP.
- Prepare facility concept plans and budget estimates in support of environmental analyses, stakeholder evaluations, and financial planning for development of new water resources.

2012/2013 Major Accomplishments

- Completed 90% construction of the $52 million Intake No. 3 Connector Tunnel project.
- Completed 80% construction of the $489 million Intake No. 3 Shafts and Tunnel project.
- Completed construction of the $17 million Upper Narrows, Duck Creek Confluence and Ducks Unlimited Wetlands No. 1 Weir projects in the Las Vegas Wash.
- Awarded a contract for construction of the Three Kids Weir project in the Las Vegas Wash.

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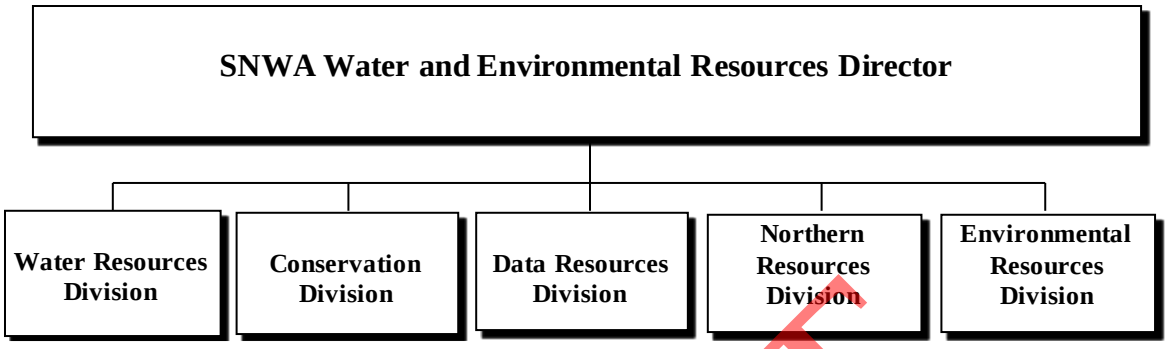
SNWA WATER & ENVIRONMENTAL RESOURCES
Level: 3600



MISSION

The mission of the Water & Environmental Resources Department is to sustainably manage SNWA's water and environmental resources through sound policy, applied science and advanced technology; ensuring a reliable water supply for current and future generations.

DEPARTMENT DESCRIPTION

The Water & Environmental Resources Department consists of the Director's Office and five divisions that include the Water Resources Division, Conservation Division, Data Resources Division, Northern Resources Division and Environmental Resource Division. Additional responsibilities assigned to the Department include Colorado River resource policy, climate change science and policy, and leadership in organizational sustainability.

BUDGET OBJECTIVES AND HIGHLIGHTS

The 2013/2014 Water & Environmental Resources Department budget contains funding for a wide-range of initiatives that are discussed below.

Director The FY14 Director's Office budget contains $7.2 million for Colorado River initiatives that include: activities associated with the Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead (Interim Guidelines); work efforts resulting from the publication for the Colorado River Basin Water Supply and Demand Study; administration of interstate banking activities; contribution to the Lower Colorado River Multi-Species Conservation Program; and, implementation of Minute 319 to the 1944 Water Treaty with Mexico (Minute 319).

Water Resources The Water Resources Division budget contains $3.9 million to continue scientific investigations to evaluate the distribution, quantity and quality of water resources available for use by LVVWD and SNWA. The Division will continue hydrologic data collection, monitoring, and reporting programs to ensure regulatory compliance with the terms of LVVWD and SNWA held water right permits and project right-of-ways. Furthermore, the Division will continue long-range resource planning and water resource management efforts necessary to ensure a reliable water supply while hydrological and climatological uncertainty exists.

Conservation The Conservation Division budget contains $9.4 million in operational funding to continue implementing strategies to achieve the 199 Gallons Per Capita Per Day (GPCD) goal by

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2035. Nearly 99 percent of the O&M budget is allocated to customer incentive programs.

Environmental Resources The Environmental Resources Division contains $3 million in operational funding to continue environmental and biological planning, compliance and resource management activities for SNWA. These activities support efforts associated with implementing the *Las Vegas Wash Comprehensive Adaptive Management Plan* and protecting the greater Las Vegas Valley watershed. Also, Division initiatives include continued environmental planning efforts supporting the Clark, Lincoln, and White Pine Counties Groundwater Development (GWD) Project, development of Virgin and Muddy River environmental programs, and implementation of environmental stipulations required by federal right-of-way (ROW) grants, Nevada State Engineer rulings and agreements with the Department of Interior (DOI). Furthermore, the Division will continue to manage physical facilities and implement the Warm Springs Natural Area Stewardship Plan, which focuses on conserving the property as a natural area and contributing to the recovery of the endangered Moapa dace. In FY14, the Division anticipates receiving $1 million in revenue from Federal grants and local contributions.

Northern Resources The Northern Resources Division budget totals $4.2 million, of which, approximately 50.4 percent is for livestock inventory purchase and capital improvements that will utilize and maintain primary groundwater rights and grazing allotments. Increased operating costs are attributed to reestablishment of 480 acres of new alfalfa production at the Huntsman and Meadow Creak and the expansion of a yearling cattle program to diversify revenue. Total gross revenues are projected to exceed $2.2 million. The primary goal for the Division is to integrate the management of water, land and agricultural resources such that environmental and social conflicts are minimized and long term sustainability of the GWD Project is achieved.

Data Resources The FY14 Budget contains $0.8 million for technical resources in support of ongoing hydrologic, environmental and conservation activities. Of the $0.8 million, $159,000 is allocated to computer hardware and software, and $130,000 is allocated to the Clark County Imagery Project. The Division anticipates receiving Federal grants and funds from local partners in excess of $100,000.

Please see Budget Expenditure Details on Following Page

DEPARTMENT PERFORMANCE

Colorado River The Colorado River work includes a variety of activities in the planning, evaluation, coordination and implementation of initiatives related to ongoing and future management of the Colorado River in the United States and Mexico. Areas of focus include ongoing work with the Colorado River Basin states and Federal agencies to implement the necessary agreements associated with the implementation of the Interim Guidelines. In addition, support is provided for the next steps related to the Colorado River Basin Water Supply and Demand Study, policy actions leading to additional water supplies and augmentation of the Colorado River through system efficiency, introduction and recovery of non-Colorado River system water, wastewater reuse and long-term augmentation projects and operations involving diversions and facilities.

Water Resources Division The Water Resources Division is responsible for securing and managing regional groundwater and surface-water resources to ensure a reliable water supply for Southern Nevada. This responsibility involves conducting regional water resource planning efforts, 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; establishing hydrologic and climatological monitoring networks; and, securing water rights from the Nevada State Engineer's (NSE) Office and ensuring the permits remain in good standing.

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Budget Expenditure Details

	2011 - 2012 Actual	2012 - 2013 Budget	2013 - 2014 Budget
Salaries and Wages	$ 16,878,966	$ 18,466,795	$ 16,522,195
Materials and Supplies	11,245,848	11,546,008	12,451,471
Maintenance and Repairs	2,727,668	2,992,200	1,415,100
Rentals and Leases	331,345	1,160,301	1,046,893
Other Employee Expense	229,564	501,647	411,375
Other Operating Expense	12,945,263	13,314,612	12,759,033
Capital Outlay	28,308	620,000	917,000
Major Construction		4,067,737	5,707,616
Total	$ 44,386,962	$ 52,669,300	$ 51,230,683

Full Time Equivalent Positions

2011 - 2012	2012 - 2013	2013 - 2014
123.00	118.85	98.35

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Conservation Division The Conservation Division has primary responsibility for developing programs and strategies to achieve SNWA's goal of 199 GPCD by 2035. This goal was adopted by the SNWA's Board of Directors in February 2009 and is integral to the Water Resource Plan. In addition to supporting a critical component of future water supply planning, the SNWA's Conservation Plan assures the SNWA is compliant with requirements administered by

NDWR and the Bureau of Reclamation (BOR) to assure beneficial use of water. For FY2012, the SNWA achieved a GPCD of 222. While conservation continues to help drive reductions in per-capita use, an incremental increase in GPCD is expected to occur with economic recovery. As such, progress toward the goal requires sustained efforts. The figure on the preceding page shows the decline in GPCD from 1990 to 2012.

Water conservation also supports the SNWA's strategic sustainability goal. Since 2000, the Water Smart Landscapes program has averted the demand for 385,000 megawatt hours of energy required to produce and deliver landscape irrigation water. This reduction in electrical demand reduced CO2 discharge by more than 189,000 metric tons since 2000. In 2012, the estimated power savings from the program reduced power costs by approximately $3.8 million.

The Conservation Division employs three major strategies to affect 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 in developing policy for efficient landscape standards, time-of-day watering requirements, water waste penalties and tiered water rate structures.

Environmental Resources Division The 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 prepares environmental compliance documents, and assists Federal agencies in completing those regulatory processes necessary to construct and operate water resource related infrastructure. Biological studies, monitoring and reporting are conducted in accordance with Federal environmental regulatory requirements, NSE directives, 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.

Northern Resources Division The Division developed global markets for sales of internally produced agricultural products, including beef calves, lambs, wool and alfalfa. These commodities represent approximately $2.2 million in projected ranch revenue for FY14. 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 incorporate efficiency, maximize beneficial use of water rights and commodity production, while achieving the financial and environmental goals set forth by the organization. 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.

Data Resources Division The Data Resources Division's mission is to "develop innovative tools, solutions and information that empower our customers to make better regional water resources decisions." The Division provides desktop and internet applications, Remote Sensing analysis, as well as geographic information systems (GIS) design and analysis work to capture, map, display, and analyze information for SNWA and its member agencies. Through the implementation of the Agile Process (a project management foundation), Data Resources provides solutions with greater efficiency through committed partnerships with our customers, assuring that the constant delivery of high-priority value remains our focal point. The Division has taken a very

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strong look at costs for FY14 and will continue partnering with external agencies and existing staff to reduce cost and increase capacity in order to deliver the needed results at a reduced cost.

STRATEGIC PLAN OBJECTIVES AND ACCOMPLISHMENTS

SNWA Strategic Plan Goal – Enhance and expand communications and collaboration within and among member agencies and the SNWA.

2013/2014 Department Goals

- Facilitate SNWA member entity groups working on watershed protection.
- Continue improvement to web-based communication tools to increase communication between and among Federal and State agencies and the SNWA.
- Encourage consistent communication among member agencies by maintaining a forum for member agency and staff input, comments and concerns.
- Maintain an efficient structure and programs that will increase SNWA member agency interaction and strengthen relationships among member agencies.

2013/2014 Performance Objectives

- Facilitate the Las Vegas Valley Watershed (LVWCC) and the Las Vegas Valley Watershed Advisory Committee (LVVWAC) stakeholder processes.
- Maintain organizational capacity to obtain and utilize best available climate change science in policy and resource planning initiatives.
- Maintain role as a national leader among water utilities on climate change issues.

2012/2013 Major Accomplishments

- Continued to facilitate the stakeholder processes for LVWCC and LVVWAC.
- Continued to implement the *Las Vegas Wash Surface Water Quality Monitoring and Assessment Plan*.
- Partnered with local government agencies on $3.5 million Housing and Urban Development Sustainable Communities Regional Planning Grant.
- Continued to partner with a wide variety of groups on climate change initiatives.
- Continued to coordinate with U.S. Fish and Wildlife Service, the Bureau of Land Management (BLM) and Moapa Valley Water District on the Biological Advisory Committee (BAC) for the Moapa Dace.

SNWA Strategic Plan Goal - Achieve broad community support for water conservation based on an understanding of environmental concerns related to water resources.

2013/2014 Department Goals

- Promote and effect water efficiency in Southern Nevada.

2013/2014 Performance Objectives

- Meet or exceed the annual per capita water efficiency goal as adopted in the SNWA's five-year Conservation Plan.
- Conduct continuing research on the effectiveness of conservation programs.

2012/2013 Major Accomplishments

- In calendar 2012, facilitated 2,446 landscape conversion projects comprising 5.5 million square feet and reducing annual water demand by an additional 947 acre-feet (AF).
- Hosted the fifth annual WaterSmart Invocations Conference.
- Participated in national committees pursuing development of programs and policies relating to water efficiency.

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SNWA Strategic Plan Goal – Participate in and work to influence all strategies, issues and concerns that affect the water quality and water resources for SNWA.

2013/2014 Department Goals

- Facilitate and support data sharing through website portals.
- Promote water conservation in Southern Nevada.
- Identify and adapt to climate change impacts on water resources.
- Actively participate in venues that address water quality and water resource issues.
- Coordinate with agencies and stakeholders on environmental issues that may affect SNWA and LVVWD resource initiatives.

2013/2014 Performance Objectives

- Actively participate on the Technical Review Panels and the Hydrological Working Groups associated with monitoring, management, and mitigation plans for the GWD Project and Coyote Spring Valley.
- Actively engage regulatory agencies that issue and administer permits for the use and management of SNWA water resources.
- Support and maintain new applications which support multiple groundwater management program (GMP) projects and the Well Conversion Grant Program.
- Support the LVWCC and participate in groups working to address water quality and water resource issues in the Las Vegas Valley and Colorado River watersheds.
- Coordinate with Federal and State agencies to affect sustainable resource management and establish cooperative relationships.

2012/2013 Major Accomplishments

- Streamline data collection workflow by Northern Resources staff and incorporate data collection in mapping and facilities datasets.
- Continued Spring Valley Stipulation and Delamar, Dry Lake, and Cave Valley (DDC) Stipulation data exchange through the SNWA Exchange application.
- Transferred data management features to the Regional Water Quality application to reduce application maintenance costs by eliminating dependency on legacy code.
- Continued to facilitate the stakeholder process for the LVWCC.
- Worked with the Environmental Protection Agency to assess the vulnerability of critical SNWA and LVVWD assets to climate-related impacts.

SNWA Strategic Plan Goal - Achieve broad community and customer support for water quality goals.

2013/2014 Department Goals

- Support community involvement in areas that address water-quality decisions.
- Identify and study existing and emerging water quality issues.
- Educate the community about water quality issues in the watershed.

2013/2014 Performance Objectives

- Participate in educational and technical meetings.
- Participate in water quality forums and related Southern Nevada regional planning activities to facilitate water resource development and management.
- Insure water quality standards are met or exceeded.
- Continue coordination and participation with the Colorado River Basins States, Mexico and major utilities throughout the southwest to ensure reliability of Colorado River resources and identify opportunities for resource optimizations and exchanges.
- Conduct public outreach about erosion control and other water quality improvement efforts ongoing at the Wash and encourage resident participation.
- Create and maintain web-based technologies as a public outreach tool.

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- Maintain the central data repository for all non-compliance water quality data.

2012/2013 Major Accomplishments

- Enhanced the Lower Colorado River Water Quality Database web-based submittal application enhancing water quality data filtering and retrieval.
- Provided presentations and/or staff support to various educational conventions and technical meetings.
- Worked with the Nevada Department of Environmental Protection (NDEP) and other stakeholders to ensure water quality standards on the Muddy River continue to be met consistent with current uses of the Muddy River and SNWA's National Pollutant Discharge Elimination System permits.
- Participated with Basin States and major utilities to assess the viability of long-term operation of the Yuma Desalting Plant.

SNWA Strategic Plan Goal – Employ sustainability concepts in all activities.

2013/2014 Department Goals

- Implement short and long-term sustainability goals.
- Create a culture of sustainability within LVVWD/SNWA/Springs Preserve to support vision and value statements and reduce environmental impacts.
- Utilize sustainable methods to development and management water resources.

2013/2014 Performance Objectives

- Direct sustainability initiatives in congruence with agency goals and visions, while providing support to local and regional efforts in creating a culture of sustainability.

2012/2013 Major Accomplishments

- Implemented the Sustainability Strategic Plan and continued to facilitate the cross departmental team with departmental representatives working to implement sustainability initiatives.
- Established partnerships with the business community, academia, government entities, and community based organizations.
- Supported the SNWA's sustainability and climate change initiatives through research and collaboration on the local, regional, and national level.
- Participated in a climate change workshop focused on the Colorado River basin in cooperation with the National Oceanic and Atmospheric Administration (NOAA) and U.S. Bureau of Reclamation (USBR).

SNWA Strategic Plan Goal – Provide water resources and regional facilities that reliably meet the needs of the member agencies.

2013/2014 Department Goals

- Manage existing water resources effectively to maximize their availability.
- Augment current water resources through the creation and development/banking of intentionally created surplus (ICS), interstate banking of Colorado River resources.
- Manage and pursue alternative water supplies through efficiency, desalination, wastewater reuse and other projects.
- Identify, prioritize and aggressively pursue potential water resources and refine the balanced portfolio of short-term and long-term resources.
- Communicate and seek participation with federal, state, and local agencies.
- Implement and maintain the vast array of data to meet the requirements entered into with federal and state agencies.
- Ensure an integrated approach to the management and development of existing and future water resources to meet the community's needs.
- Manage all Northern Resource property and other biological, cultural, agricultural and aesthetic resources in an integrated fashion to support the GWD Project.

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- Provide environmental compliance support for the GWD Project so the project is ready for design and construction when needed.
- Provide environmental planning and compliance support for continued use of SNWA's Colorado River, Virgin River, and Muddy River water rights.

2013/2014 Performance Objectives

- Support data dissemination, mapping, and reporting needs for the hydrologic monitoring, management, and mitigation plan for development of groundwater resources. Establish and maintain monitoring networks for development of groundwater resources in the GWD Project basins.
- Establish and maintain hydrologic monitoring networks associated with the Northern Resources ranch properties.
- Establish criteria to identify potential locations for production well fields and/or specific production well sites from which groundwater could be withdrawn.
- Provide technical expertise, data collection, and reporting for small water systems operated by LVVWD.
- Collect evapotranspiration data and complete analyses in support of ongoing water-resource assessments associated with the GWD Project.
- Support the activities to assess viability of long-term operation for the Yucca Desalting Plant.
- Assist in coordinating the implementation of Minute 319.
- Conduct hydrologic, remote sensing, and environmental studies relative to SNWA's water rights.
- Compile year-end Certification Reports and Annual Plans of Creations, documenting ICS and gain approval for the credits pursuant to Nevada Water Law, ICS Guidelines, and water quality standards on the Muddy River.
- Evaluate hydrologic, geochemical, and climatologic monitoring to support SNWA activities on the Warm Springs Natural Area (WSNA).
- Fund and coordinate the 2014 Clark County population projections with the University of Nevada, Las Vegas (UNLV) Center for Business and Economic Development and local entities.
- Support efforts to consider the potential influence of climate on SNWA water demands and water resources.
- Continue the enhancement of data-centric applications by integrating mapping and spatial query functionality.
- Provide support and maintenance for the AQUARIUS application used as a data management and analytical tool for water-related time series data.
- Provide vegetation, turf, and swimming pool analyses in support of the WaterSmart Landscape Program.
- Obtain the ROW grant, complete the BLM administrative record, and continue environmental permitting for the GWD Project.
- Prepare environmental compliance documents for water resource projects initiated by other SNWA and LVVWD departments.
- Complete the Muddy River Recovery Implementation Program.

2012/2013 Major Accomplishments

- Provided support for the development of the final environmental impact study (EIS) and Biological Opinion for the GWD Project.
- Completed hydraulic testing and evaluation of the Northern Resources ranch irrigation wells and implemented a performance-testing program to monitor efficiency of the wells.
- Finalized and published well-completion and geologic data analysis reports for six newly constructed irrigation wells
- Continued to execute the Hydrologic Monitoring and Mitigation plans for Spring and DDC valleys and prepared the corresponding annual hydrologic data reports.
- Continued with the Cooperative Funding Agreements with the U.S. Geological Survey (USGS) and the Nevada Division of Water Resources (NDWR) for hydrologic data collection in Utah and Nevada.

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- Received approval from NDEP for the Hydrologic Monitoring Plan associated with the LVVWD artificial recharge program.
- Completed all compliance monitoring and reporting for groundwater permits associated with the small water systems of Kyle Canyon, Blue Diamond, Jean and Searchlight.
- Completed a hydrologic reconnaissance report for Searchlight and Piute Valley in satisfaction of work scopes associated with the partnership between SNWA and the Mekorot Israel National Water Company.
- Participated in a feasibility study of a 25-50 million gallons per day desalination plant in Rosarito, Mexico.
- Executed the Second Amended Operational Agreement between SNWA, the Colorado River Commission of Nevada for interstate banking with Metropolitan Water District of Southern California laying a foundation for banking an additional 200,000 to 400,000 AF in California during the period 2012 to 2016.
- Banked approximately 65,000 AF of Nevada's Colorado River apportionment in California during calendar year 2012.
- Provided monthly monitoring of Colorado River supply conditions to understand and address the impacts of drought in managing SNWA's Colorado River water supply.
- Developed Nevada water demand scenarios consistent with 2009 Water Resource Plan for use in the Colorado River Basin Supply and Demand Study.
- Made contributions to on-going NOAA and Water Research Foundation studies assessing climate change influences on water demands and related planning activities.
- Received NSE approval for SNWA's 2011 ICS Certification Reports documenting 30,000 AF of Tributary and 3,900 AF of Imported ICS delivered to Lake Mead.
- Created approximately 30,000 AF of Tributary Conservation ICS from the Muddy and Virgin Rivers and 4,000 AF of Imported ICS from Coyote Spring Valley and submitted calendar year 2012 ICS Certification Reports documenting the ICS creation from all three sources for NSE and USBR approval.
- Completed the third year of SNWA groundwater development in Coyote Spring Valley.
- Continued to execute the Hydrologic Monitoring and Mitigation plans and Technical Review Panel for Coyote Spring, Garnet, and Hidden valleys.
- Conducted groundwater level and production monitoring for Coyote Springs Investments, LLC per agreements.
- Executed and administered a Joint Funding Agreements with USGS for hydrologic data collection in southern Nevada document surface water flows and water quality. Enhanced the coordination with Moapa Valley Water District regarding development of Coyote Spring and Muddy River water rights and amending various agreements as need to ensure reliable and cost effective delivery of water resources to both entities.
- Conducted hydrologic monitoring and evaluations on the WSNA in support of the 2006 memorandum of agreement.
- As a member of the Executive Committee of the Virgin River Habitat Conservation and Recovery Program (VRHCRP), participated in development of a Draft VRHCRP program.
- Provided analytical review of water demand and resource conditions supporting SNWA Board adoption of the 2009 Water Resource Plan for another year and the 2012 Water Budget in cooperation with SNWA member agencies.
- Funded and coordinated the 2013 Clark County population projection with the UNLV Center for Business and Economic Development and local entities.
- Continued negotiations to enter the Third Amended Agreement for Interstate Water Banking between the SNWA, Colorado River Commission of Nevada, and the Arizona Water Banking Authority to defer significant planned capital expenditures and preserve the ability to store additional water as appropriate.
- Completed the Wellhead Protection Plan for Kyle Canyon.

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- Redesigned and developed a new Groundwater Management Program application to improve the overall workflow and efficiency for the multiple departments.
- Acquired high-resolution imagery supporting ranch holding and ICS projects along the Muddy and Virgin Rivers.
- Performed spatial analysis and mapping in support of the Surface Water projects related to the ICS.
- Migrated water resource-related data sets used to comply with /reporting requirements into a centralized data repository.
- Implemented upgrade of AQUARIUS software including deployment of centralized AQUARIUS 3.0 server and customized reporting to increase analysis and efficiency.
- Completed irrigation system improvements on the ranch properties.
- Drilled, equipped, and brought online 4 new irrigation wells on the Harbecke and Wahoo ranch properties.
- Obtained the Final Environmental Impact Statement and Record of Decision from the BLM and the final Biological Opinion from the U.S. Fish and Wildlife Service, for the GWD Project.
- Continued restoration work for recovery of the endangered Moapa dace on the Warm Springs Natural Area.

SNWA Strategic Plan Goal - Build and operate necessary facilities to treat and deliver water.

2013/2014 Department Goals

- Manage and optimize development of existing water resources through existing and planned facilities in time to meet all demands cost effectively.
- Address community and environmental concerns when planning, designing, constructing and operating facilities.

2013/2014 Performance Objectives

- Participate in design and construction of facilities to develop water resources.
- Lead and participate in the Annual Water Resource Management Planning group to effectively manage Colorado River resources to meet demands, efficient facility operations, water quality objectives, and water resource management objectives

2012/2013 Major Accomplishments

- Continued operation of Coyote Spring facilities in cooperation with Moapa Valley Water District and the Muddy Valley Irrigation Company to successfully convey SNWA Coyote Spring valley groundwater to right the lower Muddy River and Lake Mead for Imported ICS credits.

Note – As this document goes to press the SNWA Water and Environmental Department was being reorganized. Division layout and responsibilities may be slightly different than the descriptions shown above when the reorganization is complete.

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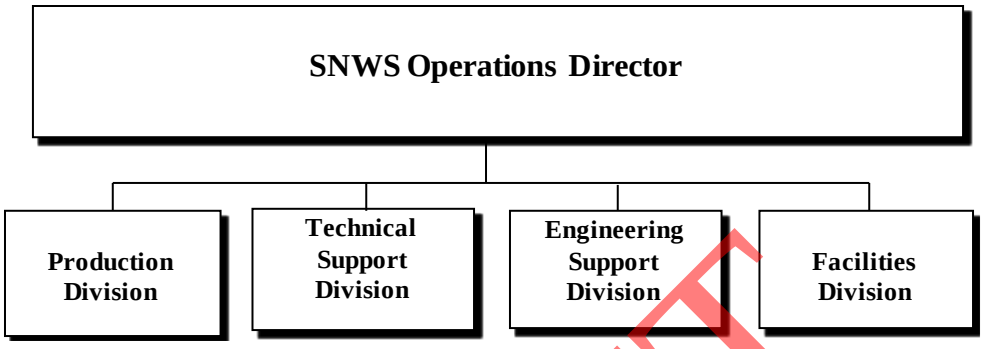
SOUTHERN NEVADA WATER SYSTEMS OPERATIONS
Level: 4200



MISSION

To serve Southern Nevada Water System (SNWS) customers by delivering high quality drinking water to the greater Las Vegas area through efficient, reliable, state-of-the-art delivery systems.

DEPARTMENT DESCRIPTION

The SNWS Operations Department is the operation and maintenance department of the Southern Nevada Water Authority (SNWA) responsible for a regional system of water treatment plants, pumping stations and transmission facilities that supplies water to the water purveyors in Southern Nevada.

The primary responsibility of the department is to deliver the water supply drawn from Lake Mead to the five water purveyors in Southern Nevada: The Cities of Boulder City, Henderson and North Las Vegas, the Las Vegas Valley Water District (LVVWD), and Nellis Air Force Base. The SNWS Operations Department consists of four divisions: Production & Distribution, Facilities, Technical Support, and Engineering Support. The divisions work cooperatively in a team atmosphere to solve the daily challenges and plan for meeting water delivery requirements

The table on the following page is a listing by type of the major SNWS water facilities from 1996 to present.

The SNWS Operations budget represents a continuation of maintaining operations and meeting the 2013-2014 budget objectives. The Production division is holding the line on maintenance material costs by rebuilding and repairing of failed equipment as opposed to replacement where possible, which is reflective in budget reduction. The Production facilities' maintenance is at an minimal level to meet existing demands.

Please see Budget Expenditure Details on Following Page

DEPARTMENT PERFORMANCE

Water Production and Delivery. The Production division is responsible for the operation and maintenance of the production facilities and distribution system. The division ensures that facilities and equipment are maintained at a level to fulfill the Authority's contracted water delivery commitments. This is a large, complex system consisting of 31 pumping plants, 36 rate-of-flow control stations (ROFCS), more than 163 miles of large diameter pipeline, and over 60 regulating tanks, reservoirs and surge towers.

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Southern Nevada Water Systems
1996 - 2012 INCREASE IN MAJOR WATER FACILITIES
FISCAL YEAR ENDING JUNE 30

Facility Type	1996	2000	2004	2008	2012
Plant Facilities	1	1	2	2	3
Plant Capacity	400	600	750	900	1,015
Metering Stations	16	25	31	35	36
Pumping Plants	13	21	27	28	31
Reservoirs and Forebays	14	23	27	28	32
Rechlorination Facilities	-	8	12	9	11
Ozone Treatment Facilities	-	-	2	2	3
Ozone Treatment Capacity	-	-	750	900	1,015
Miles of Pipeline	65	119	155	163	163
Acres	82	161	508	559	560
Square Feet	121,649	353,403	509,405	610,133	624,804
Total Facilities	49	78	101	104	116

Budget Expenditure Details

	2011 - 2012 Actual	2012 - 2013 Budget	2013 - 2014 Budget
Salaries and Wages	$ 12,763,518	$11,451,319	$ 11,372,435
Materials and Supplies	2,129,630	2,443,757	3,843,907
Maintenance and Repairs	385,409	675,000	700,000
Rentals and Leases	74,507	150,000	150,000
Other Employee Expense	109,328	98,380	89,030
Other Operating Expense	774,499	922,860	891,241
Capital Outlay	667,125	1,175,000	308,000
Major Construction			1,959,000
Total	$ 16,904,016	$ 16,916,316	$ 19,313,613

Full Time Equivalent Positions

2011 - 2012	2012 - 2013	2013 - 2014
94.00	96.00	89.00

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The Production operations section is responsible for operating and monitoring the system from a central location via the Supervisory Control and Data Acquisition (SCADA) system. Operators control pumps and valves at all pump stations, and monitor flows, tank levels, system pressures, chlorine residuals and other information through the SCADA network. Purveyor 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. An energy analyst assists operators by coordinating open market electrical power purchases, and developing pumping schedules to meet demands in the most efficient manner. Over the next two years, we will continue the installation of the new SCADA system.

The Electrical/Electronics section consists of a team of technicians responsible for all levels of reactive, preventive and predictive maintenance, emergency repair, new construction, retrofitting, and installation and upgrading of all systems and equipment. The section's responsibilities are to maintain, repair, upgrade and monitor the power distribution and process control systems belonging to SNWS. All SNWS pump stations and ROFCS are fully automated and remotely controlled. This allows 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 volts direct current to 13.8 kilavolts, working closely with the Colorado River Commission (CRC). In cooperation with Laboratory and Treatment, the section also maintains all process control monitoring equipment with close tolerance of prescribed limits, ensuring the accuracy and reliability of the high quality water SNWS delivers to its customers.

The Mechanical section 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. The section is also responsible for the heavy support maintenance and repair of all 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 Team raw water facilities including re-staging, repair and maintenance issues with pumps, motors, and valves associated with Intake Pumping Stations 1 and 2, the raw water booster pumping stations and the future Intake Pumping Station 3 facility.

The Production Resources and Energy Services section focus its efforts on improving the accountability and efficiency of Production and Distribution. The main areas of emphasis are: Improve the efficiency and the quality of the water billing data; work with our purveyors to increase the reliability and accuracy of the data; develop a methodology for tracking both revenue and non-revenue water flows and quantify the amount of non-revenue water; develop a method to track pumping costs at every ROFCS in the system; work with the CRC to ensure our electric power costs are minimized; measure the efficiency of the pump stations throughout the SNWS system and compare to historical data for accountability; conduct pump tests and analyze the data to determine when it is time to repair or replace a pump; and develop, with the assistance of the CRC accountants, an accurate and timely cost tracking system for SNWS power costs.

Technical Support Services. The mission of the SNWS Technical Services division is to align business processes and plant operations with process-oriented and project driven solutions utilizing strategic business intelligence, knowledge management, systems and support alignment, change management and business case models. The Division provides distinct value-add to the organization, work groups, teams, leadership and process.

Technical Support is the resource staff for managing the Maintenance Management Integration & Support (MMI&S) Program and its subsidiary programs, plans and accepted best practices. The MMI&S Program is designed to address process standardization, continuous

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process improvement, support the SNWS cost accounting improvement initiative and issue resolution for all SNWS maintenance management processes and related Computerized Maintenance Management Systems.

Engineering Support. The Engineering Support division was created in late 2012. This is a small group of engineers and engineering technicians that deal with daily/emergent issues associated with Production and Treatment operations. As part of this reorganization, the formal Cathodic Protection Asset Management Program that was developed in 2007 and the engineers and technicians tasked with providing this service have been transferred to the LVVWD Asset Management team in late 2012.

The major construction projects requiring extensive engineering or construction management are still under the SNWA Engineering Department responsibility. Engineering Support will provide technical assistance in the event any questions arise.

There are three active MCCP projects were being worked on by SNWA and SNWS Engineering Support. The larger project, SCADA upgrade, has the equipment slated for install in 2013 which will require dedicated engineering as well as computer aided design (CAD) support during the field integration of the control system to the SNWS pumping and ROFCS.

The Engineering Support division continues to provide day-to-day response to technical request to resolve maintenance/operational issues and to assist in promoting process improvements. As part of the process improvement, the Power and Energy Efficiency Reporting (PEER) Team worked with Production and Treatment technicians to increase the overall visibility of power consumption in the system. All pump tests were completed in 2012 and the results will be utilized in the new SCADA system as the efficiency portion of Water Flow 2.0 (WF2.0).

Engineering Support is still responsible for the AMS Technical Library, Operations and Maintenance Manuals, Programmable Logic Controller, Graphic User Interface equipment and Electronic protective device Programs as well as maintaining the electronic files of the CAD/drawings associated with the maintenance of our system. A new initiative will be implemented to identify all documents and drawings by the SNWS Site identifier used in the maintenance management system and eliminate outdated/superceded documents and manuals.

The Engineering Support technicians, who form the SNWS CAD group, are working with the Knowledge and Technology group at SNWA in an effort to become more standardized in the overall drawing maintenance program. The goal is to make drawing access for all departments a reliably accurate and site specific process of getting maintenance information. The two groups meet quarterly and interact as one group when appropriate to work on a single prioritized list of projects that need to be completed.

Facilities. The Facilities division is responsible for the repair, maintenance, security, cleaning and servicing of all SNWS buildings and facilities, including landscape and roadways. This group is tasked with ensuring that 111 facilities and 559 acres exceed SNWS standards for appearance, quality and cost-effectiveness. Facilities provides support during the design and construction of new facilities, as well as, site remodeling and/or retro-fit support for existing structures.

While a major objective of the Facilities maintenance section is to competently manage preventative maintenance in order to optimize equipment life and increase reliability, it is also responsible for proper care and operation of fire protection and life safety systems, climate control for personnel and mission critical equipment, repair and maintenance of plumbing systems, and integrity of facility structural components including building facades, sidewalks, and roofs. Additional critical tasks include support for the Environmental Health and Safety and Risk Management Divisions in order to maintain site safety and regulatory compliance, as well as implementing tactical and strategic energy cost saving measures. Team members of this workgroup include groundskeepers, painters,

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facilities maintenance technicians and an electrician.

On a daily basis, the Facilities Services team, comprised of custodians, reliably maintains an orderly, clean and compliant environment at all occupied sites. Additional key responsibilities involve conference or meeting preparation and room set-up, coordination of audio-visual equipment, managing the division's sustainability efforts which include the site recycling programs and administration of custodial, landscaping and pest control products. This workgroup also supports numerous ancillary tasks including furniture moves, safety compliance remediation, landscaping support and assistance with building repairs.

STRATEGIC PLAN OBJECTIVES AND ACCOMPLISHMENTS

SNWA Strategic Plan Goal– Build and Operate Necessary Facilities to Treat and Deliver Water

2013/2014 Performance Objectives

- Continue to maintain vigilance of the software and hardware products used within our system and promote technologies/communications that reduce or eliminate potential Cyber Security Risk.

2012/2013 Major Accomplishments

- Completed American Water Works Association sponsored American National Standards Institute Cyber Security Training for Controls Systems used in critical infrastructure

SNWA Strategic Plan Goal– Participate in and work to influence all strategies, issues and concerns that affect the water quality and water resources for the Authority.

2012/2013 Major Accomplishments

- Worked with Moapa and SNWA to resolve sensor and reporting issues associated with the Bowmen Reservoir dechlorinazation station.

SNWA Strategic Plan Goal– Provide water resources and regional facilities that reliably meet the needs of the member agencies.

2013/2014 Performance Objectives

- Continue to fabricate and install the composite wall panels for Alfred Meritt Smith (AMS) 300E Project.
- Complete the replacement failed variable frequency drives (VFD) to provide system operability and reliability.
- Complete installation of power monitoring equipment at pumping stations to provide information for power consumption optimization.
- Remove, sandblast, paint and refurbish cone valves at various sites.
- Remove horizontal split case pumps, sandblast exterior/interior, Belzona interior and rebuild pumps at pumping stations (PS) 1B and 2B.
- Remove and replace pump seals at PS1C and 2C.
- Remove and replace 20" Discharge Isolation valves at PS1B and 2B.
- Remove and replace 30" Suction Isolation valves at PS1B and 2B.
- Replace the main breakers at PS03, PS04, PS05 and PS06.
- Provide support to maintenance engineering to move all field device interfaces to the programmable logic controllers in support of the SCADA Upgrade Project and also provide support for various tests requested by maintenance engineering such as pump efficiency testing and data collection for

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air/vac modeling at Intake Pumping Station (IPS) 2.

- Continue with the refurbishment of the remaining cone valves at IPS1.
- Replace existing steel air line with a stainless steel line from the compressors to the surge tank at Pump Station Boulder City Raw.
- Install a re-fresh line for the surge tanks at Pump Station Boulder City Raw.
- Work with treatment to install a new chlorine line to prevent quagga mussels.
- Remove, sandblast, and paint the interior of an Ebara split case pump at PS1A.

2012/2013 Major Accomplishments

- Completed the fabrication of a large portion of the composite wall panels for AMS 300E Project
- Replaced ultrasonic discharge flow meter with an averaging differential pressure meter and located it in a straight run of pipe inside the fence at River Mountain Water Treatment Facility.
- Installed power monitoring system at PS03 to provide data for the power efficiency project.
- Removed and replaced failed VFDs #2 and #10 with a reduced voltage soft start which converts this pump to a constant speed pump.
- Replaced 96" Dresser Coupling on the Discharge Header at PP1A.
- Provided support to the engineering group with dewater/rewater of the Burkholder Reservoir Inlet Header pipe for repair, inspection of Burkholder Reservoir Cell`s A,B,C & RMPS A & B Forebay while maintaining flow to the south valley lateral.
- Dewatered, rewatered and repaired leaks on suction header & replace suction isolation valves.
- Installed raw water auxiliary pump cooling line at BPS1A to prevent loss of the plant/lateral in the event potable/utility water is lost.
- Three cone valves at IPS1 were sandblasted of all lead based paint, new stainless steel and bronze bushing installed, painted with Belzona and replaced the out dated micro switches with a new single rotary switch.
- Disassembled Flowserve pump 1 at BPS1A to verify cavitation damage for warranty claim.

SNWA Strategic Plan Goal– Ensure organizational efficiency to achieve rate stability and customer value.

2013/2014 Performance Objectives

- Complete the sensor/monitoring task associated with the PEER team objective. The PEER Team was organized to develop an accurate power production energy usage reporting program, so that energy usage/cost are systematically identified and timely operational strategies can be made to effectively enhance power production and reduce energy consumption.
- Outline and document SCADA graphic programming.

2012/2013 Major Accomplishments

- Completed "bench test phase" and implementation phase of the WF2.0 project.
- Completed pump efficiency testing to support the PEER project.
- Completed system wide pump test with results compiled into a spreadsheet. This data was submitted to the SCADA programmer to be integrated into the WF 2.0 program.

SNWA Strategic Plan Goal – Employ Sustainability Concepts in All Activities

2013/2014 Performance Objectives

- Utilize pump efficiency tables generated from the PEER Team test data to manually operate the old non-water flow pump program request to in the most efficient sequence.

2012/2013 Major Accomplishments

- Decreased the use of paper cups at SNWS.
- Expanded the Sustainability culture beyond just that of paper cups.

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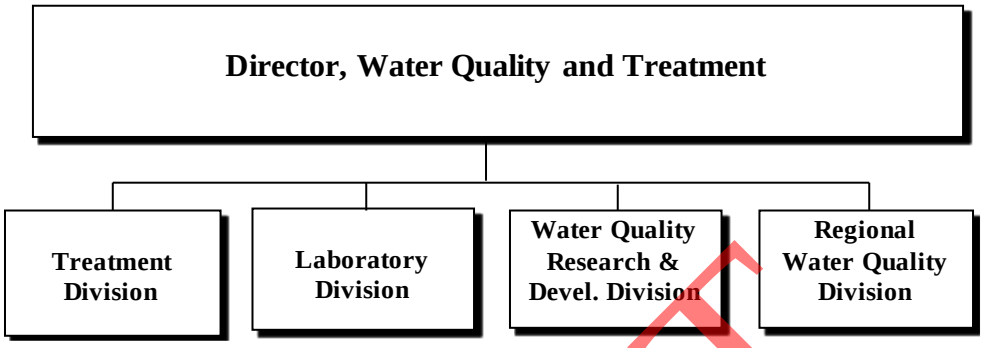
SOUTHERN NEVADA WATER SYSTEMS
WATER QUALITY & TREATMENT
Level: 4500



MISSION

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

DEPARTMENT DESCRIPTION

The primary responsibility of the Water Quality and Treatment (WQ&T) Department is to ensure that the water quality provided to 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 Water Quality Research & Development Division is responsible for performing research and process optimization studies to ensure the operation is prepared for changing and emerging water quality challenges. The Laboratory Division is responsible for ensuring compliance with the SDWA requirements. The Regional Water Quality Division is responsible for the stewardship of the water quality in the SNWA source waters. All of these efforts are in support of the primary responsibility for the Department.

Please see Budget Expenditure Details on Following Page

DEPARTMENT PERFORMANCE

Treatment

The Treatment Division is responsible for the operation and maintenance of two treatment facilities, Alfred Merritt Smith (AMS) and River Mountains (RM), with a combined design treatment capacity of 1000 million gallons per day. The Division, through a supervisory 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. One significant area of cost control for treatment operations is in optimal use of treatment chemicals.

Each operator must be certified for water treatment by the Nevada Division of Environmental Protection (NDEP) to the appropriate level for his/her 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,

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Budget Expenditure Details

	2011 - 2012 Actual	2012 - 2013 Budget	2013 - 2014 Budget
Salaries and Wages	$ 12,786,604	$ 13,166,241	$ 14,060,686
Materials and Supplies	3,514,497	4,084,610	4,104,940
Maintenance and Repairs	748,967	915,550	858,000
Rentals and Leases	268	-	-
Other Employee Expense	81,005	98,250	109,600
Other Operating Expense	316,165	1,224,100	1,054,550
Capital Outlay	359,384	1,302,000	2,409,630
Total	$ 17,806,890	$ 20,790,751	$ 22,597,406

Full Time Equivalent Positions

2011 - 2012	2012 - 2013	2013 - 2014
95.00	92.85	93.85

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 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 serves as the primary point of contact for all laboratory customers, including the private laboratories with whom we contract for analytical services. The Monitoring Section is responsible for collecting samples in the distribution systems of Southern Nevada water purveyors. The Monitoring, Chemistry and Microbiology Sections subsequently perform a variety of analyses on these samples. In addition, the Laboratory completed all 2012 SDWA monitoring requirements for the 13 Clark County public water systems that 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 Water Quality Research & Development pilot plant and grant-funded research projects. With 37 employees, approximately 34,000 samples were collected and 315,432 analyses performed in 2012. The following figure shows the total number of laboratory analyses through calendar 2008-2013.

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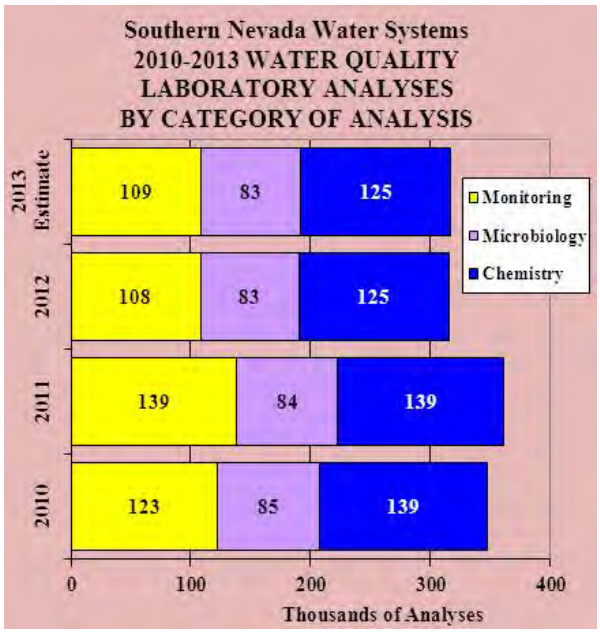

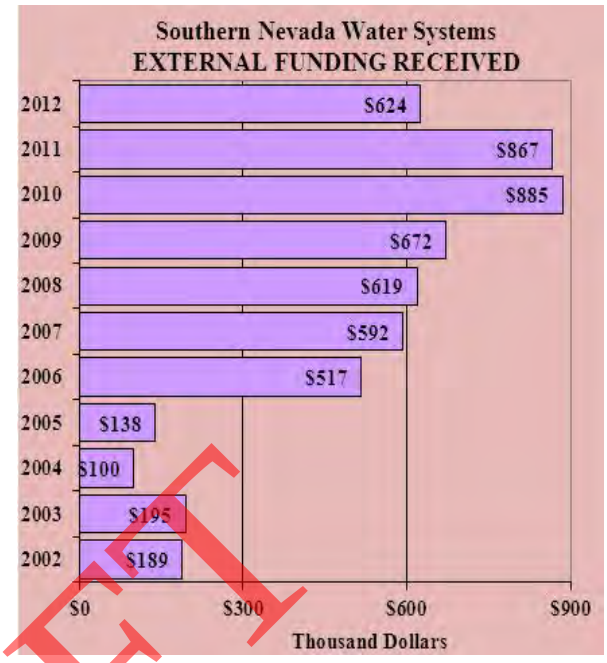

Water Quality Research & Development

The Water Quality Research & Development (R&D) Division is involved in cutting-edge investigations into 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 Division is comprised of Research & Development, Analytical Research and Development and Applied Water Quality Research Sections.

The mission statement of the Water Quality R&D Division is "We perform leading-edge water quality research and provide innovative treatment solutions for the drinking water community." The following figure graphically presents the annual amount of water quality research funding received from outside sources between 2002 and 2012.

Regional Water Quality

The Regional Water Quality Division is responsible for coordination of regional water quality issues within the Authority 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 to compile, validate and analyze all water quality data collected in these water bodies, as well as the data collected from Lake Mead by other agencies and SNWA. All data collected is uploaded into the Lower Colorado River Regional Water Quality Database (Database) available at www.snwawatershed.org/members. Data is also analyzed to determine impacts of nutrients, quagga mussels, perchlorate, total dissolved solids, selenium and other contaminants on the water quality in Lake Mead and the drinking water supply. In 2011/2012 the sampling programs in the Las Vegas Wash and Lake Mead were evaluated and redundant sampling was eliminated.

In 2010/2011 the Regional Water Quality Division received a WaterSmart grant for the amount of $180,000 from the Bureau of Reclamation to assess the impacts of climate change on water quality in Lake Mead. This effort continued in 2011 – 2012. Water Quality changes at the SNWA intakes and at Hoover Dam

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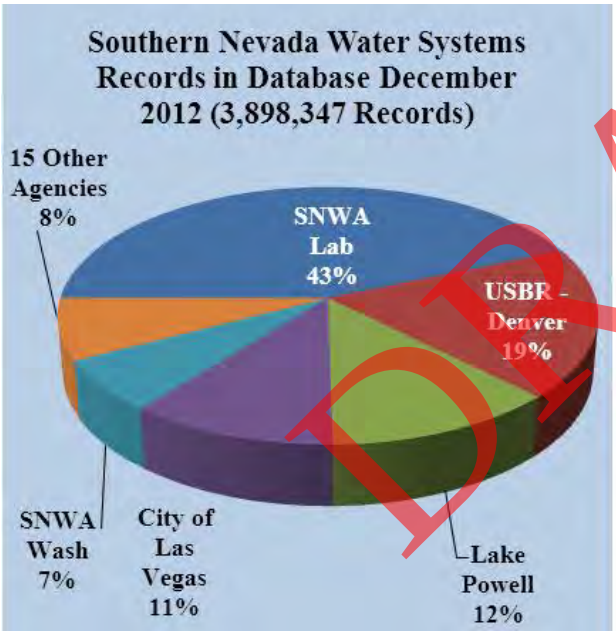
are in the process of being assessed using a three dimensional model developed by Flow Sciences Inc. The model is not only looking at water quality changes during falling lake levels, it also assess differences when water levels rise rapidly, as they did in 2011.

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 Mexico border, which makes the Database a truly regional database. The NDEP understands the value of these data and provided a $50,000 grant in 2012/2013 for database management. There are currently 3,898,347 records in the Database as shown by the following figure.



STRATEGIC PLAN OBJECTIVES AND ACCOMPLISHMENTS

SNWA Strategic Plan Goal– Participate in and work to influence all strategies, issues and concerns that affect the water quality and water resources for the Authority.

2013/2014 Performance Objectives

- Expand the calculation for chlorine disinfection to include the clearwells at both treatment facilities.
- Apply for phase IV award from the Partnership for Safe Water for the RM and AMS Water Treatment Facilities.
- Provide support to allow for installation of a permanent chloramination system for Intake 2.
- Initiate research to optimize the use of porous plastic media for the biological removal of ozone byproducts.
- Initiate research to evaluate bromate formation using different ozone mass transfer methods.
- Initiate development of analytical methodologies for the detection and characterization of nanoparticles in water
- Initiate research on a "Comprehensive Occurrence Study of Nitrosamines at Denver Water"
- Initiate research on "Integration of Filtration and Advanced Oxidation: Development of a Membrane Liquid-Phase Plasma Reactor"
- Initiate research on "Water Quality and Supply Impacts from Climate-Induced Insect Tree Mortality and Resource Management in the Rocky Mountain West"
- Continue research on "The Removal of Perfluorinated Chemicals by North American Water Treatment Practices"
- Continue research on "Formation of Nitrosamines and Perfluorochemicals during Ozonation in Water Reuse Applications"

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- Publish reports for the following projects: WRF-06-006, WRF 08-08, WRF 09-10, WRF-08-05
- Collect monthly water quality data on Lake Mohave to determine potential impacts of quagga mussels on the raw water quality for the Big Bend Water District.
- Develop and coordinate sampling plan for fall 2013 Glen Canyon Dam High Flow Experiment to determine water quality impacts to Lake Mead.
- Model potential impacts of quagga mussels and Glen Canyon Dam High Flow Experiments on Lake Mead
- Develop database interface to process and trend water quality data to replace LakeWatch.
- Develop and implement Shallow Groundwater Monitoring Plan for the Las Vegas Wash to satisfy action item in Las Vegas Wash Comprehensive Adaptive Management Plan
- Review new technology that is being offered for analytical microbiology and determine feasibility of adopting some of this new technology into routine monitoring.
- Prepare cost/benefit analysis for replacing current Laboratory Information Management System (LIMS) software with new commercially available LIMS software to increase laboratory efficiencies, reduce testing errors, and improve customer service.
- Ensure all SDWA sampling and analytical requirements are met for the member agencies of the SNWA, as set forth in their annual monitoring plans.

2012/2013 Major Accomplishments

- Research project designed to help water utilities understand the risk of lysing (or breaking apart) algal cells during drinking water disinfection processes. If lysis occurs, taste and odor compounds, algal toxins, and/or disinfection byproduct precursors that may be released into drinking water, which can be of aesthetic or regulatory concern
- A paper by the Water Quality R&D group, "Perchlorate, Bromate, and Chlorate in Hypochlorite Solutions: Guidelines for Utilities," won the AWWA 2012 Water Quality & Technology Division Best Paper Award and Publications Award.
- Continued to coordinate with Metropolitan Water District and Central Arizona Project to ensure they were informed about dewatering activities in the Las Vegas Wash that had the potential to raise the perchlorate concentrations in the Colorado River
- Completed U.S. Geological Survey Circular document, "A Synthesis of Aquatic Science for Management of Lakes Mead and Mohave".
- Completed Lake Mead Water Quality Monitoring Plan. Sampling of Boulder Basin reduced to twice a month, additional sampling of Overton Arm and Colorado River Arm of Lake Mead to take place once a month. Coordinated with the City of Las Vegas to collect monthly sample above Hoover Dam with Clark County Water Reclamation District to analyze the sample.
- Conducted 11 Estuary, Lake and Coastal Ocean Model - Computational Aquatic Ecosystem Dynamics Model runs to determine the impacts of climate change on Lake Mead. Funding for modeling provided by Bureau of Reclamation.
- Organized Lake Mead Ecosystem Monitoring Workgroup to bring federal, state, and local agencies together to discuss findings from an ecosystem perspective. This workgroup replaces the Clean Water Coalition's Boulder Basin Adaptive Management Plan Study Teams and the National Park Service's Water 2025.
- Monitored Glen Canyon Dam High Flow Experiment with the help of SNWA Laboratory, City of Las Vegas, and the National Park Service to determine the impact to Lake Mead water quality.
- Completed 10 year review of shallow groundwater monitoring data from area around Las Vegas Wash.
- Began monthly sampling of the Colorado and Overton Arms of Lake Mead's Upper Basin

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(formerly performed by United States Bureau of Reclamation).

- Installed newly procured equipment and received State Certification for new faster test that can provide a 100% increase in the number of samples that can be processed in a shift. This faster test is needed to support increased monitoring required by the new Stage 2 Disinfection Byproduct Rule.

SNWA Strategic Plan Goal– Provide water resources and regional facilities that reliably meet the needs of the member agencies.

2013/2014 Performance Objectives

- Implement new Emerson SCADA System & Operations Control Room to operate all water treatment and distribution processes.
- Repair and replace filter effluent flow meter/valve combination at AMS Water Treatment Facility.
- Redesign the ferric feed rapid mix system for the RM Water Treatment Facility.

2012/2013 Major Accomplishments

- Installed ultrasonic flow meter for chlorine flow at AMS.
- Performed enhancements to the UPS and other electrical upgrades at AMS.

SNWA Strategic Plan Goal– Ensure organizational efficiency to achieve rate stability and customer value.

2013/2014 Performance Objectives

- Strengthen the laboratory's manual and automated business processes such that all sampling and analytical requirements for compliance with the state of Nevada's drinking water regulations are met.
- The RM Laboratory sample receiving area was remodeled. The floor plan was modified and space was added to accommodate the receipt of large quantities of samples, ensuring that the integrity of each sample is maintained throughout the process.

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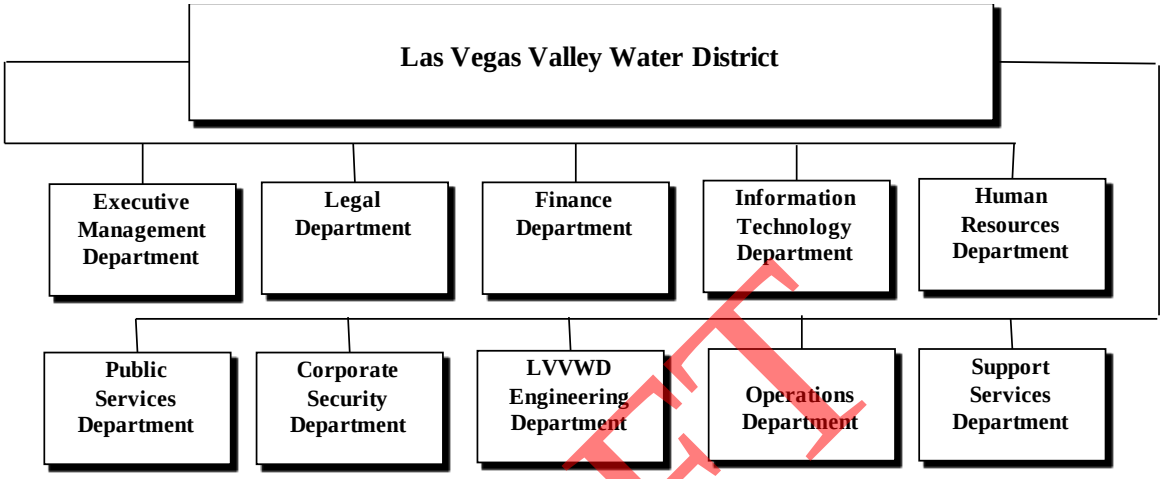
LAS VEGAS VALLEY WATER DISTRICT DEPARTMENTS



MISSION

To provide reliable, quality water, ensuring the sustainability of our desert community and serving our customers responsibly.

DEPARTMENT DESCRIPTION

The Executive Management Department 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 Executive Management Team implements policy as established by the LVVWD and SNWA Boards of Directors.

The Legal Services Department acts as corporate counsel providing legal review of policies and procedures to ensure compliance with applicable laws and regulations. The department reviews contract documents and provides services for the land acquisition associated with SNWA's capital development programs.

The Finance Department is responsible for day-to-day accounting and financial operations, coordinates SNWA's budget process in compliance with Nevada State law, and is responsible for all purchasing related activities such as 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.

The Information Technology Department is responsible for acquisition, administration, and maintenance of software products, installation and maintenance of all computer-related and office management hardware products, ongoing related support, cyber security, and telecommunications.

The Human Resources Department is responsible for recruitment,, employee development, employee relations, benefit plans, compensation and classification plans for the SNWA.

The Public Services Department ensures organizational efficiency and effectiveness, achieves broad community support for water conservation, and supports strategies, issues and concerns that affect the water quality and water resources for Southern Nevada.

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The Environmental, Health, Safety & Corporate Security Department works to ensure organizational compliance with all applicable statutes and maintain the safety and security of our employees, facilities and customers.

The LVVWD Engineering Department lends support to the SNWA Engineering department when needed.

The LVVWD Operations Department is responsible for the day-to-day and long term operation and quality of the water delivery system.

The Support Services Department maintains a fleet of vehicles, support equipment and communications equipment. These items are used in support of SNWA, the Southern Nevada Water Systems (SNWS), the Northern Resources ranch operation and the Warm Springs Natural Area. Services include all repair, maintenance, acquisition and disposition of all vehicles, support equipment, communications equipment and loanable tools.

BUDGET OBJECTIVES AND HIGHLIGHTS

The budgets of the LVVWD departments jointly support the objectives of SNWA as described in previous sections. The following are highlights from selected departments.

The Legal Department is performing a steadily increasing practice before Nevada Administrative agencies and in the courts. Their budget contains continuing funding to support legal services for outside counsel and funds to continue the document centralization and management effort.

The Information Technology Department continues the development and implementation of technology projects that provide daily operational support to SNWA ventures.

The LVWWD Engineering Department provides centralized land survey support for the organization needs of SNWA including support for real property and ranch management and stipulation agreements.

The Support Services Department requests vehicle replacements for vehicles that have reached their end of life cycle. Best management practices would suggest that these vehicles be replaced if serviceability, reliability, repair costs and downtime are to be maintained at an acceptable level. Additionally Support Services requests funds for the installation of a fuel site at the Montessouri satellite station in order to reduce travel and labor costs related to remote fueling of District vehicles and equipment.

Please see Budget Expenditure Details on Following Page

DEPARTMENT PERFORMANCE

To address post-2016 funding needs, LVVWD through its Executive Management department is now overseeing a comprehensive Integrated Resource Planning Advisory Committee process to solicit public input and recommendations to guide future policy making that will enable the SNWA to continue funding infrastructure and system improvements critical to maintaining a reliable water supply for Southern Nevada.

LVVWD ensures that financial statements and reports are accurate, complete and consistent through the SNWA Controller division. Other financial tasks include maintaining the general ledger, inventory, fixed asset and other system records, processing payroll for approximately 1,500 employees and processing accounts payable for over 40,000 payments annually.

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Budget Expenditure Details

	2011 - 2012 Actual	2012 - 2013 Budget	2013 - 2014 Budget
Salaries and Wages	$ 13,923,644	$ 14,291,883	$ 17,362,216
Materials and Supplies	827,129	888,156	879,464
Maintenance and Repairs	500,089	460,511	467,072
Rentals and Leases	72,250	75,100	174,183
Other Employee Expense	359,403	469,088	453,483
Other Operating Expense	17,077,742	14,756,045	14,701,509
Total	$ 32,760,256	$ 30,940,783	$ 34,037,927

Full Time Equivalent Positions

2011 - 2012	2012 - 2013	2013 - 2014
111.00	112.61	137.63

On an information technology basis, LVVWD is responsible for the maintenance and configuration of the SCADA systems. The systems monitor and control two major treatment plants, approximately 50 transmission and rate-of-flow sites, and approximately 100 distribution, well, and rural sites. Additionally, LVVWD maintains and configures the Laboratory Information Management System (LIMS) which supports the Water Quality and Applied Research laboratories. The LIMS system is used for recording all water compliance analyses and assist in the research initiatives of the laboratories.

Analytical, administrative and public affairs support to senior management in the execution of SNWA objectives is the role of the Public Services department. Principal responsibilities include government relations, policy research and analysis, public participation, board administration, legislative outreach, special projects and grant writing.

LVVWD also is responsible for the protection of the water supply, employees, and customers during and after business hours. Security provides fire protection equipment checks, assists with customer parking, escorts customers and visitors to proper areas of business, gives information assistance, monitors access to restricted areas, and allows access and monitors vendors during and after business hours.

STRATEGIC PLAN OBJECTIVES AND ACCOMPLISHMENTS

Note – Strategic goals of LVVWD are similar but not identical to strategic goals of SNWA.

LVVWD Strategic Plan Goal – Ensure adequate water resources to meet community needs reliably.

2013/2014 Department Goals

- Provide comprehensive fleet maintenance, service and support to all SNWA areas of operation.
- Ensure maintenance facilities, fueling facilities, communications infrastructure

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and personnel are in place to support water delivery.

2013/2014 Performance Objectives

- Expand two way radio communications coverage in Spring Valley in-order to enhance the safety and efficiency of personnel working in support of the Northern Resources project.
- Continue to support regional water resource planning and development activities.
- Continue to promote public understanding of water resource issues.

2012/2013 Major Accomplishments

- Constructed a radio repeater site in Spring Valley.
- Added a second technician to the Northern Resources fleet operation.
- Participated in 21 community events, providing information related to conservation, water quality and other issues.
- Coordinated community outreach regarding the Bureau of Land Management Record of Decision on rights-of-way for the Groundwater Development Project.

LVVWD Strategic Plan Goal - Build and operate necessary facilities to treat and deliver water.

2013/2014 Department Goals

- In compliance with the "Safe Drinking Water Act" implement the organizational initiative to remove leaded material items held in inventory and replace with "no/low lead" material items.

2013/2014 Performance Objectives

- Complete installation of SNWA SCADA master stations at the Alfred Merrit Smith Water Treatment Plant and the River Mountain Water Treatment Facility and continue multi-year implementation of SNWA SCADA field systems.
- Continue ongoing security initiatives to include upgrades to systems and applications, as well as launching employee cyber security training and awareness.
- Expand the use of security system technologies to enhance efficiency locally as well as in the Northern Resources.
- Review contracts to ensure environmental, health and safety operational compliance.
- Maintain/update outreach plans for capital construction programs.
- Obtain and administer grant funding for SNWA projects.

2012/2013 Major Accomplishments

- Implemented new real-time SCADA historian for the SNWS and Moapa areas.
- Launched internal/external file share replacement that offers greater security for data exchanges.
- Conducted 325 instructor-led safety training classes with 2,518 participants.
- Negotiated a comprehensive water discharge permit that resulted in $208,000 savings
- Leaded items removed and replaced with no/low lead approved products before the 1/4/2014 SDWA regulation effective date.

LVVWD Strategic Plan Goal – Continuously ensure organizational efficiency and effectiveness to achieve rate stability and customer value.

2013/2014 Department Goals

- Reduce inactive inventory by $2.1M over a five year period.
- Reduce operating expenses by 20%.
- Reduce costs on sole source and items that are exempt from competitive bidding.
- Develop comprehensive understanding of the operations and functions of the

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Authority departments in order to provide more pertinent and practical legal advice.
- Increase communication between legal and SNWA staff in a coordinated response to legal issues.
- Provide concise, clear and accurate legal opinions.

2013/2014 Performance Objectives

- Upgrade Oracle Financials to streamline accounting processes, ensure legal and regulatory continuity, and maintain software vendor support.
- Continue to enhance PC desktop support and software upgrade capabilities.
- Continue to refine security systems in support of Molasky Corporate Center and treatment plants.
- Continue integration and standardization of Master Specifications between LVVWD and SNWA Engineering departments.
- Continue to monitor the short- and long-term financial health of SNWA and implement the appropriate actions necessary to ensure the financial viability of both organizations.
- Continue the Finance Department's long-standing record of excellence in budgeting and financial reporting.
- Continue reducing operating cost through sourcing efforts, process efficiencies and cost containment measures without compromising safety and or service level.
- Demonstrate employee safety values in our daily operation.
- Formally negotiate contracts that are exempt from competitive bidding.
- Audit invoices of contracts before renewing to ensure charges are in accordance with contract terms.
- Continue to weed out vehicles/equipment that are low usage and not cost effective.
- Maintain "World Class" technician status for 2013.
- Continue to work with internal customers on strategic planning goals and implementation.
- Keep construction on schedule without costly delays due to litigation and arbitration.
- Prevail in adversarial proceedings.

2012/2013 Major Accomplishments

- Converted to MS Exchange (Office) and decommission of Lotus Notes.
- Renewed software license to support departments in meeting their objectives.
- Continued reduction/consolidation of datasets to reduce enterprise storage needs.
- Received the Wendell R. LaDue award from the American Water Works Association.
- Used job sharing within the Finance Department to reassign employees to efficiently address the current workloads.
- Achieved 8 years without a lost time accident at SNWS Material Services and Mail Services.
- Maintained annual inventory variance at less than 1% of $14 million.
- Initiated 12 agenda items and 65 VATs checklists for award of bids, agreements, and other related actions.
- Maintained Automotive Service Excellence "Blue Seal of Service Award" and "World Class Technician Status Award".
- Maintained Fleet Counselor Services and Rocky Mountain Fleet Management Associations as an "Industry Competitive Fleet Management Operation".
- Selected as one of Government Fleet Magazines "Top one hundred Alternative Fuel Vehicle Fleets in North America".
- Supported efforts during the 2013 legislative session.

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LVVWD Strategic Plan Goal – Achieve regionally supported water conservation goals.

2013/2014 Performance Objectives

- Continue outreach efforts and campaigns to promote participation in the SNWA's conservation programs, including specialized Spanish-language advertising efforts.
- Maintain online tools and processes that help customers access and fully utilize SNWA's conservation programs.

2012/2013 Major Accomplishments

- Provided event planning, creative and logistical support for the 2012 Water Smart Innovations Conference and Expo, the world's largest urban water efficiency event.
- Implemented live Twitter feeds to www.SNWA.com.
- Provided field trips for more than 32,000 Clark County School District students during the fiscal year.

LVVWD Strategic Plan Goal – Participate In and Work to Influence all Strategies, Issues and Concerns that Affect the Water Quality and Water Resources for Southern Nevada

2013/2014 Performance Objectives

- Ensure environmental compliance for National Pollutant Discharge Elimination System permits and minimize storm water pollution.
- Ensure environmental reporting is submitted to regulatory agencies prior to agency deadlines.
- Coordinate with member agencies through SNWA managers and principals meetings and ongoing workshops on the issues of water quality, wastewater reuse and conservation strategic planning.

2012/2013 Major Accomplishments

- Collaborated and increased environmental awareness among all departments and divisions.
- Provided logistical and coordination support for SNWA and District Boards of Directors, SNWA principals and SNWA managers' meetings.
- Continued administrative and management functions of the Colorado River Water User's association, including annual conference proceedings.

LVVWD Strategic Plan Goal – Employ Sustainability Concepts in All Activities

2013/2014 Performance Objectives

- Integrate sustainability efforts in daily operations.
- Report the inventory profile for the greenhouse gases report.
- Ensure Environmental Management Systems (EMS) continue to be implemented, incorporating sustainability into each activity, aspect and impact.
- Identify EMS activities and their respective objectives, targets and actions for the EMS and sustainability teams.
- Support and enhance sustainability by testing, evaluating and introducing products, equipment and processes which aligns with sustainable goals and objectives and reduce operating costs
- Order only alternative fueled vehicles for replacements and additions.
- Recondition and reuse service bodies for light duty vehicles.

2012/2013 Major Accomplishments

- Recycled over 1.5 million pounds of materials generating revenue of $978,369.
- Received recognition for sustainability commitment with Republic Services' 2012 Green Awards Best Recycling Program.
- Conducted EMS assessments with other

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divisions to improve processes for significant cost-savings.

- Continued to replace non alternative fueled vehicles with alternative fueled vehicles bringing fleet up to 89% alternative fueled fleet.
- Continued support of the Sustainability Cross-Departmental Team to examine internal processes and develop District/SNWA sustainable practices.

LVVWD Strategic Plan Goal – Enhance and Expand Communication and Collaboration Within and Among Member Agencies and the Southern Nevada Water Authority

2013/2014 Department Goal

- Continue to work and coordinate with outside agencies, community organizations, citizens, and other community stakeholders in the design and construction of SNWA facilities, and the development and dissemination of information resources.

2013/2014 Performance Objectives

- Continue to employ and solicit intradepartmental comments and public opinion within the design and construction phase.
- Partner with other agencies to advance the water industry through exchange of information and knowledge.
- Continue to employ and solicit intradepartmental comments to find opportunities to upgrade, assess, or protect existing facilities by partnering with outside entities and/or developer projects to reduce cost.
- Provide inspection assistance to SNWA in areas of individual inspector expertise.

2012/2013 Major Accomplishments

- Collaborated with North Las Vegas, City of Henderson, Nevada Division of Environmental Protection and Clark County Water Reclamation on water discharge permits.
- Collaborated with Clark County Storm Water Team on compliance of storm water regulations within the valley.

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

2013/2014 Performance Objectives

- Revise department Key Performance Indicators to reflect current business priorities.
- Improve the Learning Management System to provide better scheduling and reporting capabilities for supervisors.
- Submit SNWA's Comprehensive Annual Financial Report (CAFR) for the year ended June 30, 2013 to the Government Finance Officers Association (GFOA) and receive the Certificate of Excellence in Financial Reporting.
- Submit SNWA's Operating and Capital Budget for the year of 2013/2014 to the GFOA and receive the Distinguished Budget Presentation Award.
- Receive unqualified opinion from external auditors for the fiscal 2012/2013 audit.
- Improve the depth of employee skills and resources through cross training within the Accounting and Remittance Processing division and Finance department.

2012/2013 Major Accomplishments

- Implemented a customized development program for managers.
- Received the Certificate of Achievement for Excellence in Financial Reporting for SNWA's CAFR for the year ended June 30, 2012 from the GFOA (seventeenth consecutive year).
- Received the Distinguished Budget Presentation Award from the GFOA for the fiscal 2012/2013 budget.
- Reviewed and improved accounting process and procedure documentation.

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SECTION 7

MAJOR CONSTRUCTION AND CAPITAL PLAN

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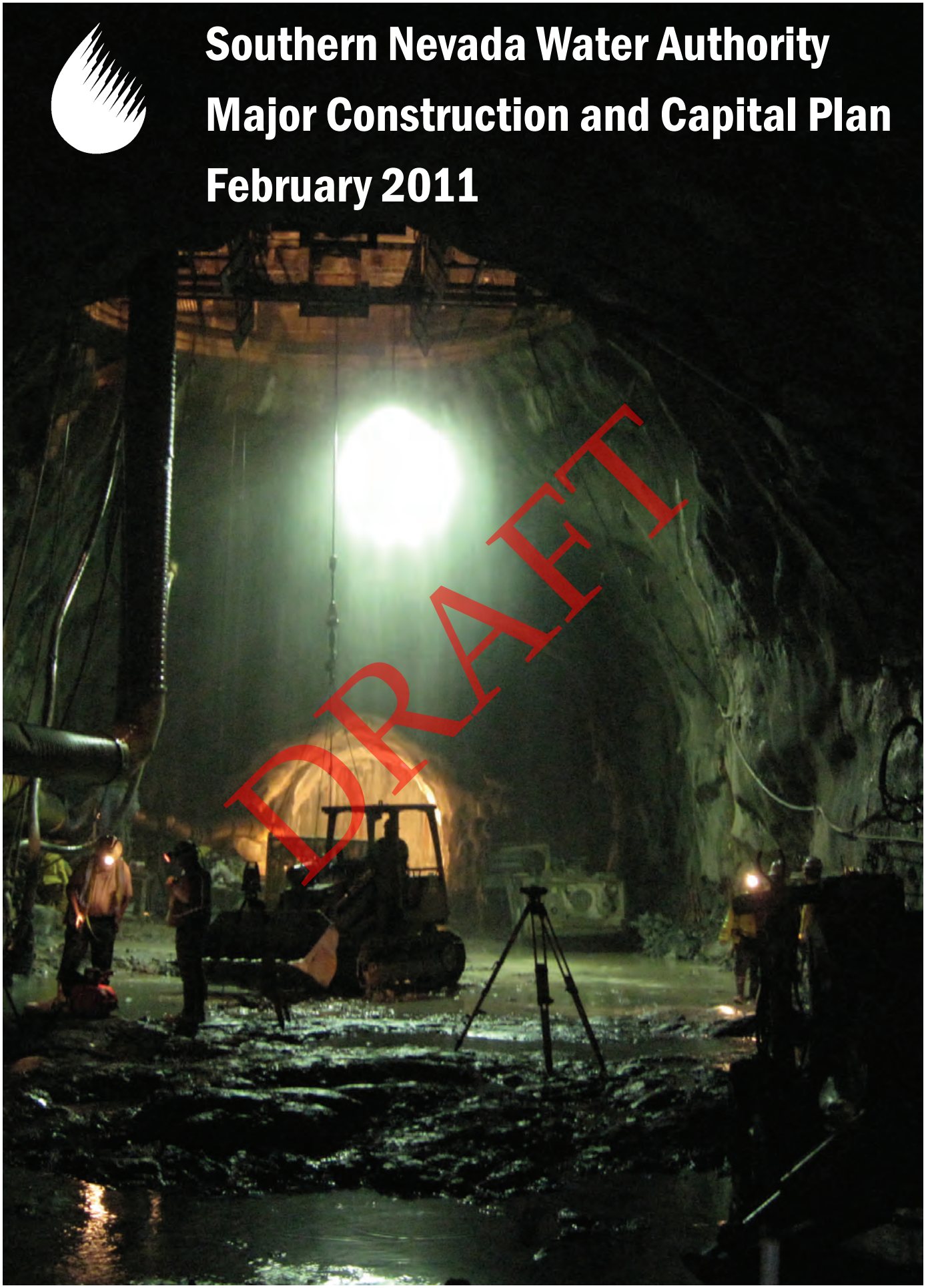
SOUTHERN NEVADA WATER AUTHORITY

FISCAL YEAR 2013/2014
OPERATING AND CAPITAL BUDGET

Southern Nevada Water Authority
Major Construction and Capital Plan
February 2011



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Cover — Project No. 070F 01—Lake Mead Intake No. 3 Shafts and Tunnel. The underground chamber at the bottom of the 600-foot deep access shaft being prepared by Vegas Tunnel Constructors for reception and assembly of the tunnel boring machine.

Chapter 1—Introduction

Background

The Southern Nevada Water Authority (SNWA) was established in 1991 by cooperative agreement among its members to cooperatively address Southern Nevada's unique water needs on a regional basis. SNWA's mission is to manage the region's water resources and develop solutions that will ensure adequate future water supplies for Southern Nevada.

The members of SNWA are comprised of the following agencies having significant responsibility for regional water resources:

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

Efforts to manage Southern Nevada's water resources in a cooperative manner began in the middle of the 20th century when local municipalities, the State of Nevada, and the federal government together began exploring alternatives to deliver Colorado River water to the Las Vegas Valley on an extensive scale. These efforts resulted in a plan for staged financing and construction of the Southern Nevada Water Project. Under the direction of the United States Bureau of Reclamation and the Colorado River Commission of Nevada, the first stage of facilities for pumping, treating and conveying up to 200 million gallons per day of Colorado River water from Lake Mead to the Las Vegas Valley and Boulder City was completed in 1971. An expansion of these facilities to a capacity of 400 mgd was accomplished in 1982. These facilities collectively became known as the Southern Nevada Water System (SNWS).

Ongoing growth in Southern Nevada and increasing demands on the SNWS prompted SNWA to engage community stakeholders in developing a **Capital Improvements Plan (CIP)** to expand the SNWS to a regional capacity of 900 mgd. By 1996, all the projects initiated by the Colorado River Commission over the previous three years and all of the projects identified through the SNWA's integrated planning process had been consolidated into a single CIP. These projects included a second water intake in Lake Mead, a new water treatment facility, and a substantial contingent of water pipeline, pumping, and power supply facilities.

As the progress of the CIP began to approach the goal of a total SNWS capacity of 900 mgd, SNWA recognized that a new capital plan was needed that would provide for accomplishment of capital endeavors that were not directly related to the 900 mgd system capacity goal. Such endeavors could include acquisition of additional water resources, including non-Colorado River resources, system repairs and replacements, water quality enhancements, construction of facilities for increased reliability, and acquisition of energy resources. To identify and authorize these endeavors, in 2002, SNWA created a new capital plan called the **Major Construction and Capital Plan (MCCP)**.

The MCCP has been updated annually and modified in size and scope since 2002 to appropriately meet the changing water needs of the community. In 2010, given that the original purpose of the CIP had been achieved and given the MCCP's greater role as the dynamic document that defines the future major capi-

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tal initiatives of SNWA, the few remaining projects of the CIP were integrated into the MCCP and the MCCP became the single capital plan combining all authorized capital projects and initiatives into a unified document[1]. It reports on the costs of all completed projects of the SNWA. It defines all authorized projects and initiatives for new facilities, acquisition of assets such as water and energy resources, and all other capital related activities. It also identifies estimated costs and schedules for all approved projects and initiatives.

Organization of the MCCP

The MCCP includes a wide variety of projects, acquisitions, and initiatives addressing various objectives. To facilitate clarity and order, projects, acquisitions and initiatives are organized by chapters corresponding to their general purpose or other distinguishing characteristics. Chapters may be added or phased out in future amendments according to current needs and conditions.

The chapters of this issue of the MCCP defining the projects, acquisitions, and initiatives currently approved for implementation are organized as follows:

Chapter 2 - Water Resources. Projects, acquisitions or initiatives defined in this chapter require capital funding but may not involve the construction of SNWA facilities. Examples include planning for and study of future facilities, purchasing water resources, funding for permanent water conservation achievements and participation in resource initiatives that allow Southern Nevada to share in Colorado River storage and efficiency improvements.

Chapter 3 - Power Supplies and Energy Resources. Projects, acquisitions or initiatives described in this chapter are associated with procuring, generating, or transmitting electrical power for the energy requirements of the SNWS.

Chapter 4 - General System Improvements. Projects, acquisitions or initiatives defined in this chapter include construction of new facilities; upgrades; repairs and replacement of existing facilities or equipment to maintain or improve system reliability; and studies or engineering efforts related to the mission of the SNWA.

Chapter 5 - Intake No. 3. The projects defined in this chapter are associated with the establishment of an additional water intake in Lake Mead to preserve the ability of SNWA to deliver water from Lake Mead under drought conditions.

The chapters include brief descriptions of each project, acquisition or initiative. For simplicity, every approved project, acquisition, or initiative described in each chapter is referred to as a "project". Tables in each chapter provide pertinent information as follows:

- The expected year of completion for each project, with projects grouped together by expected year of completion.
- Project numbers and titles that are used to facilitate identification and management of project activities and costs.

[1]The Las Vegas Wash Capital Improvements Plan defines projects and initiatives under an authorization and funding program separate from the MCCP. The Las Vegas Wash Capital Improvements Plan is not a part of the MCCP.

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- Estimated costs to complete each project that include administration, design, construction, and contingency, as appropriate.

Some projects in the tables are indicated to be deferred in response to current economic conditions. The tables include estimated costs to complete deferred projects, but those costs are given in current dollars since their planned dates of completion are not defined.

In the appendices are found identification of candidate projects, abbreviations and notes, projected future cash flow, cost variances from the previous MCCP amendment, funding sources, and completed projects.

The MCCP will be periodically revised in response to future reliability, water quality, system capacity, and water resource needs and in accordance with the SNWS Facilities and Operations Agreement. Updates to the MCCP will summarize the current state of the MCCP, highlight changes from the previous published MCCP, and contain revised tables which indicate the current costs and forward direction of the MCCP.

Overview of Current Status

Since the last amendment of the MCCP, five projects with a total cost of $139.4 million have been completed. Two new projects have been added and one project has been split off from an existing project. Three previously deferred projects have been reactivated.

A total of 58 projects are defined by the MCCP, not including the completed projects. The current estimated total cost of these projects is $2,593.1 million. However, 34 projects are to be deferred to reduce cash flow requirements during current economic difficulties. Deferred projects will be in stasis until economic conditions improve or necessity demands that a deferred project be reactivated. The total estimated savings from the deferred projects is $394.6 million. Over 60% of this amount is a result of deferring components of the Intake No. 3 program. The remainder consists mostly of deferred general system improvements. The estimated future expenditures for the remaining active projects is $1,258.4 million.

The 24 projects identified in this MCCP that continue to be active are in various stages of progress. Water resources and Intake No. 3 projects comprise over 90% of all active project costs.

Of these active projects, approximately $902.7 million has already been spent. The following chart shows the estimated costs to complete the combined active projects of the MCCP.

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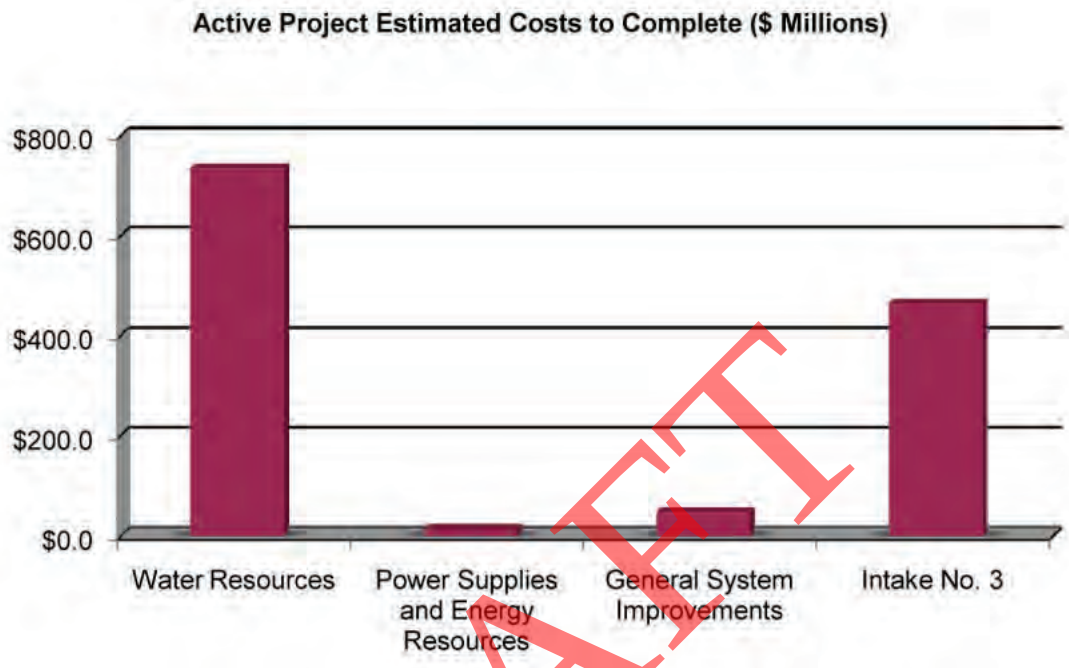
Active Project Estimated Costs to Complete ($ Millions)
$800.0
$600.0
$400.0
$200.0
$0.0
Water Resources
Power Supplies and Energy Resources
General System Improvements
Intake No. 3

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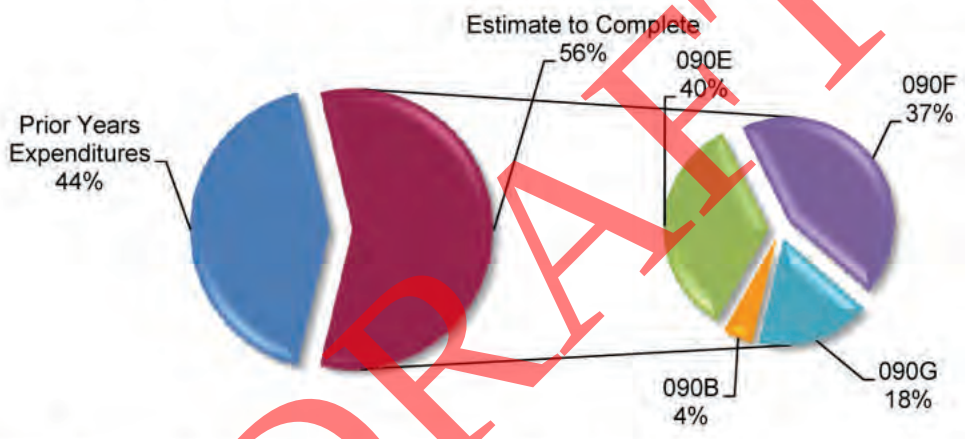
Chapter 2—Water Resources

Water resource projects require capital funding but may not involve the construction of SNWA facilities. Examples include planning for and study of future facilities to access and convey new water resources, purchasing new water resources, funding for the Water Smart Landscapes Rebate program, and resource initiatives such as Arizona Groundwater Banking. These water resources are more thoroughly defined in the SNWA Water Resource Plan.

The estimated total cost of the active water resources projects is $1,306.9 million of which $572.3 million has been spent and $734.6 million is the estimated cost to completion as shown in the following chart.

Chapter 2 - Water Resources Active Project Cost Distribution ($ Millions)



090B - Virgin and Muddy Rivers Water Resource Acquisition	$33.0
090E - Interim Colorado River Supplies	$292.8
090F - Water Resource Acquisition and Development	$273.4
090G - Clark, Lincoln and White Pine Counties Groundwater Development	$135.4
Estimate to Complete	**$734.6**
Prior Years Expenditures	**$572.3**

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The summary table below groups the approved projects by the expected year of completion; however, many of these projects are of such a long-term, ongoing character that the identified completion year should be considered as very approximate.

Water Resources

Project Number and Title		Estimated Cost to Complete (Millions)
2020 Completion Year		
090B	Virgin and Muddy Rivers Water Resources Acquisition	$33.0
090F	Water Resource Acquisition and Development	$273.4
090G	Clark, Lincoln and White Pine Counties Groundwater Development	$135.4
2024 Completion Year		
090E	Interim Colorado River Supplies	$292.8
Total Number of Projects = 4	***Total***	**$734.6**

Deferred Projects

Project Number and Title		Estimated Cost to Complete (Millions)
090F06	Water Resource Acquisition and Development—Future Desalination Development	$54.3
Total Number of Projects = 1	***TOTAL***	**$54.3**

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Project Descriptions

090B – Virgin and Muddy Rivers Water Resources Acquisition
These costs represent acquisition of water shares in the Muddy Valley Irrigation Company and other water rights on the Muddy River and Virgin River.

090E – Interim Colorado River Supplies
This project includes funding for the Arizona Banking project and the Brock Reservoir on the All American Canal in California. The Arizona Banking project includes banking of Colorado River water in Arizona for Nevada's future use. An April 1, 2009 second amended agreement between the Southern Nevada Water Authority (SNWA), the Colorado River Commission (CRC) of Nevada and the Arizona Water Banking Authority (AWBA) guarantees 1.25 million acre-feet of water will be banked as long-term storage credits for the SNWA, including previously established storage credits. At the end of the calendar year 2010, AWBA has stored an estimated 600,252 acre-feet of the 1.25 million acre-feet of storage credits to be banked for SNWA. The second amended agreement allows SNWA to recover a maximum of 40,000 acre-feet annually (68,000 AFY with return flow credits) for consumptive use in Nevada until all the storage credits have been recovered or the year 2060.

The Brock Reservoir will store Colorado River water ordered by the Imperial Irrigation District, but not immediately needed, at the Brock Reservoir on the All American Canal in California's Imperial Valley. The storage of water in this reservoir will improve the efficiency of the Colorado River system and reduce system losses. By funding this reservoir, the Authority will obtain the rights to a significant volume of additional Colorado River water. These water supplies are akin to those acquired through the Arizona Groundwater Banking agreement. The cost of funding the Brock Reservoir has been combined with the cost for Arizona Groundwater Banking in a revision of the previously approved Project No. 090E, now called Interim Colorado River Supplies.

090F – Water Resource Acquisition and Development

Funding is provided to acquire water rights and to develop the water resources needed to meet the needs of the Southern Nevada community. These water resources include the Colorado River and Nevada's in-state water resources. For example, purchase of ranches in northern Nevada allows SNWA to acquire water rights to manage groundwater development in a manner that protects the environmental value of the area and the sustainability of the basin's aquifer. Funding is also provided for preliminary augmentation studies for brackish and ocean desalination and river basin imports to help meet long-term future needs. Funding for this project was increased in 2009 to include the ongoing costs of the Water Smart Landscapes Rebate program, which permanently removes high water use turf from residences and businesses in favor of low water use landscaping.

090F06 – Water Resource Acquisition and Development — Future Desalination Development

Funding for this project is associated with development of brackish and ocean desalination facilities to help meet the long-term needs of the Southern Nevada community.

090G – Clark, Lincoln and White Pine Counties Groundwater Development

Activities for this project include hydrologic studies, drilling of wells, preliminary facility planning and design, and environmental analysis required to secure permits and federal approvals for development of groundwater resources in Clark, Lincoln, and White Pine counties. Currently funding for this project does not include funding for design and construction of facilities.

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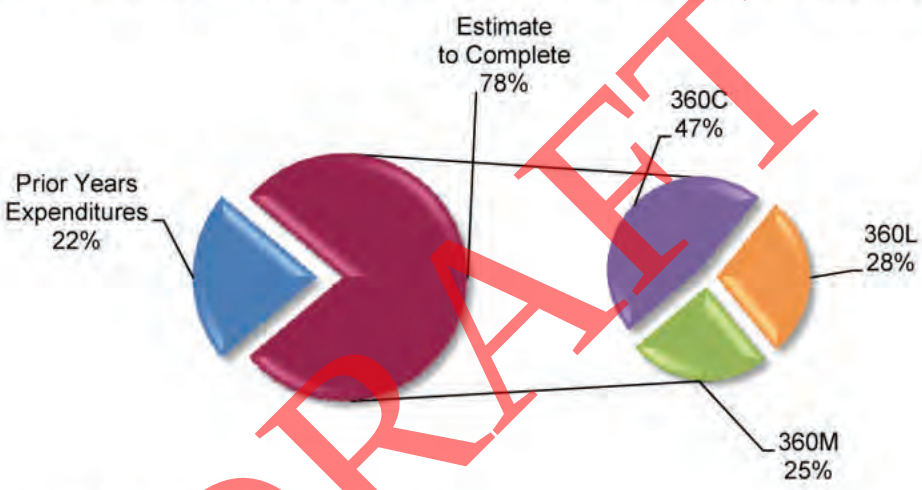
Chapter 3 - Power Supplies and Energy Resources

Projects in this chapter are associated with procuring, generating, or transmitting electrical power for the energy requirements of the SNWS. One project is listed as "deferred" in response to current economic conditions as projects are prioritized according to need and available funding.

The estimated total cost of the active power supplies and energy resources projects is $16.6 million of which $3.7 million has been spent and $12.9 million is the estimated cost to completion as shown in the following chart.

Chapter 3 - Power Supplies and Energy Resources Active Project Cost Distribution ($ Millions)



360C - Electric Power Transmission Facilities	$6.1
360L - Arrow Canyon Energy Recovery Hydroturbine	$3.6
360M - Renewable Energy Project Development	$3.2
Estimate to Complete	**$12.9**
Prior Years Expenditures	**$3.7**

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Active Projects

Project Number and Title		Estimated Cost to Complete (Millions)
2012 Completion Year		
360L	Arrow Canyon Energy Recovery Hydroturbine	$3.6
Beyond 2015 Completion Year		
360C	Electric Power Transmission Facilities	$6.1
360M	Renewable Energy Project Development	$3.2
Total Number of Projects = 3	***TOTAL***	**$12.9**

Deferred Projects

Project Number and Title		Estimated Cost to Complete (Millions)
360H	Pumping Station Electrical Transformer Repairs	$0.9
Total Number of Projects = 1	***TOTAL***	**$0.9**

Project Descriptions

360C – Electric Power Transmission Facilities
Plan, design and permit electric power transmission facilities to deliver electric power from generating resources and other power-purchase locations to water pumping and other identified loads.

360H – Pumping Station Electrical Transformer Repairs
Recondition or replace substation transformers at existing pumping stations.

360L – Arrow Canyon Energy Recovery Hydroturbine
Construct an energy recovery facility on the Coyote Spring Valley to Moapa Valley Transmission Pipeline along with electrical transmission conductors to convey the energy to the power grid. Right-of-Way for this project has been granted by the Bureau of Land Management and a license has been issued by the Federal Energy Regulatory Commission.

360M – Renewable Energy Project Development
Fund feasibility studies of potential renewable energy projects. Feasibility studies will provide guidance on whether to proceed with implementation of projects.

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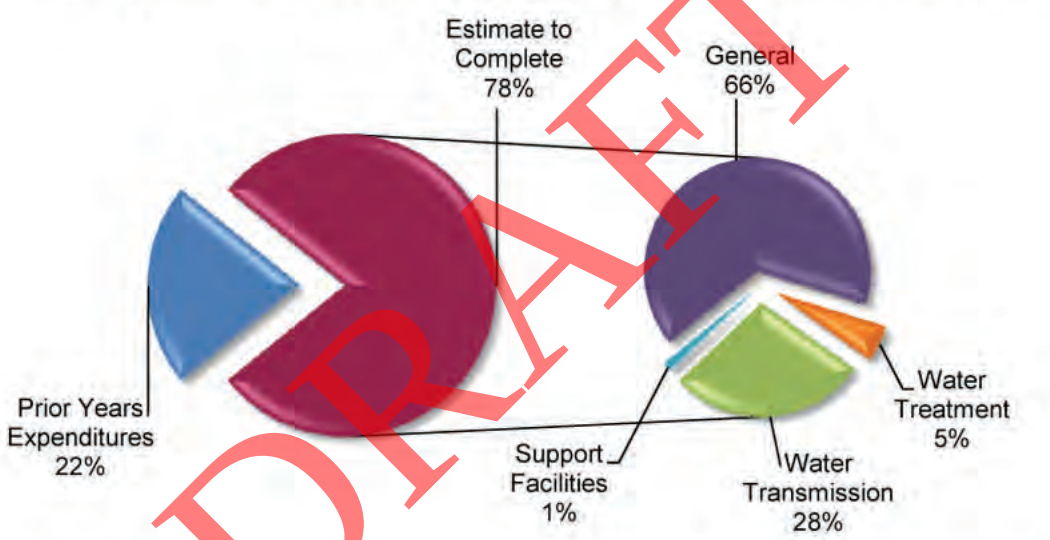
Chapter 4 - General System Improvements

Projects, acquisitions or initiatives defined in this chapter include construction of new facilities; upgrades; repairs and replacement of existing facilities or equipment to maintain or improve system reliability; and studies or engineering efforts related to the mission of the SNWA. Some projects are shown to be "deferred" in response to current economic conditions as projects are prioritized according to need and available funding. Completion dates for deferred projects will be evaluated and defined in future MCCP amendments.

The estimated total cost of the active general system improvements projects is $59.6 million of which $12.9 million has been spent and $46.7 million is the estimated cost to completion as shown in the following chart.

Chapter 4 - General System Improvements Active Project Cost Distribution (Millions)



General	$30.6
Water Treatment	$2.4
Water Transmission	$13.1
Support Facilities	$0.6
Estimate to Complete	**$46.7**
Prior Years Expenditures	**$12.9**

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Active Projects

Project Number and Title		Estimated Cost to Complete (Millions)
2011 Completion Year		
General		
300M	AMSWTF Miscellaneous Facilities Improvements	$0.6
Support Facilities		
370S	Mold Abatement at River Mountains Water Treatment Facility	$0.3

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Active Projects — Continued

Project Number and Title		Estimated Cost to Complete (Millions)
2012 Completion Year		
General		
300H	Facilities PLC Upgrades	$1.8
Water Treatment		
320N	AMSWTF A & B Clearwells Slide Gate Actuators	$0.2
Water Transmission		
340B	PO1A, 2A, 1B, 2B Pump Repairs and Flow Meter Installation	$0.2
340V	Sleeve and Miscellaneous Valve Repairs	$1.7
Support Facility		
370O	AMSWTF Utility Building Air Handler Replacement	$0.3
2013 Completion Year		
Water Treatment		
320P	AMSWTF Chlorine Building I Rehabilitation	$0.3
Water Transmission		
340D	PS 1C, 2C, Sloan, Lamb, BPS1A, and BPS2 VFD Enhancements	$2.3
340E	Sleeve Valve Installation at Galleria, Simmons and Carlton ROFC Stations	$0.2
340R	Transmission Pipelines Cathodic Corrosion Protection - Phase 2	$6.9
340X	Simmons ROFCS Pipeline Repairs	$1.8
2014 Completion Year		
General		
300E	Control System Improvements	$28.2
Water Treatment		
320F	AMSWTF Filtration System Valve Repairs	$1.9
Total Number of Projects = 14	***TOTAL***	**$46.7**

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Deferred Projects

Project Number and Title		Estimated Cost to Complete (Millions)
General		
300A	PS6-Valley View Regulating Tank Security and Offsite Improvements	$1.1
300K	AMSWTF Flocculation Channel Concrete Repairs	$0.3
300L	Regulating Tank 6 Onsite and Offsite Improvements	$1.0
Water Supply		
310B	Three Lakes Valley Groundwater Development	$1.5
310G	Las Vegas Wash Flow Measurement Facility	$0.4
Water Treatment		
320B	Remodel Former AMSWTF Laboratory Spaces	$1.3
320I	AMSWTF Pilot Plant	$0.8
320O	AMSWTF Filter Improvements Demonstration	$0.8
320Q	AMSWTF Process Drainage Improvements	$0.9
320T	Water Quality Testing Equipment	$0.8
Water Transmission		
13010H	Disinfection Facilities: Horizon/Parkway/Bermuda	$3.3
19010D	Bermuda ROFCS Modifications	$0.8
20010A	Sloan 2160 PS Expansion	$12.9
20010B	Lamb 2350 PS Expansion	$8.1
20010C	Decatur 2538 PS Expansion	$8.1
20010D	Decatur 2350 Reservoir Expansion	$10.0
340C	Hacienda Pumping Station Improvements	$2.2
340J	Ductile Iron Pump Inspection and Evaluation	$0.3
340N	Stage II ROFC Isolation Valve Replacements	$2.8
340Q	Transmission Pipelines Discharge Modifications	$16.4
340S	South Valley Lateral Isolation Valves - Phase 1	$10.4
340T	Sloan Pumping Station Foundation Repairs	$0.2
340U	Valve Operator Access Upgrades	$0.7
340W	BIF Venturi Flow Control Valve Unit Replacements	$2.8

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Deferred Projects

Project Number and Title		Estimated Cost to Complete (Millions)
Support Facility		
370A	Production Group Satellite Facility	$0.2
370I	Evaporative Cooler Upgrades	$2.8
370M	AMSWTF Machine Shop HVAC Unit Replacement	$0.1
370Q	Machine Shop Equipment	$2.7
370R	RMWTF Fire Alarm System Replacement	$1.1
Total Number of Projects = 29	***TOTAL***	**$94.8**

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Project Descriptions — General

300A – PS6 - Valley View Regulating Tank Security and Offsite Improvements
Construct security and off-site improvements, including walls, gates, sidewalks, curbs and gutters, lighting and landscaping at Pumping Station No. 6 and at the Valley View Regulating Tank.

300E – Control System Improvements
Phase 1 of this project defined requirements, evaluated potential systems and developed project criteria for a new Supervisory Control and Data Acquisition System (SCADA) for the entire Southern Nevada Water System. The Phase 2 effort is for design of the recommended system components and initial implementation of the SCADA system replacement.

300H – Facilities PLC Upgrades
Upgrade the programmable logic controllers at the pumping stations and rate-of-flow control stations of the SNWS.

300K – AMSWTF Flocculation Channel Concrete Repairs
Repair deteriorated concrete and access hatches in the area of the flocculation channels at the Alfred Merritt Smith Water Treatment Facility.

300L – Regulating Tank 6 Onsite and Offsite Improvements
Connect the regulating tank overflow pipeline to the Stewart Reservoir overflow system, construct a perimeter wall, and landscape the site.

300M – AMSWTF Miscellaneous Facilities Improvements
Accomplish a range of miscellaneous small improvement projects involving grading, drainage, piping, and mechanical and electrical systems.

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Project Descriptions — Water Supply

310B – Three Lakes Valley Groundwater Development
Construct approximately 130,000 LF of 30-inch pipeline, up to 9 wells, required treatment facilities, a rate of flow control and hydroturbine facility, monitoring wells, power supply system and related appurtenances.

310G – Las Vegas Wash Flow Measurement Facility
Develop concepts for and construct a flow measurement facility in the Las Vegas Wash downstream of Lake Las Vegas to accurately measure base and flood flows from all sources of the Las Vegas Valley.

Project Descriptions — Water Treatment

320B – Remodel Former AMSWTF Laboratory Spaces
Remodel the former laboratory space at the AMSWTF. The remodeled space will house Maintenance Engineering and computer server equipment. It will also provide for a group assembly area.

320F – AMSWTF Filtration System Valve Repairs
Repair or replace valves and valve actuators in the filtration systems at the Alfred Merritt Smith Water Treatment Facility, including filter influent and effluent valves, wash water valves and air valves for filters 1 through 20.

320I – Alfred Merritt Smith Water Treatment Facility Pilot Plant
Construct a 10,000 square-foot, 10-gpm pilot plant for evaluation and optimization of treatment processes specific to the water quality characteristics at the AMSWTF.

320N – AMSWTF A and B Clearwells Slide Gate Actuators
Purchase and install new slide gate actuators with waterproof enclosures for the A and B Clearwells at the Alfred Merritt Smith Water Treatment Facility. Repair or replace the Stage 1 gates as necessary, particularly Forebay 2 Aqueducts A and B inlet gates.

320O – AMSWTF Filter Improvements Demonstration
Implement recommended improvements to the media and underdrain systems of one filter basin to demonstrate the effectiveness of the recommended improvements.

320P – AMSWTF Chlorine Building I Rehabilitation
Recalibrate tanker scales, test chlorine piping, and repaint the building.

320Q – AMSWTF Process Drainage Improvements
Incorporate improvements to allow hydraulic components and structures of the Alfred Merritt Smith Water Treatment Facility to be drained more quickly.

320T – Water Quality Testing Equipment
Procure new and replacement equipment for testing water quality characteristics.

Project Descriptions — Water Transmission

13010H – Disinfection Facilities: Horizon/Parkway/Bermuda
The project consists of the mass excavation and structural backfill, construction of three concrete and CMU block chlorination buildings including sodium hypochlorite storage tanks, chemical metering pumps, sampling and control systems, dilution water makeup systems, HVAC electrical, site paving and grading at the three locations. The design capacities differ at each location. Parkway-1 mgd, Bermuda-23 mgd, and Horizon Ridge-14 mgd.

19010D – Bermuda ROFCS Modifications
This project increases the capacity of the Bermuda ROFC Station from 80 mgd to 115 mgd.

20010A – Sloan 2160 PS Expansion
This project increases the capacity of the Sloan Pumping Station from 111 mgd to 175 mgd.

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20010B – Lamb 2350 PS Expansion
This project increases the capacity of the Lamb Pumping Station from 111 mgd to 175 mgd.

20010C – Decatur 2538 PS Expansion
This project increases the capacity of the Decatur Pumping Station from 81 mgd to 105 mgd.

20010D – Decatur 2350 Reservoir Expansion
This project increases the capacity of the Decatur Reservoir from 20 MG to 30 MG.

340B – PS1A, 2A,1B, 2B Pump Repairs and Flow Meter Installation
Repair or replace impellers, shafts, seal rings, bearings, and casings on up to 28 pumps and install individual flow meters at Pumping Stations 1A, 2A, 1B, and 2B.

340C – Hacienda Pumping Station Improvements
Repair shafts, impellers, wear rings and bearings, machine pump casings, and grout pump bases, as needed, on seven pumps. Upgrade electrical switchgear and control system. Construct block wall and improve on-site and off-site drainage at Hacienda Pumping Station and Pumping Station No. 6.

340D – PS 1C, 2C, BPS1A, and BPS2 Variable Frequency Drive Enhancements
Enhance variable frequency drive backup capability by installing additional electrical gear for alternate constant speed operation in Pumping Stations 1C, 2C, BPS1A, and BPS2.

340E – Sleeve Valve Installation at Galleria, Simmons and Carlton ROFC Stations
Install sleeve valves to replace existing ball valves at the Galleria, Gibson, Simmons, and Carlton Rate-of-Flow Control Stations.

340J – Ductile Iron Pump Inspection and Evaluation
Inspect and evaluate ductile iron pumps within the Southern Nevada Water System to assess corrosion effects and corrosion protection systems.

340N – Stage II ROFC Isolation Valve Replacements
Replace isolation valves in the Stage II rate-of-flow control stations.

340Q – Transmission Pipelines Discharge Modifications
Modify various discharge facilities on transmission pipelines to improve pipeline drain times and reduce potential impacts from water discharges.

340R – Transmission Pipelines Cathodic Corrosion Protection System Repairs - Phase 2
Conduct a condition assessment study of Stage I, Stage II, CRC and CIP Laterals and repair and upgrade the overall cathodic protection systems for these laterals.

340S – South Valley Lateral Isolation Valves - Phase 1
Construct two isolation valves on the South Valley Lateral proximate to the College, Black Mountain, and Horizon Ridge Rate-of-Flow Control Stations.

340T – Sloan Pumping Station Foundation Repairs
Make repairs to address differential settlement in structural foundations.

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340U – Valve Operator Access Upgrades
Modify valve vault structures, modify valve actuators, and install ladders at facilities on the South Valley Lateral and at the Foothills facilities site to improve operator access to system water valves.

340V – Sleeve and Miscellaneous Valve Repairs
Procure and install replacement valves at selected facilities.

340W – BIF Venturi Flow Control Valve Unit Replacements
Replace 12 existing BIF Venturi flow control valve units with new units.

340X – Simmons ROFCS Pipeline Repairs
Evaluate and make appropriate repairs to buried pipeline couplings associated with the rate-of-flow control station at the Simmons Pumping Station.

Project Descriptions — Support Facilities

370A – Production Group Satellite Facility
Evaluate alternatives for establishing a satellite maintenance facility in the Las Vegas Valley for the SNWS Production Group.

370I – Evaporative Cooler Upgrades
Replace the evaporative coolers at fourteen different pumping stations with more efficient evaporative coolers.

370M – AMSWTF Machine Shop HVAC Unit Replacement
Replace the heating, ventilating, and air conditioning unit in the machine shop at the Alfred Merritt Smith Water Treatment Facility.

370O – AMSWTF Utility Building Air Handler Replacement
Replace existing air handlers in the Utility Building at the Alfred Merritt Smith Water Treatment Facility.

370Q – Machine Shop Equipment
To procure special machinery, tools and equipment required to perform maintenance and repairs on the vertical turbine pumps and horizontal split case pumps within the system.

370R – RMWTF Fire Alarm System Replacement
Replace the current fire detection and alarm system at the River Mountains Water Treatment Facility, along with installation of fiber optic communication cables.

370S – Mold Abatement at River Mountains Water Treatment Facility
Abatement and demolition of contaminated ceilings and fire walls, relocation of fire sprinkler systems and replacement of fire walls, patching of roof leaks and potential chemical line relocations.

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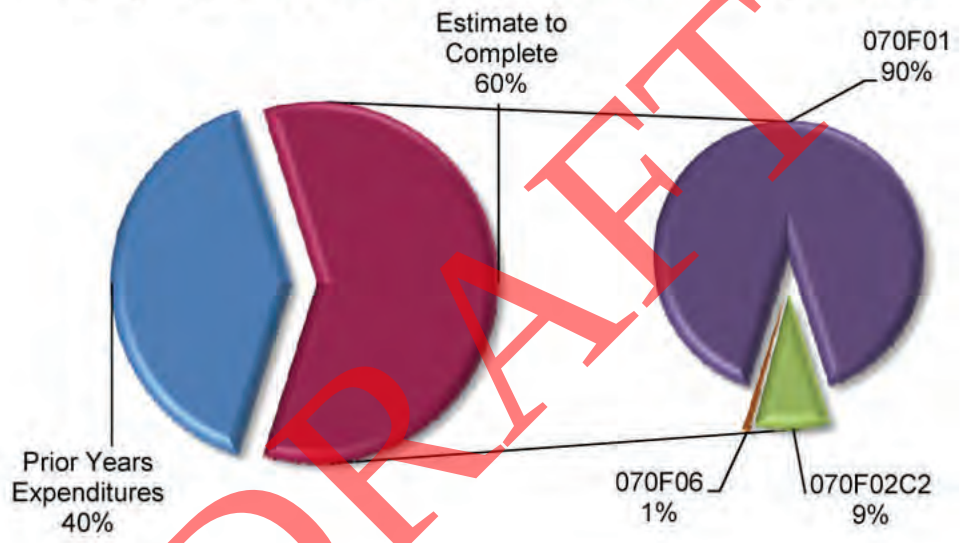
Chapter 5 - Intake No. 3

The projects defined in this chapter are associated with the establishment of an additional water intake in Lake Mead to preserve the ability of SNWA to deliver water from Lake Mead under drought conditions. Some project components of Intake No. 3 have been deferred in response to current economic conditions. The active projects will meet the critical objectives of Intake No. 3 in the near term. Completion dates for deferred projects will be evaluated and defined in future MCCP amendments.

The estimated total cost of the active Intake No. 3 projects is $778.0 million of which $313.8 million has been spent and $464.2 million is the estimated cost to completion as shown in the following chart.

Chapter 5 - Intake No. 3 Active Project Cost Distribution ($ Millions)



070F01 - Lake Mead Intake No. 3 Shafts and Tunnel	$419.2
070F02C2 - Intake No. 3 - Connector Tunnel	$41.2
070F06 - Lake Mead Intake No. 3 Chemical Feed System	$3.8
Estimate to Complete	**$464.2**
Prior Years Expenditures	**$313.8**

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Active Projects

Project Number and Title		Estimated Cost to Complete (Millions)
2014 Completion Year		
Water Supply		
070F01	Lake Mead Intake No. 3 Shafts and Tunnel	$419.2
070F02C2	Intake No. 3—Connector Tunnel	$41.2
070F06	Lake Mead Intake No. 3 Chemical Feed System	$3.8
Total Number of Projects = 3	***Total***	***$464.2***

Deferred Projects

Project Number and Title		Estimated Cost to Complete (Millions)
070F02C1	Intake No. 3 Pumping Station	$207.9
070F03	Intake No. 3 Pumping Station Power Supply Facilities	$9.0
070F04	Intake No. 3 Pumping Station Discharge Pipeline	$27.7
Total Number of Projects = 3	***Total***	***$244.6***

Project Description

070F01 - Lake Mead Intake No. 3 Shafts and Tunnel
Construct a submerged water intake shaft or riser structure on the lake bottom with an intake elevation of 860 feet, along with approximately 3 miles of 20-foot diameter tunnel under the lake from the new intake shaft to a new access shaft at the shoreline of Lake Mead near the Alfred Merritt Smith Water Treatment Facility. This intake and tunnel will replace the at-risk capacity of the existing Intake No. 1 and provide access to the better quality water deeper in the lake.

070F02C1 - Intake No. 3 Pumping Station
Construct a 600 million gallon per day pumping station to convey water from the new Intake No. 3 to the existing Alfred Merritt Smith Water Treatment Facility.

070F02C2 - Intake No. 3 Connector Tunnel
Construct a tunnel between the new access shaft of the 070F01 Project and the existing Intake No. 2. This connector tunnel will have a capacity of 600 million gallons per day and will allow the water from Intake No. 3 to be conveyed to the River Mountains Water Treatment Facility through Intake Pumping Station No. 2.

070F03 - Intake No. 3 Pumping Station Power Supply Facilities
Construct new power transmission lines and a power substation to supply electric power for the new pumping station.

070F04 - Intake No. 3 Pumping Station Discharge Pipeline
Construct a pipeline to convey water from the new pumping station to the existing Alfred Merritt Smith Water Treatment Facility.

070F06 - Lake Mead Intake No. 3 Chemical Feed System
Construct the chemical feed systems required to control quagga mussels in the water intake systems. The work of this project includes evaluation of alternatives, preliminary design, design and construction in two phases. The first phase will provide chemical feed facilities for existing intakes and the second phase will provide the chemical feed system for Intake No. 3.

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Appendix A - Candidate Projects

The following projects are candidates for potential future approval. These candidate projects are conceptual, with uncertain schedule and cost projections that are subject to change. As more definitive information about the possible scope and schedule of these projects becomes available, they may become active projects in future amendments of this document or they may be dropped from further consideration. Estimated costs are not part of the total cost of the MCCP.

Project Title	Estimated Cost (Millions)
Athens Rate-of-Flow Control Station	$10.0
Losee Rate-of-Flow Control Station	$10.0

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Appendix B - Abbreviations and Notes

Abbreviations

AMS	–	Alfred Merritt Smith
AWBA	–	Arizona Water Banking Authority
AFY	–	Acre Feet per Year
BPS	–	Booster Pumping Station
CRC	–	Colorado River Commission
EVL	–	East Valley Lateral
GAC	–	Granular Activated Carbon
GWD	–	Groundwater Development
HWL	–	High Water Level
IPS	–	Intake Pumping Station
ISWR	–	In-state Water Resources
MG	–	Million Gallons
mgd	–	Million Gallons per Day
NVL	–	North Valley Lateral
PS	–	Pumping Station
RM	–	River Mountains
ROFCS	–	Rate of Flow Control Station
SNWA	–	Southern Nevada Water Authority
SNWS	–	Southern Nevada Water System
SVL	–	South Valley Lateral
WTF	–	Water Treatment Facility

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Notes

Category Descriptions

General category projects include control systems, security and building improvements and upgrades, and other work that does not fall under categories listed below.

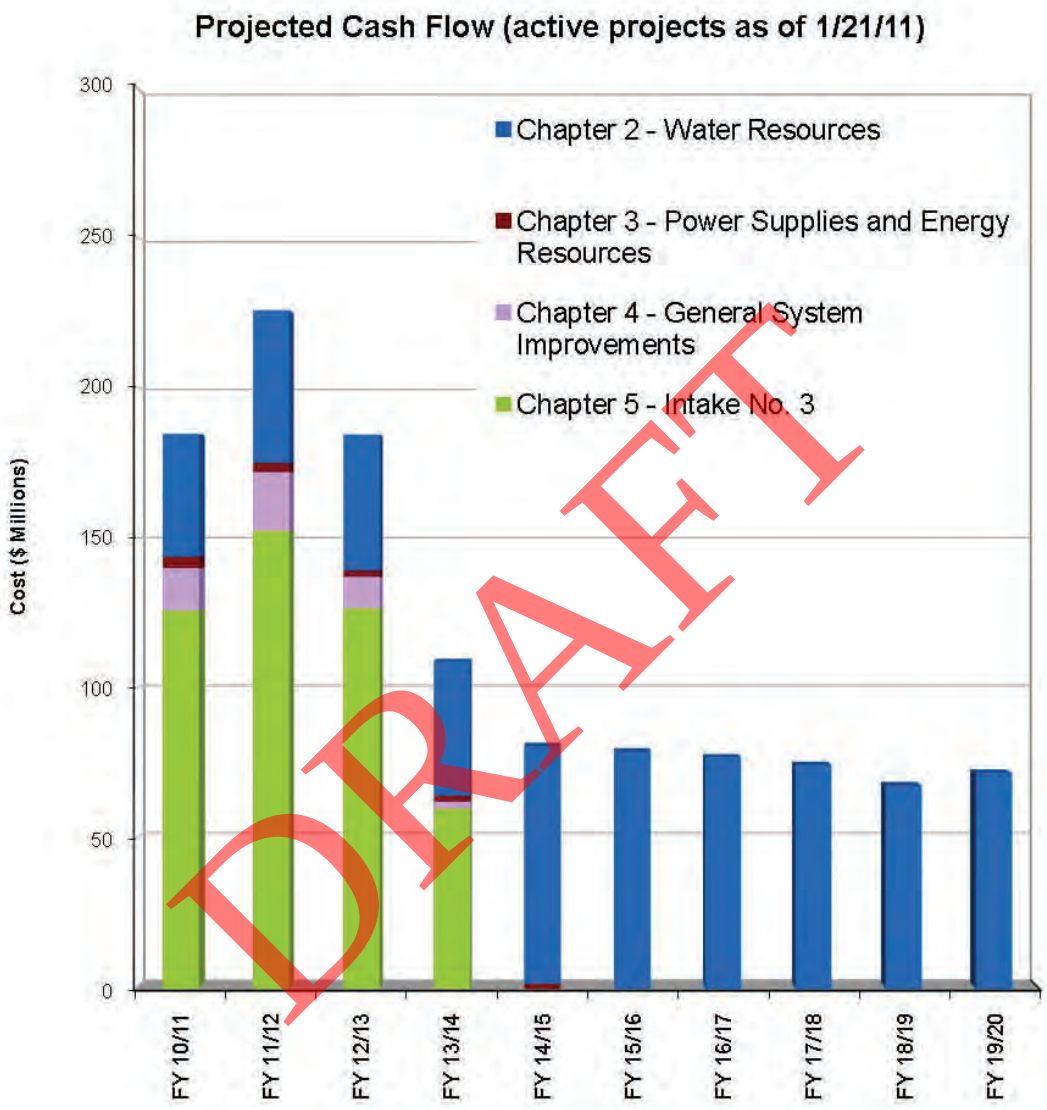
Water Supply projects relate to new water or water supply, groundwater facility planning and development, and construction and installation of equipment and facilities.

Water Treatment projects in this category include water treatment studies, pilot plant construction, repair of existing treatment system components, equipment purchase and installation to improve water quality.

Water Transmission projects in this category relate to the development of new water transmission facilities, pipeline repair, and equipment purchase and installation to improve or maintain water transmission capabilities.

Support Facilities includes projects that are required to support and maintain the operation of the regional water delivery system.

Appendix C - Cash Flow



	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20
Chapter 2 - Water Resources	40.6	50.8	44.9	45.0	79.2	79.0	77.0	74.4	67.6	71.9
Chapter 3 - Power Supplies and Energy Resources	3.8	3.1	2.2	2.0	1.7	-	-	-	-	-
Chapter 4 - General System Improvements	14.1	19.5	10.5	2.4	-	-	-	-	-	-
Chapter 5 - Intake No. 3	125.9	152.1	126.5	59.8	-	-	-	-	-	-

Appendix D - Variance Report

Active and Completed Projects

Project No.	Project Title	Cost ($ Millions) [1, 2] Feb 2010	Feb 2011	Adjustment	New Projects	Actual Costs thru Jun 30, 2010
Chapter 2 - Water Resources						
090B	Virgin and Muddy Rivers Water Resource Acquisition	124.9	134.8	9.9		101.8
090E	Interim Colorado River Supplies	472.3	527.9	55.6		235.1
090F	Water Resource Acquisition and Development[5]	149.2	389.4	240.2		116.0
090G	Clark, Lincoln and White Pine Counties Groundwater Development	126.4	254.8	128.4		119.4
		872.8	**1,306.9**	**434.1**		**572.3**
Chapter 3 - Power Supplies and Energy Resources						
360C	Electric Power Transmission Facilities	5.1	6.4	1.3		0.3
360L	Arrow Canyon Energy Recovery Hydroturbine	4.1	3.7	-0.4		0.1
360M	Renewable Energy Project Development	5.1	6.5	1.4		3.3
		14.3	**16.6**	**2.3**		**3.7**
Chapter 4 - General System Improvements						
300E	Control System Improvements	21.4	33.6	12.2		5.4
300H	Facilities PLC Upgrades	4.9	4.9	0.0		3.1
300M	AMSWTF Miscellaneous Facilities Improvements	0.2	0.6	0.4		0.0
310F	IPS-2 Test Pump Procurement and Installation[1]	43.1	42.0	-1.1		42.0
320F	AMSWTF Filtration System Valve Repairs[4]	1.5	1.9	0.4		0.0
320N	AMSWTF A and B Clearwells Slide Gate Actuators	0.4	0.4	0.0		0.2
320P	AMSWTF Chlorine Building I Rehabilitation	0.2	0.3	0.1		0.0
320S	Quagga Mussel Evaluation and Control Facilities[1]	0.4	0.4	0.0		0.4
340A	Coyote Spring Valley Well and Moapa Transmission System [1]	64.7	53.7	-11.0		53.7
340B	PS 1A, 2A, 1B and 2B Pump Repairs and Flow Meter Installation	0.7	0.6	-0.1		0.4
340D	PS 1C, 2C, Sloan, Lamb, BPS1A, & BPS2 Variable Frequency Drive Enhancements[4]	1.7	2.3	0.6		0.0
340E	Sleeve Valve Installation at Galleria, Simmons and Carlton ROFC Stations	0.6	0.6	0.0		0.4
340R	Transmission Pipelines Cathodic Corrosion Protection - Phase 2	7.8	9.8	2.0		2.9
340V	Sleeve and Miscellaneous Valve Repairs	3.3	2.2	-1.1		0.5
340X	Simmons ROFCS Pipeline Repairs[4]	0.9	1.8	0.9		0.0
370B	Security System Upgrades[1]	4.4	4.0	-0.4		4.0
370O	AMSWTF Utility Building Air Handler Replacement	0.3	0.3	0.0		0.0
370S	Mold Abatement at River Mountains Water Treatment Facility	0.0	0.3	0.3	0.3	0.0
		156.5	**159.7**	**3.2**	**0.3**	**113.0**
Chapter 5 - Intake No. 3						
070F01	Lake Mead Intake No. 3 Shafts and Tunnel	613.6	686.0	72.4		266.8
070F02C2	Intake No. 3 - Connector Tunnel	55.9	88.2	32.3		47.0
070F05	Lake Mead Intake No. 2 Connection and Modifications[1]	40.1	39.3	-0.8		39.3
070F06	Lake Mead Intake No. 3 Chemical Feed System	0.0	3.8	3.8	3.8	0.0
		709.6	**817.3**	**107.7**	**3.8**	**353.1**
	Active and Completed Projects Total	**1,753.2**	**2,300.5**	**547.3**	**4.1**	**1,042.1**

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Appendix D - Variance Report — Continued

Deferred Projects [3]

Project No.	Project Title	Cost ($ Millions) Feb 2010	Feb 2011	Adjustment	New Projects	Actual Costs thru Jun 30, 2010
Chapter 2 - Water Resources						
090F06	Water Resource Acquisition and Development - Future Desalination Development		54.3	54.3		0.0
		0.0	**54.3**	**54.3**	**0.0**	**0.0**
Chapter 3 - ,1)						
360H	Pumping Station Electrical Transformer Repairs	0.9	0.9	0.0		0.0
		0.9	**0.9**	**0.0**	**0.0**	**0.0**
Chapter 4 - General System Improvements						
13010H	Disinfection Facilities - Horizon/Parkway/Bermuda	3.6	3.6	0.0		0.3
19010D	Bermuda ROFCs Modifications	0.8	0.8	0.0		0.0
20010A	Sloan 2160 PS Expansion (64 mgd/175 mgd total)	12.9	12.9	0.0		0.0
20010B	Lamb 2350 PS Expansion (64 mgd/175 mgd total)	8.1	8.1	0.0		0.0
20010C	Decatur 2538 PS Expansion (24 mgd/78 mgd total)	8.1	8.1	0.0		0.0
20010D	Decatur 2350 Reservoir Expansion (10 MG/30 MG total)	10.0	10.0	0.0		0.0
300A	PS6 - Valley View Regulating Tank Security and Offsite Improvements	1.2	1.2	0.0		0.1
300K	AMSWTF Flocculation Channel Concrete Repairs	0.3	0.3	0.0		0.0
300L	Regulating Tank 6 Onsite and Offsite Improvements	1.0	1.0	0.0		0.0
310B	Three Lakes Valley Groundwater Development	4.1	4.1	0.0		2.6
310G	Las Vegas Wash Flow Measurement Facility	0.4	0.4	0.0		0.0
320B	Remodel Former AMSWTF Laboratory Spaces	2.0	2.0	0.0		0.7
320I	AMSWTF Pilot Plant	1.3	1.3	0.0		0.5
320O	AMSWTF Filter Improvements Demonstration	0.8	0.8	0.0		0.0
320Q	AMSWTF Process Drainage Improvements	1.1	1.1	0.0		0.2
320T	Water Quality Testing Equipment	0.8	0.8	0.0		0.0
340C	Hacienda Pumping Station Improvements	9.4	9.4	0.0		7.2
340J	Ductile Iron Pump Inspection and Evaluation	0.3	0.3	0.0		0.0
340N	Stage II ROFC Isolation Valve Replacements	3.5	3.5	0.0		0.7
340Q	Transmission Pipelines Discharge Modifications	17.9	17.9	0.0		1.5
340S	South Valley Lateral Isolation Valves - Phase 1	10.4	10.4	0.0		0.0
340T	Sloan Pumping Station Foundation Repairs	0.2	0.2	0.0		0.0
340U	Valve Operator Access Upgrades	0.7	0.7	0.0		0.0
340W	BIF Venturi Flow Control Valve Unit Replacements	2.8	2.8	0.0		0.0
370A	Production Group Satellite Facility	0.2	0.2	0.0		0.0
370I	Evaporative Cooler Upgrades	2.8	2.8	0.0		0.0
370M	AMSWTF Machine Shop HVAC Unit Replacement	0.1	0.1	0.0		0.0
370Q	Machine Shop Equipment	2.7	2.7	0.0		0.0
370R	RMWTF Fire Alarm System Replacement	1.1	1.1	0.0		0.0
		108.6	**108.6**	**0.0**	**0.0**	**13.8**
Chapter 5 - Intake No. 3						
070F02C1	Intake No. 3 Pumping Station	229.9	229.9	0.0		22.0
070F03	Intake No. 3 Pumping Station Power Supply Facilities	9.0	9.0	0.0		0.0
070F04	Intake No. 3 Pumping Station Discharge Pipeline	29.3	29.3	0.0		1.6
		268.2	**268.2**	**0.0**	**0.0**	**23.6**
	Deferred Projects Total	**377.7**	**432.0**	**54.3**	**0.0**	**37.4**
	All Projects Total	**2,130.9**	**2,732.5**	**601.6**	**4.1**	**1,079.5**

[1] Final costs for projects completed since the last amendment are subject to adjustments where expenditures may be incurred after June 30, 2010
[2] Administrative costs have been proportionately distributed into project costs beginning with the 2010 amendment
[3] Deferred projects - amounts are in 2009 dollars and do not include allowances for inflation
[4] 320F, 340D, and 340X were moved from Deferred to Active status
[5] Future desalination development under Project No. 090F has been transitioned to the Deferred Projects List as Project No. 090F06

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Appendix E - Project Funding Sources

Projects of the MCCP are funded under the Regional funding plan or the Wholesale Delivery Charge, or a combination of both. This appendix defines the intended funding source for each project.

Regional Funding Plan (includes Regional Connection Charge, Regional Commodity Charge, Regional Reliability Charge, State Sales Tax, Southern Nevada Public Land Management Act)

Project No.	Project Title
070F01	Lake Mead Intake No. 3 Shafts and Tunnel
070F02C1	Intake No. 3 Pumping Station
070F02C2	Intake No. 3 - Connector Tunnel
070F03	Intake No. 3 Pumping Station Power Supply Facilities
070F04	Intake No. 3 Pumping Station Discharge Pipeline
070F06	Lake Mead Intake No. 3 Chemical Feed System
090B	Virgin and Muddy Rivers Water Resource Acquisition
090E	Interim Colorado River Supplies
090F	Water Resource Acquisition and Development
090G	Clark, Lincoln and White Pine Counties Groundwater Development
300E	Control System Improvements
300L	Regulating Tank 6 Onsite and Offsite Improvements
300M	AMSWTF Miscellaneous Facilities Improvements
310B	Three Lakes Valley Groundwater Development
310G	Las Vegas Wash Flow Measurement Facility
320I	AMSWTF Pilot Plant[1]
320O	AMSWTF Filter Improvements Demonstration[1]
320T	Water Quality Testing Equipment - 7/1/08 to 6/30/09
340Q	Transmission Pipelines Discharge Modifications
340S	South Valley Lateral Isolation Valves - Phase 1
340U	Valve Operator Access Upgrades
340V	Sleeve and Miscellaneous Valve Repairs
360C	Electric Power Transmission Facilities
360L	Arrow Canyon Energy Recovery Hydroturbine
360M	Renewable Energy Project Development
370A	Production Group Satellite Facility[1]
13010H	Disinfection Facilities - Horizon/Parkway/Bermuda
19010D	Bermuda ROFCs Modifications
20010A	Sloan 2160 PS Expansion (64 mgd/175 mgd total)
20010B	Lamb 2350 PS Expansion (64 mgd/175 mgd total)
20010C	Decatur 2538 PS Expansion (24 mgd/78 mgd total)
20010D	Decatur 2350 Reservoir Expansion (10 MG/30 MG total)

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Appendix E - Project Funding Sources

Wholesale Delivery Charge

Project No.	Project Title
300A	PS6 - Valley View Regulating Tank Security and Offsite Improvements
300H	Stage I and II Facilities PLC Upgrades
300K	AMSWTF Flocculation Channel Concrete Repairs
320B	Remodel Former AMSWTF Laboratory Spaces
320F	AMSWTF Filtration System Valve Repairs
320I	AMSWTF Pilot Plant[1]
320N	AMSWTF A and B Clearwells Slide Gate Actuators
320O	AMSWTF Filter Improvements Demonstration[1]
320P	AMSWTF Chlorine Building I Rehabilitation
320Q	AMSWTF Process Drainage Improvements
340B	PS 1A, 2A, 1B and 2B Pump Repairs and Flow Meter Installation
340C	Hacienda Pumping Station Improvements
340D	PS 1C, 2C, Sloan, Lamb, BPS1A, and BPS2 Variable Frequency Drive Enhancements
340E	Sleeve Valve Installation at Galleria, Simmons and Carlton ROFC Stations
340J	Ductile Iron Pump Inspection and Evaluation
340N	Stage II ROFC Isolation Valve Replacements
340R	Transmission Pipelines Cathodic Corrosion Protection - Phase 2
340T	Sloan Pumping Station Foundation Repairs
340W	BIF Venturi Flow Control Valve Unit Replacements
340X	Simmons ROFCS Pipeline Repairs
360H	Pumping Station Electrical Transformer Repairs
370A	Production Group Satellite Facility[1]
370I	Evaporative Cooler Upgrades
370M	AMSWTF Machine Shop HVAC Unit Replacement
370O	AMSWTF Utility Building Air Handler Replacement
370Q	Machine Shop Equipment
370R	RMWTF Fire Alarm System Replacement
370S	Mold Abatement at River Mountains Water Treatment Facility

[1] Funding split: 50% Regional Funding and 50% Wholesale Delivery

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Appendix F - Completed Projects

Project Number	Project Title	Completion Year	Actual Cost [1] ($ Millions)
	Planning/Environmental for 1995 CIP Administrative		41.2
	Operational Decision Support System	1997	1.3
B01	Batch Plant at AMSWTF	1997	1.8
C11	Communications	1997	1.3
D01	Scrubber Prepurchase at AMSWTF	1997	0.0
D11	Disinfection Facilities Upgrades at AMSWTF	1997	4.1
F11	Filter Additions at AMSWTF	1997	11.1
H01	Hacienda Pumps Prepurchase	1997	0.0
L11	Low Lift Pump Station	1997	0.0
M11	Gibson Lateral (48" - 2.0 miles)	1997	5.4
P11	Plant Improvements at AMSWTF	1997	9.2
P12	Plant Mass Excavation at AMSWTF	1997	0.6
R11	RM Tank (46 MG)	1997	15.9
R12	RM Tank Mass Excavation	1997	1.9
S11	Simmons Pumping Station (71 mgd)	1997	9.0
T01	Valve Prepurchase	1997	1.0
T11	RM Tunnel (144" - 4.0 miles)	1997	20.5
T12	RM Tunnel Portal Connection	1997	13.7
T13	RM Regulating Tank Mass Excavation	1997	1.4
W11A	West Valley Lateral (60" - 3.3 miles) - Section A	1997	17.4
W11B	West Valley Lateral (60" - 2.9 miles) - Section B	1997	15.4
07010A	Lake Mead Intake No. 2 (100 mgd)	2002	104.7
07010B	Raw Water Pumping System (108" - 2.0 miles 100 mgd)	2002	143.3
07010C	RM Aqueduct (108" - 3.2 miles)	2002	18.1
07010D	Low Lift PS Improvements (Phase I)	2003	3.7
07010E	BWC Pipeline Relocation	2002	0.6
07011B	Raw Water Pumping System - Warranty	2009	1.7
07012B	Flowserve Pump Replacement at BPS-1A & BPS2	2009	1.5
070F05	**Lake Mead Intake No. 2 Connection and Modifications[2]**	**2010**	**39.3**
07210A	Raw Water Pumping System Expansion (200 mgd RMWTF + 160 mgd AMSWTF 460 mgd total)	2007	68.0
07210B	Low Lift PS Improvements (Phase II)	2003	3.0
07210C	Intake No. 2 to AMSWTF By-pass Pipeline	2006	17.7
08010A	RMWTF direct Filtration (150 mgd); Ozone at RMWTF (150 mgd); Clearwell Exp. 25 MG/50 MG total)	2002	266.8
08010B	Prepurchase Oxygen/Ozone Equipment (AMSWTF & RMWTF)	2003	19.5
08010C	Ozone Addition to AMSWTF (Pre-design)	2000	0.6
08010D	Site Preparation for Ozone Addition to AMSWTF	2000	4.2
08010ER	Ozone Addition to AMSWTF (600 mgd)	2003	96.0
08010F	AMSWTF Process Improvements	2007	71.4
08010H	AMSWTF Modulating Weirs	2002	0.4
08010J	Intake System and RMWTF Communications	2002	2.6
08010K	East C-1 Detention Basin	1999	7.7
08010L	Chemical Containment System at AMSWTF	1999	1.8
08010M	Magic Way RMWTF Entrance Improvements	2002	3.6
08010N	RMWTF Temporary Fluoridation	2002	1.3
08010T	Intake System and RMWTF Controls	2003	4.3
08010V	Ozone Training and Start-up Services	2004	1.0
08010W	AMSWTF Ozone Controls	2003	0.6
08210A	RMWTF Expansion (150 mgd/300 mgd total)	2006	76.8
08210B	RMWTF Prepurchase Ozone Equipment (150 mgd/300 mgd total)	2005	6.7
090A	Water Resource (Coyote Spring Valley)	2000	31.6
090S	Virgin and Muddy Rivers Surface Water Development	2007	8.8
10010C	Substation Mass Excavation	1997	6.9
10010M	NPC Connections to Sloan PS and Lamb PS	2000	1.4
10010P	NPC Connection to Decatur 2538 PS	2004	0.0
10010Q	CRC RM PS Expansion Power Supply	2004	1.9
10010Z	CRC Power Development (Phase I)	1999	46.2
10020A	CRC Power Development Project (Phase II)	2001	11.8
10020B	CRC Power Development Project (Phase III)	2001	14.3
100D	SNWS Power System Upgrades - Equipment Prepurchase	2003	6.4
100E	SNWS Power System Upgrades - Equipment Installation	2003	16.9
100F	CRC Power System Upgrades	2003	5.0
100G	SNWS Power System Upgrades - Material Prepurchase	2003	1.0
100T	SNWS Power System Upgrades - Remote Terminal Units	2003	0.5

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Appendix F - Completed Projects, Continued

Project Number	Project Title	Completion Year	Actual Cost [1] ($ Millions)
10510A	NPC - Leased Fiber Optic systems - Phase I	2002	0.7
10510B	NPC - Leased Fiber Optic Systems - Phase II	2003	1.7
11010A	RM Lateral (72" - 3.8 miles)	1999	9.6
11010B	SVL - Major Crossings	1999	6.1
11010C	SVL (108" - 9.8 miles)	1999	24.6
11010D	Foothills 2210 PS (140 mgd)	1999	20.1
11010E	RM 2530 PS (140 mgd)	1999	24.6
11010G	Horizon Ridge 2375 Resv (10 MG), SV Regul Resv (4 MG)	1999	13.5
11010H	SVL (90" - 5.0 miles, 54" - 0.2 miles)	1999	14.6
11010I	SVL - MacDonald Ranch (108" - 1.1 miles)	1999	5.8
11010J	SVL Communications	1999	2.9
11010K	SVL (84" - 6.8 miles)	1999	20.9
11010L	Burkholder 2210 Regulating Reservoir (25 MG)	1999	14.9
11010M	ROFCS	1999	8.0
11010P	Pipe Prepurchase (108")	1999	27.0
11010Q	Pipe Prepurchase - 11010H Phase I (90")	1999	1.8
11010R	SVL Regul Resv Inlet/Outlet Pipeline (90" - 0.6 miles, 54" - 0.2 miles)	1999	2.6
11010S	SVL - MacDonald Ranch Extension (108" - 0.4 miles)	1999	2.0
11010T	SVL Controls	1999	1.0
11010W	SLV - Disinfection (Complete)	1999	0.5
11010X	Black Mountain ROFCS (25 MG)	1999	3.0
11010Z	R-8 Lateral (24" - 0.8 miles)	1999	1.0
12010A	SNWS Phase II Mass Excavation	1999	2.4
12010B	SNWS Phase II System "C" (225 mgd) (27 MG)	1999	75.5
13010A	EVL - Hollywood/DI to Sloan PS (78" - 2.7 miles)	2000	22.4
13010B	EVL - Sloan PS to Las Vegas Bldg. (78" - 5.7 miles)	2000	22.8
13010C	EVL - Las Vegas Blvd. To Lamb PS (78" - 4.5 miles)	2000	22.7
13010D	Sloan 2160 PS (20 mgd)/Structure (175 mgd)	2000	32.2
13010E	Lamb 2350 PS (20 mgd)/Structure (175 mgd)	2000	26.4
13010F	Grand Teton 2330 Reservoir (10 MG)	2000	12.5
13010I	Disinfection Facilities: Carlton Square/Twin Lakes	2000	3.3
13010J	EVL Communications	2000	2.4
13010K	EVL Interconnections	2005	6.5
13010T	EVL Controls	2000	0.5
13010W	EVL Disinfection	2000	0.3
13510A	Bolder City Water Delivery Improvements (30" - 7.0 miles, 10 mgd)	2002	24.3
14010A	NVL - Washburn Rd to Decatur 2350 Res. (24" to 72" - 6.0 miles)	2002	12.0
14010B	Carlton Sq. Lateral, Cole Ave to Washburn Rd (42" - 3.9 miles)	2002	10.6
14010C	Gowan 2350 PS (24 mgd)	2002	8.7
14010D	Decatur 2350 Reservoir (20 MG)	2002	12.7
14010E	Deer Springs ROFCS (80 mgd)	2002	4.3
14010F	Foothills PS Turbine Project	2003	2.8
14010G	College ROFCS (25 mgd)	2002	3.8
14010J	NVL - Communications	2002	2.2
14010T	NVL - Controls	2002	0.5
15010A	RM 2530 PS Expansion - Equestrian Addition (7 mgd/14 mgd total)	2007	0.9
16010A	RM PS B (175 mgd/315 mgd total), and Clearwell Expansion C (25 MG/75 MG total)	2004	44.0
17010A	EVA - river Mtns. Res. To Desert Inn Rd. (78" - 8.2 miles)	2005	49.8
17010B	NVL - Grad Teton 2330 Res. To Valley Drive (72" - 7.0 miles)	2004	22.4
17010C	NVL - Grand Teton Drive to Beltway (60" - 2.4 miles)	2003	9.8
17010D	Sloan 2160 (91 mgd/111 mgd total) and Lamb 2350 (91 mgd/111 mgd total) PS Expansion	2004	15.1
17010F	Decatur 2538/2430 PS (54 mgd-2538, 27 mgd-2430/Structure 105 mgd)	2004	31.1
17010G	NVL - Beltway Crossing (60" - 0.4 miles)	2003	3.0
17010H	NVL - Decatur 2538/2430 PS to Grand Teton Drive (60" - 2.5 miles)	2003	6.6
17010J	EVL and NVL Communications Improvements	2004	0.4
17010K	Valley Drive Isolation Valve	2004	0.6
17010L	In-Valley Isolation Valves	2007	4.4
19010A	Horizon Ridge 2375 Reservoir Expansion (10 MG/20 MG total)	2005	11.9
19010B	Duck Creek Isolation Valve	2009	4.2
19010C	Magic ROFCs (15 MGD)	2009	5.9
300B	Radio Communication System Upgrades	2008	0.6
300C	Overhead Crane Upgrades	2008	0.2
300D	Roofing Replacements	2009	0.9
300G	RMWTF Operators Video Display Upgrade	2007	0.2

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Appendix F - Completed Projects, Continued

Project Number	Project Title	Completion Year	Actual Cost [1] ($ Millions)
300I	AMSWTF Asbestos Removal	2008	0.0
300J	Warm Springs ROFCS Offsite Improvements	2009	0.0
310C	IPS-1 Pump and Motor Replacements	2008	28.7
310D	EBROFC Valve Replacements	2009	2.6
310E	North I-15 Treatment and Transmission Facilities Planning – Phase I	2009	0.9
310F	**IPS-2 Test Pump Procurement and Installation[2]**	**2011**	**42.0**
320A	RMWTF Water Quality Laboratory and Pilot Plant	2008	42.1
320C	Disinfection By-Products Control Strategy	2004	0.2
320D	AMSWTF Filter Media and Underdrain Improvements Study	2004	0.2
320E	AMSWTF Cathodic Corrosion Protection System Repairs and Upgrades	2008	1.5
320G	Lake Mead Intake No. 1 Modifications	2004	7.4
320H	Pumping Plant 6 Rechlorination Station	2004	0.0
320J	Disinfection By-Products Studies	2009	0.3
320K	Surface Water Treatment Pilot Studies	2009	1.9
320L	AMSWTF Electrical Disconnect Switch Replacements	2008	0.2
320M	Spare Filter Backwash Control Valve	2008	0.1
320R	Water Quality Sampling and Testing Equipment	2008	1.0
320S	**Quagga Mussel Evaluation and Control Facilities[2]**	**2010**	**0.4**
340A	**Coyote Spring Valley Well and Moapa Transmission System[2]**	**2010**	**53.7**
340F	Transmission Pipeline Cathodic Protection System Repairs	2005	1.1
340G	Transmission Pipelines Discharge Modifications Study	2007	0.4
340H	Pumping Plant No. 7 Upgrades	2009	0.6
340I	South Valley Facilities Expansion - Phase I	2009	13.4
340K	Reservoir Vent Modifications	2008	0.4
340L	Hemenway ROFC Improvements	2009	0.5
340M	Air Vacuum and Relief Valve Piping Adjustments	2008	0.1
340O	Pumping Station 6 Forebay Relining	2009	0.1
340P	Charleston Heights Lateral Repair and Valve Installation	2009	1.9
360A	Equity Purchase of Electric Power Generation Facilities - Silverhawk Project	2004	120.0
360B	Equity Purchase of Electric Power Generation Facilities	2003	55.3
360D	Energy Supplier Conversion	2008	0.1
360E	Feasibility Study of Intermountain Project Unit 3	2005	0.5
360F	ROFC Energy Recovery	2008	8.1
360G	Intermountain Power Project Unit 3 - Predevelopment	2008	0.6
360I	Hacienda Pumping Station Electrical Substation Upgrades	2008	1.8
360J	AMSWTF & RMWTF Solar Photovoltaic Electric	2008	0.1
360K	High Concentrating Solar Photovoltaic Demonstration and Research	2009	2.3
360N	Solar Photovoltaic Panels at AMSWTF Filters & Flocculation Basins	2009	0.1
370B	**Security System Upgrades[2]**	**2010**	**4.0**
370C	RMWTF Fleet Maintenance & Electrical Maintenance Facility	2009	4.0
370D	Fiber-Optic Network Improvements	2007	1.3
370E	AMSWTF Mechanic Maintenance Shop Addition	2009	13.0
370F	AMSWTF Utility Building Chiller Replacement	2005	0.0
370G	AMSWTF Computer Room HVAC Replacement	2007	0.0
370H	Flame Detection Equipment for High Pressure Hydraulic System	2006	0.2
370J	SNWA Office Tenant Improvements	2008	42.5
370K	AMSWTF Warehouse Storage System Improvements	2008	0.0
370L	SCADA Communications Upgrades	2009	0.4
370N	AMSWTF Standby Generator Replacement	2009	0.3
370P	Purchase SNWA Office Space	2008	36.5
177 Completed Projects		**TOTAL**	**2515.3**

[1] Administrative costs have been proportionately distributed into project costs beginning with the 2010 amendment

[2] Final costs for projects completed since the last amendment are subject to adjustments where expenditures may be incurred after June 2010

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Southern Nevada Water Authority
Major Construction and Capital Plan
February 2011

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SECTION 8

LAS VEGAS WASH – CAPITAL IMPROVEMENTS PLAN

The following is an abbreviated version of the SNWA capital plan.
If desired, the full document can be requested at:
http://www.snwa.com/cfml/about_contact_form/about_contact_form.cfml

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SOUTHERN NEVADA WATER AUTHORITY

FISCAL YEAR 2013/2014
OPERATING AND CAPITAL BUDGET

DRAFT

Southern Nevada Water Authority
February 21, 2013

Las Vegas Wash

Capital Improvements Plan

Revised February, 2013

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DGM: SNWA
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Las Vegas Wash
Capital Improvements Plan

1.0 Introduction

1.1 Purpose

The Lower Las Vegas Wash (Wash), in Clark County, Nevada, is the primary urban runoff, wastewater and floodwater outlet from the Las Vegas Valley into Lake Mead and the Colorado River. The Wash is considered a critical component in the many environmental and water resource issues facing Southern Nevada today. This Southern Nevada Water Authority's Las Vegas Wash Capital Improvements Plan (Wash CIP) presents a summary of planned capital expense activities necessary to support long-term enhancement and management of the Wash.

1.2 Background

Since 1975, the Wash has undergone significant erosion and degradation due to increasing flows resulting from expanding upstream urbanization in the Las Vegas Valley. To combat the changes in the Wash, the Las Vegas Wash Coordination Committee (LVWCC), a 30-member interagency group of federal, state, and local agencies, and private interests, was formed and has developed a Comprehensive Adaptive Management Plan (CAMP). The SNWA Board of Directors approved the CAMP in April 2000.

Of 44 recommendations, the CAMP identifies erosion control and stream stabilization of the Wash as one of the highest recommended priority efforts. To accomplish this goal, in 2002, a Cooperative Agreement was signed between the local government agencies considered major stakeholders in the Wash. As described in the Cooperative Agreement, the Southern Nevada Water Authority (SNWA or Authority) has been designated by members of the agreement, as the lead agency to coordinate and manage the enhancement of the Wash. Among many assigned tasks, the SNWA is responsible for maintaining this Wash CIP.

The Cooperative Agreement established a Management Advisory Committee (MAC) to provide advice and consultation to SNWA on issues regarding this Wash CIP. In 2008 the MAC responsibilities were expanded to provide oversight for water quality issues facing the entire Las Vegas Valley watershed as well as the Las Vegas Wash. The MAC has been renamed the Las Vegas Valley Watershed Advisory Committee, (LVVWAC). Local government agency members of the LVVWAC include:

- City of Las Vegas
- City of Henderson
- City of North Las Vegas
- Clark County
- Las Vegas Valley Water District
- Clark County Water Reclamation District
- Clark County Regional Flood Control District
- Southern Nevada Water Authority
- Clean Water Coalition

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2.0 Plan Scope

2.1 General Scope

This Wash CIP covers the geographical area of the Las Vegas Wash from the City of Las Vegas Wastewater Treatment Plant to the western boundary of the Lake Mead National Recreational Area. The Wash CIP is intended to describe all presently identified construction and construction support projects supporting the management and enhancement of the Wash. Project elements included in this Wash CIP include:

- Channel bed and bank stabilization;
- Re-vegetation; and
- Comprehensive programs.

The purpose of channel bed stabilization is to reduce channel bed erosion by slowing stream flow to less erosive conditions while providing a stable platform for vegetation re-establishment. Gradient control weirs or dams are planned for installation to accomplish the stabilization needs. Channel bank protection installations are planned to be completed as a part of channel bed stabilization projects, focus on reducing the ability of Wash flows to undercut, erode and collapse channel banks. Capital expenditures for bank protection will include installation of rock riprap armor and re-vegetation of stream banks, where appropriate.

Re-vegetation of the Wash channel bed, banks, disturbed overbank locations and floodplain areas will provide surface erosion protection, aid ecosystem restoration, support water quality goals and meet environmental permitting requirements. Re-vegetation activities may include wetlands or dry land re-vegetation, installation of temporary irrigation systems and establishment of vegetation protection measures.

Comprehensive programs include design and support activities serving multiple capital projects or the Wash as a whole. Activities under this element may include acquisition of rock and concrete materials for use as riprap, installation of construction access roads, location of materials storage sites, long term dust control practices, sediment and sediment transport studies, hydraulic studies, topographic mapping, water quality monitoring, stream gauging, and other supporting capital expense activities which are necessary to support construction efforts.

2.2 Facility Information

The following information pertaining to specific facilities is presented in this Wash CIP:

- General description and location of each planned facility;
- Anticipated construction schedules;
- Estimated cost of each proposed facility;
- Proposed funding mechanism(s) for each facility in the Work Plan;
- Total projected Wash CIP cost in current and midpoint dollars;
- Cash flow forecasts by year; and
- A list of SNWA operated and maintained facilities.

3.0 Organization

General information regarding the background, scope, approval process, current revenues, anticipated expenditures, prioritization, and funded Project Work Plan are presented in the

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Wash CIP report. Specific details defining anticipated projects, project costs, implementation schedules, prioritization analysis, and other information are included as appendices to this Wash CIP.

All identified, individual projects requiring expenditure of capital funds are described in the appendix as Candidate Projects to this CIP. A unique project number and letter designation and a location name describe each project. Channel bank protection and re-vegetation projects are named and project numbers are assigned with a letter designation which conforms to the name of the next downstream channel bed stabilization facility to which they are associated.

4.0 Plan Implementation

4.1 Cooperative Agreement

In 2002, SNWA entered into a Cooperative Agreement (Agreement) pertaining to the long term management and enhancement of the Las Vegas Wash with Clark County, City of Las Vegas, City of Henderson, City of North Las Vegas, Clark County Water Reclamation District, and Clark County Regional Flood Control District. The Agreement established roles and responsibilities for the above agencies in managing the Las Vegas Wash. The development, review, and update of this Wash CIP are identified in the Agreement as a responsibility of the SNWA. The Agreement further defines the contents of the Wash CIP as presented herein.

4.2 Annual Plan Review

The SNWA annually reviews, reaffirms, or revises the Wash CIP and the Project Work Plan, as necessary to meet the goals and requirements of the Agreement. In performing the annual review, the SNWA consults with the local agency stakeholders to the Wash through the Operations Study Team of the LVWCC and through the LVVWAC.

SNWA's consultation with local agency stakeholders and revisions to the Wash CIP focus upon current changes in priority, planning, design, cost, funding, and /or capital needs associated with the elements of the Wash CIP and Project Work Plan. Revisions to the Wash CIP reflect the elimination of capital items previously installed or revisions proposed by a party to the Agreement and agreed to by the LVVWAC.

Upon revision by SNWA and approval by the LVVWAC, the annual Wash CIP update is submitted to the SNWA Board of Directors for review and action.

4.3 Funding Approval

As appropriate, SNWA prepares and submits Wash CIP funding agreements to the LVVWAC for review. Funding agreements prepared and submitted by SNWA may also define the process whereby entities other than the parties to the Agreement may either fund or contribute to the Wash CIP.

Subsequent to the LVVWAC's review of funding agreements, SNWA submits the funding agreements to each of the local governmental agencies comprising the LVVWAC for consideration and possible approval by their respective Governing Boards as a part of the individual Party's overall budgeting process.

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5.0 Funding and Expenditures

5.1 Funding-To-Date

Sales Tax and Grant Funding. The Wash CIP has been partially funded through receipt of local sales tax revenues. The Las Vegas Wash currently receives a share of a ¼ cent sales tax allocated for funding water and wastewater projects in Clark County. The Las Vegas Wash has also received capital grant funding commitments from the Southern Nevada Public Lands Management Act (SNPLMA), for current and future projects.

Other Local Agency Funding. In addition to local sales tax revenues and SNPLMA grants, the Las Vegas Wash Capital Improvements Program has received funding or funding commitments from other local agencies through in-kind construction activities or direct funding to SNWA.

Interfund Loans. Periodically, projected, near-term capital expenses for construction of stabilization facilities in the Las Vegas Wash will exceed available cash on hand generated from sales tax and grant funding. In these cases, the Las Vegas Wash Capital Improvements Program will borrow money from LVVWD's New Expansion Debt Service fund accounts.

Funding and funding sources to-date are shown in Table 1 on the following page.

5.2 Expenditures

5.2.1 Expenditures-To-Date

From 1999 through December 2012, Las Vegas Wash Capital Improvements Program total expenditures have been as shown in Table 2 on the following page. These expenditures include contributions by other stakeholder agencies for capital improvements to the Las Vegas Wash.

Other stakeholder agency expenditures have included, Clark County, design and construction of the Pabco Road Weir at approximately $4,700,000; Lake Las Vegas Resort, design and construction of the Fire Station Weir at approximately $63,000; SNWA Water CIP, design and construction of the Rainbow Gardens Weir as part of the East Valley Water Lateral crossing of the Las Vegas Wash, at approximately $7,238,000; and US Bureau of Reclamation construction activities.

Expenditures include repayment with interest, of funds borrowed from the New Expansion Debt Service fund account.

Capital construction expenditures to-date are shown in Table 2 on the following page.

5.2.2 Future Expenditures

Current projections of future capital expenditures for the Wash CIP are detailed in the appendix. Projected expenditures are shown in both current dollars and projected expenses, accelerated to future construction mid-point dollar is cost, based upon an estimated current 0% annual growth rate in 2013-14 and 3% thereafter. Funding commitments for individual projects will be based upon availability of funds at the time the commitment is made. Estimated capital expenditures are summarized in Table 3 on the following page.

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Table 1
Funding to Date
1999-2012

Funding Source	Estimated Revenue	%
Sales Tax & Interest (Includes estimated figures from September to December 2011)	$ 39,206,151	33.0%
U.S. Bureau of Reclamation Grants	5,828,224	4.9%
SNPLMA Funding	35,092,395	29.5%
Misc. State/Federal Grants	445,500	0.4%
Other Local Agency Funding	14,460,000	12.2%
Interfund Borrowings	23,823,089	20.0%
TOTAL FUNDING SOURCES	**$ 118,855,359**	**100.0%**

Table 2
Total Expenditures to Date
1999-2012

Program	Amount	%
Channel Stabilization	$ 84,786,537	73.2%
Revegetation	1,416,438	1.2%
Comprehensive Programs	6,707,119	5.8%
Interfund Borrowing Repayments	22,227,068	19.2%
Interfund Borrowing Interest Repayments	767,986	0.7%
TOTAL EXPENDITURES TO DATE	**$ 115,905,148**	**100.0%**

Table 3
Projected Expenditures
2013-2018

Wash CIP Component	Projected Expenditures	%
Channel Stabilization	$ 63,255,003	93.3%
Revegetation Programs	3,249,556	4.8%
Comprehensive Programs	1,289,000	1.9%
Total Projected Expenditures	$ 67,793,559	100.0%

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6.0 Priority Assessment

The Operations Study Team of the LVWCC has developed a methodology for prioritization of each proposed gradient control and bank protection capital expenditure in the Wash. Rating factors utilized in establishing proposed project priorities are described in the appendix of this plan.

Unless otherwise noted, bank protection capital investments will occur during implementation of the next downstream gradient control facility. Where severe bank erosion is occurring, stabilization may precede downstream gradient control implementation. Re-vegetation investments normally follow channel bed and bank stabilization, where practical. Unless otherwise noted, re-vegetation projects are planned for implementation following channel stabilization projects and are not shown in a separate priority evaluation within this Capital Improvements Plan.

Over the long-term life of the Wash CIP, priorities may change as need, funding, and other issues arise. Therefore SNWA, acting through the Operations Study Team and the LVVWAC, will annually review the prioritization schedule, evaluation criteria, proposed candidate project list, and available funding to assess current priorities. A summary of the criteria applied to assess prioritization, as developed by the Operations Study Team, and as approved by the LVVWAC are as follows:

- Upstream Stability
- System Relationship
- Water Quality Enhancement
- Recreational Opportunity
- Public Safety
- Regulatory Permitting Requirements
- Access
- Cost Avoidance
- Availability of Other Funding

Descriptions of these criteria are found in the appendix of this plan.

Annually, the SNWA staff calculates priority values for each proposed project based upon the prioritization criteria outlined herein. These values and proposed project rankings are then reviewed, discussed, and/or modified by the Operations Study Team of the LVWCC. Project activity is then scheduled, as much as practical, to follow priority rankings described in the appendix. Issues such as land ownership, construction conflict, potential cost savings in grouping several projects together under a single construction contract, and similar issues may cause some projects of lower priority to be scheduled for construction in conjunction with higher priority projects.

After SNWA develops a proposed project implementation schedule, the draft priority and project rankings are submitted to the Operations Study Team of the Las Vegas Wash Coordination Committee for further review and/or modification. SNWA then publishes those findings in annual updates of the Wash CIP and submits the update to the LVVWAC and SNWA Board of Directors for review and action.

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7.0 2013 - 14 Project Work Plan

The Work Plan presents projects scheduled for activity during the next two years and for which funding sources have been or expected to be identified. Approximately forty percent (40%) of the 2013-14 project work plan will be funded through Southern Nevada Public Lands Management Act or U.S. Bureau of Reclamation grants. Funding commitments for individual projects will be based upon availability of funds at the time the commitment is made. The Project Work Plan is presented in the appendix.

The Project Work Plan budget is based upon current estimates of present cost and projected actual cost, accelerated to anticipated midpoints of design and construction period activities. Project costs may change depending upon final design configuration, modified design criteria, or construction prices at the time of construction bidding. Where construction cost estimates or bids exceed expected revenues at the scheduled time of construction, a project may be delayed to a future time when revenues become available. Where expenditures are found to be less than available funding, with LVVWAC approval, additional candidate projects may be incorporated into the Project Work Plan for implementation.

8.0 Ownership

The planned erosion control facilities lie within the boundaries of the Clark County Wetlands Park. Consistent with the Las Vegas Wash Cooperative Agreement, SNWA will transfer ownership to Clark County of stabilization facilities, including channel stabilization facilities, re-vegetated areas, and other facilities when deemed appropriate by the SNWA and Clark County.

9.0 Operations and Maintenance

In accordance with the Las Vegas Wash Cooperative Agreement, SNWA operates and maintains Wash facilities, including channel stabilization projects and re-vegetated areas described in this Wash CIP and Work Plan until such time that ownership is transferred to Clark County.

The SNWA conducts these activities in conformance with the Operations and Maintenance Plan for the Las Vegas Wash. Currently, SNWA's operations and maintenance activities are financed through assessments levied to individual LVVWAC member agencies or through the utilization of Bureau of Reclamation construction grant funding.

Upon transfer of ownership of individual facilities, operation and maintenance activities will become the responsibility of the facility owner.

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Appendices

Appendix A -- Work Plan Project Descriptions with Costs to Complete

Appendix B – Ratings Criteria Scoring

Appendix C – Sales Tax Received and Distributed

Appendix D – Clark County Water and Wastewater Infrastructure (Quarter Cent) Sales Tax Actual / Forecast

Appendix E – Interfund Loan Activity

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Appendix A

Work Plan Project Descriptions With Costs to Complete

Project #	Project Title	Description	Budget	Scheduled Completion Date
810C	Historic Lateral Weir Expansion and Apron Installation	This 518 foot long, 9 foot high rock riprap structure provides channel bed stabilization upstream to the Pabco Road Erosion Control structure.	$3,135,891	December-15
810G	Duck Creek Confluence Weir	Planned as a rock riprap structure, the facility will be 11 feet high, 650 feet long and 305 feet wide and conrol 11 vertical feet of headcut erosion.	$3,314,757	April-13
810K	Demonstration Replacement Weir	Construction of a permanent weir facility to replace an existing temprary facility. The new facility will provide toe erosion protection for future Homestead weir while controlling approximately 18 feet of vertical erosion potential in the Las Vegas Wash	$16,389,519	October-14
810S	Tropicana Outfall Weir	This facility (9 feet tall and 200 feet long) will be located immediately downstream of the confluence of the Tropicana Channel outfall and the Wash.	$6,210,357	August-17
810T	D-14 Extension Weir	This weir, located at the Clark County Nature Preserve, is expected to control approximately five feet of vertical erosion potential immediately downstream of the Visitor Center Weir.	$4,986,823	August-17
810U	Silver Bowl Weir	Planned as a rock riprap facility, the structure will be 7 feet high, 250 feet long and 263feet wide. It will stablize potential headcut erosion.	$7,719,590	December-14
810W	Sunrise Mountain Weir	This 350 foot long facility located 0.4 mile upstream from the Pabco Road Erosion Control structure will stabilize approximately five feet of potential channel headcut erosion.	$5,878,958	February-16
810Z	Archery Weir	Planned as a rock riprap structure, the facility will be 8 feet high and 400 feet wide and conrol 10 vertical feet of erosion potential.	$8,131,375	October-16
860P	Flood Repair Allocation	This project will allow the emergency construction repair of stabliziation facilities following major flood events.	$609,843	October-14

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Appendix A

Work Plan Project Descriptions (Continued) With Costs to Complete

Project #	Project Title	Description	Budget	Scheduled Completion Date
860V	BOR Materials & Equipment	This project allows SNWA to install bank protection and other maintenance of the Wash in partnership with the U.S. Bureau of Reclamation who provides additional funding for the project.	$104,012	December-15
880C	Historic Lateral Revegetation	This project is intended to replace wetlands and other vegetation disturbed druing weir construction, stabilize the stream banks, provide erosion contol and improve habitat benefits.	$136,245	November-17
880G	Duck Creek Confluence Revegetation	This project is intended to replace wetlands and other vegetation disturbed druing weir construction, stabilize the stream banks, provide erosion contol and improve habitat benefits.	$1,076,248	June-15
880K	Demonstration Replacement Revegetation	This project is intended to replace wetlands and other vegetation disturbed druing weir construction, stabilize the stream banks, provide erosion contol and improve habitat benefits.	$594,023	August-16
880M	Lower Narrows Revegetation	This project is intended to replace wetlands and other vegetation disturbed druing weir construction, stabilize the stream banks, provide erosion contol and improve habitat benefits.	$323,623	December-13
880S	Tropicana Outfall Revegetation	This project is intended to replace wetlands and other vegetation disturbed druing weir construction, stabilize the stream banks, provide erosion contol and improve habitat benefits.	$143,761	August-19
880T	D-14 Extension Revegetation South	This project is intended to replace wetlands and other vegetation disturbed druing weir construction, stabilize the stream banks, provide erosion contol and improve habitat benefits.	$143,761	August-19
880U	Silver Bowl Revegetation	This project is intended to replace wetlands and other vegetation disturbed druing weir construction, stabilize the stream banks, provide erosion contol and improve habitat benefits.	$298,231	October-16

Continued

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Appendix A

Work Plan Project Descriptions (Continued)
With Costs to Complete

Project #	Project Title	Description	Budget	Scheduled Completion Date
880W	Sunrise Mountain Revegetation	This project is intended to replace wetlands and other vegetation disturbed druing weir construction, stabilize the stream banks, provide erosion contol and improve habitat benefits.	$141,436	February-18
880Z	Archery Weir Revegetation	This project is intended to replace wetlands and other vegetation disturbed druing weir construction, stabilize the stream banks, provide erosion contol and improve habitat benefits.	$298,231	October-16
890B	2013 Materials Transport	Provide materials for use by BOR during their bank stabilization activities.	$100,751	March-14
890C	2014 Materials Transport	Provide materials for use by BOR during their bank stabilization activities.	$103,252	March-15
		GRAND TOTAL TO COMPLETE	$59,840,687	

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Appendix B

2012-2013 Capital Improvements Plan
Ranking Criteria Scoring
Channel Bed Stabilization

Factor	Criteria	Score
Upstream Stability	Active headcutting risking upstream channel, structures, or banks	5
	Moderate headcutting in silty or sandy channel bed, some bank stability threat	3
	Slow headcutting in caliche or bedrock, little bank stability threat	1
System Relationship	Provides important foundation or stability support for other facilities	5
	Provides moderate foundation or stability support to other Wash features	3
	Provides minor or no foundation or stability support to other facilities	1
Cost Avoidance	Will reduce capital cost of other facilities or is a low maintenance facility	5
	Provides minor capital cost savings for other facilities or minor annual maintenance expected	3
	Provides no reduction in capital cost for other facilities, high maintenance expected	1
Water Quality	Provides large volume for sediment capture or 5 or more acres potential wetlands area	5
	Provides minor volume of sediment capture or 3 or more acres potential wetlands area	3
	Provides little or no volume for sediment capture or less than 1 acre of potential wetlands area	1
Ecosystem Enhancement	Provides platform for ecosystem enhancement covering greater than 5 acres	5
	Provides platform for ecosystem enhancement covering greater than 3 acres	3
	Provides platform for ecosystem enhancement covering 1 acre or more	1
Recreational Opportunities	Directly reduces threat to recreational features	5
	Provides possible threat reduction to recreational features	3
	Provides little or no threat reduction to recreational features	1
Public Safety	Is strongly beneficial to public safety associated with activities in the Wash	5
	Provides some improvement to public safety associated with activities in the Wash	3
	Provides little improvement to public safety associated with activities in the Wash	1
Permitting	Relatively minor permitting issues to be resolved	5
	Wetlands, WQ, Wildlife, or Archeological issues exist and clearance required	3
	A sensitive site requiring mitigation or high level of protection	1
ROW & Access	Local Government Ownership, relatively easy acquisition	5
	Federal Ownership, requiring federal review and approval	3
	Private Ownership requiring extended negotiations	1
Other Funding	other local, state, or federal funding assistance for > 50% of project cost	5
	Identified possibility for additional local, state, federal funding assistance for > 25% of project	3
	No additional funding assistance identified beyond local sales tax revenues or < 25% project	1

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Appendix C

Southern Nevada Water Authority
Sale Tax Received and Distributed

	Receipts	Distributions			
Calendar Year	Gross Amount	Clark Co. Rural Areas	LV Wash	Wastewater Agencies	SNWA Water
1999	$ 38,237,577	$ 1,608,923	$ 1,529,503	$ -	$ 35,099,151
2000	54,039,307.42	2,273,811.94	2,161,572.30	0.00	49,603,923.18
2001	55,861,310.46	2,350,476.36	2,234,452.42	14,755,654.01	36,520,727.67
2002	58,363,364.48	2,455,755.30	2,334,534.58	20,357,768.34	33,215,306.26
2003	64,023,754.11	2,493,184.02	2,560,950.16	22,433,528.30	36,536,091.63
2004	76,005,450.54	2,302,436.17	3,040,218.02	26,851,862.61	43,810,933.74
2005	85,173,494.04	2,580,164.06	3,406,939.76	30,090,828.27	49,095,561.95
2006	89,339,751.97	3,275,569.54	3,573,590.08	31,380,046.89	51,110,545.45
2007	88,754,736.36	2,526,250.50	3,550,189.45	31,417,752.62	51,260,543.79
2008	82,165,309.94	2,351,402.77	3,286,612.40	29,080,372.10	47,446,922.65
2009	68,895,552.85	2,049,951.03	2,755,822.11	24,354,116.37	39,735,663.34
2010	68,910,755.65	2,219,165.16	2,756,430.23	24,295,360.88	39,639,799.37
2011	73,326,675.19	2,449,338.98	2,933,067.01	25,818,822.29	42,125,446.91
2012	77,317,944.00	2,582,659.79	3,092,717.75	27,224,175.26	44,418,391.20
	$ 980,414,984	$ 33,519,088	$ 39,216,599	$ 308,060,288	$ 599,619,008

Amounts may be slightly off due to rounding

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Appendix D

CLARK COUNTY WATER AND WASTEWATER INFRASTRUCTURE (QUARTER CENT) SALES TAX
Received by the Southern Nevada Water Authority
Actual / Forecast

Calendar	Clark Co. Population		Gross Sales Tax Receipts			Clark Co		Wastewater	SNWA
Year	Count	% Change	Per Person	Receipts	% Change	Rural Areas	LV Wash	Agencies	CIP
1999 *	1,321,319		N/A+	$ 38,237,577		$ 1,608,923	$ 1,529,503	$ -	$ 35,099,151
2000 *	1,428,689	8.1%	37.82	54,039,307	+	2,273,812	2,161,572	-	49,603,923
2001 *	1,498,278	4.9%	37.28	55,861,310	3.4%	2,350,476	2,234,452	14,755,654	36,520,728
2002 *	1,578,332	5.3%	36.98	58,363,364	4.5%	2,455,755	2,334,535	20,357,768	33,215,306
2003 *	1,641,529	4.0%	39.00	64,023,754	9.7%	2,493,184	2,560,950	22,433,528	36,536,092
2004 *	1,747,025	6.4%	43.51	76,005,451	18.7%	2,302,436	3,040,218	26,851,863	43,810,934
2005 *	1,815,700	3.9%	46.91	85,173,494	12.1%	2,580,164	3,406,940	30,090,792	49,095,598
2006 *	1,912,654	5.3%	46.71	89,339,752	4.9%	3,275,570	3,573,590	31,380,047	51,110,545
2007 *	1,996,542	4.4%	44.45	88,754,736	-0.7%	2,526,251	3,550,189	31,417,753	51,260,544
2008 *	1,986,145	-0.5%	41.37	82,165,310	-7.4%	2,351,403	3,286,612	29,080,372	47,446,923
2009 *	2,006,347	1.0%	34.34	68,895,553	-16.2%	2,049,951	2,755,822	24,354,116	39,735,663
2010 *	1,951,269	-2.7%	35.32	68,910,756	0.0%	2,219,165	2,756,430	24,295,361	39,639,799
2011 *	1,966,630	0.8%	37.29	73,326,675	6.4%	2,449,339	2,933,067	25,818,822	42,125,447
2012 *	1,982,000	0.8%	39.01	77,317,944	5.4%	2,582,660	3,092,718	27,224,175	44,418,391
2013	2,002,000	1.0%	39.85	79,787,337	3.2%	2,732,949	3,190,903	28,068,124	45,795,361
2014	2,057,000	2.7%	39.56	81,383,084	2.0%	2,787,608	3,254,721	28,629,487	46,711,268
2015	2,112,000	2.7%	39.30	83,010,744	2.0%	2,843,360	3,319,815	29,202,076	47,645,493
2016	2,167,000	2.6%	39.07	84,670,959	2.0%	2,900,227	3,386,211	29,786,118	48,598,403
2017	2,220,000	2.4%	38.90	86,364,379	2.0%	2,958,232	3,453,936	30,381,840	49,570,371
2018	2,274,000	2.4%	38.74	88,091,665	2.0%	3,017,396	3,523,014	30,989,477	50,561,778
2019	2,321,000	2.1%	38.71	89,853,500	2.0%	3,077,744	3,593,475	31,609,267	51,573,014
2020	2,365,000	1.9%	38.75	91,650,569	2.0%	3,139,299	3,665,344	32,241,452	52,604,474
2021	2,405,000	1.7%	38.87	93,483,580	2.0%	3,202,085	3,738,651	32,886,281	53,656,563
2022	2,443,000	1.6%	39.03	95,353,251	2.0%	3,266,127	3,813,424	33,544,006	54,729,694
2023	2,478,000	1.4%	39.25	97,260,315	2.0%	3,331,449	3,889,692	34,214,886	55,824,288
2024	2,512,000	1.4%	39.49	99,205,522	2.0%	3,398,078	3,967,486	34,899,184	56,940,774
2025	2,545,000	1.3%	N/A+	50,594,817	+	1,733,020	2,023,418	17,798,584	29,039,795
				$ 2,101,124,705		$ 71,906,662	$ 84,036,689	$ 702,311,034	$ 1,242,870,320

Totals may be off slightly due to rounding
* Actual Sales Tax receipts

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Appendix E

Southern Nevada Water Authority
INTERFUND LOAN ACTIVITY
Historical Through June 30, 2012
Projected From July 1, 2012 - June 2025[1/]

HISTORICAL

Fiscal Year	Beginning Balance	Borrowings	Payback From Sales Tax[2/]	Payback From Grants	Total Payback
2006	$ -	$ 1,771,721	$ 3,246	$ -	$ 3,246
2007	1,768,475	3,043,206	243,901		243,901
2008	4,567,781	8,128,593	675,279	9,322,409	9,997,688
2009	2,698,686	2,145,993	2,775,949		2,775,949
2010	2,068,730	4,884,051	1,131,523	1,063,408	2,194,931
2011	4,757,850	994,459	2,805,838	2,317,606	5,123,444
2012	628,865	2,855,066	1,887,910	-	1,887,910
2013	1,596,021				
		$ 23,823,089	$ 9,523,645	$ 12,703,423	$ 22,227,068

PROJECTED

Fiscal Year	Beginning Balance Interfund Loan	Construction To be Financed With Sales Tax[3/4/]	Interest Expense	Sales Tax Receipts
2013	$ 1,596,021	$ 11,648,084	$ 213,660	$ 3,146,871
2014	10,310,894	10,965,212	627,496	3,243,588
2015	18,660,014	7,600,124	957,581	3,308,459
2016	23,909,259	4,544,226	1,140,337	3,374,629
2017	26,219,194	1,447,270	1,175,035	3,442,122
2018	25,399,377	-	1,094,421	3,510,964
2019	22,982,834	-	970,083	3,581,183
2020	20,371,734	-	835,946	3,652,807
2021	17,554,873	-	691,451	3,725,863
2022	14,520,461	-	536,004	3,800,380
2023	11,256,086	-	368,985	3,876,388
2024	7,748,683	-	189,738	3,953,916
2025	3,984,506		48,487	3,014,763
2026	1,018,231			1,018,231
2027	(0)			
		$ 36,204,915	$ 8,849,223	$ 46,650,160

1/ All amounts shown have been converted into fiscal years (July 1, 20xx to June 30, 20xx+1)

2/ Sales tax has also been used for pay-as-you-go construction costs

3/ Estimated construction is based on cash flow projections in the Las Vegas Wash Capital Plan assuming remainder to be paid with additional future grant revenues.

4/ The 2011 Nevada State Legislature passed legislation allowing the June 30, 2025, sunset of sales tax collection to be lifted subject to Clark County approval. At this writing, Clark County has not approved the sunset lift. If the sunset is lifted, additional construction might be allowed to be funded with the revenue source.

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SECTION 9

DEBT MANAGEMENT POLICY

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SOUTHERN NEVADA WATER AUTHORITY

FISCAL YEAR 2013/2014
OPERATING AND CAPITAL BUDGET

DEBT MANAGEMENT POLICY

In Accordance With
NRS 350.013

SOUTHERN NEVADA
WATER AUTHORITY

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June 30, 2013

Southern Nevada Water Authority
Debt Management Policy
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SECTION I
DEBT MANAGEMENT POLICY

A. Introduction

The Southern Nevada Water Authority (SNWA or Authority) 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 (the 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 SNWA effective January 1, 1996.

A history of SNWA's debt service, as well as the Authority's current debt standing, is presented in appendix A. SNWA has four options to sell debt –

- SNWA can ask the Las Vegas Valley Water District (LVVWD or the District) to sell debt on its behalf. Standard & Poor's rates LVVWD bonds "AA+", and Moody's Investors Service rates them at "Aa2". This rating makes LVVWD's bonds "high investment" grade. This option is generally used to sell short term (commercial paper) and variable rate debt.

- SNWA can sell its bonds to the State Bond Bank, which then sells State of Nevada general obligation bonds. The 1997 Nevada Legislature made this option available. Standard & Poor's rates state of Nevada bonds "AA", and Moody's Investor Services rates them at "Aa2". This rating classifies the State's bonds as "high investment" grade. This option is generally used to sell long term fixed rate debt.

- SNWA can sell its bonds to the Clark County Bond Bank, which can then sell Clark County general obligation bonds. The 1999 Nevada Legislature made this option available. Standard & Poor's rates Clark County bonds "AA+", and Moody's Investor Services rates them at "Aa1". This option is generally used to sell long term fixed rate debt.

- SNWA can issue debt in its own name. SNWA has an issuer credit rating of "A+" by Standard & Poor's. This is the rating that would assign to SNWA's senior debt, if it existed. However, SNWA cannot make a general obligation (property tax) pledge so interest rates would be higher. Also, SNWA's credit rating is slightly below the rating of LVVWD, the State, or Clark County, which would result in slightly higher interest rates. As a result, it is expected that SNWA will continue to use the options listed above to issue debt.

A history of the issuance of debt through these options can be seen on the table entitled "Debt History" at Appendix A7.

The SNWA Major Construction and Capital Plan (MCCP), attached as Appendix B to this document outlines the phased construction plan that has been developed to meet the growing demand 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 to 900 MGD capacity. The second was also 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 is presented to the Board as determined appropriate by the SNWS work group. The most recent update presented to the Board occurred

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February 2011. SNWA anticipates using debt to fund the projects in the MCCP.

The Las Vegas Wash Capital Improvements Plan (LVWCIP), attached as Appendix C to this document, covers projects SNWA is building in the Las Vegas Wash. The LVWCIP is updated annually with the most recent update occurring March 2013. 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. The 4% of sales tax proceeds dedicated to the Las Vegas Wash will be used to make debt service payments on this inter account loan.

This document is not intended to review the Authority's total financial position. Analysis of the Authority'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 Authority'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 million 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 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:

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(1) Its plan for capital improvement for the ensuing 5 fiscal years, which must include any contemplated issuance of general obligation debt during this period and the sources of money projected to be available to pay the debt; or

(2) A statement indicating that no changes are contemplated in its plan for capital improvement for the ensuing 5 fiscal years.

(e) A statement containing the name, title, mailing address and telephone number of the chief financial officer of the municipality.

2. The governing body of a municipality may combine a statement or plan required by subsection 1 with the corresponding statement or plan of another municipality if both municipalities have the same governing body or the governing bodies of both municipalities agree to such a combination.

3. Except as otherwise provided in subsection 4, the governing body of each municipality shall update all statements and plans required by subsection 1 not less frequently than once each fiscal year.

4. In a county whose population is 100,000 or more, the governing body of each municipality shall update all statements and plans required by subsection 1 not less often than once each fiscal year and not more often than twice each fiscal year, except that a municipality may update a statement or plan required by subsection 1 more often than twice each fiscal year.

B. 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 Authority's Bonds issued in the name of the LVVWD constitute direct and general obligations of LVVWD, and the full faith and credit of 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. LVVWD Bonds are payable from general ad-valorem taxes on all taxable property in the District, 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 regional 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, the proceeds the Authority receives from the Clark 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 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 District) 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 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.

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The payment of LVVWD Bonds is not secured by an encumbrance, mortgage or other pledge of property of LVVWD or the Authority, and no property shall be liable to be forfeited or taken in payment of LVVWD Bonds; provided that the payment of the Bonds is secured by the proceeds of general (ad valorem) taxes and LVVWD's and SNWA's revenues which are pledged for the 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 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 LVVWD or the Authority, past, present or future, either directly or indirectly by virtue of any statute or rule of law. LVVWD Bonds will be repaid with revenues of the SNWA and/or revenues made available to LVVWD by certain members of the SNWA.

LVVWD has never levied an ad valorem tax because their and SNWA revenues have always been sufficient to pay debt service on all of LVVWD's bonds and obligations secured by such revenues.

Proposed Future Authority Water Bonds

SNWA has no immediate plans to issue new-money bond issues in fiscal 2013-2014. The bond market is constantly monitored for savings opportunities via refunding or restructuring existing debt issues.

Bonded Indebtedness

The first table on the following page sets forth the Authority's outstanding District Water Bonds as of June 30, 2013.

Debt Service Requirements

See Appendix A 5 for a table that illustrates the debt service to maturity on LVVWD Bonds.

Property Tax Rate Impact

Principal and interest on LVVWD Bonds are payable from SNWA pledged revenues. There will be no direct impact on the ad valorem tax rate as long as pledged revenues are sufficient to pay debt service on the outstanding bonds. See Appendix A 4 for a table that illustrates the Authority's historic pledged revenues and debt service coverage.

Existing, Authorized and Proposed Revenue Supported Bond Indebtedness Issued by the Southern Nevada Water Authority ("Authority Revenue Bonds")

The Authority's Revenue Bonds will be repaid with revenues of the SNWA and/or revenues made available to the Authority by certain members of the SNWA. AB 201, approved by the 1997 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 water authority to the water authority and the State as a result of the acquisition of bonds of the water authority 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.

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GENERAL OBLIGATION INDEBTEDNESS
LAS VEGAS VALLEY WATER DISTRICT (LVVWD) BONDS [1]
Southern Nevada Water Authority
As of June 30, 2013

	Original Issue Date	Original Amount	Outstanding
LVVWD Tax-Exempt Commercial Paper	March-04	$ 400,000,000	$ 400,000,000
LVVWD 2012 B	July-12	360,000,000	360,000,000
LVVWD 2009 C	December-09	348,115,000	348,115,000
LVVWD 2011C	October-11	267,815,000	258,995,000
LVVWD 2011B	October-11	129,650,000	129,650,000
LVVWD 2008B	February-08	171,720,000	116,335,000
LVVWD 2009 A	July-09	90,000,000	90,000,000
LVVWD 2009 D	December-09	71,965,000	69,185,000
LVVWD 2011 A	July-09	58,110,000	58,110,000
LVVWD 2009 B	July-09	10,000,000	10,000,000
Total Outstanding		**$ 1,907,375,000**	**$ 1,840,390,000**

[1] Issued by LVVWD and additionally secured by Southern Nevada Water Authority revenues

SOURCE: Southern Nevada Water Authority

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REVENUE SUPPORTED INDEBTEDNESS
SOUTHERN NEVADA WATER AUTHORITY REVENUE BONDS
As of June 30, 2013

	Original Issue Date	Original Amount	Outstanding
SNWA 1106 Bond	November-06	$ 604,140,000	$ 533,020,000
SNWA 2008 Bond	July-08	400,000,000	362,155,000
SNWA 2006 Refunding Bond	June-06	242,880,000	210,210,000
SNWA 2012A	June-12	85,015,000	85,015,000
SNWA 2009 Refunding	November-09	50,000,000	48,220,000
SNWA Clean Renewable Energy 2008 Bond	July-08	6,900,000	4,600,000
Total Outstanding		**$ 1,388,935,000**	**$ 1,243,220,000**

SOURCE: Southern Nevada Water Authority

Nevada statutes provide that no act concerning the Authority Revenue Bonds or their security may be repealed, amended, or modified in such a manner as to impair adversely the Bonds or their security until all of the Bonds have been discharged in full, or provision for their payment and redemption has been fully made.

Payment of the Authority Revenue Bonds is not secured by an encumbrance, mortgage or other pledge of property of the Authority, and no property shall be liable to be forfeited or taken in payment of the Authority Revenue Bonds; provided that the 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 Authority Revenue 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 Authority, past, present or future, either directly or indirectly by virtue of any statute or rule of law.

Bonded Indebtedness

The second table on the preceding page sets forth the Authority's proposed Authority Revenue Bonds as of June 30, 2013.

Debt Service Requirements

See Appendix A 5 for a table that illustrates the debt service to maturity for the existing and proposed Authority Revenue Bonds.

Property Tax Rate Impact

There is no impact on tax rates as principal and interest on the Authority Revenue Bonds is payable from SNWA pledged revenues only. See Appendix A 4 for a table that illustrates the Authority's historic SNWA pledged revenues and debt service coverage.

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 SNWA (SNWA Water Revenue Bond 2009). This issue allows SNWA to draw against the value of the bond for three years and then begin paying off the borrowings over a twenty year period with not interest charges.
In any year in which the total property taxes levied within the State by all overlapping units (e.g. the

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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 that any law supplemental or otherwise appertaining thereto, and any act concerning the Bonds, or other municipal securities, taxes or pledged revenues, shall not be repealed, amended, or modified in such a manner as to impair adversely the Bonds or their security until all of the Bonds have been discharged in full or provision for their payment and redemption has been fully made.

The payment of the State Bonds is not secured by an encumbrance, mortgage or other pledge of property of the State, except the proceeds of General Taxes, Net Pledged Revenues, and other money pledged for the payment of the Bonds shall be liable or forfeited for, or taken in payment of, the Bonds.

The Federal Repayment Contracts were general obligations of the State. To secure reimbursement by the State, the Repayment Contract grants the United States a prior claim to part of the Commission's net revenues derived through the Federal Facilities from the Water User Contracts with Las Vegas Valley Water District, 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 SNWA, subject to prepayment of the project's federal repayment obligation. On July 3, 2001 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, 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 table on the following page sets forth the Authority's outstanding State of Nevada Bonds as of June 30, 2013.

Debt Service Requirements

See Appendix A 5 for a table that illustrates the debt service to maturity on the State of Nevada Bonds.

Property Tax Rate Impact

Principal and interest on the State bonds are payable from SNWA 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 A 4 for a table that illustrates the Authority's historic SNWA pledged revenues and debt service coverage.

C. 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 Authority does not have a dollar amount of debt limit. The Authority's ability to issue and pay its debt is a function of its capital needs and revenues generated from Authority facilities.

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STATE OF NEVADA BONDS
Southern Nevada Water Authority
As of June 30, 2013

	Original Issue Date	Original Amount	Outstanding
SNWA Refunding Bonds, Series 2005F	May-05	$ 249,365,000	$ 173,520,000
CRC Refunding Bonds, Series 2006D	July-06	111,840,000	66,200,000
CRC Refunding Bonds, Series 2005I	May-05	65,300,000	47,755,000
CRC Refunding Bonds, Series 2005H	March-05	36,130,000	31,620,000
SNWA 2013A Refunding Bonds	Feb-13	21,720,000	21,720,000
CRC Refunding Bonds, Series 2010B	Jun-10	7,405,000	7,405,000
State of Nevada Safe Drinking Water Loan #1	September-99	12,269,695	5,318,736
State of Nevada Safe Drinking Water Loan #2	June-01	10,000,000	5,094,549
SNWA Water Revenue Bonds 2009	November-09	2,151,187	2,087,917
Total Outstanding		**$ 491,760,000**	**$ 360,721,202**

SOURCE: Southern Nevada Water Authority

D. 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 Authority currently has no outstanding bonds payable directly from property taxes. The existing and proposed District Water Bonds and Authority Revenue Bonds are payable from pledged water revenues.

E. 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 competitive or negotiated sale. The Authority 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.

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Competitive Sale

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

Negotiated Sale

In a negotiated sale, an exclusive arrangement is made between the issuer and an underwriter or underwriting syndicate. At the end of successful negotiations, the issue is awarded to the underwriter.

A negotiated underwriting may be considered based upon one or more of the following criteria:

- Extremely large issue size
- Complex financing structure (i.e. new security feature, variable rate financings, new derivatives, and certain revenue issues, etc.) which provides a desirable benefit to the Authority
- 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 Authority to conclude that competitive sale would not be effective

It is the policy of the Authority to provide minority business enterprises, women business enterprises and all other business enterprises an equal opportunity to participate in the performance of all Authority contracts. At competitive sale, bidders are requested to assist the Authority in implementing this policy by taking all reasonable steps to ensure that all available business enterprises, including minority and women business enterprises have an equal opportunity to participate in Authority contracts.

Underwriter Selection for Negotiated Sale

- The Director of Finance will establish a list of pre-qualified underwriters when a negotiated sale is anticipated. The list will be based on firms that have submitted, as a part of the syndicate, bids for Authority competitive bond issues during the past five years.
- The request for proposal (RFP) will be sent by the Director of Finance to every underwriter on the list. The format of the RFP will be determined by the Director of Finance. Spread quotation for: (1) management fee, (2) direct expenses, (3) underwriting fee, and (4) takedown (or sales concession) will be obtained from each firm.
- The proposals will be evaluated on responsiveness, experience, and cost.
- The book-running senior manager and other members of the underwriting syndicate will be designated by the Director of Finance, and ratified by the Board of Trustees. It is the Authority's intent, once a team is established, to provide equal opportunity for the position of book-running senior manager. The Director of Finance will rotate the book-running senior manager on a deal by deal basis (i.e., when more than one issue is being sold for the same project having different dated dates), to provide equal opportunity to all members of the syndicate.
- The underwriting team should be balanced with firms having institutional, retail, and regional sales strengths. Qualified minority and/or woman owned firms will be included in the underwriting team and will be given an equal opportunity to be senior manager.
- The size of issue will determine the number of members in the underwriting team and

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whether more than one senior manager is desirable.

Underwriting Spread

Before work commences on a bond issue to be sold at negotiated sale, the underwriter shall provide the Director of Finance a detailed estimate of all components of their compensation. Such estimates should be contained in the RFP or provided immediately after their designation as underwriter.

An updated estimate of the expense component of gross spread must be provided to the Director of Finance by the book-running senior manager no later than one week prior to the day of pricing.

Establishment of a Selling Group

When deemed appropriate by the Director of Finance, a selling group will also be established to assist the underwriting team in the marketing of the bond issue.

Priority of Orders

The priority of orders to be established for negotiated sales is as follows:

1. Nevada Investors
2. Group Orders
3. Designated Orders
4. Member Orders

For underwriting syndicates with three or more underwriters a three firm rule for net designated orders will be established as follows;

- The designation of takedown on net designated orders is to benefit at least three firms of the underwriting team.

- No more than 50% of the takedown may be designated to any one firm. No less than 10% of the takedown will be designated to any one firm.

Retentions

If the use of retentions is desirable, the Director of Finance will approve the percentage (up to 30%) of term bonds to be set aside. The amount of total retention will be allocated to each member of the underwriting team in accordance with their respective underwriting liability, which is approved by the Director of Finance.

Allocation of Bonds

- The book-running senior manager will be responsible for ensuring that the overall allocation of bonds meets the Authority's goals of obtaining the best price for the issue and a balanced distribution of the bonds.

- The Director of Finance must approve the final bond allocation process with input from the book-running senior manager.

F. Operation Costs and Revenue Sources for Projects in MCCP

Response to NRS 350.013 1(c):

- *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 Appendix A of this document, operational costs are funded with water revenues. It is the Authority'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 Authority 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.

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G. 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 refunding bonds and refunded bonds less any contribution from a reserve or debt service fund.

- *Present Value Savings* - Present value of gross savings discounted at the refunding bond yield to the closing date plus accrued interest less any contribution from a reserve or debt service fund.

Prior to beginning a refunding bond issue the Authority will review an estimate of the savings achievable from the refunding. The Authority may also review a pro forma schedule estimating the savings assuming that the refunding is done at various points in the future.

The Authority will generally consider refunding outstanding bonds if one or more of the following conditions exist:

- Present value savings are estimated to be at least 3% of the par amount of the refunding bonds when initially presented to the Board.

- The bonds to be refunded have restrictive or outdated covenants.

- Restructuring debt is deemed to be desirable.

The Authority may pursue a refunding not meeting the above criteria if:

- Present value savings exceed the costs of issuing the bonds.

- Current savings are acceptable when compared to savings that could be achieved by waiting for more favorable interest rates and/or call premiums.

Debt Structure

Maturity Structures - The term of Authority debt issues should not extend beyond the useful life of the project or equipment financed.

When appropriate, debt issued by the Authority should be structured to provide for either level principal or 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 Authority revenues are sufficient to pay debt service, or where the deferral of principal allows the Authority 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.

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The decision to purchase insurance directly versus bidder's option is based on:

- volatile markets
- current investor demand for insured bonds
- level of insurance premiums
- ability of the Authority to purchase bond insurance from bond proceeds

Bond insurance can be purchased directly by the Authority prior to the bond sale (direct purchase) or at the underwriter's option and expense (bidder's option). The Authority will attempt to qualify its bond issues for insurance with bond insurance companies rated AAA by Moody's Investors Service and Standard & Poor's Corporation.

When insurance is purchased directly by the Authority, the present value of the estimated debt service savings from insurance should be at least equal to or 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).

Financing Sources

The Authority will evaluate available state and county bond financing programs before choosing the financing source. The Authority will consider utilizing a state or county program if bonds can be sold by the State or county in a manner that meets the Authority's timing needs, and if two or more of the following conditions are expected:

- The Authority will benefit from the State or county's credit rating.
- The Authority will reduce its issuance costs by combining with other participants.
- The Authority will be able to approve the structure of the bonds.
- The utilization of the State or county program is the most cost effective source of funds.

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SECTION II
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:	Phil D. Speight
TITLE:	Acting Chief Financial Officer
ADDRESS:	1001 South Valley View Boulevard Las Vegas, NV 89153
TELEPHONE:	(702) 258-3111

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APPENDIX A
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)
6. Schedule of Existing Debt Service (Individual Amortization Schedules)
7. Debt History

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Appendix A 1

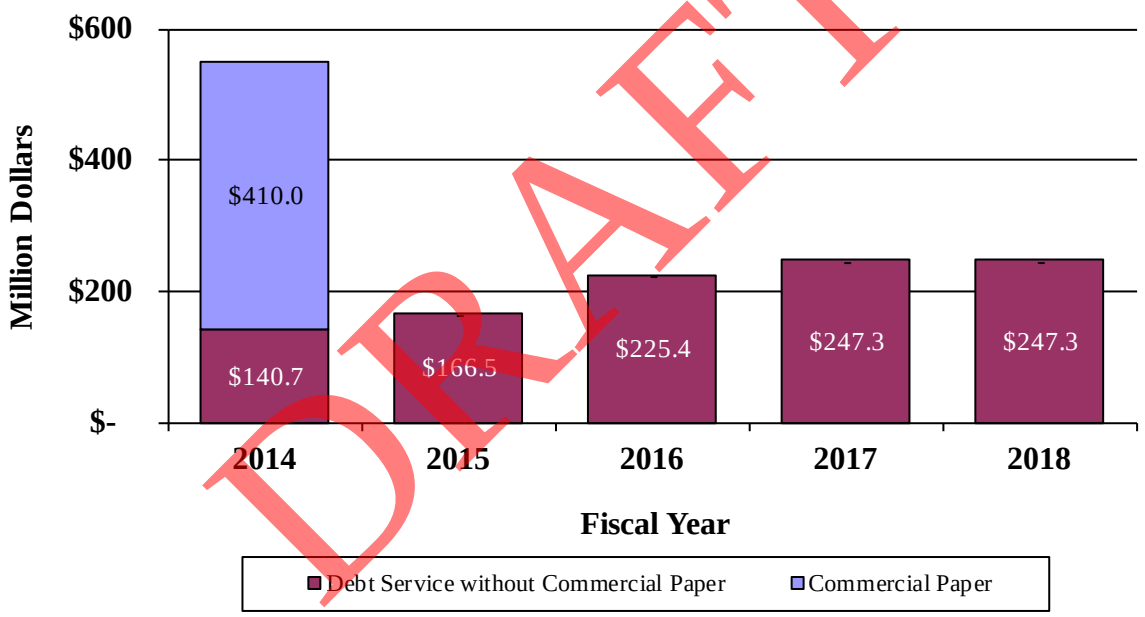
Southern Nevada Water Authority

Five Year Schedule of Debt Service Requirements

As of June 30, 2013

	Fiscal Year Ending June 30				
Type of Debt	**2014**	**2015**	**2016**	**2017**	**2018**
G/O Debt Issues	$ 550,714,220	$ 166,455,111	$ 225,374,967	$ 247,336,996	$ 247,323,013

Five Year Schedule of Debt Service Requirements In Million Dollars



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Appendix A 2

Southern Nevada Water Authority

Combined Schedule of Debt Service Requirements

As of June 30, 2013

Fiscal Year	Total G/O and Revenue Debt Issues		
	Principal	Interest	Total
2014	$ 416,872,459	$ 133,841,761	$ 550,714,220
2015	24,290,584	142,164,527	166,455,111
2016	84,045,252	141,329,715	225,374,967
2017	110,456,517	136,880,479	247,336,996
2018	115,564,439	131,758,574	247,323,013
2019	121,009,074	126,306,797	247,315,871
2020	126,755,486	120,537,516	247,293,002
2021	130,729,253	114,464,878	245,194,131
2022	136,549,085	108,289,970	244,839,055
2023	143,171,540	101,353,197	244,524,737
2024	149,731,540	94,363,290	244,094,831
2025	157,896,540	86,980,868	244,877,409
2026	165,816,540	79,137,779	244,954,319
2027	153,201,540	71,162,667	224,364,208
2028	129,711,540	64,320,546	194,032,086
2029	109,281,540	59,259,940	168,541,480
2030	114,803,270	54,346,815	169,150,085
2031	91,700,000	48,959,190	140,659,190
2032	95,700,000	44,647,696	140,347,696
2033	100,690,000	39,977,143	140,667,143
2034	105,415,000	35,165,066	140,580,066
2035	110,245,000	30,239,855	140,484,855
2036	115,255,000	25,139,411	140,394,411
2037	120,245,000	20,045,960	140,290,960
2038	125,095,000	15,095,565	140,190,565
2039	125,460,000	9,051,643	134,511,643
2040	20,565,000	3,044,600	23,609,600
2041	21,530,000	2,076,000	23,606,000
2042	22,545,000	1,061,900	23,606,900
Total Outstanding	$ 3,444,331,202	$ 2,041,003,346	$ 5,485,334,548

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Appendix A 3

Southern Nevada Water Authority

Combined Schedule of Existing and Proposed Debt Service Requirements

as of June 30, 2013

Fiscal Year	Existing Debt			Proposed		
	Principal	Interest	Total	Principal	Interest	Total
2014	$ 416,872,459	$ 133,841,761	$ 550,714,220	$ -	$ -	$ -
2015	24,290,584	142,164,527	166,455,111			
2016	84,045,252	141,329,715	225,374,967			
2017	110,456,517	136,880,479	247,336,996			
2018	115,564,439	131,758,574	247,323,013			
2019	121,009,074	126,306,797	247,315,871			
2020	126,755,486	120,537,516	247,293,002			
2021	130,729,253	114,464,878	245,194,131			
2022	136,549,085	108,289,970	244,839,055			
2023	143,171,540	101,353,197	244,524,737			
2024	149,731,540	94,363,290	244,094,831			
2025	157,896,540	86,980,868	244,877,409			
2026	165,816,540	79,137,779	244,954,319			
2027	153,201,540	71,162,667	224,364,208			
2028	129,711,540	64,320,546	194,032,086			
2029	109,281,540	59,259,940	168,541,480			
2030	114,803,270	54,346,815	169,150,085			
2031	91,700,000	48,959,190	140,659,190			
2032	95,700,000	44,647,696	140,347,696			
2033	100,690,000	39,977,143	140,667,143			
2034	105,415,000	35,165,066	140,580,066			
2035	110,245,000	30,239,855	140,484,855			
2036	115,255,000	25,139,411	140,394,411			
2037	120,245,000	20,045,960	140,290,960			
2038	125,095,000	15,095,565	140,190,565			
2039	125,460,000	9,051,643	134,511,643			
2040	20,565,000	3,044,600	23,609,600			
2041	21,530,000	2,076,000	23,606,000			
2042	22,545,000	1,061,900	23,606,900			
2043	-	-	-			
Totals	$ 3,444,331,202	$ 2,041,003,346	$ 5,485,334,548	$ -	$ -	$ -

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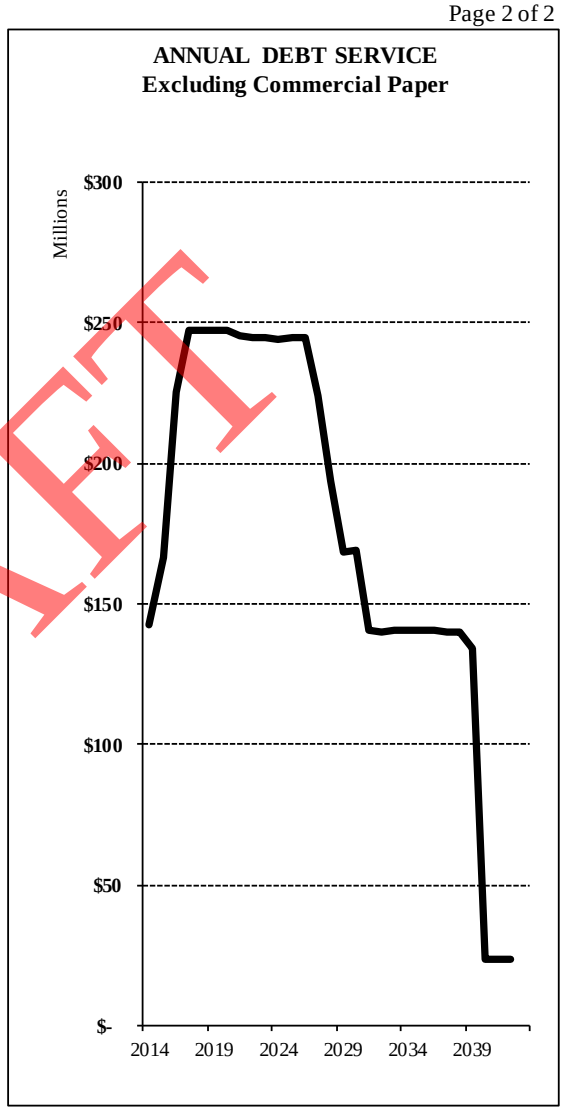
Appendix A 3

Southern Nevada Water Authority

Combined Schedule of Existing and Proposed Debt Service Requirements

as of June 30, 2013

Fiscal Year	Total Existing & Proposed Debt		
	Principal	Interest	Total
2014	$ 416,872,459	$ 133,841,761	$ 550,714,220
2015	24,290,584	142,164,527	166,455,111
2016	84,045,252	141,329,715	225,374,967
2017	110,456,517	136,880,479	247,336,996
2018	115,564,439	131,758,574	247,323,013
2019	121,009,074	126,306,797	247,315,871
2020	126,755,486	120,537,516	247,293,002
2021	130,729,253	114,464,878	245,194,131
2022	136,549,085	108,289,970	244,839,055
2023	143,171,540	101,353,197	244,524,737
2024	149,731,540	94,363,290	244,094,831
2025	157,896,540	86,980,868	244,877,409
2026	165,816,540	79,137,779	244,954,319
2027	153,201,540	71,162,667	224,364,208
2028	129,711,540	64,320,546	194,032,086
2029	109,281,540	59,259,940	168,541,480
2030	114,803,270	54,346,815	169,150,085
2031	91,700,000	48,959,190	140,659,190
2032	95,700,000	44,647,696	140,347,696
2033	100,690,000	39,977,143	140,667,143
2034	105,415,000	35,165,066	140,580,066
2035	110,245,000	30,239,855	140,484,855
2036	115,255,000	25,139,411	140,394,411
2037	120,245,000	20,045,960	140,290,960
2038	125,095,000	15,095,565	140,190,565
2039	125,460,000	9,051,643	134,511,643
2040	20,565,000	3,044,600	23,609,600
2041	21,530,000	2,076,000	23,606,000
2042	22,545,000	1,061,900	23,606,900
2043	-	-	-
Totals	$ 3,444,331,202	$ 2,041,003,346	$ 5,485,334,548



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Appendix A 4

Southern Nevada Water Authority

Net Pledged Revenues

as of June 30, 2013

Page 1 of 2

Fiscal Year End	2005 Actual	2006 Actual	2007 Actual	2008 Actual	2009 Actual
REVENUES					
Wholesale Delivery Charge	$ 100,460,557	$ 115,532,042	$ 121,449,812	$ 118,782,982	$ 112,551,974
Regional Connection Charge 1/	177,493,765	188,454,011	119,561,208	57,318,104	26,789,155
Regional Water Charges	10,101,548	14,213,843	18,829,058	18,777,117	18,791,878
Sales Tax	49,945,593	54,158,795	55,060,027	53,315,770	46,333,942
Groundwater Program Fees	2,039,010	1,952,143	1,953,768	1,976,911	2,047,626
Las Vegas Wash Program Fees	1,071,600	1,074,374	842,700	1,196,028	690,000
Interest Income & Capitalized Int	19,548,835	13,474,740	41,088,297	30,676,718	13,607,423
Other Revenues 2/	69,010,167	137,335,841	41,594,501	5,843,187	3,104,737
Total Revenues	$ 429,671,075	$ 526,195,789	$ 400,379,371	$ 287,886,817	$ 223,916,735
OPERATING EXPENSES					
Personnel & Related	$ 29,082,767	$ 32,131,870	$ 33,754,022	$ 37,430,481	$ 39,671,513
Energy	54,461,787	56,584,777	47,268,452	35,233,331	40,184,442
Operations and Maintenance	51,321,569	38,966,643	43,170,486	63,839,825	73,740,385
PAYG Capital Expenses	74,245,090	209,332,517	144,242,303		
Interfund Bridge to Bond Fund 3/				110,214,078	(110,214,078)
Total Operating Expenses	$ 209,111,213	$ 337,015,807	$ 268,435,263	$ 246,717,715	$ 43,382,262
NET PLEDGED REVENUES	$ 220,559,862	$ 189,179,982	$ 131,944,108	$ 41,169,102	$ 180,534,473
Add Beginning Unrestricted Funds 4/	328,473,490	430,008,393	491,405,174	505,592,327	423,601,762
Net Available for Debt Service	$ 549,033,352	$ 619,188,375	$ 623,349,282	$ 546,761,429	$ 604,136,234
SNWA DEBT SERVICE 5/	125,502,473	140,855,868	144,484,915	153,769,711	169,717,981
SNWA REVENUE AND FUNDS AVAILABLE AFTER DEBT SERVICE	$ 423,530,879	$ 478,332,507	$ 478,864,367	$ 392,991,718	$ 434,418,253

1/ Prior to fiscal 2007, connection charges reflected the net cash received from this revenue source. Amounts for years after fiscal 2006 have been modified with a refund contingency.

2/Includes receipts from the Southern Nevada Public Lands Management Act (SNPLMA), raw water facilities charge and minor billings purveyor members (Big Bend, City of Las Vegas and Clark County Reclamation District).

3/ Occasionally during the process of issuing new money bonds, the bond fund will become depleted before the new issue is finalized. Unrestricted funds can be used from 60 days prior to Board approval of bond resolution to the date of bond proceeds receipt. At that time the unrestricted funds are reimbursed from the bond proceeds.

4/ Unrestricted funds include unrestricted cash and investments as shown on the Comprehensive Annual Financial Report and sales tax proceeds on hand regardless of classification.

5/Includes the interest amounts paid on the 2004 Commercial Paper Notes. Net of the BAB Credit received in fiscal year 2010 with respect to the 2009A Bonds and 2009C

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Appendix A 4

Southern Nevada Water Authority

Net Pledged Revenues

as of June 30, 2013

Fiscal Year End	2010 Actual	2011 Actual	2012 Actual	2013 Budget	2014 Budget
REVENUES					
Wholesale Delivery Charge	$ 110,097,368	$ 119,457,411	$ 119,239,660	$ 117,498,863	$ 121,958,169
Regional Connection Charge 1/	5,309,547	6,602,728	13,892,856	12,033,087	13,142,254
Regional Infrastructure Surcharge			16,193,130	92,932,293	77,399,956
Regional Water Charges	22,538,155	37,335,440	45,263,892	45,492,926	44,040,855
Sales Tax	41,833,183	43,577,390	46,222,883	47,539,972	51,297,790
Groundwater Program Fees	872,104	894,502	867,716	913,359	913,345
Las Vegas Wash Program Fees	698,274	397,408	397,407	496,759	705,482
Interest Income & Capitalized Int	1,789,048	1,375,082	1,565,109	1,762,923	1,772,901
Other Revenues 2/	4,652,559	3,590,639	3,024,631	5,669,661	17,926,543
Total Revenues	$ 187,790,238	$ 213,230,600	$ 246,667,284	$ 324,339,843	$ 329,157,295
OPERATING EXPENSES					
Personnel & Related	$ 37,948,022	$ 42,491,203	$ 43,450,464	$ 37,618,172	$ 68,607,709
Energy	39,656,635	36,013,713	44,527,798	42,467,894	44,318,335
Operations and Maintenance	45,801,462	34,357,566	37,685,150	34,571,753	62,795,591
PAYG Capital Expenses					
Interfund Bridge to Bond Fund 3/					
Total Operating Expenses	$ 123,406,119	$ 112,862,482	$ 125,663,412	$ 114,657,819	$ 175,721,635
NET PLEDGED REVENUES	$ 64,384,119	$ 100,368,118	$ 121,003,872	$ 209,682,024	$ 153,435,660
Add Beginning Unrestricted Funds 4/	442,315,079	366,951,904	305,553,937	250,900,000	316,100,000
Net Available for Debt Service	$ 506,699,197	$ 467,320,022	$ 426,557,809	$ 460,582,024	$ 469,535,660
SNWA DEBT SERVICE 5/	162,911,866	155,206,052	146,624,017	153,769,711	150,714,220
SNWA REVENUE AND FUNDS AVAILABLE AFTER DEBT SERVICE	$ 343,787,331	$ 312,113,970	$ 279,933,792	$ 306,812,313	$ 318,821,440

1/ Prior to fiscal 2007, connection charges reflected the net cash received from this revenue source. Amounts for years after fiscal 2006 have been modified with a refund contingency.

2/Includes receipts from the Southern Nevada Public Lands Management Act (SNPLMA), raw water facilities charge and minor billings purveyor members (Big Bend, City of Las Vegas and Clark County Reclamation District).

3/ Occasionally during the process of issuing new money bonds, the bond fund will become depleted before the new issue is finalized. Unrestricted funds can be used from 60 days prior to Board approval of bond resolution to the date of bond proceeds receipt. At that time the unrestricted funds are reimbursed from the bond proceeds.

4/ Unrestricted funds include unrestricted cash and investments as shown on the Comprehensive Annual Financial Report and sales tax proceeds on hand regardless of classification.

5/Includes the interest amounts paid on the 2004 Commercial Paper Notes. Net of the BAB Credit received in fiscal year 2010 with respect to the 2009A Bonds and 2009C

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Appendix A 5

Southern Nevada Water Authority
Schedule of Existing Debt Service by Issuer
As of June 30, 2013

Fiscal Year	Las Vegas Valley Water District Principal	Interest	Total	Southern Nevada Water Authority (Clark County Bond Bank and other) Principal	Interest	Total
2014	$ 412,270,000	$ 59,960,701	$ 472,230,701	$ 2,325,000	$ 57,534,110	$ 59,859,110
2015	19,515,000	68,460,141	87,975,141	2,420,000	57,435,478	59,855,478
2016	43,980,000	67,809,590	111,789,590	31,605,000	57,332,096	88,937,096
2017	43,250,000	65,991,409	109,241,409	43,325,000	55,461,996	98,786,996
2018	45,095,000	64,134,715	109,229,715	45,420,000	53,370,814	98,790,814
2019	47,135,000	62,100,241	109,235,241	47,610,000	51,177,507	98,787,507
2020	49,315,000	59,928,542	109,243,542	49,910,000	48,855,962	98,765,962
2021	51,635,000	57,625,800	109,260,800	52,335,000	46,420,968	98,755,968
2022	53,920,000	55,345,146	109,265,146	54,900,000	43,843,436	98,743,436
2023	56,520,000	52,759,968	109,279,968	57,905,000	40,855,604	98,760,604
2024	59,190,000	50,109,640	109,299,640	60,360,000	37,962,750	98,322,750
2025	62,020,000	47,282,774	109,302,774	63,410,000	34,926,213	98,336,213
2026	65,115,000	44,239,054	109,354,054	66,630,000	31,736,238	98,366,238
2027	47,760,000	40,999,699	88,759,699	69,700,000	28,689,688	98,389,688
2028	52,170,000	38,289,252	90,459,252	72,610,000	25,804,838	98,414,838
2029	31,980,000	36,431,415	68,411,415	75,545,000	22,754,900	98,299,900
2030	33,595,000	34,822,377	68,417,377	80,410,000	19,506,981	99,916,981
2031	26,155,000	33,130,290	59,285,290	65,545,000	15,828,900	81,373,900
2032	43,915,000	31,836,471	75,751,471	51,785,000	12,811,225	64,596,225
2033	59,675,000	29,653,293	89,328,293	41,015,000	10,323,850	51,338,850
2034	62,550,000	26,694,916	89,244,916	42,865,000	8,470,150	51,335,150
2035	65,490,000	23,658,867	89,148,867	44,755,000	6,580,988	51,335,988
2036	68,530,000	20,525,836	89,055,836	46,725,000	4,613,575	51,338,575
2037	71,705,000	17,247,398	88,952,398	48,540,000	2,798,563	51,338,563
2038	99,525,000	13,817,065	113,342,065	25,570,000	1,278,500	26,848,500
2039	125,460,000	9,051,643	134,511,643	-	-	-
2040	20,565,000	3,044,600	23,609,600	-	-	-
2040	21,530,000	2,076,000	23,606,000	-	-	-
2041	22,545,000	1,061,900	23,606,900	-	-	-
2042	-	-	-			
Totals	$ 1,862,110,000	$ 1,118,088,744	$ 2,980,198,744	$ 1,243,220,000	$ 776,375,325	$ 2,019,595,325

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Appendix A 5

Southern Nevada Water Authority
Schedule of Existing Debt Service by Issuer
As of June 30, 2013

Fiscal Year	Southern Nevada Water Authority through the State Bond Bank			Total Debt Service		
	Principal	Interest	Total	Principal	Interest	Total
2014	$ 2,277,459	$ 16,346,950	$ 18,624,409	$ 416,872,459	$ 133,841,761	$ 550,714,220
2015	2,355,584	16,268,907	18,624,491	24,290,584	142,164,527	166,455,111
2016	8,460,252	16,188,029	24,648,280	84,045,252	141,329,715	225,374,967
2017	23,881,517	15,427,074	39,308,591	110,456,517	136,880,479	247,336,996
2018	25,049,439	14,253,045	39,302,484	115,564,439	131,758,574	247,323,013
2019	26,264,074	13,029,049	39,293,124	121,009,074	126,306,797	247,315,871
2020	27,530,486	11,753,012	39,283,498	126,755,486	120,537,516	247,293,002
2021	26,759,253	10,418,110	37,177,363	130,729,253	114,464,878	245,194,131
2022	27,729,085	9,101,389	36,830,474	136,549,085	108,289,970	244,839,055
2023	28,746,540	7,737,625	36,484,165	143,171,540	101,353,197	244,524,737
2024	30,181,540	6,290,900	36,472,440	149,731,540	94,363,290	244,094,831
2025	32,466,540	4,771,881	37,238,422	157,896,540	86,980,868	244,877,409
2026	34,071,540	3,162,488	37,234,028	165,816,540	79,137,779	244,954,319
2027	35,741,540	1,473,281	37,214,822	153,201,540	71,162,667	224,364,208
2028	4,931,540	226,456	5,157,997	129,711,540	64,320,546	194,032,086
2029	1,756,540	73,625	1,830,165	109,281,540	59,259,940	168,541,480
2030	798,270	17,456	815,726	114,803,270	54,346,815	169,150,085
2031	-	-	-	91,700,000	48,959,190	140,659,190
2032	-	-	-	95,700,000	44,647,696	140,347,696
2033	-	-	-	100,690,000	39,977,143	140,667,143
2034	-	-	-	105,415,000	35,165,066	140,580,066
2035	-	-	-	110,245,000	30,239,855	140,484,855
2036	-	-	-	115,255,000	25,139,411	140,394,411
2037	-	-	-	120,245,000	20,045,960	140,290,960
2038	-	-	-	125,095,000	15,095,565	140,190,565
2039	-	-	-	125,460,000	9,051,643	134,511,643
2040	-	-	-	20,565,000	3,044,600	23,609,600
2040	-	-	-	21,530,000	2,076,000	23,606,000
2041	-	-	-	22,545,000	1,061,900	23,606,900
2042				-	-	-
	$ 339,001,202	$ 146,539,277	$ 485,540,479	$ 3,444,331,202	$ 2,041,003,346	$ 5,485,334,548

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Appendix A 6

Southern Nevada Water Authority
Schedule of Existing Debt Service (Individual Schedules)
As of June 30, 2013

Fiscal Year	SRF Loan Dec 1999 Principal	SRF Loan Dec 1999 Interest	SRF Loan Dec 1999 Total	SRF Loan Jun 2001 Principal	SRF Loan Jun 2001 Interest	SRF Loan Jun 2001 Total
2014	$ 680,745	$ 185,918	$ 866,663	$ 525,174	$ 171,768	$ 696,941
2015	705,542	161,121	866,663	543,502	153,439	696,941
2016	731,242	135,421	866,663	562,470	134,472	696,941
2017	757,878	108,785	866,663	582,099	114,842	696,941
2018	785,484	81,179	866,663	602,414	94,527	696,941
2019	814,096	52,567	866,663	623,438	73,503	696,941
2020	843,750	22,913	866,663	645,196	51,746	696,941
2021				667,712	29,229	696,941
2022				342,545	5,926	348,471
2023						
2024						
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Totals	$ 5,318,736	$ 747,902	$ 6,066,638	$ 5,094,549	$ 829,451	$ 5,924,000

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Southern Nevada Water Authority
Schedule of Existing Debt Service (Individual Schedules)
As of June 30, 2013

Fiscal Year	LVVWD Tax-Exempt Commercial Paper			SNWA 2005F Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2014	$ 400,000,000	$ 8,000,000	$ 408,000,000	$ -	$ 8,676,000	$ 8,676,000
2015				-	8,676,000	8,676,000
2016				-	8,676,000	8,676,000
2017				12,135,000	8,372,625	20,507,625
2018				12,755,000	7,750,375	20,505,375
2019				13,410,000	7,096,250	20,506,250
2020				14,095,000	6,408,625	20,503,625
2021				14,815,000	5,685,875	20,500,875
2022				15,580,000	4,926,000	20,506,000
2023				16,380,000	4,127,000	20,507,000
2024				17,220,000	3,287,000	20,507,000
2025				18,095,000	2,404,125	20,499,125
2026				19,030,000	1,476,000	20,506,000
2027				20,005,000	500,125	20,505,125
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2043						
Totals	$ 400,000,000	$ 8,000,000	$ 408,000,000	$ 173,520,000	$ 78,062,000	$ 251,582,000

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Southern Nevada Water Authority
Schedule of Existing Debt Service (Individual Schedules)
As of June 30, 2013

Fiscal Year	CRC 2005H Refunding Bonds			CRC 2005I Refunding Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2014	$ -	$ 1,501,950	$ 1,501,950	$ -	$ 2,266,938	$ 2,266,938
2015	-	1,501,950	1,501,950	-	2,266,938	2,266,938
2016	-	1,501,950	1,501,950	-	2,266,938	2,266,938
2017	-	1,501,950	1,501,950	2,905,000	2,194,313	5,099,313
2018	-	1,501,950	1,501,950	3,050,000	2,045,438	5,095,438
2019	-	1,501,950	1,501,950	3,190,000	1,897,413	5,087,413
2020	-	1,501,950	1,501,950	3,335,000	1,750,600	5,085,600
2021	-	1,501,950	1,501,950	3,485,000	1,592,794	5,077,794
2022	-	1,501,950	1,501,950	3,650,000	1,423,338	5,073,338
2023	-	1,501,950	1,501,950	3,820,000	1,245,925	5,065,925
2024	-	1,501,950	1,501,950	4,000,000	1,060,200	5,060,200
2025	10,060,000	1,501,950	11,561,950	4,185,000	865,806	5,050,806
2026	10,535,000	1,024,100	11,559,100	4,380,000	662,388	5,042,388
2027	11,025,000	523,688	11,548,688	4,585,000	449,469	5,034,469
2028				4,805,000	226,456	5,031,456
2029				1,630,000	73,625	1,703,625
2030				735,000	17,456	752,456
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2043						
Totals	$ 31,620,000	$ 19,571,188	$ 51,191,188	$ 47,755,000	$ 22,306,031	$ 70,061,031

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Southern Nevada Water Authority
Schedule of Existing Debt Service (Individual Schedules)
As of June 30, 2013

Fiscal Year	SNWA 2006 Refunding Bonds			SNWA 1106 Bonds		
	Principal	Interest	Total	Principal	Interest	Total
2014	$ -	$ 9,806,469	$ 9,806,469	$ -	$ 23,702,163	$ 23,702,163
2015	-	9,806,469	9,806,469	-	23,702,163	23,702,163
2016	14,845,000	9,806,469	24,651,469	-	23,702,163	23,702,163
2017	15,515,000	9,157,000	24,672,000	16,010,000	23,301,913	39,311,913
2018	16,240,000	8,458,825	24,698,825	16,815,000	22,481,288	39,296,288
2019	16,990,000	7,728,025	24,718,025	17,660,000	21,619,413	39,279,413
2020	17,770,000	6,942,238	24,712,238	18,555,000	20,714,038	39,269,038
2021	18,590,000	6,120,375	24,710,375	19,505,000	19,762,538	39,267,538
2022	19,470,000	5,237,350	24,707,350	20,500,000	18,762,413	39,262,413
2023	9,385,000	4,312,525	13,697,525	32,865,000	17,428,288	50,293,288
2024	9,885,000	3,866,738	13,751,738	34,520,000	15,743,663	50,263,663
2025	10,410,000	3,397,200	13,807,200	36,250,000	13,974,413	50,224,413
2026	10,970,000	2,902,725	13,872,725	38,070,000	12,116,413	50,186,413
2027	11,560,000	2,381,650	13,941,650	39,670,000	10,470,438	50,140,438
2028	12,185,000	1,832,550	14,017,550	41,030,000	9,058,188	50,088,188
2029	12,845,000	1,253,763	14,098,763	31,335,000	7,556,788	38,891,788
2030	13,550,000	643,625	14,193,625	18,110,000	6,377,256	24,487,256
2031				18,980,000	5,506,600	24,486,600
2032				19,955,000	4,533,225	24,488,225
2033				20,980,000	3,509,850	24,489,850
2034				21,830,000	2,657,900	24,487,900
2035				22,665,000	1,820,488	24,485,488
2036				23,530,000	957,575	24,487,575
2037				24,185,000	302,313	24,487,313
2038						
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2043						
Totals	$ 210,210,000	$ 93,653,994	$ 303,863,994	$ 533,020,000	$ 309,761,481	$ 842,781,481

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Southern Nevada Water Authority
Schedule of Existing Debt Service (Individual Schedules)
As of June 30, 2013

Fiscal Year	CRC 2006D Bonds Principal	CRC 2006D Bonds Interest	CRC 2006D Bonds Total	LVVWD 2008B Principal	LVVWD 2008B Interest	LVVWD 2008B Total
2014	$ -	$ 3,270,763	$ 3,270,763	$ -	$ 5,623,931	$ 5,623,931
2015	-	3,270,763	3,270,763	-	5,623,931	5,623,931
2016	6,020,000	3,270,763	9,290,763	10,445,000	5,623,931	16,068,931
2017	6,320,000	2,969,763	9,289,763	8,420,000	5,101,681	13,521,681
2018	6,635,000	2,653,763	9,288,763	8,835,000	4,680,681	13,515,681
2019	6,965,000	2,322,013	9,287,013	9,285,000	4,238,931	13,523,931
2020	7,310,000	1,973,763	9,283,763	9,760,000	3,774,681	13,534,681
2021	7,665,000	1,608,263	9,273,263	10,255,000	3,286,681	13,541,681
2022	8,030,000	1,244,175	9,274,175	10,780,000	2,773,931	13,553,931
2023	8,420,000	862,750	9,282,750	11,330,000	2,234,931	13,564,931
2024	8,835,000	441,750	9,276,750	11,825,000	1,753,406	13,578,406
2025				12,385,000	1,206,500	13,591,500
2026				13,015,000	618,321	13,633,321
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2043						
Totals	$ 66,200,000	$ 23,888,525	$ 90,088,525	$ 116,335,000	$ 46,541,539	$ 162,876,539

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Southern Nevada Water Authority
Schedule of Existing Debt Service (Individual Schedules)
As of June 30, 2013

Fiscal Year	SNWA 2008 Principal	SNWA 2008 Interest	SNWA 2008 Total	SNWA Clean Renewable Energy 2008 Principal	SNWA Clean Renewable Energy 2008 Interest	SNWA Clean Renewable Energy 2008 Total
2014	$ -	$ 18,107,750	$ 18,107,750	$ 460,000	$ 51,129	$ 511,129
2015	-	18,107,750	18,107,750	460,000	45,747	505,747
2016	8,740,000	18,107,750	26,847,750	460,000	40,365	500,365
2017	9,180,000	17,670,750	26,850,750	460,000	34,983	494,983
2018	9,635,000	17,211,750	26,846,750	460,000	29,601	489,601
2019	10,120,000	16,730,000	26,850,000	460,000	24,219	484,219
2020	10,625,000	16,224,000	26,849,000	460,000	18,837	478,837
2021	11,155,000	15,692,750	26,847,750	460,000	13,455	473,455
2022	11,715,000	15,135,000	26,850,000	460,000	8,073	468,073
2023	12,300,000	14,549,250	26,849,250	460,000	2,691	462,691
2024	12,915,000	13,934,250	26,849,250			
2025	13,560,000	13,288,500	26,848,500			
2026	14,240,000	12,610,500	26,850,500			
2027	14,950,000	11,898,500	26,848,500			
2028	15,700,000	11,151,000	26,851,000			
2029	16,485,000	10,366,000	26,851,000			
2030	17,305,000	9,541,750	26,846,750			
2031	18,170,000	8,676,500	26,846,500			
2032	19,080,000	7,768,000	26,848,000			
2033	20,035,000	6,814,000	26,849,000			
2034	21,035,000	5,812,250	26,847,250			
2035	22,090,000	4,760,500	26,850,500			
2036	23,195,000	3,656,000	26,851,000			
2037	24,355,000	2,496,250	26,851,250			
2038	25,570,000	1,278,500	26,848,500			
2039						
2040	-	-	-			
2041						
2042						
2043						
Totals	$ 362,155,000	$ 291,589,250	$ 653,744,250	$ 4,600,000	$ 269,100	$ 4,869,100

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Southern Nevada Water Authority
Schedule of Existing Debt Service (Individual Schedules)
As of June 30, 2013

Fiscal Year	LVVWD 2009 A Principal	LVVWD 2009 A Interest*	LVVWD 2009 A Total	LVVWD 2009 B Principal	LVVWD 2009 B Interest	LVVWD 2009 B Total
2014	$ -	$ 4,348,076	$ 4,348,076	$ 350,000	$ 473,313	$ 823,313
2015	-	4,348,076	4,348,076	365,000	459,313	824,313
2016	-	4,348,076	4,348,076	380,000	444,713	824,713
2017	-	4,348,076	4,348,076	395,000	429,513	824,513
2018	-	4,348,076	4,348,076	410,000	413,713	823,713
2019	-	4,348,076	4,348,076	425,000	397,313	822,313
2020	-	4,348,076	4,348,076	440,000	380,313	820,313
2021	-	4,348,076	4,348,076	460,000	362,713	822,713
2022	-	4,348,076	4,348,076	475,000	344,313	819,313
2023	-	4,348,076	4,348,076	500,000	320,563	820,563
2024	-	4,348,076	4,348,076	525,000	295,563	820,563
2025	-	4,348,076	4,348,076	550,000	269,313	819,313
2026	-	4,348,076	4,348,076	580,000	241,813	821,813
2027	-	4,348,076	4,348,076	610,000	212,813	822,813
2028	-	4,348,076	4,348,076	640,000	182,313	822,313
2029	-	4,348,076	4,348,076	670,000	150,313	820,313
2030	-	4,348,076	4,348,076	705,000	116,813	821,813
2031	-	4,348,076	4,348,076	740,000	79,800	819,800
2032	-	4,348,076	4,348,076	780,000	40,950	820,950
2033	1,620,000	4,348,076	5,968,076			
2034	1,700,000	4,269,810	5,969,810			
2035	1,775,000	4,187,680	5,962,680			
2036	1,855,000	4,101,926	5,956,926			
2037	1,940,000	4,012,307	5,952,307			
2038	26,520,000	3,918,582	30,438,582			
2039	54,590,000	2,637,349	57,227,349			
2040						
2041						
2042						
2043						
Totals	$ 90,000,000	$ 110,089,165	$ 200,089,165	$ 10,000,000	$ 5,615,463	$ 15,615,463

* Interest shown is net of Build America Bond federal participation.

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Southern Nevada Water Authority
Schedule of Existing Debt Service (Individual Schedules)
As of June 30, 2013

Fiscal Year	SNWA 2009 Refunding			SNWA 2009 Water Revenue		
	Principal	Interest	Total	Principal	Interest	Total
2014	$ 1,865,000	$ 2,411,000	$ 4,276,000	$ 126,540	$ -	$ 126,540
2015	1,960,000	2,317,750	4,277,750	126,540	-	126,540
2016	2,060,000	2,219,750	4,279,750	126,540	-	126,540
2017	2,160,000	2,116,750	4,276,750	126,540	-	126,540
2018	2,270,000	2,008,750	4,278,750	126,540	-	126,540
2019	2,380,000	1,895,250	4,275,250	126,540	-	126,540
2020	2,500,000	1,776,250	4,276,250	126,540	-	126,540
2021	2,625,000	1,651,250	4,276,250	126,540	-	126,540
2022	2,755,000	1,520,000	4,275,000	126,540	-	126,540
2023	2,895,000	1,382,250	4,277,250	126,540	-	126,540
2024	3,040,000	1,237,500	4,277,500	126,540	-	126,540
2025	3,190,000	1,085,500	4,275,500	126,540	-	126,540
2026	3,350,000	926,000	4,276,000	126,540	-	126,540
2027	3,520,000	758,500	4,278,500	126,540	-	126,540
2028	3,695,000	582,500	4,277,500	126,540	-	126,540
2029	3,880,000	397,750	4,277,750	126,540	-	126,540
2030	4,075,000	203,750	4,278,750	63,270	-	63,270
2031						
2032				-	-	-
2033				-	-	-
2034						
2035						
2036						
2037						
2038						
2039						
2040						
2041						
2042						
2043						
Totals	$ 48,220,000	$ 24,490,500	$ 72,710,500	$ 2,087,917	$ -	$ 2,087,917

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Southern Nevada Water Authority
Schedule of Existing Debt Service (Individual Schedules)
As of June 30, 2013

Fiscal Year	LVVWD 2009 C Principal	LVVWD 2009 C Interest*	LVVWD 2009 C Total	LVVWD 2009 D Principal	LVVWD 2009 D Interest	LVVWD 2009 D Total
2014	$ -	$ 16,778,939	$ 16,778,939	$ 2,920,000	$ 3,453,738	$ 6,373,738
2015	-	16,778,939	16,778,939	3,070,000	3,307,738	6,377,738
2016	-	16,778,939	16,778,939	3,220,000	3,154,238	6,374,238
2017	-	16,778,939	16,778,939	3,385,000	2,993,238	6,378,238
2018	-	16,778,939	16,778,939	3,550,000	2,823,988	6,373,988
2019	-	16,778,939	16,778,939	3,730,000	2,646,488	6,376,488
2020	-	16,778,939	16,778,939	3,910,000	2,459,988	6,369,988
2021	-	16,778,939	16,778,939	4,110,000	2,264,488	6,374,488
2022	-	16,778,939	16,778,939	4,315,000	2,058,988	6,373,988
2023	-	16,778,939	16,778,939	4,530,000	1,843,238	6,373,238
2024	-	16,778,939	16,778,939	4,755,000	1,616,738	6,371,738
2025	-	16,778,939	16,778,939	4,955,000	1,414,650	6,369,650
2026	-	16,778,939	16,778,939	5,205,000	1,166,900	6,371,900
2027	-	16,778,939	16,778,939	5,470,000	906,650	6,376,650
2028	-	16,778,939	16,778,939	3,815,000	633,150	4,448,150
2029	-	16,778,939	16,778,939	4,015,000	432,863	4,447,863
2030	-	16,778,939	16,778,939	4,230,000	222,075	4,452,075
2031	8,215,000	16,778,939	24,993,939			
2032	25,085,000	16,372,945	41,457,945			
2033	39,105,000	15,133,217	54,238,217			
2034	40,950,000	13,200,606	54,150,606			
2035	42,860,000	11,202,737	54,062,737			
2036	44,815,000	9,157,460	53,972,460			
2037	46,860,000	7,018,890	53,878,890			
2038	48,995,000	4,782,733	53,777,733			
2039	51,230,000	2,444,693	53,674,693			
2040						
2041						
2042						
2043						
Totals	$ 348,115,000	$ 381,334,188	$ 729,449,188	$ 69,185,000	$ 33,399,150	$ 102,584,150

* Interest shown is net of Build America Bond federal participation.

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Southern Nevada Water Authority
Schedule of Existing Debt Service (Individual Schedules)
As of June 30, 2013

Fiscal Year	CRC 2010B Principal	CRC 2010B Interest	CRC 2010B Total	LVVWD 2011A Principal	LVVWD 2011A Interest	LVVWD 2011A Total
2014	$ 945,000	$ 273,615	$ 1,218,615	$ -	$ 2,705,755	$ 2,705,755
2015	980,000	238,697	1,218,697	100,000	2,705,755	2,805,755
2016	1,020,000	202,486	1,222,486	4,255,000	2,702,704	6,957,704
2017	1,055,000	164,797	1,219,797	4,400,000	2,560,119	6,960,119
2018	1,095,000	125,815	1,220,815	4,560,000	2,398,551	6,958,551
2019	1,135,000	85,355	1,220,355	4,745,000	2,212,867	6,957,867
2020	1,175,000	43,416	1,218,416	4,950,000	2,007,219	6,957,219
2021				5,175,000	1,783,776	6,958,776
2022				5,415,000	1,542,414	6,957,414
2023				5,680,000	1,279,028	6,959,028
2024				5,960,000	995,937	6,955,937
2025				6,270,000	689,951	6,959,951
2026				6,600,000	358,644	6,958,644
2027						
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2043						
Totals	$ 7,405,000	$ 1,134,180	$ 8,539,180	$ 58,110,000	$ 23,942,718	$ 82,052,718

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Southern Nevada Water Authority
Schedule of Existing Debt Service (Individual Schedules)
As of June 30, 2013

Fiscal Year	LVVWD 2011B Principal	LVVWD 2011B Interest	LVVWD 2011B Total	LVVWD 2011C Principal	LVVWD 2011C Interest	LVVWD 2011C Total
2014	$ -	$ 5,277,078	$ 5,277,078	$ 9,000,000	$ 12,682,663	$ 21,682,663
2015	-	5,277,078	5,277,078	9,385,000	12,292,663	21,677,663
2016	9,220,000	5,277,078	14,497,078	9,670,000	12,011,113	21,681,113
2017	9,475,000	5,019,932	14,494,932	10,115,000	11,562,713	21,677,713
2018	9,775,000	4,719,006	14,494,006	10,620,000	11,056,963	21,676,963
2019	10,000,000	4,384,115	14,384,115	11,260,000	10,525,963	21,785,963
2020	10,490,000	4,013,315	14,503,315	11,710,000	9,962,963	21,672,963
2021	10,900,000	3,603,366	14,503,366	12,295,000	9,377,463	21,672,463
2022	11,335,000	3,168,674	14,503,674	12,910,000	8,762,713	21,672,713
2023	11,805,000	2,699,631	14,504,631	13,555,000	8,117,213	21,672,213
2024	12,320,000	2,185,170	14,505,170	14,240,000	7,439,463	21,679,463
2025	12,870,000	1,629,784	14,499,784	14,950,000	6,727,463	21,677,463
2026	13,475,000	1,030,299	14,505,299	15,695,000	5,979,963	21,674,963
2027	7,985,000	395,896	8,380,896	22,625,000	5,168,475	27,793,475
2028				14,370,000	4,037,225	18,407,225
2029				15,090,000	3,318,725	18,408,725
2030				15,845,000	2,564,225	18,409,225
2031				3,745,000	1,771,975	5,516,975
2032				3,920,000	1,595,750	5,515,750
2033				4,115,000	1,399,750	5,514,750
2034				4,320,000	1,194,000	5,514,000
2035				4,540,000	978,000	5,518,000
2036				4,765,000	751,000	5,516,000
2037				5,000,000	512,750	5,512,750
2038				5,255,000	262,750	5,517,750
2039						
2040						
2041						
2042						
2043						
Totals	$ 129,650,000	$ 48,680,423	$ 178,330,423	$ 258,995,000	$ 150,053,938	$ 409,048,938

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Appendix A 6

Southern Nevada Water Authority
Schedule of Existing Debt Service (Individual Schedules)
As of June 30, 2013

Fiscal Year	SNWA 2012A Principal	SNWA 2012A Interest	SNWA 2012A Total	LVVWD 2012B Principal	LVVWD 2012B Interest	LVVWD 2012B Total
2014	$ -	$ 3,455,600	$ 3,455,600	$ -	$ -	$ -
2015	-	3,455,600	3,455,600	6,595,000	17,015,050	23,610,050
2016	5,500,000	3,455,600	8,955,600	6,790,000	16,817,200	23,607,200
2017	0	3,180,600	3,180,600	7,060,000	16,545,600	23,605,600
2018	0	3,180,600	3,180,600	7,345,000	16,263,200	23,608,200
2019	0	3,180,600	3,180,600	7,690,000	15,915,950	23,605,950
2020	0	3,180,600	3,180,600	8,055,000	15,551,450	23,606,450
2021	0	3,180,600	3,180,600	8,440,000	15,168,700	23,608,700
2022	0	3,180,600	3,180,600	8,690,000	14,915,500	23,605,500
2023	0	3,180,600	3,180,600	9,120,000	14,486,750	23,606,750
2024	0	3,180,600	3,180,600	9,565,000	14,044,750	23,609,750
2025	0	3,180,600	3,180,600	10,040,000	13,566,500	23,606,500
2026	0	3,180,600	3,180,600	10,545,000	13,064,500	23,609,500
2027	0	3,180,600	3,180,600	11,070,000	12,537,250	23,607,250
2028	0	3,180,600	3,180,600	11,625,000	11,983,750	23,608,750
2029	11,000,000	3,180,600	14,180,600	12,205,000	11,402,500	23,607,500
2030	27,370,000	2,740,600	30,110,600	12,815,000	10,792,250	23,607,250
2031	28,395,000	1,645,800	30,040,800	13,455,000	10,151,500	23,606,500
2032	12,750,000	510,000	13,260,000	14,130,000	9,478,750	23,608,750
2033				14,835,000	8,772,250	23,607,250
2034				15,580,000	8,030,500	23,610,500
2035				16,315,000	7,290,450	23,605,450
2036				17,095,000	6,515,450	23,610,450
2037				17,905,000	5,703,450	23,608,450
2038				18,755,000	4,853,000	23,608,000
2039				19,640,000	3,969,600	23,609,600
2040				20,565,000	3,044,600	23,609,600
2041				21,530,000	2,076,000	23,606,000
2042				22,545,000	1,061,900	23,606,900
2043						
Totals	$ 85,015,000	$ 56,611,000	$ 141,626,000	$ 360,000,000	$ 301,018,350	$ 661,018,350

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Appendix A 6

Southern Nevada Water Authority
Schedule of Existing Debt Service (Individual Schedules)
As of June 30, 2013

Fiscal	SNWA 2013			GRAND TOTAL		
Year	Principal	Interest	Total	Principal	Interest	Total
2014	$ -	$ 617,210	$ 617,210	$ 416,872,459	$ 133,841,761	$ 550,714,220
2015	0	651,600	651,600	24,290,584	142,164,527	166,455,111
2016	0	651,600	651,600	84,045,252	141,329,715	225,374,967
2017	0	651,600	651,600	110,456,517	136,880,479	247,336,996
2018	0	651,600	651,600	115,564,439	131,758,574	247,323,013
2019	0	651,600	651,600	121,009,074	126,306,797	247,315,871
2020	0	651,600	651,600	126,755,486	120,537,516	247,293,002
2021	0	651,600	651,600	130,729,253	114,464,878	245,194,131
2022	0	651,600	651,600	136,549,085	108,289,970	244,839,055
2023	0	651,600	651,600	143,171,540	101,353,197	244,524,737
2024	0	651,600	651,600	149,731,540	94,363,290	244,094,831
2025	0	651,600	651,600	157,896,540	86,980,868	244,877,409
2026	0	651,600	651,600	165,816,540	79,137,779	244,954,319
2027	0	651,600	651,600	153,201,540	71,162,667	224,364,208
2028	21,720,000	325,800	22,045,800	129,711,540	64,320,546	194,032,086
2029			0	109,281,540	59,259,940	168,541,480
2030			0	114,803,270	54,346,815	169,150,085
2031			0	91,700,000	48,959,190	140,659,190
2032			0	95,700,000	44,647,696	140,347,696
2033			0	100,690,000	39,977,143	140,667,143
2034			0	105,415,000	35,165,066	140,580,066
2035			0	110,245,000	30,239,855	140,484,855
2036			0	115,255,000	25,139,411	140,394,411
2037			0	120,245,000	20,045,960	140,290,960
2038			0	125,095,000	15,095,565	140,190,565
2039			0	125,460,000	9,051,643	134,511,643
2040			0	20,565,000	3,044,600	23,609,600
2041			0	21,530,000	2,076,000	23,606,000
2042			0	22,545,000	1,061,900	23,606,900
2043				-	-	-
Totals	$ 21,720,000	$ 9,413,810	$ 31,133,810	$ 3,444,331,202	$ 2,041,003,346	$ 5,485,334,548

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Appendix A 7

Southern Nevada Water Authority

Debt History (Unaudited)

as of June 30, 2013

Issued By	Debt Name	Issue Date	Funds Used For	Original Amount $	Refunded Amount $	Refund Source	Principal Paid $	Balance @ 6/30/2012($)
CRC	1967 Debenture #1	Sept 1967	Interim Water Acquisition Planning & Design	10,000	10,000	1968 Bonds		
CRC	1967 Debenture #2	Oct 1967	Interim Water Acquisition Planning & Design	25,000	25,000	1968 Bonds		
CRC	1967 Debenture #3	Nov 1967	Interim Water Acquisition Planning & Design	365,000	365,000	1968 Bonds		
CRC	1968 Bonds	Jun 1968	First stage of the state facilities AMS Treatment Plant	8,900,000	5,580,000	1994 Bonds	3,320,000	
CRC	Federal Replacement Contract # 1	Mar 1973	First stage of the federal facilities - transmission	51,558,293	39,636,913	SNWA 0601 Bonds	11,921,380	
CRC	1978 A Bonds	Jan 1979	Second stage of the state facilities - design & equipment purchase	13,000,000	9,125,000	1994 Bonds	3,875,000	
CRC	1978 B Bonds	Feb 1979	Second stage of the state facilities -- construction	47,000,000	36,220,000	1993 Bonds	10,780,000	
CRC	1982 Debenture	Jul 1982	New computer system for the second stage state facilities	3,000,000	3,000,000	1978 C Bonds		
CRC	Federal Repayment Contract # 2	Mar 1983	Second stage of the federal facilities - transmission	131,480,402	122,617,366	SNWA 0601 Bonds	8,863,036	
CRC	1978 C Bonds	Jul 1984	Refund the 1982 debenture	3,000,000	2,595,000	1990 Bonds	405,000	
CRC	1978 D Bonds	Aug 1986	Relocate the Las Vegas Lateral under the Las Vegas Wash	11,000,000	8,550,000	1993 Bonds	2,450,000	
CRC	1990 Bonds	Aug 1990	Refund the 1978 C Bond and start the Communications Project	6,550,000	3,340,000	1993 Bonds	3,210,000	
CRC	1992 Bonds	Nov 1992	Lab equipment improvements Maintenance & operations facilities	9,815,000	5,125,000	CRC 1997B Bonds	4,690,000	

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Appendix A 7

Southern Nevada Water Authority

Debt History (Unaudited) (Continued)

as of June 30, 2013

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Issued By	Debt Name	Issue Date	Funds Used For	Original Amount $	Refunded Amount $	Refund Source	Principal Paid $	Balance @ 6/30/2012($)
CRC	1993 Bonds	Nov 1993	Refund the 1978B, 1978B and 1990 Bonds	46,805,000	23,125,000	CRC 2003C Bonds	23,680,000	
CRC	1994 Bonds	Nov 1994	Refund the 1968 & 1978A bonds & begin construction on the SNWA CIP	170,380,000	141,610,000	CRC 1995 & 2005H Bonds	28,770,000	
LVVWD	SNWA Mar 1995 Bonds	Mar 1995	SNWA CIP Construction Fund	20,000,000	12,775,000	LVVWD 0498 & 2005B Bonds	7,225,000	
LVVWD	SNWA Jul 1995 Bonds	Jul 1995	SNWA CIP Construction Fund	30,000,000	15,675,000	LVVWD 0498 & 2005B Bonds	14,325,000	
CRC	1995 Bonds	Dec 1995	Partially refund the CRC 1994 Bonds	118,590,000	108,550,000	CRC 2006D Refunding	10,040,000	
LVVWD	SNWA Jul 1996 Bonds	Jul 1996	SNWA CIP Construction Fund	180,000,000	168,300,000	LVVWD 0498 & 2005B Bonds	11,700,000	
CRC	1997A Bonds	Sep 1997	Phase I of the Power Delivery Project	49,270,000	41,550,000	CRC 2005I Bonds	7,720,000	
CRC	1997B Bonds	Sep 1997	Partially refund the CRC 1992 Bonds	5,545,000	2,310,000	CRC 2010B	3,235,000	
LVVWD	SNWA Commercial Paper	Jan 1998	SNWA CIP Construction Fund	250,000,000	250,000,000	LVVWD 0103 Bonds		
LVVWD	SNWA Apr 1998 Bonds	Apr 1998	Partially refund the LVVWD 0395, 0795, & 0796 Bonds	190,255,000	183,420,000	LVVWD 2008 B Bonds	6,835,000	
SNWA	SNWA 0798 Bonds State Bond Bank	Jul 1998	SNWA CIP Construction Fund	300,000,000	275,750,000	SNWA 2005F and SNWA 2013A Bonds	24,250,000	
CRC	1999A Bonds	Sep 1999	Phase II of the Power Delivery Project	25,730,000	22,295,000	CRC 2005I Bonds	3,435,000	
SNWA	State Drinking Water Revolving Fund Loan #1	Dec 1999	SNWA CIP Construction Fund	12,269,695			6,950,959	5,318,736

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Appendix A 7

Southern Nevada Water Authority

Debt History (Unaudited) (Continued)

as of June 30, 2013

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Issued By	Debt Name	Issue Date	Funds Used For	Original Amount $	Refunded Amount $	Refund Source	Principal Paid $	Balance @ 6/30/2012($)
SNWA	SNWA 0700 Bonds Clark Co. Bond Bank	Jul 2000	SNWA CIP Construction Fund	200,000,000	175,105,000	SNWA 2006 & SNWA 2009 Refunding	24,895,000	
SNWA	SNWA 0601 Bonds Clark Co Bond Bank	Jun 2001	SNWA CIP Construction Fund Repay Federal Contracts Federal Contracts	250,000,000	222,095,000	SNWA 2006, 1106 2009, LVVWD 2011C & 2012A Refundings	27,905,000	0
SNWA	State Drinking Water Revolving Fund Loan #2	Jun 2001	SNWA CIP Construction Fund	10,000,000			4,905,451	5,094,549
SNWA	SNWA 1102 Bonds Clark Co Bond Bank	Nov 2002	SNWA CIP Construction Fund	200,000,000	180,790,000	SNWA 1106, 2009, LVVWD 2011C & 2012A Refundings	19,210,000	0
LVVWD	SNWA Comemrcial Paper Pay Off	Jan 2003	Refund Jan 1998 LVVWD Commercial Paper Program	250,000,000	212,265,000	SNWA 2009D & LVVWD 2011C Refundings	37,735,000	0
CRC	2003C Bonds	Sep 2003	Partially Refund CRC 1993 Bonds	21,515,000	455,000	CRC 2010B	21,060,000	0
LVVWD	SNWA Comemrcial Paper	Mar 2004	SNWA CIP Construction Fund & Silver-hawk Purchase	400,000,000			0	400,000,000
LVVWD	2005B Refunding Bonds	May 2005	Partially Refund LVVWD 0395, 0795, and 0796 Bonds	27,925,000			27,925,000	
SNWA	2005F Refunding Bonds	May 2005	Partially Refund SNWA 0798 Bonds	249,365,000	52,335,000	LVVWD 2011B & 2011C Refundings	23,510,000	173,520,000
CRC	2005H Refunding Bonds	Apr 2005	Partially Refund CRC 1994 Bonds	36,130,000			4,510,000	31,620,000
CRC	2005I Refunding Bonds	Apr 2005	Partially Refund CRC 1997A & 1999A Bonds	65,300,000	10,305,000	LVVWD 2011B Refunding	7,240,000	47,755,000
SNWA	2006 Refunding Bonds	May 2006	Partially Refund SNWA 0700 & SNWA 0601 Bonds	242,880,000	25,555,000		7,115,000	210,210,000

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Southern Nevada Water Authority

Debt History (Unaudited) (Continued)

as of June 30, 2013

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Issued By	Debt Name	Issue Date	Funds Used For	Original Amount $	Refunded Amount $	Refund Source	Principal Paid $	Balance @ 6/30/2012($)
CRC	2006D Refunding Bonds	July 2006	Refund CRC 1995 Bonds	111,840,000	25,865,000	CRC 2010B & LVVWD 2011B	19,775,000	66,200,000
SNWA	1106 New Money & Refunding Bond	Nov 2006	SNWA CIP Construction Fund & Partial Refund of SNWA 0601 & 1102 Bonds	604,140,000	61,340,000	SNWA 2009 & LVVWD 2011B / C Refundings	9,780,000	533,020,000
LVVWD	2008B Refunding Bonds	Feb 2008	Refund LVVWD April 1998 Bond	171,720,000	51,930,000	LVVWD 2011A Refunding	3,455,000	116,335,000
SNWA	2008 New Money Bonds	July 2008	SNWA CIP Construction Fund	400,000,000	37,845,000	SNWA 2009 & LVVWD 2011C Refundings	0	362,155,000
SNWA	2008 Clean Renewable Energy Bonds	July 2008	SNWA CIP Construction Fund	6,900,000			2,300,000	4,600,000
LVVWD	2009A Build America Bonds	Aug 2009	SNWA CIP Construction Fund	90,000,000			0	90,000,000
LVVWD	2009B New Money Bonds	Aug 2009	SNWA CIP Construction Fund (Capital-ized Interest)	10,000,000			0	10,000,000
SNWA	2009 Refunding	Nov 2009	Partial refund of SNWA 0700 SNWA 0601, SNWA 1102, SNWA 1106. SNWA 2008 Bonds	50,000,000			1,780,000	48,220,000
SNWA	2009 Water Rev Water Revenue Bonds	Dec 2009	SNWA CIP Construction Fund	2,214,457			126,540	2,087,917
LVVWD	2009C Build America Bonds	Dec 2009	SNWA CIP Construction Fund	348,115,000			0	348,115,000
LVVWD	2009D New Money & Refunding Bonds	Dec 2009	Capitalized Interest & Partial refund of LVVWD Commercial Paper Payoff (Jan 03)	71,965,000			2,780,000	69,185,000

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Appendix A 7

Southern Nevada Water Authority

Debt History (Unaudited) (Continued)

as of June 30, 2013

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Issued By	Debt Name	Issue Date	Funds Used For	Original Amount $	Refunded Amount $	Refund Source	Principal Paid $	Balance @ 6/30/2012($)
CRC	2010B Refunding Bonds	June 2010	Refund CRC1997B & Partial refund of CRC 2003C & 2006D Bonds	7,405,000			0	7,405,000
LVVWD	2011A Refunding Bonds	May 2011	Partial Refund LVVWD 2008B Bonds	58,110,000			0	58,110,000
LVVWD	2011B Refunding Bonds	Oct 2011	Partial Refund CRC 2005I, SNWA 2005F, CRC 2006D, & SNWA 1106	129,650,000			0	129,650,000
LVVWD	2011C Refunding Bonds	Oct 2011	Partial Refund SNWA 2005F, 2001, 2002, 1106, 2008, & 2003B	267,815,000			8,820,000	258,995,000
SNWA	2012 Refunding Bonds	June 2012	Refund SNWA 0601 and SNWA 1102	85,015,000			0	85,015,000
LVVWD	2012B New Money Bonds	July 2012	SNWA CIP Construction Fund	360,000,000			0	360,000,000
SNWA	State 2013A Refunding Bonds	Feb 2013	Refunding SNWA 0798 Bonds State Bond Bank	21,720,000			0	21,720,000
				6,434,272,847	2,537,434,279		452,507,366	3,444,331,202

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SECTION 10
SUSTAINABILITY REPORT

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SOUTHERN NEVADA WATER AUTHORITY

FISCAL YEAR 2013/2014
OPERATING AND CAPITAL BUDGET

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SUSTAINABILITY REPORT

On April 4, 2011, the Southern Nevada Water Authority (SNWA), the Las Vegas Valley Water District and the Springs Preserve co-issued "Sustainability in Action", the organization's inaugural sustainability report. Sustainability in Action details efforts to reduce the companies' collective environmental impact.

The document—which involved hundreds of employees and a cross-departmental team—highlights organizational initiatives and advancement in areas such as water, energy, environment and personal responsibility.

"In many ways, this report is simply documenting what our employees have been doing for years as leaders in environmental responsibility," said General Manager Pat Mulroy**.** "The report also incorporates technological innovations and your ideas for continuing to reduce our carbon footprint. As stewards of a precious, finite resource, we are compelled to lead by example. Sustainability is an ongoing process. It is never complete and, as a result, continues to be integral to our daily work ethic and organizational values."

The report defines sustainability as, "meeting the needs of the present without compromising the ability of future generations to meet their own needs," and outlines more than 40 initiatives in various stages of development. Recommendations span from operational efforts such as converting our fleet to alternative fuels to personal responsibility such as turning off the lights when leaving an office.

The text of the report is reproduced immediately following this introduction. The report mentions the three organizations listed previously. SNWA is not affiliated with nor provides financial support for the Springs Preserve. Please see Section 3, Introduction and Background.

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SUSTAINABILITY IN ACTION

What does sustainability mean to us?

Sustainability means taking environmentally responsible actions that meet the needs of the present without compromising the ability of future generations to meet their own needs.

The Las Vegas Valley Water District, the Southern Nevada Water Authority and the Springs Preserve have long advocated environmentally responsible actions in the workplace. We decrease our environmental impacts by reducing waste, using recycled and renewable materials, and educating our employees and our community on sustainable practices. In 2008, sustainability was officially incorporated into our organizational goals and values.

Sustainability initiatives that may have been informal work practices are now being standardized across our entire organization. Our employees, and even our community partners, are encouraged to act sustainably.

This sustainability report details the efforts we're making to reduce our environmental impacts, and it will help serve as a guide to working in a more environmentally conscious way.

Our Organization's Efforts

Our organization identifies opportunities to reduce our environmental impacts operationally, but all of us working together make it successful. Sustainability transcends resource boundaries, but it is inseparably linked to the conservation of vital resources such as water and energy.

This concept forms the framework for our sustainability initiatives, which focus on four main areas:

- Water
- Energy
- Environment
- Personal Responsibility

Major Areas

Water

As a water provider and educator in one of the region's driest communities, living a conservation ethic is an essential part of our work practices. We strive to provide sufficient water to our community while promoting conservation; utilizing reliable, renewable water resources; and maintaining water quality with minimal impact on the environment.

We recognize that water is one of the most precious resources on Earth, which is why we strive to help ensure its conservation. As managers of Southern Nevada's water resources, we recognize we are called to an even higher level of accountability to ensure we're doing everything possible to preserve this limited resource. Working toward sustaining this resource requires a broad range of initiatives within our organization, from securing the water supply to conserving it; we're helping to contribute to the preservation of our water supply, now and in the future.

Energy

As the state's largest energy user, we aspire to replace our fossil fuel resources with 100 percent renewable resources that maximize efficiency.

Our conservation efforts focus on helping to sustain our energy resources to meet our present needs without compromising energy resources for future generations. We strive to reduce energy consumption and reduce environmental pollution through efficient energy use and incorporating renewable resources such as solar, wind, hydro, biomass and geothermal energy.

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Environment

Our organization is reaching out to area businesses and agencies, other water utilities and our neighbors to make Southern Nevada the sustainable heart of the Southwest.

Personal Responsibility

We responsibly steward the resources of current and future generations by eliminating waste, using renewable resources, reducing our use of non-renewable resources and partnering with our community to promote our sustainability vision.

Our organization continues to identify ways to minimize the environmental impacts of operations and create a greener way of working. When we process used materials into new products to prevent waste, reduce the consumption of fresh raw materials and reduce energy use, we reduce air pollution and water pollution and lower greenhouse gas emissions.

Reducing, reusing and recycling are key components of modern waste reduction, and our organization has embraced this philosophy at every level.

What We're Doing

Water

As we explore ways to responsibly augment Southern Nevada's groundwater supply, the SNWA addresses ecological impact issues and concerns through environmental analysis.

We are assisting the Bureau of Land Management in the preparation of an extensive environmental impact statement assessing the effects of the Clark, Lincoln and White Pine Counties Groundwater Development Project on the surrounding environment.

We've entered into an interstate water banking agreement that adds more than 325 billion gallons of water to our reserves, and more than 975 billion additional gallons through the Brock Reservoir. These efforts, as well as developing intentionally created surplus, extend our resources and help sustain the Colorado River Basin.

We are also researching methods to make the treatment of Southern Nevada's drinking water more eco-friendly. Our Chemical Reduction Program increases non-chemical water-treatment methods and has reduced our carbon footprint by 309 Metric Tons Carbon Equivalent.

Water conservation is the focus of many organizational initiatives that help sustain our water resources. Conservation initiatives take many forms, from leak-prevention programs to the Water Smart Landscapes Rebate program and conservation education.

These initiatives include promoting water-conserving landscaping and the sale of native plants at the Springs Preserve. Our Cactus Grant Rescue Program salvages threatened cacti species from lands under development and resells them to the public, with proceeds used to help pay for supplies in local school science classes. Our organization also produces and distributes conservation literature to Southern Nevada residents and businesses. We also helped establish and support the Water Conservation Coalition, a public/private partnership among community leaders to help increase water-efficient practices within the Southern Nevada business community.

We're dedicated to raising awareness about our limited water supply both locally and around the world. We observe and promote World Water Day; created the Youth Advisory Council to engage high school students in a discussion of water issues; and formed the Water Education Institute, which enhances environmental and water education. The semi-annual Las Vegas Wash Green-Up events galvanize thousands of community volunteers to help stabilize and protect the environmentally sensitive urban waterway.

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Experts from the Southern Nevada Water Authority Conservation Division conduct public classes at the Springs Preserve to teach our community the seven steps of water-smart landscaping and how to design and maintain a water-efficient drip-irrigation system.

Energy

We are working to create a culture of energy efficiency within our daily and long-term operations. Current efforts include evaluating our energy use to determine whether to continue operations as they are, make equipment repairs or replace equipment to optimize efficiency.

We are developing a life cycle cost evaluation standard process as an organizational tool to systematically consider a project's associated needs, costs and benefits before recommending implementation of a proposal.

Our organization optimizes energy efficiency by evaluating all Southern Nevada Water System energy requirements to maximize pumping and scheduling capabilities. We also pursue renewable energy options and treatment efficiency.

In addition, we evaluate the potential benefits of certain pumping station equipment and refine computerized lighting and power settings at our facilities.

From simple actions such as shutting off the lights when leaving a room and replacing outdated or older monitors with efficient LED models to more intricate programs, our organization continually identifies avenues of operational energy conservation. As one of many long-term initiatives, the Southern Nevada Water Authority received a $6.9 million State Revolving Loan Fund to perform and install energy conservation measures at the Alfred Merritt Smith Water Treatment Facility.

Treating and delivering water to Southern Nevada requires a significant amount of energy resources. Instead of relying solely on fossil fuel energy, we pursue and implement adaptable renewable energy options in an effort to reduce greenhouse gas emissions and offset our carbon footprint.

The Arrow Canyon Energy Recovery Hydro turbine Project will use water piped from Coyote Spring Valley to Moapa Valley to create energy through a hydroelectric turbine. The project is expected to generate 0.5 megawatts of power, enough energy for approximately 160 average homes. The energy generated by this project will offset other SNWA loads when it is completed.

The use of renewable resources accounts for approximately 13 percent of our energy portfolio and reduces our carbon emissions by approximately 58,000 metric tons carbon equivalent per year.

Our fleet is nearing its goal of becoming 100 percent alternative fueled, replacing standard-fueled vehicles with alternative fueled models when their lifecycles have been met.

A portion of our renewable energy efforts involve partnering with other agencies. We're working with the City of Las Vegas to provide information and assistance as the city develops its own solar projects.

We are harnessing solar energy from covered parking composed of solar panels at the Springs Preserve, River Mountains and Alfred Merritt Smith Water Treatment facilities, and through the Las Vegas Valley Water District's onsite hydrogen fueling station, the first in the nation powered by solar energy.

Environment

Recycling plays a major role in reducing our environmental impacts. From recycling lubricating oil at our pumping stations to using register tape and ticket stock made from recycled paper, the ripple effects of recycling are evident throughout our organization.

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We also promote the use and sale of sustainable products. The Springs Preserve gift shop primarily sells products made out of sustainable or recycled materials and packaging. Retail items are either the result of fair trade; organically made or acquired locally, primarily from minority-owned and small businesses. Throughout the Preserve, the use of recycled material and recyclable products can be seen in our temporary and permanent exhibits.

Youth School Field Trips, conducted at the Preserve, weave the concept of sustainability through five different tours emphasizing aspects of sustainable living. Students participate in the hands-on, two-hour tours, learning different ways to reduce, reuse and recycle while exploring the green initiatives and resources available at the Springs Preserve. Other sustainable living programs at the Preserve are designed to provide visitors with information and ideas to make small lifestyle changes that have a positive impact on our environment.

In addition to Springs Preserve education initiatives, the Las Vegas Wash provides a unique opportunity for teachers to educate their students about water quality, plant life and wildlife at the Wash, as well as the importance of preserving and protecting our natural resources.

Our efforts to reduce our environmental impacts are not just limited to our operations and administrative areas. Our facilities are also designed to be environmentally conscious. Springs Preserve maintenance employees use pruning techniques that are naturalistic and have lower environmental impact. We use only climate-appropriate plants and state-of-the-art irrigation systems on our grounds to maximize efficiency. In addition, the Water District uses integrated pest control and green products to minimize chemical use.

As part of soil amendment, our organization uses compost tea, an extremely beneficial and sustainable way of building life in the soil to promote the health and growth of plants in the outdoor areas of our facilities. Compost tea is a water extract of compost that is actually brewed, containing soluble nutrients and a diversity of bacteria, fungi, protozoa and nematodes. It is a product of our larger-scale compost operation, where green waste generated on all facility sites is collected, processed and recycled as mulch and compost that are used in the gardens.

Complementing our robust composting program, the Southern Nevada Christmas Tree Recycling Committee, comprising local businesses, non-profits and government agencies, recycles cut Christmas trees and gives them a second life as mulch in local landscaping projects while helping to conserve valuable landfill space. The Springs Preserve, one of our community drop-off locations, composts discarded trees and uses the mulch onsite.

The Las Vegas Valley Water District now requires its construction contractors to recycle construction waste and demolition debris. To save paper, Service Rules for all six systems are no longer printed, but posted on the district website along with other online reports.

Leadership in Energy and Environmental Design (LEED) is an internationally recognized green building certification system. Our facilities at the Springs Preserve and City Parkway Campus are currently LEED certified, and we are working toward retrofitting our existing facilities to LEED standards. In our quest to increase our rating eligibility, our organization created a LEED AP Professional Accreditation Program to pursue the necessary funding to obtain LEED AP accreditation for qualified employees. The program teaches employees how to create more environmentally friendly workspaces with lower environmental impacts.

Organizationally, we will continue to seek out innovative ways to perform operations with lower environmental impacts, including continued tracking and reporting on national regional, and local sustainability activities. We will continue refining purchasing and contracting guidelines; measuring our carbon footprint and creating an environmental impact

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audit for certification. Efforts also include evaluating the costs of electronic pay stubs.

Our efforts are focused both inside and outside of our organization. Externally, we will continue to partner with other agencies and working groups such as the Nevada Development Authority, Southern Nevada Regional Planning Coalition, Clark County Sustainability Working Group, academics and the Las Vegas Chamber of Commerce.

Personal responsibility

Employees are critical to the success of sustainability and have been responsible for generating the majority of the initiatives outlined in this report. From reducing, reusing and recycling office supplies to suggesting unique ways to work greener, our employees' efforts play a large part in our current and future success.

Employees have been exercising greener work practices that reduce energy consumption throughout our organization. These everyday simple actions, from powering off equipment when not in use to turning off lights, save our organization hundreds of thousands of dollars in energy costs while reducing our carbon footprint. Refining computerized lighting and power settings in our offices further expands this effort.

--- *We're reducing our use*

Employees are using less paper and making an effort to reduce the number of hard copy prints of correspondences, drafts, plans and budgets in favor of electronic and web media. When we are required to print, we're increasing the use of recycled paper. To encourage responsible electronic storage and documentation, our Records Management Program encompasses retention and disposition of electronic, paper and other forms of records. The process will result in increased storage space and reduced hardware costs, as well as conservation of physical and human resources.

Reduced paper use has resulted in the reduced use of printers, copiers and fax machines in our organization, which has eliminated unnecessary equipment as well as helped reduce energy consumption. Employees have also been exploring green options when replacing and purchasing electronic equipment.

We're identifying greener methods By identifying green alternatives to potentially hazardous items, such as substituting vinegar as a cleaning agent for a chemical cleanser, employees are taking the initiative to eliminate potentially hazardous waste and convert to 100 percent green cleaning supplies.

Employees are also collaborating with the Purchasing Division to identify sustainable products to replace non-sustainable inventory items. This includes identifying and categorizing the new sustainable materials in the Avantis system for tracking and waste-monitoring purposes.

--- *We're helping each other*

Sustainability is imbedded in the very culture and values of our organization. Sustainability training, offered by Employee Development, is available to all staff. Employees are trained on organizational sustainability practices as well as the everyday actions for which we are all responsible. Training will be tied to employee reviews through behaviorally anchored rating statements (BARS) for sustainability.

Our organizational Awards of Excellence will further reward employee efforts to strengthen sustainability commitments. Employees can join the conversation on sustainability at the It's Easy Being Green blog, available on the Hydroweb intranet; reading sustainable living articles in the ePipeline employee newsletter; and engaging in conservation practices promoted through our publications that circulate to residents throughout Southern Nevada.

As employees continue to develop unique and innovative ways to embrace sustainable work practices, we are working to develop a

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consistent, simple, reliable method to calculate the dollar value of these sustainability proposals. The method will employ cost/benefit measurements to justify, or provide alternatives to, sustainability proposals.

Our Success

Water

Chemical Reduction Program: By optimizing disinfection, fluoridation and corrosion control, our organization has reduced its carbon footprint by 309 Metric Tons Carbon Equivalent.

Based on the most current data available, approximately 60 percent of customers who received leak notifications in 2009 corrected their leaks, resulting in an estimated water savings of 9.7 million gallons annually.

More than 42,000 participants have converted more than 147 million square feet of grass to desert-friendly landscaping through the Water Smart Landscapes program, conserving 8.2 billion gallons annually. Participation in the Water Smart Landscape program reduced the community's carbon footprint by approximately 26,000 Metric Tons Carbon Equivalent per year. Our commercial conservation incentive program—Water Efficient Technologies—helped businesses earn rebates worth $243,836 for a collective savings of more than 114 million gallons.

Energy

Combined, our solar facilities generate more than 6.7 million kilowatt hours of clean electricity, enough to power nearly 450 average Southern Nevada homes annually.

Environment

In its second year, the Cactus Grant Rescue Program has raised approximately $2,500 to help local science teachers purchase classroom supplies thanks to proceeds raised from the sale of salvaged or rescued cacti species.

The Environmental Monitoring and Management Division identified more than 160 species of birds and more than 180 species of plants—in addition to amphibians, bats, fish, reptiles and small mammals—at the Las Vegas Wash. The division also works closely with Surface Water Resources to study riparian areas such as the Virgin and Muddy Rivers and the Mexican Delta. Staff also monitors biological resources, water quality and existing water resources to protect our environment and safeguard our current resources.

Personal responsibility

We have reduced our electricity use by approximately 13 percent at the Valley View Campus since converting to a 4-10 work week in July 2009. This reduction includes our PC and monitor powering-off strategy and HVAC improvements.

A cross-departmental team (CDT) composed of employees remains focused on sustainability efforts and continues to engage in monthly meetings where information and ideas are exchanged. The CDT provides status updates on our organization's sustainability initiatives and tracks national, regional, and local sustainability activities.

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SECTION 11
POSITION LISTING

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SOUTHERN NEVADA WATER AUTHORITY

FISCAL YEAR 2013/2014
OPERATING AND CAPITAL BUDGET

The Las Vegas Valley Water District (LVVWD) serves under contract as Operating Agent for the Southern Nevada Water Authority (SNWA). The majority of SNWA's operating expenses, including payroll costs, are paid by LVVWD and then reimbursed by SNWA.

Legally, the SNWA has no employees of its own – they are all employees of LVVWD. Therefore LVVWD employs the workers shown in all SNWA departments described in Section 6. In addition, some employees that are assigned to LVVWD departments charge their time to SNWA.

The chart below summarizes employee levels by SNWA department and shows the annual number of full time equivalent LVVWD funded positions that charge time to SNWA. This is a constantly changing number that varies by project load, timeliness of completion, and arrangement of individual departments. The following position listings show by job title the number of employees that charge time to SNWA. The list is a "snapshot" of positions in particular job classifications as they exist at a particular point in time. Position authorization and control at LVVWD and SNWA is at the organizational level, neither at the department level nor by position type.

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Southern Nevada Water Authority

FULL TIME EQUIVALENT POSITIONS

Actual 2011-2012 and
Budget 2012-2013 and 2014

	Actual 2011-2012	Budget 2012-2013	Budget 2013-2014
SNWA Energy Management	5.00	5.00	5.00
SNWA Engineering	70.00	70.83	51.54
SNWA Environmental Resources	123.00	118.85	98.35
SNWS Operations	94.00	96.00	89.00
SNWS Treatment	95.00	92.85	93.85
LVVWD Departments	111.00	112.61	137.63
	498.00	496.14	475.37

Filled or vacant positions may be transferred from one department to another or between SNWA and LVVWD to meet changing priorities and/or workload requirements. As a result the number of positions in a particular job classification is constantly changing. However, the total number of authorized full-time positions organization wide is in accordance with Board authorization.

The 2013/2014 budget contains no new personnel requests. The activity level at the Authority does not require the same level of human resources as in previous years. Therefore, positions allocated to the Authority have been reduced.

Southern Nevada Water Authority
Operating and Capital Budget
Position Listing
Fiscal Year End June 30, 2014

FULL TIME EQUIVALENTS BY JOB TITLE

Position Title	Fiscal Year 2011/ 2012	2012/ 2013	2013/ 2014
Accountant	1.00	1.00	1.00
Accounting Assistant	1.00	1.10	1.00
Admin Assistant To The General Mgr	0.50	0.50	0.50
Administrative Assistant	9.25	5.44	6.44
Administrative Secretary	3.80	2.44	2.34
Advanced Process Contl Analyst	1.00	1.00	1.00
Agricultural Ops Supervisor			1.00
Applications Developer	1.10	2.00	2.45
Assistant Civil Engineer	3.00	1.00	
Assistant Conservation Prog Coord	3.71	2.00	2.00
Assistant Electronics Technician	0.20		
Assistant Management Analyst	3.43	5.05	4.44
Assistant Public Information Coord	2.45	3.30	4.51
Assistant Right Of Way Agent	1.20	0.50	
Assistant To The Director			1.00
Assoc Applications Developer		0.20	0.30
Assoc Business Systems Analyst			0.25
Assoc Data Resources Analyst	1.00		0.15
Assoc Web Developer	0.35		0.10
Attorney I	1.25	0.25	
Attorney III	1.00	1.00	1.25
Auditor		0.50	0.50
Biologist	1.00		
Biology Technician	1.00		
Business Systems Analyst	0.05	1.36	1.31
Business Systems Technician		1.00	0.95
CAD Analyst	1.00	2.00	1.00
CAD Technician			1.00
Call Ctr Systems Specialist	0.05	0.10	0.10
Caretaker	2.00		-
Chemical Engineer	1.00	1.00	1.00
Chemist I	1.99	1.00	1.00
Chemist II	5.98		
Chief Financial Officer	0.50	0.50	0.50

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FULL TIME EQUIVALENTS BY JOB TITLE
(continued)

Position Title	Fiscal Year 2011/ 2012	2012/ 2013	2013/ 2014
Civil Engineer	6.00	2.50	2.50
Civil Engineer P.E.	4.00	8.80	6.80
Climate Change Policy Analyst		1.00	1.00
Communication Systems Supervis	1.00	1.00	1.00
Communication Systems Tech	6.00	4.00	4.00
Computer Operator			0.05
Conservation Aide	8.25	5.00	5.00
Conservation Manager	1.00	1.00	1.00
Conservation Programs Coord	4.00	4.00	4.00
Conservation Services Admin.	1.00	2.00	2.00
Construction Engineer - P.E.	2.00	2.00	2.00
Contract Administrator	1.00	1.00	1.00
Control Systems Engineer	2.00	3.00	3.00
Corporate Records Officer		0.50	0.50
Corporate Security Service Mgr	0.40	0.50	0.50
Corrosion Control Systems Tech	1.00		
Cust Credit/Collections Assoc	0.15		
Cust Service Programs Asoc	0.10	0.10	
Cust Svc Quality Monit Assoc	0.05	0.15	
Custodian I	2.00	2.00	2.00
Custodian II	8.75	9.80	8.85
Customer Service Associate I			0.10
Customer Service Associate II	1.90	1.30	0.35
Customer Service Manager	0.05	0.25	0.20
Customer Service Supervisor	0.15	0.05	0.05
Data Management Specialist	1.00		
Data Resources Analyst I	4.00	8.00	8.00
Data Resources Prj Coordinator		3.00	3.00
Data Resources Supervisor		1.00	1.00
Database Administrator	1.00	1.00	1.10
Department Administrative Mgr	1.00		
Deputy Counsel	0.75		
Deputy General Counsel	0.25		
Designer	2.05		

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FULL TIME EQUIVALENTS BY JOB TITLE
(continued)

Position Title	Fiscal Year 2011/ 2012	2012/ 2013	2013/ 2014
Development Officer	0.36		
Development Services Assoc I	1.00	1.00	
Development Services Assoc II	3.05	1.00	
DGM - Administration	0.50	0.50	0.50
DGM - Engineering/Operations	1.00	1.00	0.50
Director - Energy Management	1.00	1.00	1.00
Director - Groundwater Resources		1.00	
Director - Info Technology			0.05
Director - Legal Services		0.75	0.75
Director - LVVWD Operations			0.05
Director - Public Services	0.75	0.75	0.75
Director - SNWA Engineering	1.00	1.00	1.00
Director - SNWA Resources	1.00		
Director - SNWS Operations	1.00	1.00	1.00
Director - Support Services	0.20	0.20	0.20
Director - Surface Wtr Resourc	1.00	2.00	
Director- Cust Care & Fld Svcs			0.20
Director- EHS & Corp Security		0.50	0.50
Director -Water & Envir Resources		1.00	1.00
Director -Water Quality & Treatment			1.00
Dispatcher	0.15	0.05	
Distribution System Operator			0.45
Document Management Specialist	0.50		
Document Management Technician	1.00	1.00	1.00
Electrical Engineer - P.E.	1.20	1.00	1.00
Electrical/Ronics Syst Supervi	2.00	2.00	2.00
Electrical/Ronics Syst Tech I	1.90	1.00	1.00
Electrical/Ronics Syst Tech II	17.80	18.70	18.70
Energy Analyst	2.00	1.00	1.00
Engineering Construction Mgr	2.00		
Engineering Plans Examiner II	3.00	3.00	3.00
Engineering Project Manager	5.00	6.00	6.15
Engineering Technician I	8.10	5.00	1.00
Engineering Technician II			1.00

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FULL TIME EQUIVALENTS BY JOB TITLE
(continued)

Position Title	Fiscal Year 2011/ 2012	2012/ 2013	2013/ 2014
Enterprise Data Architect			0.05
Environmental Biologist I	7.90	4.95	5.00
Environmental Biologist II	5.80	5.00	6.00
Environmental Planner I	2.00	1.50	0.50
Environmental Planner II	2.00	2.85	1.80
Executive Assistant I	5.81	9.20	7.25
Executive Assistant II	1.50	2.50	1.50
Facilities Locator Tech I	0.10		
Facilities Maintenance Mech I	2.00	2.00	2.00
Facilities Maintenance Mech II	7.00	7.30	7.85
Facilities Maintenance Supv	0.20	1.20	2.20
Facilities Manager	0.20	1.20	1.20
Facilities Planning Specialist	0.95	0.15	0.15
Facilities Services Supervisor		2.00	1.00
Field Customer Svc Associate	0.94		
Field System Operator I		0.97	
Finance & Investments Officer	0.50		
Financial Analyst	0.40	0.10	0.10
Financial Services Manager	0.10	0.10	0.10
Fleet Electronics Technician		0.25	0.25
Fleet Maintenance Supervisor	0.38	1.20	1.45
Fleet Mechanic I	1.10	0.25	
Fleet Mechanic II	1.92	3.14	3.64
Fleet Paint & Body Mechanic	0.40	0.78	0.78
Fleet Parts Storekeeper II	0.30		
Fleet Parts Technician II		0.78	0.78
Fleet Service Worker I	0.10	0.55	0.74
Fleet Service Worker II	1.37	1.55	1.50
Fleet Services Manager	0.23	0.39	0.39
General Counsel	0.50	0.25	0.25
General Manager	0.50	0.50	0.50
GIS Advanced Research Analyst	1.00		
GIS Analyst	3.30	2.00	2.00
GIS Specialist	2.00	1.00	1.00

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FULL TIME EQUIVALENTS BY JOB TITLE
(continued)

Position Title	Fiscal Year 2011/ 2012	2012/ 2013	2013/ 2014
GIS Technician	1.00	1.00	1.00
Graphics Artist	1.40	1.35	1.35
Grounds Maintenance Supervisor	0.05	0.05	0.05
Groundskeeper	3.45	3.50	2.50
Heavy Equip Oper-Facilities	0.05	0.05	0.05
Helpdesk Technician			0.05
Human Resources Assistant I	0.05		
Human Resources Assistant Ii	0.05		
Hydrologic Technician		1.00	1.00
Hydrologist I	11.00	8.60	7.25
Hydrologist II	15.00	13.70	13.45
I S Operations & Cust Care Mgr			0.05
I S Scientific Sys Div Mgr	0.50		
I S Supervisor			0.20
I S Tech Servics Supervisor			0.05
I S Technical Services Manager			0.05
Inspection Supervisor	1.00		
Inspector II	2.10	3.95	2.95
Inventory Management Tech II	0.94	0.94	0.97
Laboratory Analyst	1.50	1.00	1.00
Laboratory Manager	1.00	1.00	1.00
Laboratory Q.A. Officer		1.00	1.00
Laboratory Scientist I		1.00	1.00
Laboratory Scientist II		16.00	15.00
Laboratory Services Proj Mgr		1.00	1.00
Land Surveyor Pls		0.95	0.95
Lead Accounting Assistant		0.05	
Lead Computer Operator			0.05
Lead Custodian	1.95	1.05	1.05
Lead Facilities Maint Mechanic	0.97	0.20	0.20
Lead Groundskeeper		0.05	0.05
Lead Mail/Micrographics Tech		0.35	0.35
Lead Material Handler		0.97	0.97
Lead Storekeeper	0.94		

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FULL TIME EQUIVALENTS BY JOB TITLE
(continued)

Position Title	Fiscal Year 2011/ 2012	2012/ 2013	2013/ 2014
Legal Secretary I	2.00	1.00	1.00
Legal Secretary II	0.50	0.50	0.70
Librarian	1.00	1.00	
Limnology Project Manager		1.00	1.00
Machinist	1.00	1.00	2.00
Mail Services Supervisor	0.25	0.25	0.25
Mail/Micrographics Technician	3.06	1.80	1.80
Maintenance Assistant II	2.00	1.00	
Maintenance Engineer	3.00		
Maintenance Engineer P.E.	3.00	4.00	4.00
Major Const Project Inspector	3.00	3.00	3.00
Management Aide	3.35	2.82	1.61
Management Analyst	4.56	2.80	3.94
Management Services Manager	0.36	0.36	0.50
Material Handler II		3.88	3.88
Material Services Manager	0.20	0.20	0.20
Material Services Supervisor			0.97
Mechanical Systems Supervisor	1.00	2.00	3.00
Mechanical Systems Tech II	19.90	19.90	18.90
Microbiologist I	1.99		
Microbiologist II	2.99		
Monitoring Coordinator	1.00		
New Position-No Spec	12.59		
Of Counsel			0.50
Office Assistant	1.76	1.50	1.10
Operator I	3.00	2.00	2.00
P/T Customer Service Associate	0.50		
Painter I	0.10	0.10	0.10
Painter II	3.10	3.10	3.10
PC Applications Analyst	1.00	1.00	
Pilot Treatment Plant Speclst	1.00	1.00	1.00
Post Doctoral Researcher	3.00	1.00	
Power Project Manager	1.00		
Preserve A/V Technician			0.20

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FULL TIME EQUIVALENTS BY JOB TITLE
(continued)

Position Title	Fiscal Year 2011/ 2012	2012/ 2013	2013/ 2014
Preserve Archaeologist I		0.25	0.25
Preserve Biologist		0.70	
Preserve Corp Relations Repres		0.36	
Preserve Curation Prgmng Sup		0.25	0.25
Preserve Education Assistant		0.25	0.25
Preserve Education Prgrms Sup		0.25	0.25
Preserve Education Spclst			0.25
Preserve Gardens And Hort Spcl		0.50	0.50
Preserve Gardens Worker II		1.25	1.25
Preserve Lead Gardens Worker		0.50	0.50
Preserve Restoration Ecologist		0.75	0.75
Preserve Science And Grdns Sup		0.25	0.25
Principal Chemist	1.00		
Principal Financial Analyst	1.00	0.10	0.10
Principal GIS Analyst	0.10	1.00	1.00
Principal Laboratory Scientist		2.00	2.00
Principal Microbiologist	1.00		
Principal Research Chemist		1.00	1.00
Principal Right Of Way Agent	0.60	0.60	
Process Control Analyst	1.00		0.05
Production Manager			0.10
Production Operations Supervis	1.00	1.00	1.00
Production Operator II	6.00	6.00	6.00
Professional Trainee	1.00	1.00	
Proj Mgr-Applied Wq Research		1.00	1.00
Project Attorney	1.00	1.00	1.00
Project Management Coordinator	4.00	3.89	3.89
Project Manager-AM/FM/GIS	1.00		
Project Mgr - Research & Dev		1.00	1.00
Public Information Coordinator	1.06	3.45	3.45
Public Information Manager	0.35	0.50	0.50
Publications Specialist	0.35		
Purchasing Analyst	1.20	1.30	1.55
Purchasing Assistant	0.75	0.60	0.60

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FULL TIME EQUIVALENTS BY JOB TITLE
(continued)

Position Title	Fiscal Year 2011/ 2012	2012/ 2013	2013/ 2014
Purchasing Division Manager	0.45	0.50	0.50
Purchasing Technician	0.95	1.10	1.10
QA-Regulatory Comp Coordinator	1.00		0.15
Ranch & Resource Manager	1.00	1.00	1.00
Ranch Assistant Manager			1.00
Ranch Mechanic		1.00	1.00
Regional W.Q. Manager		1.00	1.00
Remittance Processing Supv		0.05	
Remote Sensing Analyst		1.00	1.00
Renewable Energy PGM Manager		1.00	1.00
Research Chemist	2.00	3.00	3.00
Resource Analyst I	2.00	2.00	2.00
Resource Analyst II	1.00	1.00	1.00
Right Of Way Agent	0.50	1.42	1.42
Risk Management Analyst	0.20	0.20	0.20
Risk Management Officer I	0.20		
Risk Management Officer II	0.20	0.10	0.10
Risk Manager	0.20	0.10	0.10
Rural System Operator			0.05
Scientific Systems Manager		0.50	0.50
Secretary	17.81	18.26	15.31
Security Officer I	1.00	2.00	1.00
Security Officer II	12.00	12.00	13.00
Security System Supervisor	1.00	1.00	1.00
Senior Accountant	1.00	1.00	1.00
Senior Applications Developer	0.25	0.15	1.25
Senior Biologist	2.00	2.00	2.00
Senior Business Systems Analyst		0.10	0.15
Senior Cad Technician I	0.70		
Senior Cad Technician II	2.00	2.00	2.00
Senior Chemist	1.99		
Senior Civil Engineer	3.00	1.00	0.50
Senior Computer Operator	1.00		
Senior Conservation Res Analyst	1.00	1.00	1.00

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FULL TIME EQUIVALENTS BY JOB TITLE
(continued)

Position Title	Fiscal Year 2011/ 2012	2012/ 2013	2013/ 2014
Senior Customer Service Associate	0.15	0.35	0.10
Senior Data Resources Analyst	2.00	2.00	2.05
Senior Deputy General Manager		1.00	0.50
Senior Energy Analyst		1.00	1.00
Senior Engineering Technician	1.20	0.20	0.20
Senior Environmental Planner	1.00	2.00	2.00
Senior Financial Analyst	0.10	0.10	0.10
Senior GIS Analyst	3.50	2.00	2.10
Senior GIS Technician	1.00	1.00	1.00
Senior Hydrologist	5.00	3.90	3.85
Senior Inspector	4.00	3.00	3.00
Senior Maintenance Engineer		1.00	1.00
Senior Management Analyst	2.36	0.72	0.86
Senior Office Assistant I	5.75	2.50	1.74
Senior Office Assistant II	5.55	5.95	5.90
Senior Operator	0.90	1.90	1.90
Senior Planner Scheduler	7.00	8.90	8.05
Senior Pol-Anal-Sustain Prgm	1.00	1.00	
Senior Process Control Analyst	1.00	2.00	2.20
Senior Public Information Coord	1.75	1.35	1.35
Senior Purchasing Analyst	1.00	1.00	0.75
Senior Remote Sensing Analyst		2.00	2.00
Senior Resource Analyst		1.00	1.00
Senior Right Of Way Agent	2.50	2.32	2.32
Senior Security Officer	1.00		
Senior Strategic Advisor			1.00
Senior Systems Administrator			0.25
Senior Technical Support Analyst			0.20
Senior Virologist	1.00		
Senior Water Quality/Lab Tech	5.98		
Senior Web Developer	0.35	0.45	0.20
SNWA Controller	1.00	1.00	1.00
SNWA Division Manager	5.00	5.00	4.95
SNWA E.M.& M. Division Manager		1.00	1.00

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FULL TIME EQUIVALENTS BY JOB TITLE
(continued)

Position Title	Fiscal Year 2011/ 2012	2012/ 2013	2013/ 2014
SNWA Eng Construction Manager		1.00	1.00
SNWA Eng Support Svcs Mgr	1.00		
SNWA Eng. Technology Manager		1.00	1.00
SNWA Regional W.Q. Supervisor	1.00		
SNWA Watershed Div Manager	1.00		
SNWS Maintenance Eng. Manager	1.00	1.00	
SNWS Prod Data Resourc Analyst		1.00	1.00
SNWS Production Manager	1.00	1.00	1.00
Software Support Technician		0.95	
Special Assistant To The G.M.	0.05		
Storekeeper II	3.76		
Survey Technician			0.95
Switchboard Operator	0.05		
Systems Administrator			0.05
Technical Assistant	1.00	1.00	1.00
Technical Support Technician		1.00	1.45
Telecom Systems Project Coordinator			0.05
Tool & Equipment Mechanic	0.10	0.30	0.30
Transmission Sys Inspector I	1.00	1.00	1.00
Transmission Sys Inspector II	3.00	3.00	3.00
Treatment Manager	0.90	0.90	0.90
Treatment Operator II	7.60	8.60	8.60
Treatment Plant Superintendent	1.95	1.95	1.95
Utility Driver	1.29	0.10	1.07
Voice Telecommication Technician			0.10
Water Quality & Maint Eng Mgr			0.05
Water Quality Lab Technician			2.00
Water Quality Monitoring Coordinator I		1.00	1.00
Water Quality Monitoring Coordinator II		1.00	1.00
Water Quality Monitoring Field Speclst I		8.00	1.00
Water Quality Monitoring Field Speclst II	1.00	1.00	7.00
Water Quality Monitoring Supv			1.00
Water Quality Research/Dev Mgr	1.00	1.00	1.00
Water Quality/Lab Tech I	2.99	1.00	

continued on next page

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FULL TIME EQUIVALENTS BY JOB TITLE
(continued)

	Fiscal Year		
Position Title	2011/ 2012	2012/ 2013	2013/ 2014
Water Quality/Lab Tech II	2.99		
Water Rights Administrator	1.00		
Water Waste Investigator	0.10		
Web Developer	0.35	0.20	0.05
Work Scheduling Assistant II	0.05		
2012 Actual Adjustment *	(16.92)		
	498.00	496.14	475.37

* Detail of FTEs for 2012 is per budget. Because of changes within the organization, actual payroll costs were lower than budgeted. Since the actual payroll FTEs cannot be determined within LVVWD / SNWA's payroll system by job title, this amount adjusts the FTE count to more closely approximate actual payroll costs.

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SECTION 12

STATISTICAL INFORMATION WITH SNWA HISTORY

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SOUTHERN NEVADA WATER AUTHORITY

FISCAL YEAR 2013/2014
OPERATING AND CAPITAL BUDGET

Southern Nevada Water Authority
Demographic Statistics
Clark County, Nevada
Last Ten Fiscal Years

Fiscal Year	Population **(1)**	Per Capita Income **(2)**	Clark County Personal Income In Million $ **(2)**	Median Household Income **(3)**
2012	2,014,000	36,234	$71,946.2	54,665
2011	1,966,630	35,978	$70,254.0	54,278
2010	1,953,927	35,723	$69,800.2	53,894
2009	1,939,407	35,470	$68,791.2	53,512
2008	1,912,349	38,842	$74,279.8	56,691
2007	1,867,817	39,105	$73,040.1	55,960
2006	1,803,774	38,183	$68,874.1	53,472
2005	1,729,522	37,109	$64,181.4	49,565
2004	1,662,773	33,959	$56,465.9	45,793
2003	1,584,166	31,593	$50,048.6	43,756

Fiscal Year	School Enrollment **(4)**	Total Labor Force Thousands **(5)**	Unemployment Rate **(5)**
2012	308,447	980.7	12.1%
2011	309,893	992.0	14.4%
2010	309,476	970.7	15.3%
2009	311,240	974.5	13.0%
2008	308,783	960.7	6.3%
2007	302,763	933.5	4.6%
2006	291,510	910.0	4.4%
2005	280,275	915.4	4.3%
2004	269,960	870.6	4.7%
2003	252,775	875.7	4.3%

(1) Sources -- 2003 - 2010 U.S. Bureau of Economic Analysis, CA1-3 Population, Clark County, Nevada; 2011 Center for Business and Economic Research, University of Nevada, Las Vegas , 2012 trended

(2) Source -- U.S. Bureau of Economic Analysis, CA1-3, Clark County, Nevada, 2011 and 2012 trended.

(3) Source -- Nevada Workforce Informer 2010 through 2012 are based on average capita per household.

(4) Source -- Clark County School District, Average Daily Membership.

(5) Source -- State of Nevada -- Department of Employment, Training and Rehabilitation (DETR), Clark County. In years where the DETR had conflicting information, the more conservative number was used.

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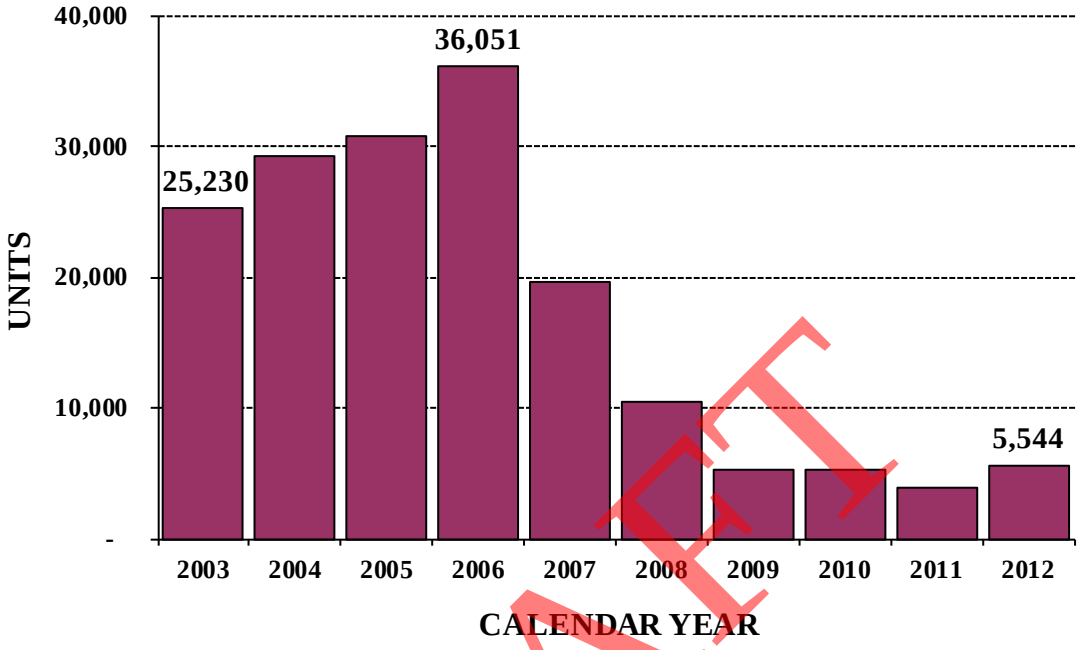
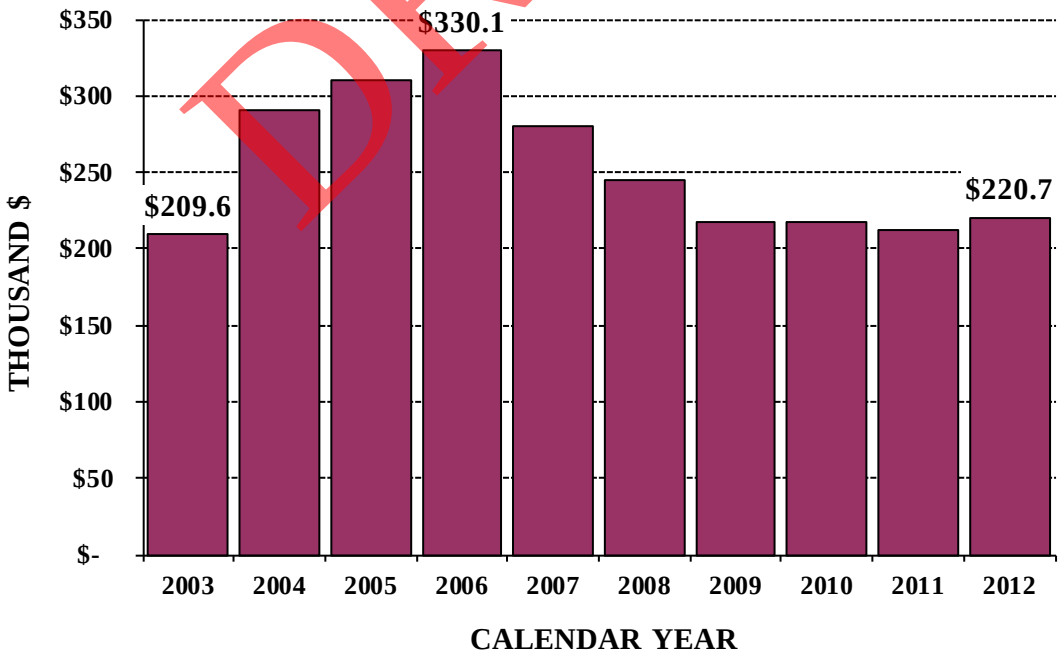
METROPOLITAN CLARK COUNTY
CLOSED NEW HOME SALES



METROPOLITAN CLARK COUNTY
NEW HOME MEDIAN PRICE



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Statistical Information with SNWA History

Fiscal Year End June 30, 2014

2003 - 2012 TEMPERATURE AND RAINFALL

(Average Maximum and Minimum

Daily Temperature by Month (in Degrees F) and Monthly Rainfall (in Inches)

	2003			2004			2005		
	Temperature			Temperature			Temperature		
Month	Max.	Min.	Rainfall	Max.	Min.	Rainfall	Max.	Min.	Rainfall
January	65.4	42.9	0.02	57.0	37.9	0.02	71.0	34.0	2.08
February	60.0	43.2	2.13	57.3	40.3	1.47	67.0	39.0	2.48
March	69.9	49.3	0.32	78.4	54.6	0.23	83.0	43.0	0.48
April	72.6	52.9	0.38	78.1	57.5	0.93	89.0	46.0	0.08
May	89.7	66.1	0.01	90.6	67.5	0.00	105.0	55.0	0.01
June	99.8	76.0	0.00	100.2	76.0	0.01	110.0	62.0	0.07
July	106.6	82.9	1.08	104.6	81.5	0.05	117.0	73.0	0.52
August	101.1	79.4	0.83	100.8	78.2	0.51	108.0	68.0	0.26
September	96.3	72.5	0.52	93.4	69.8	0.18	102.0	63.0	0.00
October	87.2	63.5	0.00	77.9	58.6	0.59	96.0	54.0	1.45
November	61.4	43.8	0.61	62.2	45.2	1.71	81.0	35.0	0.00
December	56.5	39.2	0.96	57.8	40.5	2.10	70.0	30.0	0.02
Average Annual Temperature/ Total Rainfall	**78.5**	**59.6**	**4.20**	**80.5**	**57.3**	**1.44**	**80.5**	**59.3**	**6.86**

	2006			2007		
	Temperature			Temperature		
Month	Max.	Min.	Rainfall	Max.	Min.	Rainfall
January	69.0	52.0	0.03	68.0	23.0	0.06
February	75.0	49.0	0.05	74.0	34.0	0.16
March	76.0	49.0	0.19	91.0	35.0	0.00
April	93.0	61.0	0.00	98.0	48.0	0.08
May	102.0	76.0	0.00	99.0	57.0	0.00
June	110.0	89.0	0.06	109.0	63.0	0.00
July	113.0	94.0	0.13	116.0	76.0	0.29
August	106.0	95.0	0.04	110.0	72.0	0.76
September	103.0	79.0	0.00	107.0	55.0	0.67
October	91.0	68.0	1.07	92.0	52.0	0.00
November	82.0	46.0	0.00	84.0	38.0	0.64
December	69.0	47.0	0.12	67.0	29.0	0.07
Average Annual Temperature/ Total Rainfall	**91.6**	**50.2**	**7.45**	**90.8**	**67.1**	**1.69**

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Statistical Information with SNWA History

Fiscal Year End June 30, 2014

2003 - 2012 TEMPERATURE AND RAINFALL (Continued)

(Average Maximum and Minimum

Daily Temperature by Month (in Degrees F) and Monthly Rainfall (in Inches)

	2008			2009			2010		
	Temperature			Temperature			Temperature		
Month	Max.	Min.	Rainfall	Max.	Min.	Rainfall	Max.	Min.	Rainfall
January	62.0	28.1	0.57	70.0	29.0	0.04	65.0	47.0	2.05
February	76.0	25.4	0.05	74.0	34.0	0.78	70.0	48.0	1.05
March	82.0	37.1	0.08	85.0	39.0	0.00	82.0	53.0	0.15
April	93.0	43.6	0.00	94.0	40.0	0.05	88.0	56.0	0.05
May	108.0	31.4	0.13	103.0	65.0	0.00	96.0	63.0	0.00
June	111.0	62.7	0.00	108.0	62.0	0.10	110.0	79.0	0.00
July	111.0	76.7	0.08	113.0	75.0	0.29	113.0	100.0	0.00
August	111.0	78.9	0.07	110.0	68.0	0.02	108.0	87.0	0.00
September	105.0	70.8	0.03	103.0	64.0	0.00	108.0	85.0	0.01
October	96.0	35.1	0.01	93.0	44.0	0.00	96.0	65.0	0.82
November	83.0	38.8	0.47	83.0	39.0	0.02	86.0	48.0	0.01
December	69.0	26.1	1.15	64.0	30.0	0.29	70.0	38.0	1.77
Average Annual Temperature/ Total Rainfall	**92.3**	**46.2**	**2.64**	**91.7**	**49.1**	**1.59**	**91.0**	**64.1**	**5.91**

	2011			2012		
	Temperature			Temperature		
Month	Max.	Min.	Rainfall	Max.	Min.	Rainfall
January	58.8	39.3	0.0	61.2	40.1	0.0
February	60.4	40.3	0.1	63.4	44.1	0.1
March	71.1	50.3	0.2	72.0	49.3	0.2
April	77.4	55.5	0.0	80.6	57.6	0.0
May	83.6	60.3	0.0	92.4	69.2	0.0
June	97.4	73.5	0.0	101.3	77.0	0.0
July	102.5	80.8	0.8	102.6	80.4	0.2
August	105.8	81.9	0.0	102.9	82.3	2.3
September	95.6	72.4	0.8	96.6	74.2	1.2
October	81.8	59.2	0.2	82.6	60.9	0.9
November	64.6	44.9	0.1	70.5	49.7	0.0
December	55.7	36.6	0.1	57.3	40.8	0.5
Average Annual Temperature/ Total Rainfall	**79.6**	**57.9**	**2.34**	**82.0**	**60.5**	**5.31**

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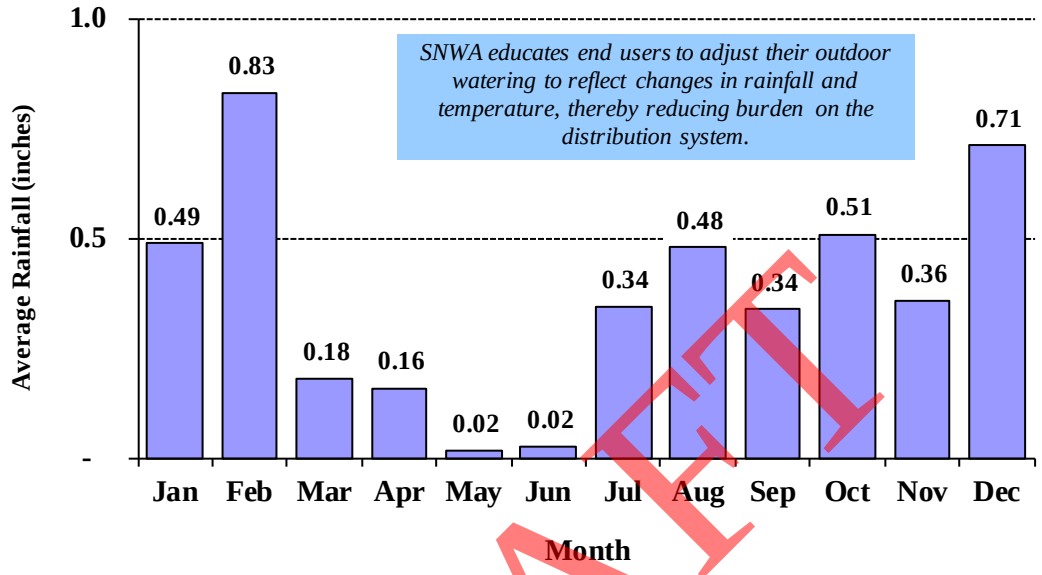
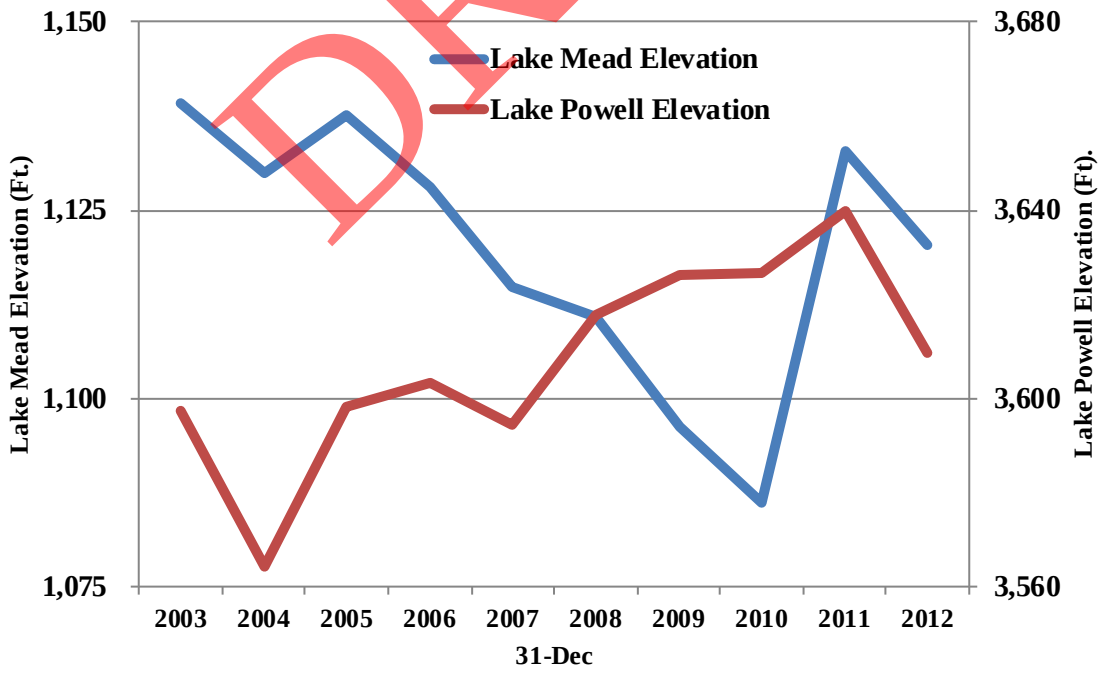
Clark County, Nevada
AVERAGE RAINFALL PER MONTH
Ten Year Span 2003 to 2012



COMPARISION OF YEAR-END ELEVATIONS
LAKE POWELL AND LAKE MEAD



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Southern Nevada Water Authority
Enterprise Fund (Unaudited)
Secured Tax Roll
Clark County, Nevada
2012 - 2013*

	Taxpayer	Taxable Assessed	Taxable Appraised
1.	MGM Resorts International	$ 2,419,044,056	$ 6,911,554,446
2.	NV Energy	1,555,475,949	4,444,216,997
3.	Caesars Entertainment Corporation	1,467,895,338	4,193,986,680
4.	Las Vegas Sands Corporation	816,800,936	2,333,716,960
5.	Wynn Resorts Limited	719,924,317	2,056,926,620
6.	Station Casinos Incorporated	447,485,947	1,278,531,277
7.	Boyd Gaming Corporation	320,956,504	917,018,583
8.	General Growth Properties Incorporated	185,343,315	529,552,329
9.	Howard Hughes Corporation	177,742,652	507,836,149
10.	Nevada Property 1 Limited Liability Company	169,168,598	483,338,851
	Total 2012 - 2013	$ 8,279,837,612	$ 23,656,678,892

SOURCE: Clark County, Nevada, assessor's office
* Most recent data available

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Southern Nevada Water Authority
Enterprise Fund

Top Ten Employers (1)(2)

Clark County, Nevada
Fiscal Year Ended June, 2011 and Fiscal Year Ended June, 2002

Employer	FY 2011			FY 2002 (3)		
Trade Name	Employees	Ranking	(4)	Employees	Ranking	(4)
Clark County School District	30000 to 39999	1	3.53%	20000 to 29999	1	3.00%
Clark County	7500 to 7999	2	0.78%	8500 to 8999	2	1.05%
Wynn Las Vegas	7500 to 7999	3	0.78%			
Bellagio LLC	7500 to 7999	4	0.78%			
MGM Grand Hotel/Casino	7000 to 7499	5	0.73%	5500 to 5999	3	0.69%
Aria Resort & Casino LLC	7000 to 7499	6	0.73%			
Mandalay Bay Resort And Casino	6000 to 6499	7	0.63%	5000 to 5499	5	0.63%
Caesars Palace	5500 to 5999	8	0.58%	4000 to 4499	8	0.51%
Las Vegas Metropolitan Police	5500 to 5999	9	0.58%	4000 to 4499	7	0.51%
University Of NV-LV	5000 to 5499	10	0.53%	5000 to 5499	4	0.63%
State Of Nevada				4500 to 4999	6	0.57%
Rio Suite Hotel & Casino				4000 to 4499	9	0.51%
Luxor				3500 to 3999	10	0.45%
Total Labor Force	*992,000*			*834,200*		

(1) Source -- Nevada Workforce Informer, Nevada Employer Directory, GASB 44 report as of July, 2012. 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.

(3) Only the top ten employers of the period are listed.

(4) Estimated percent of total labor force attributed to this employer

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SNWA MILESTONES

SNWA established (1991)

Local agencies formed the Southern Nevada Water Authority (SNWA) in 1991 to address Southern Nevada's unique water needs on a regional basis. The Water Authority is committed to managing the region's water resources and developing solutions that will ensure adequate future water supplies for the Las Vegas Valley.

Water Conservation Program (1991)

When the SNWA was formed, it made water conservation a critical component of its long-term water resource plan. SNWA has one of the most aggressive and comprehensive water conservation programs in the nation, helping the community save billions of gallons of water each year.

Bureau of Reclamation Contract (1992)

The SNWA signed a contract with the Bureau of Reclamation allowing Nevada to draw its full allotment of 300,000 acre-feet and surplus flows from the Colorado River.

Resource Acquisitions in Nevada (1994-1998)

1994 – Nevada State Engineer granted the SNWA permanent water rights on the Virgin River.
1997 – The Water Authority acquired water rights on the Muddy River.
1998 – The Water Authority purchased groundwater rights in Coyote Springs Valley just north of Las Vegas.

Lower Colorado River Multi-Species Conservation Program (1994)

Nevada, Arizona, and California signed an agreement with the Department of the Interior to develop a plan to protect three species of endangered fish. The move helps conserve and improve habitat for the species.

Colorado River Commission Partnership (1995)

The SNWA partnered with the Colorado River Commission to identify water resources, provide an efficient, reliable water supply, and build and maintain new power facilities.

Capital Improvements Program (1995)

The SNWA launched a $2.1 billion public works program in 1995 to ensure that water delivery keeps pace with unprecedented growth in the Las Vegas Valley. In 1998, 72 percent of Southern Nevada voters overwhelmingly approved a quarter-penny sales tax increase to help fund the improvements.

Las Vegas Valley Groundwater Management Program (1997)

SNWA developed the groundwater management program in 1997 to protect and manage the Las Vegas Valley's primary groundwater supply.

Las Vegas Wash (1998)

The Water Authority, along with other local agencies, launched restoration efforts in 1998 as part of the Las Vegas Wash Coordination Committee's management plan to restore this fragile area. The project addresses environmental concerns by decreasing erosion and by increasing wetlands that will improve water quality and support a vast array of wildlife.

Water Smart Landscapes Rebate (1999)

In 1999, the Water Authority implemented its Water Smart Landscapes rebate to encourage residential and commercial

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property owners to remove grass and replace it with water-efficient landscaping. Since the program began, millions of square feet of grass have been removed saving billions of gallons of water each year.

Arizona Banking Agreement (2001)

This agreement helps secure Nevada's future water supply through the year 2050 by allowing the state to divert unused and surplus water from the Colorado River and store it underground in Arizona for future use.

Interim Surplus Criteria Agreement (2001)

The Secretary of the Interior signed an agreement making additional surplus Colorado River water available to Nevada until the year 2016. This agreement also required California to reduce its water use from more than 5 million acre feet each year to its allotted 4.4 million acre feet.

Research and Testing (2001)

The Water Authority began developing a research facility with cutting-edge technology to refine the valley's water treatment methods and further improve water quality.

River Mountains Water Treatment Facility (2002)

The River Mountains Water Treatment Facility opened in October 2002. It has a capacity to treat and deliver up to 150 million gallons of water per day and can be expanded to treat up to 600 million gallons of water per day.

Drought Plan (2003)

The SNWA Drought Plan was first developed in 2002 and adopted by the SNWA Board of Directors in February 2003 in response to a severe drought in the Colorado River Basin. The plan identifies drought response measures to reduce water demands during the drought.

Ozonation (2003)

State-of-the-art ozone technology became the primary method of water treatment for Southern Nevada when the ozonation process went online at the valley's water treatment facilities in 2003.

Silverhawk Power Plant (2004)

The 570-megawatt electric power generation facility began operating in May 2004 in Apex, Nevada. The largest consumer of power in the Las Vegas Valley, the Water Authority owns 25 percent of the Silverhawk facility, which provides a reliable power source for the authority's water treatment facilities and pumping stations.

Integrated Water Planning Advisory Committee (2004)

The drought required the Water Authority to accelerate near-term development of groundwater rights, surface water rights and groundwater applications in Clark County, Lincoln and White Pine counties. To help facilitate this effort, SNWA launched an integrated water planning process, which included the formation of an Integrated Water Planning Advisory Committee (IWPAC). The IWPAC is assessing alternatives and developing general recommendations for the SNWA Board of Directors concerning integration of in-state water resources into the water planning and management activities of Southern Nevada.

California Water Bank (2004)

The Water Authority and the Nevada Colorado Water Commission entered into agreements with the Metropolitan Water

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District of Southern California and the Bureau of Reclamation to store unused Colorado River water in California until it is needed.

Water Smart Home Program (2005)

Joining with local home builders, the Water Authority introduced the Water Smart Home program to help create entire neighborhoods and communities of water-efficient homes.

Water Smart Landscapes Rebate Increase (2007)

In 2007, the Water Authority increased its Water Smart Landscapes rebate, encouraging residential and commercial property owners to remove grass and replace it with water-efficient landscaping. Since the program's inception in 1999, 20 billion gallons of water has been saved (4.3 billion gallons per year and rising) and 78.5 million square feet of turf has been removed.

Drop 2 Reservoir (2007)

Congress passed a bill for the construction of the Drop 2 reservoir, which will capture billions of gallons of water from California and Arizona agricultural orders that are not used. As currently projected, it would provide Southern Nevada 280,000 acre-feet, with a maximum annual withdrawal of 40,000 acre-feet.

State Engineer approves Spring Valley applications (2007)

The Nevada State Engineer approved a major portion of the groundwater rights applications the SNWA submitted for the Spring Valley in White Pine County, enabling the SNWA to develop 60,000 acre-feet annually from the basin.

State Engineer approves applications for Delamar, Dry Lake and Cave valleys (2008)

The Nevada State Engineer released a ruling granting the SNWA 18,755 acre-feet of groundwater annually from Delamar, Dry Lake and Cave valleys.

Intake No. 3 (2008)

The Water Authority began construction on a third intake to protect municipal water customers from water quality issues associated with declining lake levels and to maintain the SNWA's ability to draw upon Colorado River water even at extremely low Lake Mead elevations. The project is scheduled for completion by 2013.

Water Utility Climate Alliance (2008)

SNWA joined with seven of the nation's largest water agencies to form the Water Utility Climate Alliance. The alliance works to improve research into the impacts of climate change and develops strategies to reduce the utilities' greenhouse gas emissions.

WaterSmart Innovations Conference and Exposition (2008)

In partnership with the U.S. Environmental Protection Agency's WaterSense program, the Water Authority held the first annual WaterSmart Innovations Conference and Exposition, sharing information about effective conservation programs and policies and introducing new water-efficient technologies.

Water Conservation Goal (2009)

Building on the success of the community's conservation efforts, the SNWA Board of Directors established a new conservation goal of 199 gallons per capita per day by 2035.

Photovoltaic Systems (2009)

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SNWA incorporated various photovoltaic technologies into its water system operations, including typical solar panels that provide covered parking at both the River Mountains Water Treatment Facility and Alfred Merritt Smith Water Treatment Facility, and a unique high-concentrated system that produces 308 kW of clean energy. Combined, these projects generate approximately 920,000 kWh (kilowatt hours) per year - the equivalent energy usage of more than 60 Las Vegas households.

Yuma Desalting Plant Pilot Run (2010)

SNWA entered into an agreement with municipal water agencies in the states of Arizona and California, the U.S. Bureau of Reclamation and the Colorado River Commission to fund and complete the Yuma Desalting Plant Pilot Run. The plant, located near Yuma, Arizona, is a brackish water reverse osmosis plant that was constructed to treat pumped brackish agricultural drainage water from the United States' lower Gila River Valley area. The project, which will operate for 365 days, will provide information about the readiness of the plant and enable the development of recommendations for future operations to help augment Colorado River flows.

Capital Improvements Plan Retired (2010)

In February 2010, the SNWA Board approved retirement of the Capital Improvements Plan (CIP) 14 years after it was first issued and achieved the goals for which it was established. The plan's remaining projects, including Intake No. 3, were consolidated into an amended Major Construction and Capital Plan (MCCP).

Water Smart Landscapes Program Receives Grant to Expand (2010)

The Water Smart Landscapes program received a $1 million grant from the U.S. Bureau of Reclamation in order to provide financial incentives for approximately 777,000 additional square feet of turf conversions.

Colorado River Basin Supply and Demand Study (2011)

The U.S. Bureau of Reclamation and the Colorado River Basin states initiated the Colorado River Basin Supply and Demand Study to define current and future water supply and demand imbalances in the basin and assess the risks to basin resources.

State Engineer Rules on Spring, Cave, Dry Lake and Delamar Valleys (2012)

In 2012, the Nevada Office of the State Engineer granted the Water Authority rights to 83,988 acre-feet of water in Spring, Cave, Dry Lake and Delamar valleys. The total amount of water permitted is dependent on staged pumping, biological and hydrologic data collection, groundwater flow models and monitoring, mitigation and management programs.

Water Pact Signed with Mexico (2012)

In November 2012, SNWA and several U.S. federal and state agencies signed an amended treaty with Mexico known as Minute 319. The agreement addresses the handling of Colorado River water during shortages and surpluses and the allows Mexico to store water in Lake Mead. Minute 319 will help ensure the Colorado River system meets the needs of both the U.S. and Mexico.

Source – SNWA Website www.snwa.com

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2012 – A Year in Review

Enjoy this look back at calendar 2012 and reflect on milestones that illustrate our vision of "People Leading the Way."

February

The SNWA Water Quality Research and Development Division launched a project that will help water agencies better understand and treat algal blooms. The research team plans to report their findings this year to the Water Research Foundation, which will publish the report.

Employees reduced at-fault vehicle accidents by 20 percent and the organization's vehicle accident rate by 30 percent in 2011, when compared to 2010, according to the 2011 Environmental Health & Safety Trend Analysis Report released in February.

The Purchasing and Material and Mail Services divisions joined the Finance Department.

March

The Nevada State Engineer on March 22 issued a ruling granting nearly 84,000 acre-feet of water annually in response to the SNWA's applications for groundwater rights in four east-central Nevada valleys. The decision represents an increase of 5,233 acre-feet over a previous ruling, reaffirming the SNWA's assertion that significant available water resources exist in those groundwater basins.

A warm, dry winter led the U.S. Bureau of Reclamation to forecast a 12-foot drop in Lake Mead. By the end of the 2012 water year, Sept. 30, Lake Mead had dropped about 16 feet below its recorded level in March.

April

The Authority earned the highest safety award given by the American Water Works Association. The 2012 Wendell R. LaDue Utility Safety Award singled out the Authority's safety culture and awareness programs from more than 150,000 water utilities around the nation.

Retail customers began seeing an SNWA infrastructure charge on their water bills. The monthly charge, based on meter size, added approximately $5 to the average residential monthly water bill. The SNWA Board on July 19 voted to issue a 50 percent credit for commercial fire-line charges, due primarily to the impacts on businesses and nonprofit entities.

May

Our organization began transitioning from Lotus Notes to Outlook 2010. The transition, which concluded in August, included an email cleanup process initiated by a new email and document-archiving policy.

The SNWA Board appointed an Integrated Resource Planning Advisory Committee to help guide future water-resource planning for Southern Nevada. The 21-member committee, which represents a cross-section of our community, began meeting regularly in September to evaluate the SNWA's resource development and management, facilities, funding, rates and fees, planning, conservation and water quality.

Our Corporate Challenge team finished third place among 16 teams that participated in the A Division, which comprises companies with 1,000 or more employees. Employees garnered 4 first-place team finishes and more than 100 individual medals.

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June

An accident June 11 at the Intake No. 3 tunnel project fatally injured a Vegas Tunnel Constructors (VTC) worker. The accident occurred 600 feet below ground in the tunnel area, where crews were setting concrete segments. VTC crews determined the cause—one segment slipped forward striking a worker—and have since developed a process that would prevent a similar accident.

Workers completed the Ducks Unlimited No. 1 Weir, the 14th of 22 weirs planned along the Las Vegas Wash to help reduce erosion.

July

The Water Conservation Coalition (WCC) completed a project that will save E.W. Griffith Elementary School an estimated 500,000 gallons of water each year. The WCC adopted the aging, at-risk school in 2009 and launched the indoor/outdoor conversion project with assistance from SNWA staff and volunteers.

August

The U.S. Bureau of Land Management (BLM) released the Final Environmental Impact Statement (EIS) related to the SNWA's Clark, Lincoln and White Pine Counties Groundwater Development Project. The BLM's statement identified a preferred alternative that would allow the SNWA rights-of-way in all of the basins where the SNWA has permitted water rights, but would not include rights-of-way in Snake Valley.

General Manager Pat Mulroy announced additional organization changes. Ron Zegers was appointed Deputy General Manager for Engineering and Operations and three new departments replaced the SNWS Department: SNWS Operations, Water Quality and Treatment. Ken Albright was named SNWS Operations director and, later in the year, David L. Johnson was promoted to treatment director. Earlier in the summer, Greg Walch joined our organization as general counsel and Executive Team member for the district and SNWA.

Additionally, Groundwater Resources and Environmental Resources departments merged, led by Director Zane Marshall. The Surface Water Resources Department will later join these departments.

September

Celebrating You Week honored employees with daily festivities including the return of Meter Madness, an Employee Expo, Safety Stand-Down Day and departmental celebrations. The week concluded with the Celebrating You Luncheon, where five employees received the award program's top honors and employees were recognized for their dedication and service.

October

A snorkel count of Moapa dace found a rise in the fish population that swims the upper Muddy River. A multi-agency team, including SNWA biologists and environmental planners, counted nearly 1,200 dace, 65 percent more than they found a year ago. Thanks to collaborative restoration efforts, the endangered fish found only in Southern Nevada are making a big comeback.

The American Public Works Association Nevada Chapter named the Las Vegas Wash Homestead and Lower Narrows weirs Environmental Project of the Year. The project includes two of the largest grade-control structures built in the nation.

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November

The U.S. and Mexico signed a series of agreements Nov. 20 to help ensure the Colorado River system meets the water needs of both countries. The agreements also include a pilot program that will allow the SNWA to invest in infrastructure improvements in Mexico in exchange for 23,750 acre feet of Intentionally Created Surplus credits, a share of the water the improvements would save.

December

Fleet Services again ranked in North America's top 40 Government Green Fleets, pulling into spot 24 out of 38,000 public fleets. Our organization has ranked in Government Green Fleet Magazine's annual list since its inception five years ago. Fleet runs 88 percent of its vehicles on alternative fuels.

The U.S. Bureau of Reclamation released a Colorado River Basin Water Supply and Demand Study. Compiled over three years, the report concluded that by 2060 those who rely on Colorado River water could face shortages averaging 3.2 million acre-feet per year. The report included alternative water-supply strategies, which lay the foundation for developing collaborative solutions.

Following the Final EIS released in August, the BLM published its record of decision authorizing the SNWA to construct facilities associated with the Clark, Lincoln and White Pine Counties Groundwater Development Project. The project could bring more than 80,000 acre-feet of water to Southern Nevada. Construction of the 250-plus-mile pipeline will not begin immediately, but will be dictated by Colorado River conditions and the community's water needs.

Source – Las Vegas Valley Water District Public Services Department

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SECTION 13
GLOSSARY

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SOUTHERN NEVADA WATER AUTHORITY

FISCAL YEAR 2013/2014
OPERATING AND CAPITAL BUDGET

Glossary -- Terms

Fiscal Year End June 30, 2014

Acre-Foot. A water measurement equating to 325,839 gallons. An acre foot will supply the annual water needs of approximately 2.2 families in the SNWA service area.

Accrual. The act of recognizing a charge incurred in one accounting period that has not been paid by the end of it.

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.

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 Authority follows in the preparation and adoption of the budget.

Budget Document. The official written statement prepared by the Authority and approved by the SNWA's Board of Directors.

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.

Capital Contributions. For net position purposes, defined as regional connection, commodity, reliability and infrastructure surcharge revenues as well as grant receipts.

Capital Expenditure. Fixed assets to be acquired during a fiscal year, generally with a value of over $5,000 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 differ from operating expenses in that they are paid for with capital revenues and bond proceeds.

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.

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.

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.

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Colorado River Commission. 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

Construction Expenditures. Project costs shown in the capital improvements programs of the SNWA. Construction expenditures are currently paid with debt issue proceeds.

Debt Issuance Proceeds. Principal amount of debt issues. These proceeds are used to pay for major construction expenditures incurred by the Authority.

Debt Service Payments. Funds used to pay annual debt payments and interest expense.

Department. A basic organizational unit of the Authority 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.

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. 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 2013/2014 ends on June 30, 2014.

Fund. A fiscal and accounting tool with a self-balancing set of accounts to record revenue and expenditures.

Fund Balance. Also known as beginning balance and ending balance. This represents the estimated cash balance in a specific subfund 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.

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.

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.

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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. Moneys earned by investing idle funds in the open market.

Interfund 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.

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 Water District. 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.

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. 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 Interlocal Agreement that will be used for Las Vegas Wash operating expenses. The fees are net of any anticipated grant proceeds. Participants in the Interlocal Agreement are the Authority, 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 Sub Fund. Sub fund that tracks capital and operational revenues and expenses pertaining to the Las Vegas Wash.

Major Construction and Capital Program. A schedule of approved capital projects, their estimated costs, and funding sources.

Megawatt Hour. 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.

Model Clearing Price. A power cost calculated per MWh and established to reflect the projected cost of electrical power over a ten year period.

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. The current codified laws of the State of Nevada.

New Expansion Debt Service 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 Authority and found in Lincoln and White Pine County, Nevada.

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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 Authority's treatment and distribution system and through the Las Vegas Wash and groundwater management program. These expenses differ from capitalized expenses in that they are paid with operating revenues.

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 Authority's treatment facilities and income from the Authority'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.

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.

Restricted Revenues. For net position purposes, defined as operating capital and expenses, payroll, recharge purchases and power costs. However it excludes these costs if they are present in the MCCP subfund 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.

Risk Management. An organized attempt to protect a government's assets against accidental loss in the most economical method.

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.

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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.

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.

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.

Wholesale Delivery Charge. The per acre-foot charge that SNWA charges purveyor members for the treatment and delivery of treated, potable water.

Wholesale Delivery Operations Sub Fund. Sub fund that tracks revenues and expenses incurred from the production of potable water.

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Southern Nevada Water Authority
Operating and Capital Budget
Glossary -- Acronyms
Fiscal Year End June 30, 2014

Acroymn	Phrase
AF	Acre-foot or Acre-feet
AMS	Alfred Merritt Smith Water Treatment Facility
AWWA	American Water Works Association
BAC	Biological Advisory Committee
BLM	Bureau of Land Management
BOARD	The Southern Nevada Water Authority Board of Directors
BOR	Bureau of Reclamation
BUREAU	United States Bureau of Reclamation
CAD	Computer Aided Design
CAFR	Comprehensive Annual Financial Statement
CAMP	Comprehensive Adaptive Management Plan
COLA	Cost of Living Adjustment
CRC	Colorado River Commission
DDC	Delamar, Dry lake, and Cave Valley
DOT	Department of Transportation

Acroymn	Phrase
EIS	Environmental Impact Statement
EM	Executive Management Team – the collective term for the General Manager and all Deputy General Managers
FS	Financial Services department
FTE	Full-Time Equivalent. The number of positions that equate to a 40-hour workweek for 52 weeks, or one full year
FY	Fiscal Year. (12-month period begins with July 1, and ends with June 30)
GIS	Geographic Information System
GM	General Manager of the Las Vegas Valley Water District / Southern Nevada Water Authority
GPCD	Gallons per Capita per Day
GW or GWP	Groundwater Management Program
GWD	Groundwater Development
HR	Human Resources Department
ICS	Intentionally Created Surplus

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Acroymn	Phrase
IPS2	Intake Pumping Station
IS	Infrastructure Surcharge
IWPAC	Integrated Water Planning Advisory Committee
KV	Kilovolt
LIMS	Laboratory Information Management System
LVVWAC	Las Vegas Valley Watershed Advisory Committee
LVVWD	Las Vegas Valley Water District
LVW	Las Vegas Wash
LVWCC	Las Vegas Wash Coordination
MAC	Management Advisory Committee
MCCP	Major Construction & Capital Plan
MW	Megawatt
NDEP	Nevada Department of Environmental Protection
NEDS	New Expansion Debt Service

Acroymn	Phrase
NOAA	National Oceanic and Atmospheric Administration
NRS	Nevada Revised Statutes
NSE	Nevada State Engineer
PEER	Power and Energy Efficiency Reporting
PS	Pumping Station
PV	Photovoltic
R&D	Research and Development
RCmC	Regional Commodity Charge
RCnC	Regional Connection Charge
RM	River Mountains Treatment Facility
ROFCS	Rate-of-Flow Control Systems
ROW	Right of Way
RRS	Regional Reliability Surcharge
RTC	Regional Test Center
SCADA	Supervisory Control and Data Acquisition System

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Acroymn	Phrase
SDWA	Safe Drinking Water Act
SNPLMA	Southern Nevada Public Lands Management Act
SNWA	Southern Nevada Water Authority
SNWS	Southern Nevada Water System
SSEA	Silver State Energy Association
UNLV	University of Nevada, Las
USGS	U.S. Geological Survey
VFD	Variable Frequency Drive
VRHCRP	Virgin River Habitat Conservation and Recovery Program

Acroymn	Phrase
VTC	Vegas Tunnel Constructors
WASH CIP	Las Vegas Valley Wash Capital Plan
WCC	Water Conservation Coalition
WDC	Wholesale Delivery Charge
WDO	Wholesale Delivery Operations
WF2.0	Water Flow 2.0
WQ&T	Water Quality and Treatment
WSL	Water Smart Landscaping
WSNA	Warm Springs Natural Area

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SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

May 16, 2013

Subject: Agreement	**Director's Backup**
Petitioner: John J. Entsminger, Senior Deputy General Manager	

Recommendations:
That the Board of Directors approve an interlocal agreement among the City of Henderson, the City of Las Vegas, the City of North Las Vegas, Clark County, the Clark County Regional Flood Control District, the Clark County Water Reclamation District, and the Authority to establish funding allocations and the budget for Las Vegas Wash activities in fiscal year 2013/2014.

Fiscal Impact:
The required $264,937 is available in the Authority's Operating Budget.

Background:
On June 21, 2012, the Board of Directors approved an interlocal agreement that established funding allocations and the budget covering fiscal year 2012/2013 for the Las Vegas Wash (Wash) activities.

To continue the stabilization and enhancement of the Wash, the Authority has completed a budget for capital construction and operation activities for fiscal year 2013/2014. Approval of this agreement will allocate the monetary resources necessary for the Wash operating expenses among the signatories to the agreement. Funding for Wash capital projects will come from monies generated from four percent of gross revenue derived from the quarter-cent sales tax, federal partners, and other available sources.

The Wash's total operating budget for fiscal year 2013/2014 is $1,524,845. It is anticipated that grant funding will be available in the amount of $862,500, leaving $662,345 of the Wash operating budget as the local share. If approved, the agreement will allocate 40 percent of the local share ($264,937) to be paid by the Authority from its Operating Budget using Wholesale Delivery Charge revenues paid to the Authority by the Las Vegas Valley Water District, the City of Henderson, and the City of North Las Vegas. The remaining $397,408 of the Wash operating budget will be paid as follows: City of Henderson, $31,793; Clark County Water Reclamation District, $141,477; City of Las Vegas, $65,704; City of North Las Vegas, $25,964; Clark County, $66,235; and Clark County Regional Flood Control District, $66,235.

This agreement is being entered into pursuant to NRS 277.045 and Section 6(j) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved this agreement.

Respectfully submitted:

P Mulroy

Patricia Mulroy, General Manager
~~PM:JJE:ZLM:KKC:SAS~~:pe
Attachments

AGENDA ITEM # 4

INTERLOCAL AGREEMENT AMONG THE CITY OF HENDERSON, CITY OF LAS VEGAS, CITY OF NORTH LAS VEGAS, CLARK COUNTY, CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT, CLARK COUNTY WATER RECLAMATION DISTRICT, AND THE SOUTHERN NEVADA WATER AUTHORITY TO ESTABLISH FUNDING ALLOCATIONS AND THE BUDGET FOR LAS VEGAS WASH ACTIVITIES IN FISCAL YEAR 2013/2014

This Interlocal Agreement is entered into by the City of Henderson; the City of Las Vegas; the City of North Las Vegas; Clark County; the Clark County Regional Flood Control District; the Clark County Water Reclamation District; and, the Southern Nevada Water Authority ("Authority") comprised of Authority "Purveyor Members" (City of Henderson, City of North Las Vegas and the Las Vegas Valley Water District), and the Authority "Wastewater Discharge Members" (City of Henderson, City of Las Vegas, City of North Las Vegas and the Clark County Water Reclamation District) this _____ day of _____, 2013.

WHEREAS, Lake Mead and the Colorado River are the primary source of water for over 1.8 million residents of the metropolitan Las Vegas Valley and Laughlin, Nevada; and

WHEREAS, Lake Mead and the Colorado River are a significant source of water for millions of other residents in the Lower Colorado River Basin, including citizens of Arizona, California, and Mexico as well as members of several Native American Tribes; and

WHEREAS, the Las Vegas Wash is comprised of highly treated wastewater flows, urban runoff, shallow ground water, storm water flows, and other flows, all of which run through the single tributary from the urban Las Vegas Valley into Lake Mead; and

WHEREAS, concerns over erosion, water quality, the loss of wetlands, and other issues have made managing the Las Vegas Wash one of the highest environmental priorities for Southern Nevada; and

WHEREAS, the undersigned parties – along with other local, state, and federal entities – embarked on a water quality process in 1997 that included participation in the Lake Mead Water Quality Forum and the formation of a citizens advisory committee which studied various issues related to water quality in the Las Vegas Wash, Las Vegas Bay, and Lake Mead; and

WHEREAS, the citizens advisory committee developed a series of recommendations for protecting and improving water quality, one of which was to develop a comprehensive adaptive management plan for the Las Vegas Wash; and

WHEREAS, following the presentation of the citizen recommendations to the Lake Mead Water Quality Forum and their acceptance by the Authority Board of Directors in 1998, the undersigned parties participated in the Las Vegas Wash Coordination Committee ("LVWCC"), a committee comprised of 29 local, state, federal, environmental, and public representatives; and

WHEREAS, the LVWCC, over a 10-month period and with the support of over 100 staff from participating agencies, developed 44 recommended actions in nine study areas related to the Las Vegas Wash; and

WHEREAS, the LVWCC compiled these recommended actions into the Las Vegas Wash Comprehensive Adaptive Management Plan ("LVWCAMP"), a document that was subsequently approved by the LVWCC in December 1999 and by the Authority Board of Directors in January 2000; and

WHEREAS, in July of 2000, a Sales Tax Allocation Cooperative Agreement was entered into by the Authority and the Wastewater Discharge Agencies represented by the City of Henderson, the City of Las Vegas and the Clark County Water Reclamation District; and

WHEREAS, that Sales Tax Allocation Cooperative Agreement provided that four percent (4%) of the gross revenue from the ¼ cent sales tax provided for by NRS Chapter 377B would be allocated to capital improvements and infrastructure needs in the Las Vegas Wash, and

WHEREAS, in June of 2002, the parties to this agreement entered into a Cooperative Agreement which recognized the Las Vegas Wash Comprehensive Adaptive Management Plan and established a basic understanding of the parties concerning implementation of the plan and their respective roles in that implementation through the Management Advisory Committee (MAC); and

WHEREAS, in November 2007, the parties to this agreement, along with the Clean Water Coalition, entered into an agreement that established the Las Vegas Valley Watershed Advisory Committee (LVVWAC). The LVVWAC assumed the responsibilities of the MAC and provided that the LVVWAC would continue implementation of the Las Vegas Wash Comprehensive Adaptive Management Plan, along with establishing a cohesive direction and integrated approach to addressing water quality issues in the Las Vegas Valley and Lake Mead; and

WHEREAS, the Authority has been designated as the lead agency to implement the LVWCAMP and has established a staff team to coordinate this effort; and

WHEREAS, a Workplan and estimated budget for the Las Vegas Wash construction and operation has been established by the Authority for fiscal year 2013/2014; and

WHEREAS, Authority Purveyor members will pay 40% of the total operating budget (or $264,937) to be paid from the revenues derived from the water wholesale delivery charge; and

WHEREAS, it is the desire of all parties to this agreement to allocate the monetary responsibility for contribution to said capital and infrastructure budget as well as the parties' respective monetary contributions to the estimated Las Vegas Wash operating budget.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the Southern Nevada Water Authority, City of Henderson, Clark County Water Reclamation

District, City of Las Vegas, City of North Las Vegas, Clark County, and the Clark County Regional Flood Control District agree as follows:

Section 1: Capital Improvements Budget

It is agreed that the budget for capital improvements and associated activities for 2013/2014 are included in the 2013/2014 Project Work Plan of the Amended Las Vegas Wash Capital Improvements Plan. The 2013/2014 Project Work Plan shows a total funding of $39,390,424 for calendar years 2013 and 2014. The 2013/2014 Project Work Plan includes funding for design activities at five channel stabilization dam sites, construction activities for six channel stabilization dams, revegetation of eight disturbed construction sites, emergency action planning, construction equipment rental, and construction materials transportation.

Funding for capital projects will come from monies generated from 4% of gross revenue from the ¼ cent sales tax, federal partners, and other available sources.

The Authority will require its contractors to indemnify, defend and hold harmless the Parties to this Agreement against any and all claims, causes of action, judgments, and/or fees arising out of the contractor's acts and/or omissions related to its performance of any contract for the Authority.

The Authority will also require its contractors to name each party to this Agreement as an additional insured on the contractor's insurance policy.

Section 2: Operating Budget

It is agreed by the parties hereto that the total operating budget for the Authority's Las Vegas Wash activities for fiscal year 2013/2014 is estimated to be $1,524,845. It is anticipated that there will be federal funding from the Bureau of Reclamation available to augment the parties' contributions. Said federal funding is estimated to be approximately $562,000. Other grants are anticipated to augment the operating budget in the amount of $300,500. This will leave $662,345 of the total operating budget to be provided locally (referred to herein as the "local share"). Additionally, it is anticipated that the Authority's purveyor members will contribute $264,937 or 40% of the local share; however, the purveyor members' contribution is not governed by this agreement. The parties hereto agree, therefore, that $397,408 or 60% of the local share of the total operating budget must be paid by the parties hereto. Contained in Attachment A is an Operating Budget Narrative outlining the anticipated administration costs as well as programs and study costs included in the 2013/2014 operating budget.

a) Funding of Local Share:

It is hereby agreed by the parties that the following allocation ratios and funding sources are established as binding for the purpose of funding the local share or $662,345 of the total operating budget for the Las Vegas Wash for fiscal year 2013/2014:

i) Authority Purveyor Members acknowledge that the Authority shall pay 40% ($264,937) of the local share using revenues derived from the water wholesale delivery charges paid to the Authority by the Authority Purveyor Members.

ii) Authority "Wastewater Discharge Members" shall pay 40% ($264,937) of the local share as follows:

The City of Henderson, as a discharger, will be responsible for payment of 12% of the $264,937 or $31,793;

The Clark County Water Reclamation District will be responsible for 53.4% of the $264,937, or $141,477;

The City of Las Vegas will be responsible for 24.8% of the $264,937, or $65,704.

The City of North Las Vegas will be responsible for 9.8% of the $264,937, or $25,964.

iii) Clark County will pay 10% of the local share ($66,235).

iv) Clark County Regional Flood Control District will pay 10% of the local share ($66,235).

Section 3: Payments

Payments will be made by the respective parties hereto as specified in Section 2 into a fund established specifically for the operations of the Las Vegas Wash projects for fiscal year 2013/2014.

Section 4: Effective Date

This agreement becomes effective when the duplicate originals are executed and dated by all parties, realizing that each entity, by necessity, must approve and execute the subject document at different places and on different dates.

Section 5: Severability

Should any part of this agreement be rendered void, invalid, or unenforceable by any court of law for any reason, such determination shall not render void, invalid or unenforceable under any other part of this agreement.

Section 6: Governing Law

The laws of the State of Nevada will govern as to the interpretation, validity and effect of this agreement.

Section 7: Third Party Beneficiaries

This agreement is intended only to benefit the parties hereto and does not create any rights, benefits or causes of action for any other person, entity or member of the general public.

Section 8: One Time Agreement

It is specifically recognized and agreed by all parties hereto, that this agreement is not to be interpreted or constructed as establishing a precedent for any further agreement, covenant or commitment on the part of any party hereto and should be considered a stand alone document without establishing any future obligations, other than as described herein, on the part of any party hereto.

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INTERLOCAL AGREEMENT AMONG THE CITY OF HENDERSON, CITY OF LAS VEGAS, CITY OF NORTH LAS VEGAS, CLARK COUNTY, CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT, CLARK COUNTY WATER RECLAMATION DISTRICT, AND THE SOUTHERN NEVADA WATER AUTHORITY TO ESTABLISH FUNDING ALLOCATIONS AND THE BUDGET FOR LAS VEGAS WASH ACTIVITIES IN FISCAL YEAR 2013/2014

SOUTHERN NEVADA WATER AUTHORITY

_____
Shari L. Buck, Chair

Approved as to form:

Mary E. Madden, Deputy Counsel

Approved on _____, by the Board of Directors for the Southern Nevada Water Authority.

Attest:

CITY OF LAS VEGAS

_____
Beverly K. Bridges, MMC, City Clerk

_____
Carolyn G. Goodman, Mayor

Approved As to Form:

Approved on _____, by the City Council for the City of Las Vegas.

_____
John S. Ridilla, Deputy City Attorney

INTERLOCAL AGREEMENT AMONG THE CITY OF HENDERSON, CITY OF LAS VEGAS, CITY OF NORTH LAS VEGAS, CLARK COUNTY, CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT, CLARK COUNTY WATER RECLAMATION DISTRICT, AND THE SOUTHERN NEVADA WATER AUTHORITY TO ESTABLISH FUNDING ALLOCATIONS AND THE BUDGET FOR LAS VEGAS WASH ACTIVITIES IN FISCAL YEAR 2013/2014

Attest:

CITY OF HENDERSON

_____
Sabrina Mercadante, MMC
City Clerk

_____
Andy Hafen, Mayor

Approved As To Form:

Approved on _____, by the City Council for the City of Henderson.

_____
Josh M. Reid, City Attorney

Attest:

CITY OF NORTH LAS VEGAS

_____
Karen L. Storms, CMC, City Clerk

_____
Shari L. Buck, Mayor

Approved As to Form:

Approved on _____, by the City Council for the City of North Las Vegas.

_____
Jeffrey F. Barr, City Attorney

CLARK COUNTY WATER RECLAMATION DISTRICT

_____

Tom Minwegen, General Manager

Approved As To Form:

Approved on _____, by the Board of Trustees for the Clark County Water Reclamation District.

_____

Carolyn Campbell, Deputy District Attorney

Attest:

CLARK COUNTY

_____

Diana Alba, County Clerk

_____

Steve Sisolak, Chair

Approved As To Form:

Approved on _____, by the Board of County Commissioners for Clark County (Parks & Recreation)

_____

Steven Sweikert, Deputy District Attorney

INTERLOCAL AGREEMENT AMONG THE CITY OF HENDERSON, CITY OF LAS VEGAS, CITY OF NORTH LAS VEGAS, CLARK COUNTY, CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT, CLARK COUNTY WATER RECLAMATION DISTRICT, AND THE SOUTHERN NEVADA WATER AUTHORITY TO ESTABLISH FUNDING ALLOCATIONS AND THE BUDGET FOR LAS VEGAS WASH ACTIVITIES IN FISCAL YEAR 2013/2014

Attest:

CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

_____

Carolyn M. Frazier, Board Secretary

_____

Lawrence L. Brown, III, Chairman

Approved As To Form:

Approved on _____, by the Board of Directors for the Clark County Regional Flood Control District.

_____

Christopher Figgins, Clark County
Chief Deputy District Attorney

Attachment A
Operating Budget Narrative
FY 2013/2014

MATERIALS, SUPPLIES, EQUIPMENT – TOTAL $52,370

Funding in the amount of $52,370 is requested for general office support items including office supplies, printing, safety supplies, dues for professional organizations, and subscriptions/publications.

OFFICE LEASE – TOTAL $54,740

Funding in the amount of $54,740 is requested for the office space located at 100 City Parkway.

SALARIES AND BENEFITS – TOTAL $545,235

Funding in the amount of $545,235 is requested for salaries and benefits to support Las Vegas Wash Project Coordination Team staff.

RESEARCH AND STUDIES PROJECTS – TOTAL $872,500 (LOCAL CONTRIBUTION - $10,000)

The total research and studies budget is $872,500. Of this, the local contribution is $10,000, with the remaining budget anticipated to come from federal and local grants. These projects include a variety of activities and studies to meet the tasks identified in the LVWCAMP and to meet state and federal environmental compliance requirements.

Budgeted Items	Amount
Materials, Supplies, Equipment	$52,370
Office Lease	$54,740
Salaries and Benefits	$545,235
Research and Studies Projects	$872,500
TOTAL FY 13/14 BUDGET	**$1,524,845**
BUREAU OF RECLAMATION CONTRIBUTION	$562,000
OTHER CONTRIBUTION/GRANTS	$300,500
LOCAL CONTRIBUTION	$662,345

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

May 16, 2013

Subject: Interlocal Agreement	**Director's Backup**
Petitioner: Philip D. Speight, Deputy General Manager, Administration	
Recommendations: That the Board of Directors approve an interlocal agreement between the City of North Las Vegas and the Authority for the Authority to supply a portion of the City of North Las Vegas' power supply needs, including power supply assets, transmission assets and energy management services.	

Fiscal Impact:
None by approval of the above recommendation.

Background:
Pursuant to NRS 704.787 and the Second Amended Power Supply Agreement between the Colorado River Commission of Nevada and the Authority, both organizations are able to provide the energy needs of not only the Authority, but also the Authority's member agencies. The City of North Las Vegas (City) would like to have the Authority supply a portion of the City's energy needs for its water and wastewater operations by allowing the Authority to act as an agent for the City.

This interlocal agreement provides the mechanism for the Authority to work with the City to plan for and supply transmission assets, power supply, and energy management services for the City pursuant to the Energy Risk Management Policy adopted by the Authority. The agreement also clarifies the responsibilities of the City and the Authority in obtaining those energy needs through the Authority.

This interlocal agreement is being entered into pursuant to NRS Chapter 277 and Section 5(f) and 6(j) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved this interlocal agreement.

Respectfully submitted:

P Mulroy

Patricia Mulroy, General Manager
PM:JJE:PDS:SPK:GAB:cc
Attachment

AGENDA ITEM # 5

INTERLOCAL AGREEMENT BETWEEN
THE CITY OF NORTH LAS VEGAS
AND THE SOUTHERN NEVADA WATER AUTHORITY

1. PARTIES

THIS AGREEMENT is made and entered into by and between the CITY OF NORTH LAS VEGAS (hereinafter referred to as "CITY") and the SOUTHERN NEVADA WATER AUTHORITY (hereinafter referred to as "AUTHORITY").

2. EXPLANATORY RECITALS

2.1 WHEREAS, the CITY, a political subdivision of the State of Nevada and a member agency of the AUTHORITY, requires a reliable supply of power for CITY operations in Clark County, Nevada; and

2.2 WHEREAS, the AUTHORITY, a political subdivision of the State of Nevada, has entered into an Agreement with the Colorado River Commission of Nevada (hereinafter referred to as "CRC") pursuant to NRS 704.787, for the reliable supply of power for the AUTHORITY and its Participating Agencies; and

2.3 WHEREAS, the CITY is desirous of having the AUTHORITY supply a portion of the energy needs of the CITY for CITY water and wastewater operations by acting as agent for the CITY; and

2.4 WHEREAS, the AUTHORITY has agreed to guarantee, on behalf of the CITY, payment for Power Supply Assets, Transmission Assets, and Energy Management Services which are provided to the CITY; and

2.5 WHEREAS, the CITY is willing and able to guarantee payment to the AUTHORITY for Power Supply Assets, Transmission Assets, and Energy Management Services which are provided to the CITY.

2.6 NOW THEREFORE, in consideration for the mutual covenants contained herein, the Parties hereto agree as follows;

3. EFFECTIVE DATE

3.1 This Interlocal Agreement between the CITY and the AUTHORITY shall become effective upon execution by both Parties.

4. DEFINITIONS

As used in this Agreement, unless the context otherwise requires a different meaning:

4.1 **"Agreement"** means this Interlocal Agreement between the CITY and the AUTHORITY.

4.2 **"Ancillary Services"** means those services that are necessary to support the transmission and distribution of energy to electrical loads while maintaining the reliable, secure and safe operation of the transmission and distribution system. Such services may include, without limitation, frequency and voltage regulation, regulation and frequency response, operating reserve-spinning, operating reserve-supplemental, scheduling, system control, dispatch, automatic generation control, governor control, load shedding, rapid generating unit loading, reactive power, reactive supply and voltage control from generation sources, rapid generating unit unloading, system restart, energy imbalance, generation imbalance, or banked energy.

4.3 **"AUTHORITY"** means the Southern Nevada Water AUTHORITY, a political subdivision of the State of Nevada, created on July 25, 1991 by a cooperative agreement entered into pursuant o the provisions of chapter 277 of NRS.

4.4 **"CRC"** means the Colorado River Commission of Nevada, an agency of the State of Nevada created pursuant to NRS 538.041 *et seq.*

4.5 **"CITY"** means the CITY OF NORTH LAS VEGAS, a political subdivision of the State of Nevada.

4.7 **"Energy Management Services"** means Ancillary Services and the scheduling, delivery, dispatch, marketing, hedging and financial management of and billing for Power Supply Assets, Facility Assets and Transmission Assets.

4.8 **"Energy Risk Management Policy"** means the Southern Nevada Water Authority Energy Risk Management Policy and any subsequent modifications to that policy adopted by the AUTHORITY.

4.10 **"Participating Agency"** means a member agency of the AUTHORITY which has contracted with the AUTHORITY to have designated Power Supply Assets, Transmission Assets, or Energy Management Services scheduled, delivered, purchased, owned, or controlled, as the case may be, pursuant to this Agreement.

4.11 **"Party" or "Parties"** means the CITY, the AUTHORITY, or both.

4.12 **"Power"** means electrical capacity and energy.

4.13 **"Power Supply Assets"** means electrical generation and all power or rights to power owned, controlled, purchased or sold by the AUTHORITY for the benefit of the CITY whether taken or delivered in the name of the CITY or in the name of the AUTHORITY.

4.14 **"Risk Control Committee"** means the committee comprised of staff members of the AUTHORITY, the CRC, and any member agency that is receiving electrical service from the AUTHORITY, that are responsible for the oversight and effective management of the AUTHORITY's energy supply program.

4.14 **"Transmission Assets"** means transmission, distribution, and related infrastructure that is purchased, owned, controlled or sold by the AUTHORITY for the benefit of the CITY, whether taken or delivered in the name of the CITY or in the name of the AUTHORITY.

5. POWER SUPPLY AND TRANSMISSION ASSETS

5.1 Nothing in this Agreement shall preclude the CITY or the AUTHORITY from owning, controlling, acquiring, selling or constructing Power Supply or Transmission Assets.

5.2 Unless otherwise instructed by the CITY, the AUTHORITY shall have the right to use Power Supply and Transmission Assets owned or controlled by the CITY to provide power to the CITY.

6. AUTHORITY RESPONSIBILITIES

6.1 The AUTHORITY shall be responsible for supplying a portion of the power supply needs of the CITY including Power Supply Assets, Transmission Assets, and Energy Management Services.

6.2 The AUTHORITY shall provide sufficient Power Supply Assets to meet the electrical needs of the CITY by transacting in the forward power markets either in its own name, or through its contractual arrangements with the CRC. As of the Effective Date, the

AUTHORITY shall supply the CITY's electrical needs from forward market transactions that are sufficient to meet the CITY's forecasted needs during the term of this Agreement.

6.3 The Risk Control Committee shall determine the timeframe during which forward power supplies shall be procured.

6.4 The AUTHORITY shall use its best efforts to purchase and sell any Power Supply Assets or Transmission Assets, or portion thereof, to the extent such Power Supply Assets or Transmission Assets are deficient or may be or become surplus to the needs of the CITY. The proceeds from any sale of Power Supply Assets or Transmission Assets on behalf of the CITY must be used to offset the costs charged to the CITY.

6.5 The AUTHORITY shall provide financial accounting, recordkeeping, budgeting and billing for the Power Supply Assets, Transmission Assets, and Energy Management Services pursuant to this Agreement.

6.6 The AUTHORITY shall, on an annual basis, provide the CITY with a ten-year budget for Power Supply Assets, Transmission Assets and Energy Management Services.

6.7 The AUTHORITY shall guarantee payment for Power Supply Assets, Transmission Assets, and Energy Management Services.

6.8 The AUTHORITY shall supply Power Supply Assets, Transmission Assets and Energy Management Services to the CITY pursuant to the Energy Risk Management Policy adopted by the AUTHORITY.

7. CITY RESPONSIBILITIES

7.1 The CITY expressly acknowledges that the Authority will be supplying Power Supply Assets from forward market transactions. The CITY shall guarantee payment to

the AUTHORITY for Power Supply Assets, Transmission Assets, and Energy Management Services

7.2 The CITY shall designate one representative to participate on the Risk Control Committee.

7.3 The CITY shall provide the AUTHORITY with an irrevocable letter of credit, or some other form of collateral that is mutually acceptable to the Parties, in the amount of $1,300,000 which the AUTHORITY may draw upon in the event of a payment default. If the CITY provides the AUTHORITY with an irrevocable letter of credit, the form of the letter of credit must be acceptable to the AUTHORITY. Should the AUTHORITY determine that an increase in the amount of collateral is necessary, the CITY will provide the required increase within 45 days of the written request by the AUTHORITY or the AUTHORITY may take additional protective measures including liquidating energy contracts entered into by the AUTHORITY for the CITY.

8. INDEMNIFICATION

To the fullest extent permitted by Law, a Party to this Agreement (the "Indemnifying Party") shall indemnify, defend and hold harmless the other Party, its parent and affiliates (each an "Indemnified Party") from and against any and all claims, demands, suits, obligations, payments, liabilities, costs, fines, penalties, sanctions, judgments, damages, losses or expenses asserted by third parties against an Indemnified Party and arising out of, relating to, or resulting from the Indemnifying Party's breach of, or the performance or non-performance of its obligations under this Agreement (including without limitation, penalties, fines and costs associated with Renewable Quotas); provided, however, that no Party shall be indemnified hereunder for any Loss resulting from its gross negligence, fraud or willful misconduct.

9. **NO THIRD PARTY RIGHTS**

This document is not intended to and shall not create any right in or benefit to any person or entity other than the CITY or the AUTHORITY.

10. **SEVERABILITY**

Any provisions or portion of this Agreement prohibited as unlawful or unenforceable under any applicable law of any jurisdiction shall as to such jurisdiction be ineffective without affecting other provisions of this Agreement. If the provisions of such applicable law may be waived, they are hereby waived to the end that this Agreement may be deemed to be a valid and binding Agreement enforceable in accordance with its terms.

11. **FORCE MAJEURE**

The respective duties and obligations of the Parties hereunder (except the obligation of the CITY to pay the AUTHORITY such sums as may become due from time to time for services rendered by it) shall be suspended while and so long as performance thereto is prevented or impeded by strikes, disturbances, riots, fire, governmental action, war acts, acts of God, or any other similar cause which are beyond the reasonable control of the Party from whom the affected performance was due.

12. **TERMINATION**

The AUTHORITY or the CITY may terminate this Agreement by action of its governing body provided that the terminating Party provides at least 60 days written notice of its proposed board action to terminate the Agreement to the other Party. The effective date of the termination will be 180 days after the date on which the terminating Party's governing board approves the termination. All representations, agreements, covenants and obligations herein are material, shall be deemed to have been relied upon by the other Party, and shall survive

termination of this Agreement.

This Agreement shall terminate and each party's obligations under it shall be extinguished at the end of any party's fiscal year in which the party's governing body fails to appropriate sufficient monies for the ensuing fiscal year. In the event of non-appropriation by a party's governing body for the ensuing fiscal year for the payment of all amounts which could then become due under this Agreement, the party shall immediately notify the other party. The AUTHORITY, in coordination to the extent practicable with the CITY, will commence liquidating outstanding energy contracts or other obligations or agreements entered into by the AUTHORITY as the agent of the CITY. In doing so, the AUTHORITY will exercise its best efforts to mitigate shortages. The AUTHORITY will draw any remaining shortages from the financial instrument required by section 7.3 Each party's obligations under the agreement shall terminate upon completion of this process or the end of the existing fiscal year, whichever occurs later.

13. **NOTICES**

All notices, demands and other communications hereunder shall be in writing and shall be deemed to have been duly given: (a) when personally delivered; (b) upon receipt during normal business hours, otherwise on the first day thereafter, if transmitted by facsimile or telecopier with confirmation of receipt; (c) when mailed by certified mail, return receipt requested, postage prepaid; or (d) when sent by overnight courier; in each case, to the following addresses, or to such other addresses as a Party may from time to time specify by written notice to the other Party given pursuant hereto.

If to the CITY:

City of North Las Vegas
2250 Las Vegas Boulevard North, Suite 250
North Las Vegas, NV 89030
Attention: Reed Scheppmann
Tel: 702-633-1903
Fax: 702-399-2952

If to the AUTHORITY:

Southern Nevada Water Authority
P.O. Box 99956, MS 115
Las Vegas, NV 89193-9956
Attention: Energy Management
Fax: (702) 691-5220

14. GOVERNING LAW

The laws of the State of Nevada will govern as to the interpretation, validity, and effect of this Agreement.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement this _____ day of _____, 2013.

CITY OF NORTH LAS VEGAS

By:_____

Date:_____

APPROVED AS TO FORM:

By:_____

Date:_____

SOUTHERN NEVADA WATER AUTHORITY

By:_____
Shari L. Buck
Chair

Date:_____

APPROVED AS TO FORM:

By:_____
Gregory J. Walch
General Counsel

Date: 5/8/13

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

May 16, 2013

Subject: Amendment	**Director's Backup**
Petitioner: John J. Entsminger, Senior Deputy General Manager	
Recommendations: That the Board of Directors approve an amendment, in substantially the same form, to the agreement between the Bureau of Reclamation and the Authority to support the Authority's Water Smart Landscape Rebate Program.	

Fiscal Impact:
The Bureau of Reclamation will reimburse the Authority up to an additional $100,000 in grant funding through June 30, 2014. This funding is contingent on the Authority expending an additional $1,000,000 toward the issuance of landscape conversion rebates, which is included in the Authority's 2013/2014 fiscal year Operating Budget.

Background:
In 1996, the Bureau of Reclamation (Reclamation) established the Water Conservation Field Services Program to encourage and implement water conservation measures and the administration of water conservation plans, through technical and financial assistance, to federal and non-federal entities. As part of this program, Reclamation provides funding to projects that encourage and promote implementation of water efficiency measures.

On June 21, 2012, the Board of Directors approved the execution of an assistance agreement in the amount of $1,000,000 to receive a grant in an amount not to exceed $100,000 to support funding for the Authority's Water Smart Landscape Rebate Program (Program) through June 30, 2013. The Program provided a financial incentive to encourage property owners to convert turf to drought-tolerant plants by providing funds to offset a portion of the conservation costs.

In April 2013, Reclamation notified the Authority of its intent to amend the existing agreement to provide additional funding of $100,000 to support continued water conservation efforts and extend the agreement through the 2013/2014 Water Smart Landscaping Program. This amendment would increase the total grant to $200,000 and extend the period of performance of the existing agreement through June 30, 2014.

This amendment is being entered into pursuant to NRS 277.180 and Section 6(o) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved the amendment.

Respectfully submitted:

P Mulroy

Patricia Mulroy, General Manager
PM:JJE:ZLM:JAW:AMB:LS:kf
Attachment

AGENDA ITEM # 6

Bureau of Reclamation Form, 7-2279
01-2013

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
ASSISTANCE AGREEMENT

1A. AGREEMENT NUMBER	1B. MOD NUMBER	2. TYPE OF AGREEMENT	3. CLASS OF RECIPIENT
R12AP30011	001	☒ GRANT ☐ COOPERATIVE AGREEMENT	Special District Government

4. ISSUING OFFICE

Bureau of Reclamation
Lower Colorado Region
P.O. Box 61470
Boulder City, NV 89006-1470

5. RECIPIENT

Southern Nevada Water Authority
100 City Parkway, Suite 700
Las Vegas, NV 89106

EIN #:	88-0278492	County:	Clark
DUNS #:	135965650	Congress. Dist	01

6. GRANTS MANAGEMENT SPECIALIST

Kelli Schulte, LC-10104
Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 89006-1470
Phone: 702-293-8550; Email: kschulte@usbr.gov

7. RECIPIENT PROJECT MANAGER

Kathy Flanagan
Southern Nevada Water Authority
1001 South Valley View Boulevard
Las Vegas, NV 89153
Phone: 702-258-3173; Email: kathy.flanagan@lvvwd.com

GRANTS OFFICER TECHNICAL REPRESENTATIVE

Tina Mullis, LC-4231
Bureau of Reclamation
P.O. Box 61470
Boulder City, Nevada 89006-1470
Phone: 702-293-8139; E-mail: tmullis@usbr.gov

9A. INITIAL AGREEMENT EFFECTIVE DATE:	9B. MODIFICATION EFFECTIVE DATE:
June 29, 2012	See Block 17a

10. COMPLETION DATE

June 30, 2014

11A. PROGRAM STATUTORY AUTHORITY

P.L. 111-11 Omnibus Public Lands Management Act of 2009, Sec. 9504 (a) – (h)

11B. CFDA Number

15.530

12. FUNDING INFORMATION	RECIPIENT/OTHER	RECLAMATION
Total Estimated Amount of Agreement	$1,800,000.00	$200,000.00
This Obligation	$ 900,000.00	$100,000.00
Previous Obligation	$ 900,000.00	$100,000.00
Total Obligation	$1,800,000.00	$200,000.00
Cost-Share %	90%	10%

13. REQUISITION NUMBER

13300420028

14A. ACCOUNTING AND APPROPRIATION DATA

Cost Authority: A10-1971-6300-100-00-0-0
Cost Center: 3004200
Object Code: 411G

14B. TREASURY ACCOUNT FUNDING SYMBOL

14X0680

15. PROJECT TITLE

Water Smart Landscape Rebate Program 2012

16a. Acceptance of this Assistance Agreement in accordance with the terms and conditions contained herein is hereby made on behalf of the above-named recipient

BY: _____

DATE: _____

17a. Award of this Assistance Agreement in accordance with the terms and conditions contained herein is hereby made on behalf of the United States of America, Department of the Interior, Bureau of Reclamation

BY: _____

DATE: _____

16b. NAME, TITLE, AND TELEPHONE NUMBER OF SIGNER

Patricia Mulroy
General Manager
702-258-3100

☐ Additional signatures are attached

17b. NAME OF GRANTS OFFICER

Shawna M. Thompson
Grants Officer
702-293-8570

A. PURPOSE OF THIS MODIFICATION:

The purpose of this modification is to provide additional funding from Reclamation to support continued water conservation efforts through the 2013/2014 Water Smart Landscaping (WSL) Program, and to extend the period of performance to June 30, 2014. The additional rebates funded by this modification will increase the estimated water savings by 136 acre feet a year (AFY) for Reclamation's FY 2013. This modification increases the total water savings of this agreement amount from 136 (AFY) to 272 (AFY).

This modification also changes the GMS/Admin POC identified in block 6 from Shawna Thompson to:

Kelli Schulte, LC-10104
Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 89006-1470
Phone: 702-293-8550; Email: kschulte@usbr.gov

B. ADJUSTMENT OF AGREEMENT SCOPE OF WORK AND/OR BUDGET:

As a result of this modification, there is a change to the scope of work and/or budget. This modification adds an additional year of work which includes the associated budget provided in this section. The WSL Program encourages property owners to convert lawn by providing a rebate to offset a portion of associated conversion costs. SNWA will continue to offer rebates and encourage property owners to convert turf to drought tolerant landscaping. The program rebates customers $1.50 per square-foot for the first 5,000 square-feet of lawn converted per property and $1 per square-foot for each additional square-foot removed. No property may obtain more than $300,000 of approved rebates per SNWA fiscal year (July 1 through June 30). Groundwater well users' rebates are limited to 2,500 square-feet per fiscal year. Based upon a joint Reclamation/SNWA research project conducted from 1995 to 2000, every square-foot of grass replaced with desert landscaping saves an average of 55.8 gallons of water per year. The 2013/2014 WSL Program is expected to convert more than seven million square-feet of lawn, resulting in a recurring water savings of 1,199 AFY. The portion of the program funded by this modification represents the conversion of approximately 793,651 square-feet of lawn and will result in an additional recurring annual water savings of 136 (AFY) for FY 2013. Average rebate issuance is about $1.26 per square-foot converted. No other changes are associated with this modification, and all terms and conditions of the Agreement remain the same.

Milestones & Budget – 2013/2014

Fiscal Year 2013/2014	Percent	Landscape Converted	Rebate Issuance
Q1 - July 1 – September 30	25%	198,413 square-feet	$250,000
Q2 - October 1 – December 31	25%	198,413 square-feet	$250,000
Q3 - January 1 – March 31	25%	198,413 square-feet	$250,000
Q4 - April 1 – June 30	25%	198,412 square-feet	$250,000
Total	100%	793,651 square-feet	$1,000,000

FY 2013 - Budget

BUDGET ITEM DESCRIPTION	COMPUTATION		RECIPIENT FUNDING	RECLAMATION FUNDING	TOTAL COST
	$/Unit and Unit	Quantity			
OTHER (REBATES)					
Customer Rebates	$1.26sq-ft	793,651	$900,000	$100,000	$1,000,000
TOTAL DIRECT COSTS			$900,000	$100,000	$1,000,000
TOTAL PROJECT COSTS			**$900,000**	**$100,000**	**$1,000,000**

C. ADJUSTMENT OF THE TOTAL ESTIMATED AMOUNT:

As a result of this modification, the total estimated amount of the Agreement is increased by $100,000.00. Reclamation's estimated Federal cost-share changes from $100,000.00 to $200,000.00, and SNWA's non-Federal cost-share increases from $900,000.00 to $1,800,000.00.

D. NOTICE OF CHANGE IN FUNDS OBLIGATED:

As a result of this modification, the total amount of funding obligated for this Agreement is increased by $100,000.00 from $100,000.00 to $200,000.00.

E. ADJUSTMENT IN THE PERIOD OF PERFORMANCE:

As a result of this modification, the period of performance is changed from June 29, 2012, through June 30, 2013, to June 29, 2012, through June 30, 2014. This modification extends the period of performance by 365 days.

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

May 16, 2013

Subject: Right-of-Way Grant	**Director's Backup**
Petitioner: John J. Entsminger, Senior Deputy General Manager	

Recommendations:
That the Board of Directors approve and authorize the General Manager, or her designee, to sign a right-of-way grant offered by the Bureau of Land Management for the construction, operation, and maintenance of the Clark, Lincoln, and White Pine Counties Groundwater Development Project on federal lands, and to pay rental fees for the rights-of-way to the federal government.

Fiscal Impact:
If the above recommendation is approved, a rental fee of $32,245.62 for the remainder of 2013 and $55,281.37 annually thereafter (as indexed for inflation in accordance with 43 C.F.R. Part 2800) will be added to New Expansion Bond Fund commitments.

Background:
On August 19, 2004, the Authority applied to the U.S. Bureau of Land Management (BLM) for rights-of-way across federal lands to construct, operate, and maintain a system of water supply facilities known as the Clark, Lincoln, and White Pine Counties Groundwater Development Project (GWD Project). These facilities would develop and convey groundwater rights that are permitted to the Authority by the Nevada State Engineer. The BLM completed an Environmental Impact Statement to comply with the requirements of the National Environmental Policy Act, and issued a Record of Decision in December 2012 recommending granting of the rights-of-way for the GWD Project to the Authority.

If approved, the attached right-of-way grant will allow the Authority to construct the GWD Project when needed. Construction of GWD Project would not begin without future approval by Board of Directors and issuance of notices to proceed by the BLM. The attached right-of-way grant is for the primary water and power conveyance facilities of the GWD Project. Additional rights-of-way will be required when specific locations of groundwater production facilities are identified.

Payment of rental fees for rights-of-way on federal lands is required under Title V of the Federal Land Policy and Management Act of 1976, as amended. The portion of the GWD Project located in Clark and Lincoln counties is exempt from rental payments in accordance with the Lincoln County Conservation, Recreation, and Development Act of 2004. The BLM calculated rental fees for the GWD Project rights-of-way in accordance with the rental schedule under federal right-of-way regulations at 43 C.F.R. Part 2800, for a total of $55,281.37 annually. This annual amount is prorated for the remainder of 2013 to $32,245.62. Subsequent annual rental fees will be indexed for inflation in accordance with 43 C.F.R. Part 2800.

AGENDA ITEM # 1

This action is authorized pursuant to 43 C.F.R. Part 2800, NRS 277.180, and Section 6(f) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved this right-of-way grant.

Respectfully submitted:

P Mulroy

Patricia Mulroy, General Manager
PM:JJE:ZLM:LML:df:nsh X0044
Attachments

Issuing Office
Nevada State Office

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
RIGHT-OF-WAY GRANT/TEMPORARY USE PERMIT

SERIAL NUMBER N-78803

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1. A right-of-way is hereby granted pursuant to Title V of the Federal Land Policy and Management Act of October 21, 1976 (90 Stat. 2776; 43 U.S.C. 1761), Section 301(b) of the Lincoln County Conservation, Recreation, and Development Act of November 30, 2004 (LCCRDA) (118 Stat. 2403, 16 U.S.C 1241), and Section 4 of the Southern Nevada Public Land Management Act of October 19, 1998 (SNPLMA) (112 Stat. 2343, 31 U.S.C. 6901).

2. Nature of Interest:

a. By this instrument, the Holder: Southern Nevada Water Authority
P.O. Box 99956
Las Vegas, NV 89193

receives a right to construct, operate, maintain, and terminate the Clark, Lincoln, and White Pine Counties Groundwater Development Project on public lands managed by the Bureau of Land Management (BLM) as described in Exhibit A, attached hereto. This grant includes the construction, operation, and maintenance of a water conveyance pipeline and ancillary facilities on Federal lands in Clark, Lincoln, and White Pine Counties, Nevada as described and depicted in the Southern Nevada Water Authority (SNWA) November 2012 Conceptual Plan of Development (POD), Exhibit B. The final POD, as approved by BLM, will provide final engineering details regarding the permanent and temporary needs for construction and operation of the primary water and power conveyance facilities and ancillary facilities covered under this ROW grant. This grant also includes temporary workspaces required for construction.

b. The right-of-way granted herein is for the project facilities located on public lands managed by the BLM. The right-of-way for all pipelines is 100 feet wide temporary and 100 feet wide permanent, 258 miles long, and contains 3,124 permanent acres, more or less. The right-of-way for power lines is 100 feet wide for 241 miles and 60 feet wide for 20 miles, and contains 3,060 permanent acres, more or less. Permanent roads are located primarily within the boundaries of the pipeline and power line rights-of-ways; the right-of-way for access roads not encompassed within the pipeline and power line right-of-way is 20 feet wide, 42 miles, and 101 acres, more or less.

c. The right-of-way granted herein approves the following primary water and power conveyance facilities located on public lands managed by the BLM:

- Main and Lateral Pipelines – approximately 258 miles of buried water

pipelines, between 16 and 84 inches in diameter – this includes a fiber-optic cable telemetry system;

- Pumping Stations – three (3) pumping station facilities;
- Regulation Tanks – five (5) regulating tanks, each approximately 3 to 10 million gallons in capacity;
- Pressure Reducing Stations – three (3) facilities;
- Buried Storage Reservoir – a 40 million gallon buried storage reservoir;
- Water Treatment Facility (WTF) – up to 110 million gallons per day facility;
- Power Facilities – approximately 261 miles of 230 kilovolt (kv), 69 kv, and 25 kv overhead power lines, two (2) primary electrical substations (230 to 69kv), and four (4) secondary substations (69 kv to 25 kv);
- Access Roads – approximately 300 miles of mostly existing roads; and
- Temporary Construction Sites -- staging areas (3-acre sites placed approximately every 3 miles), plant nursery sites, and seven (7) borrow pits.

d. This instrument is issued in perpetuity from its effective date unless, prior thereto, it is relinquished, abandoned, terminated, or modified pursuant to the terms and conditions of this instrument or of any applicable Federal law or regulation.

e. In the event of early relinquishment, abandonment, or termination, the provisions of this instrument, to the extent applicable, shall continue in effect and shall be binding on the Holder, its successors, or assigns, until they have fully satisfied the obligations and/or liabilities accruing herein before or on account of the expiration, or prior termination, of the grant.

3. For and in consideration of the rights granted, the Holder agrees to pay the BLM fair market value rental as determined by the authorized officer unless specifically exempted from such payment by regulation or statute. Provided, however, that the rental may be adjusted by the authorized officer, whenever necessary, to reflect changes in the fair market rental value as determined by the application of sound business management principles, and so far as practicable and feasible, in accordance with comparable commercial practices.

In accordance with the LCCRDA, Title III, Sec. 301 (b)(2), which states that rights-of-way granted under LCCRDA [sec.301(b)(1)]shall not require the payment of rental, those portions of this right-of-way (or grant) located in Lincoln and Clark counties are exempt from payment of a rental fee.

4. Terms and Conditions:

a. Prior to initiating any on-the-ground activities under this right-of-way, the Holder shall obtain a *Notice to Proceed* from the BLM Nevada State Office – Groundwater Projects Office.

b. This grant or permit is issued subject to the Holder's compliance with all applicable regulations contained in Title 43 Code of Federal Regulations part 2800.

c. Upon relinquishment or abandonment of the grant, termination by the authorized officer will require all improvements be removed from the public lands within 5 years, or otherwise disposed of as provided in the exhibits referenced in paragraph (4)(e) or as directed by the authorized officer.

d. Each grant issued pursuant to the authority of paragraph (1) for a term of 20 years or more shall, at a minimum, be reviewed by the authorized officer at the end of the 20th year and at regular intervals thereafter not to exceed 10 years. Provided, however, that a right-of-way or permit granted herein may be reviewed at any time deemed necessary by the authorized officer.

e. The stipulations, plans, maps, or designs set forth in Exhibit(s) B and C, attached hereto, are incorporated into and made a part of this grant instrument as fully and effectively as if they were set forth herein in their entirety. All Project maps are attached in Exhibit B (however, revised design maps will be submitted as part of the POD as provided in section 2(a).

f. This grant is issued subject to the Programmatic Agreement among the U.S. Department of the Interior, Bureau of Land Management, Nevada, the Nevada State Historic Preservation Officer, the Advisory Council on Historic Preservation, and the Southern Nevada Water Authority regarding National Historic Preservation Act Section 106 Compliance as set forth in Exhibit D attached hereto.

g. This grant is issued subject to the 2008 Ely Resource Management Plan (RMP) and the 1998 Las Vegas RMP and all applicable Best Management Practices contained therein or within any land use plan developed for the grant area that supersedes or amends these RMPs.

h. This grant is issued subject to BLM approval of a final Construction, Operation, Maintenance, Monitoring, Management, and Mitigation Plan (COM Plan) which provides a comprehensive monitoring, management and mitigation program. A completed, BLM-approved Final POD is required prior to completing a COM Plan. A framework of the COM Plan is found in Exhibit E attached hereto.

i. A variance to any term and condition or stipulation of this grant may be requested by the Holder and will be considered by the Authorized Officer on a case-by-case basis as prescribed in the COM Plan.

j. Failure of the Holder to comply with applicable law or any provision of this right-of-way grant or permit shall constitute grounds for suspension or termination thereof in accordance with applicable law.

k. The Holder shall perform all operations in a good and workmanlike manner so as to ensure protection of the environment and the health and safety of the public.

IN WITNESS WHEREOF, The undersigned agrees to the terms and conditions of this right-of-way grant or permit.

(Signature of Holder)	(Signature of Authorized Officer)
Patricia Mulroy	
General Manager (Title)	(Title)
(Date)	(Effective Date of Grant)

SOUTHERN NEVADA WATER AUTHORITY
APPROVED AS TO FORM:

Dana Walsh

Dana R. Walsh, Deputy Counsel

Exhibit A

Right-of-Way
NV-78803

Legal Description
Southern Nevada Water Authority

Township	Range	Section	Aliquot Part Descriptions
17N	64E	17	SWSW
17N	64E	18	SESE
17N	64E	20	W2NW, W2SW
17N	64E	29	W2NW, SW
17N	64E	32	E2NW, NWNW, E2SW
16N	64E	5	LOT 3, SENW, E2SW, SWSE
16N	64E	8	W2SWNE, W2NWNE, NENW, SWSE, S2NWSE, NWNWSE
16N	64E	17	W2NE, W2SE
16N	64E	20	NE, N2SE, SESE
16N	64E	29	E2NE, E2SE
16N	64E	32	E2NE, E2SE
16N	64E	33	W2SW
15N	64E	4	LOTS 1,2, SENE, E2SE
15N	64E	9	NENE
15N	64E	10	W2NW, SENW, NESW, W2SE, SESE
15N	66E	13	SWNE, E2SW, W2SE
15N	64E	14	W2NW, S2SE, NWSE
15N	64E	15	NENE
15N	64E	23	N2NE, SENE
15N	64E	24	W2NW, SENW, E2SW, NWSW, SWSE
15N	64E	25	N2NE
15N	66E	24	W2NW, NENW, W2SW
15N	66E	25	W2NW, NWSW
15N	66E	26	SENE, E2SE
15N	66E	35	E2NE, SE
14N	66E	2	LOT2, SWNE, S2SW, W2SE
14N	66E	3	S2SW, S2SE
14N	66E	4	LOT 7, SWSE
14N	66E	11	W2NE, E2NW, E2SW, SWSW
14N	66E	14	NW, W2SW
14N	66E	15	SESE
14N	66E	22	E2NE, E2SE

Township	Range	Section	Aliquot Part Descriptions
14N	66E	23	W2NW
14N	66E	27	NE, W2SE
14N	66E	33	LOTS 3, 7
14N	66E	34	W2NE, NENW, S2NW, N2SW, W2SWSWSW, N2SWSW
13N	66E	3	LOT 4, S2NW, W2SE, N2SW, SESW
13N	66E	4	LOT 1, SENE
13N	66E	10	NE, E2SE
13N	66E	11	SWSW
13N	66E	14	W2NW, SENW, SW
13N	66E	15	NENE
13N	66E	23	W2NE, E2NW, SE,
13N	66E	25	SWNW, W2SW, SESW
13N	66E	26	E2NE,NWNE, NESE
13N	66E	36	NW, E2SW, W2SE
12N	66E	1	LOT 2, S2NE, E2SE, NWSE
12N	66E	12	NE, SESW, W2SE
12N	66E	13	NWNE, E2NW, SW
12N	66E	23	SENE, E2SE
12N	66E	24	W2NW, W2SW
12N	66E	26	NE, SE
12N	66E	35	W2NE, E2NW, SWSW, E2SW
11N	66E	2	LOTS 3, 4, SWNW, W2SW
11N	66E	3	E2SE
11N	66E	10	E2NE, W2SE, NESE
11N	66E	15	W2NE, SENW, E2SW, NWSE
11N	66E	21	SESE
11N	66E	22	NW, W2SW, NESW
11N	66E	27	S2NW, NWNW, E2SW, NWSE, S2SE
11N	66E	28	NENE
11N	66E	34	E2NE, NWNE
11N	66E	35	SWNW, E2SW, NWSW, SWSE
10N	66E	1	UNSURVEYED
10N	66E	2	UNSURVEYED
10N	67E	6	UNSURVEYED
10N	67E	7	UNSURVEYED
10N	67E	8	UNSURVEYED
10N	67E	16	UNSURVEYED
10N	67E	17	UNSURVEYED
10N	67E	21	UNSURVEYED
10N	67E	27	UNSURVEYED

Township	Range	Section	Aliquot Part Descriptions
10N	67E	28	UNSURVEYED
10N	67E	34	UNSURVEYED
10N	67E	35	UNSURVEYED
9N	68E	31	UNSURVEYED
9N	67E	2	LOTS 3, 4, S2NW, E2SW, NWSW
9N	67E	3	LOT1, SENE
9N	67E	11	E2NW, E2SW, SWSE
9N	67E	13	SWSW
9N	67E	14	NWNE, S2NE,NENW, E2SE, NWSE
9N	67E	23	NENE
9N	67E	24	W2NW, SENW, E2SW, NWSW
9N	67E	25	W2NE, NENW, SE
9N	67E	36	E2NE
8N	68E	6	UNSURVEYED
8N	68E	7	UNSURVEYED
8N	68E	8	UNSURVEYED
8N	68E	16	UNSURVEYED
8N	68E	17	UNSURVEYED
8N	68E	20	UNSURVEYED
8N	68E	21	UNSURVEYED
8N	68E	28	UNSURVEYED
8N	68E	31	UNSURVEYED
8N	68E	32	UNSURVEYED
8N	68E	33	UNSURVEYED
8N	64E	27	NW, W2SW
8N	64E	34	W2NW, W2SW
7N	64E	3	LOT 3, 4, NWSW, SWNW, SWSW
7N	64E	4	E2SE, SWSE
7N	64E	9	NENE, W2NE, SENW, E2SW, NWSE
7N	64E	16	E2NW, SWNW, SW
7N	64E	20	E2SE
7N	64E	21	W2NW, W2SW
7N	64E	28	W2NW
7N	64E	29	E2NE, E2SE
7N	64E	32	NE, W2SE
7N	65E	9	UNSURVEYED
7N	65E	10	UNSURVEYED
7N	65E	14	UNSURVEYED
7N	65E	15	N2NE, SENE, N2NW
7N	65E	16	UNSURVEYED

Township	Range	Section	Aliquot Part Descriptions
7N	65E	17	UNSURVEYED
7N	65E	20	W2NE, SENW, SW, NWSE
7N	65E	23	UNSURVEYED
7N	65E	24	UNSURVEYED
7N	65E	29	UNSURVEYED
7N	65E	30	UNSURVEYED
7N	65E	31	UNSURVEYED
7N	66E	19	LOTS 1, 2, W2NE, E2NW, N2SE, SESE, SENE
7N	66E	20	UNSURVEYED
7N	66E	28	SWSW
7N	66E	29	SWNE, N2NW, SENW, N2SE, SESE
7N	66E	33	SWNE, NW, NESW, N2SE
7N	66E	34	N2SW, N2SE
7N	66E	35	SW. SE
7N	66E	36	SW, S2SE
7N	67E	1	UNSURVEYED
7N	67E	11	UNSURVEYED
7N	67E	12	UNSURVEYED
7N	67E	13	UNSURVEYED
7N	67E	14	UNSURVEYED
7N	67E	15	UNSURVEYED
7N	67E	21	UNSURVEYED
7N	67E	22	UNSURVEYED
7N	67E	28	UNSURVEYED
7N	67E	29	UNSURVEYED
7N	67E	31	UNSURVEYED
7N	67E	32	UNSURVEYED
7N	68E	6	UNSURVEYED
6N	63E	25	E2SE, SWSE
6N	63E	35	SESE
6N	63E	36	W2NE, E2NW, SW
6N	64E	1	E2SE
6N	64E	5	LOT 2, SWNE, E2SW, W2SE
6N	64E	8	E2NW, W2NW, W2SW
6N	64E	12	E2NE, SWNE, W2SE, NESE
6N	64E	13	W2NE, E2NW, SW
6N	64E	17	W2NW, W2SW
6N	64E	18	SENE, E2SE
6N	64E	19	E2NE, SWNE, SESW, W2SE, NESE
6N	64E	20	S2NE, NWNE, N2NW, SENW

Township	Range	Section	Aliquot Part Descriptions
6N	64E	21	S2NE, NENW, S2NW, N2SE
6N	64E	22	S2NW,SW
6N	64E	23	SENE, E2SE
6N	64E	24	W2NW, NWSW
6N	64E	26	NE, W2SW, SE
6N	64E	27	S2NE, NWNE, NENW, E2SE, NWSE
6N	64E	30	LOTS 1 - 3, E2NW
6N	64E	35	W2NE, E2NW, NWNW, E2SW, NWSE
6N	65E	6	UNSURVEYED
6N	65E	7	UNSURVEYED
6N	66E	1	LOTS 5, 6
6N	67E	6	LOTS 3, 4, SWNW
5N	63E	1	UNSURVEYED
5N	63E	2	UNSURVEYED
5N	63E	11	UNSURVEYED
5N	63E	14	UNSURVEYED
5N	63E	15	UNSURVEYED
5N	64E	2	UNSURVEYED
5N	64E	11	UNSURVEYED
5N	64E	14	UNSURVEYED
5N	64E	22	UNSURVEYED
5N	64E	23	UNSURVEYED
5N	64E	27	UNSURVEYED
5N	64E	33	UNSURVEYED
5N	64E	34	UNSURVEYED
4N	64E	4	UNSURVEYED
4N	64E	8	UNSURVEYED
4N	64E	9	UNSURVEYED
4N	64E	17	UNSURVEYED
4N	64E	20	UNSURVEYED
4N	64E	29	UNSURVEYED
4N	64E	30	UNSURVEYED
4N	64E	31	UNSURVEYED
4N	64E	32	UNSURVEYED
3N	64E	6	LOT 1, SENE, E2SE
3N	64E	7	E2NE, E2SE
3N	64E	8	SWNW, W2SW
3N	64E	17	W2NW, W2SW
3N	64E	18	E2NE
3N	64E	20	W2NW, W2SW

Township	Range	Section	Aliquot Part Descriptions
3N	64E	29	NW, E2SW, W2SE
3N	64E	32	NE, E2SE
3N	64E	33	W2SW
2N	64E	4	LOTS 3, 4, SWNE, SENW, SE
2N	64E	9	E2NE
2N	64E	10	W2NW, SW
2N	64E	14	SWSW
2N	64E	15	W2NE, E2NW, SESE, N2SE
2N	64E	22	NENE
2N	64E	23	W2NW, SW
2N	64E	26	W2NE, E2NW, SESE, W2SE
2N	64E	35	E2NE, NWNE, NESE
2N	64E	36	SWNW, W2SW
1N	64E	1	LOTS 3, 4, SWNE, SENW, SE
1N	64E	12	E2NE, NWNE, E2SE
1N	64E	13	E2NE, E2SE
1N	64E	24	E2NE, E2SE
1N	64E	25	E2NE, E2SE
1N	64E	36	E2NE, E2SE
1S	65E	6	LOTS 7, 10, 11
1S	65E	7	LOTS 5, 6, 11, 12, 14, 19
1S	65E	18	LOTS 6, 11, 14, 19
1S	65E	19	W2NE, W2SE
1S	65E	30	W2NE, E2NW, E2SW, W2SE
1S	65E	31	W2NE, E2NW, E2SW, W2SE
2S	65E	6	LOTS 2, 3, SENW, E2SW
2S	65E	7	NWNE, E2NW, E2SW
2S	65E	18	E2NW, E2SW
2S	65E	19	E2NW, E2SW
2S	65E	30	E2NW, E2SW
2S	65E	31	E2NW, E2SW
3S	64E	13	SENE, E2SE
3S	64E	24	NE, E2SW, NESE, W2SE
3S	64E	25	W2NE, S2NW, NENW, SW
3S	64E	35	E2NE, SE
3S	64E	36	W2NW, NWSW
3S	65E	6	LOT 3, SENW, E2SW
3S	65E	7	LOTS 1 - 4, E2NW, E2SW
3S	65E	18	LOTS 1 - 4, E2NW
4S	64E	2	LOTS 1 - 3, SWNE, SENW, E2SW, SWSW, W2SE
4S	64E	7	SENE, E2SE

Township	Range	Section	Aliquot Part Descriptions
4S	64E	8	S2NE, S2NW
4S	64E	9	N2NE, SWNE, NW
4S	64E	10	N2NE, N2NW, E2SE
4S	64E	11	NW, NESW, W2SW
4S	64E	14	NWNW
4S	64E	15	E2NE, SWNE, W2SE, NESE
4S	64E	18	NE, W2SE
4S	64E	19	W2NE, SENW, E2SW, SWSW, NWSE
4S	64E	22	W2NE, E2NW, SW
4S	64E	27	W2NW, NWSW
4S	64E	28	E2NE, E2SE, SWSE
4S	64E	30	LOTS 1 - 4, E2NW
4S	64E	31	LOTS 1 - 4
4S	64E	33	NENE, W2NE, E2SW, W2SE
5S	63E	12	UNSURVEYED
5S	63E	13	UNSURVEYED
5S	63E	24	UNSURVEYED
5S	63E	25	UNSURVEYED
5S	63E	36	UNSURVEYED
5S	64E	4	LOTS 1, 2, S2NE,E2SW, W2SE
5S	64E	6	LOT 3, SENW, E2SW
5S	64E	7	LOTS 1 - 4, E2NW
5S	64E	8	SESE
5S	64E	9	E2NW, SWNW, W2SW, NESW
5S	64E	16	NWNW
5S	64E	17	E2NE, SE
5S	64E	20	W2NE, E2NW, E2SW, SWSW
5S	64E	29	W2NW, NENW, W2SW
5S	64E	30	E2SE
5S	64E	31	NE, SESW, W2SE
6S	63E	1	UNSURVEYED
6S	63E	12	UNSURVEYED
6S	63E	13	UNSURVEYED
6S	63E	23	UNSURVEYED
6S	63E	24	UNSURVEYED
6S	63E	25	UNSURVEYED
6S	63E	26	UNSURVEYED
6S	63E	35	UNSURVEYED
6S	64E	6	Lots 3, 5 - 7, SENW, NESW
6S	64E	7	LOT 1

Township	Range	Section	Aliquot Part Descriptions
7S	63E	2	UNSURVEYED
7S	63E	3	UNSURVEYED
7S	63E	10	UNSURVEYED
7S	63E	15	UNSURVEYED
7S	63E	16	UNSURVEYED
7S	63E	21	UNSURVEYED
7S	63E	22	UNSURVEYED
7S	63E	28	UNSURVEYED
7S	63E	32	UNSURVEYED
7S	63E	33	UNSURVEYED
8S	63E	5	UNSURVEYED
8S	63E	7	UNSURVEYED
8S	63E	8	UNSURVEYED
8S	63E	17	UNSURVEYED
8S	63E	18	UNSURVEYED
8S	63E	19	UNSURVEYED
8S	62E	24	UNSURVEYED
8S	62E	25	UNSURVEYED
8S	62E	26	UNSURVEYED
8S	62E	34	UNSURVEYED
8S	62E	35	UNSURVEYED
8S	62E	36	UNSURVEYED
9S	62E	2	LOTS 3, 4, W2SWSW, W2NWSW
9S	62E	3	LOTS 1,2, S2NE, SE
9S	62E	10	NE, E2SE
9S	62E	11	SWNW, W2NWNW, SESW, W2SW
9S	62E	14	NW, E2SW
9S	62E	15	E2NE, E2SE
9S	62E	22	E2NE, E2SE
9S	62E	23	SWNE, E2NW, W2SW, NESW, W2SE
9S	62E	26	W2NE, W2NW, N2SW, SESW, W2SE, SESE
9S	62E	27	NENE
9S	62E	35	LOT 4, NE, NESE
10S	62E	1	LOT 4, SWNW, W2SW
10S	62E	2	LOT 1, SENE, NESE
10S	62E	12	W2NW, SENW, SW
10S	62E	13	LOTS 2, 7, 9, E2NW
10S	62E	24	LOTS 2, 3, W2SE
10S	62E	25	W2SESE
10S	62E	36	NENE, E2NWNE, S2NE, SE

Township	Range	Section	Aliquot Part Descriptions
11S	62E	1	LOT 1, SENE, E2SE
11S	62E	6	NWNW, SWSW
11S	62E	12	E2NE, E2SE
11S	62E	13	E2NE
11S	63E	7	LOTS 2, 3, 4
11S	63E	18	LOTS 1 - 4
11S	63E	19	LOTS 8-11, 17-20, SESW
11S	63E	30	LOTS 5 - 14, NENW
11S	63E	31	LOTS 7, 8, 9, 10, 13, 14, 15, 16, 17, 18
12S	63E	6	LOTS 6, 7, 11 - 14, 19, 21, 22, SESW
12S	63E	7	LOTS 6, 7, 11, 12, 15, 16, E2NW
12S	63E	18	LOTS 7, 11, 12, 16, 17, 18, 22, 23
12S	63E	19	LOTS 6, 7, 12, 13, 16, 17, 22, 23
12S	63E	29	LOT 14
12S	63E	30	LOTS 6, 7, 9, 16
12S	63E	31	E2NE
12S	63E	32	LOTS 2, 3, 6, 7
13S	63E	5	LOTS 6,7, 9, 12, 13, 16, 17
13S	63E	8	LOTS 3, 4, 7, 8, 12, 13, 17
13S	63E	17	LOTS 2, 3, 6, 7, SWNE, SENW, W2SE
13S	63E	20	LOTS 2, 7, 10, W2NE, SESE, NWSE
13S	63E	28	SWNW, W2SW
13S	63E	29	E2NE, E2SE
13S	63E	32	NENE
13S	63E	33	W2NW, SENW, W2SW
13.5S	63E	32	UNSURVEYED
13.5S	63E	33	UNSURVEYED
14S	63E	4	UNSURVEYED
14S	63E	9	UNSURVEYED
14S	63E	16	UNSURVEYED
14S	63E	21	UNSURVEYED
14S	63E	28	UNSURVEYED
14S	63E	33	UNSURVEYED
15S	63E	3	UNSURVEYED
15S	63E	4	UNSURVEYED
15S	63E	9	UNSURVEYED
15S	63E	10	UNSURVEYED
15S	63E	15	UNSURVEYED
15S	63E	22	UNSURVEYED
15S	63E	27	UNSURVEYED

Township	Range	Section	Aliquot Part Descriptions
15S	63E	34	UNSURVEYED
16S	63E	3	LOT 4, SWNW, NWSW
16S	63E	4	LOT 1, SENE, SE
16S	63E	9	NE, E2SW, W2SE
16S	63E	16	W2NE, SWNW, E2NW, SW
16S	63E	20	SENE, E2SE
16S	63E	21	NENW, W2NW, W2SW
16S	63E	28	NWNW
16S	63E	29	NE, SE
16S	63E	32	NENE, W2NE, E2SW, W2SE, SENW
17S	63E	8	SESE
17S	63E	9	LOTS 3, 4, S2NW, SW
17S	63E	16	W2NW, W2SW
17S	63E	17	E2NE, E2SE
17S	63E	20	E2NE, SE
17S	63E	21	W2NW
17S	63E	29	NE, W2SE, NESE
17S	63E	32	LOTS 7 - 10, 13 - 18, NW
18S	63E	5	LOTS 6 - 10, 14 - 18, W2SW, SWNW
18S	63E	8	LOTS 2 - 8, 11 - 16
18S	63E	17	LOTS 3 - 6, 11, 12
18S	63E	18	LOTS 5 - 8, E2NE
18S	63E	19	LOTS 5 - 12, NWSE
18S	63E	20	LOT 7
18S	63E	29	LOTS 3 - 6, 19, 21 - 23
18S	63E	30	LOTS 5, 6, 8, 9, SENE
18S	63E	31	LOTS 6 - 10, 14, 15
19S	62E	12	E2NE, E2SE, SWSE
19S	62E	13	N2NE, N2NW
19S	62E	14	NE, S2NW
19S	62E	18	LOTS 5, 16, 17, 24
19S	62E	19	LOT 5
19S	62E	20	N2NE, N2NW
19S	62E	7	SESE

Exhibit B excluded from posted documents due to size and quantity.

A hard copy is available for review at:

Las Vegas Valley Water District
Security Desk, Customer Service Lobby
1001 S. Valley View Boulevard
Las Vegas, NV 89153

A copy will be available for review at the SNWA Board meeting scheduled for:

Thursday, May 16 at 9:00 a.m.
100 City Parkway
Las Vegas, NV 89106

EXHIBIT C - STIPULATIONS

Southern Nevada Water Authority
Clark, Lincoln, and White Pine Counties
Groundwater Development Project
N-78803

RIGHT-OF-WAY STANDARD STIPULATIONS

These Stipulations are required by the Clark, Lincoln, and White Pine Counties Groundwater Development Project (Project) Record of Decision (ROD). They include mitigation measures identified in the Final Environmental Impact Statement, Applicant-Committed Measures that the Holder agreed to implement, the Project Biological Opinion, conditions dictated by the Project's Ely District Weed Risk Assessment, and cadastral survey requirements. These Stipulations also include the Bureau of Land Management's (BLM) standard right-of-way (ROW) stipulations. The term "Holder" refers to Southern Nevada Water Authority (SNWA). The term "Authorized Officer" refers to the BLM official responsible for managing compliance with the terms and conditions of the ROW grant. Under the Project ROD, SNWA is required to prepare several detailed plans as part of the Final Plan of Development (POD) and BLM intends to issue a final Construction, Operation, Maintenance, Monitoring, Management, and Mitigation Plan (COM Plan), which will specify mitigation measures and other requirements that may supersede or supplement certain of the Stipulations below. Accordingly, the Stipulations below are applicable to this ROW, although a specific stipulation may not apply in whole or part to the extent that 1) the specified activity is not currently planned for the Project or 2) the stipulation has been supplemented or superseded by the relevant COM Plan or approved Final POD.

General

1. Prior to initiating any on-the-ground activities under this right-of-way, the Holder shall obtain a *Notice to Proceed* from the BLM Nevada State Office – Groundwater Projects Office.

2. To compensate for desert tortoise habitat loss, the applicant shall pay remuneration fees to offset the potential adverse effects of the Project. The Holder must pay these fees prior to being issued a Notice to Proceed for construction. Fees for disturbance of desert tortoise critical habitat will be calculated according to the formula identified in the document, Compensation for the Desert Tortoise (Hastey et al. 1991). The fees will be indexed for inflation based on the Bureau of Labor Statistics Consumer Price Index for All Urban Consumers (CPI-U) and becomes effective March 1 of each year. Information on the CPI-U can be found on the internet at: http://stats.bls.gov/news.release/cpi.nws.htm Fees would be collected following guidance in BLM's August 17, 2012 instruction memorandum (NV-2010-062). The Holder will initiate discussions with the BLM prior to requesting a Notice to Proceed in desert tortoise habitat; during these discussions BLM will determine if fees paid by the Holder will be paid directly to the general Section 7 Desert Tortoise Compensation Account and/or if the fees will be placed in a separate WBS code established specifically to accomplish on-site mitigation (to be identified at that time).

3. In case of change of address, the Holder shall immediately notify the BLM Authorized Officer.

4. This grant is subject to all valid rights existing on the effective date of this grant.

5. The Holder shall construct, operate, and maintain the facilities, improvements, and structures within this ROW in strict conformity with the final POD that will be approved by the BLM prior to issuance of a notice to proceed for construction. The final POD will be in conformance with the conceptual POD that accompanied the application and was approved and made part of the grant. Any relocation, additional construction, or use that is not in accord with the approved POD, shall not be initiated without the prior written approval of the Authorized Officer. A copy of the complete ROW grant, including all stipulations and approved POD, shall be made available on the ROW during construction, operation, and termination to the Authorized Officer. Noncompliance with the above will be grounds for immediate temporary suspension of activities if it constitutes a threat to public health and safety or the environment.

6. Holder may not construct or make new access roads or travel cross-county by vehicle to reach the grant area unless prior written approval is given by the Authorized Officer.

7. The Holder shall conduct all activities associated with the construction, operation, and termination of the ROW within the authorized limits of the ROW.

8. All design, material, and construction, operation, maintenance, and termination practices shall be in accordance with safe and proven engineering practices.

9. The Holder shall provide the Authorized Officer with data in a format compatible with the Bureau's Arc-Info Geographic Information System to accurately locate and identify the ROW, within 90 days of construction completion. Acceptable data formats are: (1) Corrected Global Positioning System files with sub-meter accuracy or better, in NAD 83; (2) A Shapefile or Geodatabase. Data may be submitted in any of the following formats: (1) ARCInfo export files on a CD ROM or DVD. Compressed or ZIPed data must include a copy of the UNZIP.EXE file on the disk. All data shall include metadata for each coverage, and conform to the Content Standards for Digital Geospatial Metadata Federal Geographic Data Committee standards.

Public Health & Safety Environmental Protection

10. To the fullest extent allowed under Nevada law, the Holder agrees to indemnify and hold harmless the United States for any and all liability, including injury to persons or damage of property, which may result directly from the use permitted under this grant.

11. The Authorized Officer may suspend or terminate in whole, or in part, any notice to proceed which has been issued when, in his/her judgment, unforeseen conditions arise which result in the approved terms and conditions being inadequate to protect the public health and safety or to protect the environment in accordance with applicable law.

12. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the Holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 U.S.C. 2601 et seq. (1982) with regards to any toxic substances that are used, generated by, or stored on the ROW or on facilities authorized under this ROW grant. (See 40 CFR, Part 702-799 and especially,

provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

13. During the period of May 1 through October 1 of each year, Holder should consider using spark arresters on vehicles and equipment in the project area, due to the potential for fire ignition from project related activities. This includes emission of hot carbon particles from diesel powered equipment, improperly equipped or poorly operating exhaust systems on gas powered vehicles and direct contact of wildland fuels with catalytic converters. Individuals, groups, businesses, or corporations found responsible for the ignition of a wildfire may be held liable for the costs associated with the suppression of that fire.

14. To the fullest extent allowed under Nevada law, the Holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act of 1976, 42 U.S.C. 6901 et seq.) on the ROW (unless the release or threatened release is wholly unrelated to the ROW Holder's activity on the ROW). This agreement applies without regard to whether a release is caused by the Holder, its agent, or third parties.

Cultural

15. The Holder shall comply with the terms of the Programmatic Agreement among the Department of the Interior, Bureau of Land Management, Nevada, the Nevada State Historic Preservation Officer, the Advisory Council on Historic Preservation, and the Southern Nevada Water Authority regarding National Historic Preservation Act Section 106 Compliance for the Groundwater Development Project in Clark, Lincoln, and White Pine Counties, Nevada executed on June 29, 2012 and any amendments and renewals thereto.

16. If Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony are encountered during an undertaking involving BLM managed lands, the parties will comply with the Native American graves Protection and Repatriation Act (NAGPRA) and its implementing regulations at 43 CFR Part 10, Subpart B. Human remains and associated grave goods on private land will be handled according to the provisions of Nevada statute NRS 383.

Wildlife

17. In accordance with the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Act (BGEPA), take of migratory birds or eagles is not authorized and the Holder has the responsibility to be in compliance with these laws. Therefore, actions which

have the potential to affect migratory bird species of concern or eagles must be minimized or avoided. The Holder will comply with measures within a Bird Conservation Strategy that will be approved by the FWS; BLM will not issue a notice to proceed for construction until written concurrence is received from the FWS documenting their approval of the Bird Conservation Strategy. The Bird Conservation Strategy will include pre-construction surveys, design and avoidance measures, in accordance with additional stipulations within this document.

Transfer of Federal Ownership/Relinquishment/Assignment

18. In accordance with Federal regulations in 43 CFR 2807.21 any proposed transfer of any right or interest in the ROW grant shall be filed with the BLM Authorized Officer. An application for assignment shall be accompanied by a showing of qualifications of the Assignee. The assignment shall be supported by a stipulation that the Assignee agrees to comply with and to be bound by the terms and conditions of the grant to be assigned. No assignment shall be recognized unless and until it is approved in writing by the Authorized Officer.

19. In the event that the public land underlying the right-of-way encompassed in this grant, or a portion thereof, is conveyed out of Federal ownership and administration of the ROW or the land underlying the ROW is not being reserved to the United States in the patent/deed and/or the ROW is not within a ROW corridor being reserved to the United States in the patent/deed, the United States waives any right it has to administer the ROW, or portion thereof, within the conveyed land under Federal laws, statutes, and regulations, including the regulations at 43 CFR Part 2800, including any rights to have the Holder apply to BLM for amendments, modifications, or assignments and for BLM to approve or recognize such amendments, modifications, or assignments. At the time of conveyance, the patentee/grantee, and their successors and assigns, shall succeed to the interests of the United States in all matters relating to the ROW, or portion thereof, within the conveyed land and shall be subject to applicable State and local government laws, statutes, and ordinances. After conveyance, any disputes concerning compliance with the use and the terms and conditions of the ROW shall be considered a civil matter between the patentee/grantee and the ROW Holder.

20. Prior to termination of the ROW, the Holder shall contact the Authorized Officer to arrange a pre-termination conference. This conference will be held to review the termination provisions of the grant.

CONDITIONS OF APPROVAL

Air and Atmospheric Values

21. **ROW-AQ-1: Project Road Inspections to Reduce Wind and Water Erosion.** The SNWA and the BLM's Environmental Compliance Monitor will inspect project roads in areas prone to air and water erosion bi-weekly during construction, or more frequently during periods of adverse weather conditions. Repairs will be completed within 5 working days of notification to the SNWA or sooner depending on public safety and the nature of the issue detected. SNWA will make a photographic documentation of the road condition prior to and immediately after road repairs.

22. **ROW-AQ-2: Alternative Dust Control Measures.** Areas where soil tackifiers are prohibited (e.g., threatened and endangered species habitat, perennial stream drainages) will be determined in cooperation with the BLM and the U.S. Fish and Wildlife Service (USFWS or Service) prior to construction, and identified in both the Construction and Mitigation Plans. Other mitigation (e.g., gravel application) may be required to reduce impacts and to ensure protection of public safety. This measure would supplement SNWA ACM A.10.3 (Stipulation 348).

Water Resources

23. **ROW-WR-1: Stream Crossing Construction Plan.** A site-specific plan will be developed to detail the construction procedures, erosion control measures, and reclamation that will occur for pipeline construction across live (flowing) stream reaches. The plan will include site-specific designs using either open cut or jack and bore techniques and site-specific measures to minimize disturbance of the stream bed, and release of sediment from the construction area into the downstream stream reach. The plan will be reviewed and approved by the BLM and Nevada Department of Wildlife (NDOW) prior to initiation of any construction activities within the stream corridor.

24. **ROW-WR-2: Avoid Power Line Structures in Streams.** Power line structures will be designed to span all perennial streams and other ephemeral/intermittent streams or washes. No power line structures or ancillary facilities will be located within the active channels of these streams. Access roads constructed for the power line will be located to avoid or minimize disturbance to perennial and intermittent streams.

25. **ROW-WR-3: Construction Water Supply Plan**. A Construction Water Supply Plan will be provided to the BLM for approval prior to construction. The plan will identify the specific locations of water supply wells (whether existing or new wells) that will be used to supply water for construction of the water pipeline and ancillary facilities; identify specific groundwater aquifers that would be used; estimate effects to surface water and groundwater resources resulting from the groundwater withdrawal; define the methods of transport and delivery of the water to the construction areas; identify reasonable measures to reuse or conserve water; and any additional approvals that may be required. The BLM will review and approve the plan and, if necessary, include any monitoring or mitigation requirements required to minimize impacts prior to construction approval. SNWA will provide the drilling logs and water chemistry reports on water wells drilled for pipeline construction. BLM in consultation with State agencies and the grazing permittee will review the location of any new construction water wells and determine if any will be needed for multiple use management goals. If specific wells slated to be plugged and abandoned are determined to be a benefit to the BLM for multiple use management, the BLM will work with the SNWA to procure the rights to the wells and obtain appropriate water rights for the beneficial use(s). The BLM will not approve a plan that would result in adverse impacts to listed species or adverse effects to critical habitat associated with perennial springs, streams, wetlands, or artesian well flow. At locations of potential habitat but where species occurrence has not yet been determined, surveys will be conducted in accordance with appropriate protocol prior to approving the plan. The Construction Water Supply Plan will be a component of the SNWA POD. Prior to approval of the POD, BLM will coordinate

with the USFWS regarding portions of the POD relating to their regulatory role under the Endangered Species Act (ESA). This process will be used to determine if there are adverse impacts to listed species or adverse effects to critical habitat, as well as to identify mitigation (including conditions to avoid impacts to listed species and critical habitat) and monitoring requirements, if necessary.

26. **GW-WR-3a: Comprehensive Water Resources Monitoring Plan.** Prior to completion of subsequent National Environmental Policy Act (NEPA) analyses for groundwater production in Spring, Delamar, Dry Lake, or Cave valleys, the SNWA will develop a comprehensive water resources monitoring plan (WRMP). This plan will specify hydrologic monitoring requirements (i.e., meteorological and surface water and groundwater) to provide adequate data for an early warning system designed to distinguish between the effects of project pumping, natural variations, and other non-project related groundwater pumping activities. The WRMP also will identify monitoring requirements to be used to improve future calibration and predictive abilities of the numerical groundwater flow models (GW-WR-3b) used to estimate future effects associated with the groundwater development project. The WRMP will specify the siting, installation, monitoring frequency, and monitoring and testing methodology (including quality control and quality assurance procedures). Critical baseline data necessary to determine pumping effects will be collected for a period of at least 5 years prior to the initiation of pumping, if feasible. The WRMP will be developed, implemented, and maintained by the SNWA with approval by the BLM in coordination with other Federal and state agencies (as deemed appropriate by the BLM). The WRMP design will allow for reasonable modifications and adjustments to monitoring locations over the project life to account for the results of the monitoring, updated groundwater flow model predictions, and updated biological surveys and habitat/species monitoring.

The WRMP will include surface water and groundwater monitoring sites that have been identified as critical to providing an early warning system for potential effects to Federal resources and Federal water rights identified by the BLM. The monitoring will include water sources essential for threatened or endangered species, and other BLM-identified sensitive species and related habitat determined to be at risk from the project pumping or ground disturbance related activities. The list of springs and streams with sensitive species or game fish on public lands, determined to be at risk from the project (where monitoring is likely to be required) under the preferred alternative, will include, as appropriate based on potential effects identified during development and implementation of the WRMP and prior to completion of subsequent NEPA analyses:1) Flag Springs Complex in White River Valley (207); 2) Pahranagat Creek in Pahranagat Valley (209); 3) Blind Spring, North Millick Spring, South Millick Spring, Pine Creek, Ridge Creek, and Spring Valley Creek in Spring Valley (184); Big Springs Creek, Big Wash, and Snake Creek in Snake Valley (195). Monitoring at specific surface water sites could include surface water flow monitoring and/or monitoring wells located near the surface water source designed to monitor changes in groundwater elevation.

Groundwater Elevation Monitoring Sites

The WRMP also will include a monitoring well network designed to track the magnitude and aerial extent of drawdown overtime resulting from the project pumping activities. It is anticipated that this monitoring well network will include monitoring

wells located in the following areas as appropriate based on potential effects identified during development and implementation of the WRMP and prior to completion of subsequent NEPA analyses.

- Wells sited in each pumping basin designed to monitor the magnitude and extent of the drawdown over time from project pumping. This would include wells designed to monitor the basin fill aquifer and carbonate aquifer systems; and in some areas, volcanic aquifers.
- Wells sited to monitor groundwater elevations (including wells both in the carbonate aquifer and basin fill aquifers) in the area between southern Spring Valley and southern Snake Valley and northern Hamlin Valleys.
- Wells sited in southern Snake Valley to monitor drawdown effects in southern Snake Valley due to pumping in Spring valley.
- Wells sited to monitor for propagation of drawdown from project pumping in Spring valley to major spring discharge areas in northern Snake Valley (e.g., Gandy Salt Marsh Complex, Bishop Spring Complex, Leland-Harris Spring Complex, and Twin Springs).
- Well(s) sited along the eastern margin of Steptoe Valley to monitor for the westward propagation of drawdown from project pumping in Spring Valley into Steptoe Valley beneath the Schell Creek Range.
- Well(s) sited in northeastern Lake Valley to monitor for the propagation of drawdown from project pumping in Spring Valley to the area of Geyser and Wambolt springs in Lake Valley.
- Well(s) sited on the west side of Lake Valley to monitor for the propagation of drawdown from project pumping in Cave Valley to the area of Geyser and Wambolt springs.
- Wells sited in Cave Valley and at the base of Shingle Pass in southern White River to monitor and track the westward propagation of drawdown from project pumping in Cave Valley towards the springs that discharge along the southeastern margin of White River Valley (i.e., Flag and Butterfield springs).
- Wells sited on the northern boundary between Delamar and Pahranagat valleys, and in northern Pahranagat Valley to monitor groundwater elevations between the project pumping in Dry Lake and Delamar valleys and the regional spring discharge in northern Pahranagat Valley (i.e., Hiko, Crystal and Ash springs).

Well(s) sited in the Pahranagat Shear Zone at the boundary between southern Delamar and southern Pahranagat valleys to monitor groundwater elevations between the groundwater production well field in Delamar Valley and the perennial water resources in southern Pahranagat Valley (i.e., Pahranagat National Wildlife Refuge).

The WRMP will include other springs and streams sites, and groundwater monitoring areas as deemed appropriate by the BLM. In addition to the sites listed previously, additional monitoring sites will be included as necessary to: a) track the extent and magnitude of the drawdown; b) monitor flows in perennial springs and streams determined to be at risk of effects from the groundwater development; and c) provide early warning monitoring of groundwater levels between the production well fields and Federal water rights and other water dependent resources identified as critical for management and protection of the BLM's water dependent resources.

Monitoring Results Reporting Requirements

The BLM-approved WRMP will specify the reporting requirements for the monitoring plan. At a minimum, the WRMP will require that SNWA provide the BLM with the following information upon implementation of the WRMP and over the life of the groundwater development project:

1. Quarterly reporting of the results of any meteorological, surface water, and groundwater monitoring required for the project (including all field and laboratory data and analysis).
2. An Annual Report that summarizes and evaluates all monitoring results. The report will minimally include:
   a. Drawdown maps identifying the change in groundwater levels from the previous year, and total drawdown since groundwater pumping was initiated;
   b. Hydrographs for groundwater monitoring wells indicating the change in groundwater levels since monitoring was initiated at each site;
   c. Hydrographs for surface water flow monitoring sites indicating changes in flow since monitoring was initiated at each site;
   d. Water quality sampling and testing results for each monitoring site (where water quality monitoring is required);
   e. Description of identified reductions in flow in any monitored surface water resources in the region;
   f. Evaluation of the likely causes for reductions in surface water flow identified in (e);
   g. Description of any significant changes in water quality identified in surface water or groundwater monitoring locations;
   h. Description of any deviations of the monitoring results from the current groundwater flow model predictions or anticipated from prior monitoring; and
   i. Proposed modifications to the monitoring plans based on the results of the monitoring or updated groundwater flow model predictions (i.e., changes to the monitoring well network, or network of springs and stream sites).

All data collected as part of the WRMP and quarterly and annual reports, will be accessible to the public and other Federal and state agencies via an internet site. The design and maintenance of the internet site will be the responsibility of SNWA and will be approved by the BLM.

27. **GW-WR-3b: Numerical Groundwater Flow Modeling Requirements**. The regional model will be updated or revised and recalibrated at least every 5 years (after pumping is initiated) or sooner if BLM identifies major differences between the model simulations and monitoring results (GW-WR-3a) and determines that model recalibration is necessary.

In addition to the regional groundwater flow model, the SNWA will develop more detailed (local scale) groundwater flow models designed to simulate the effects of pumping within each specific basin. These basin-specific models will be developed and approved by the BLM prior to completion of BLM's NEPA review of specific groundwater development activities proposed by the SNWA. The basin-specific models will be coupled with the regional model by constructing separate models, whose boundary conditions are linked to the regional model; constructing an "embedded"

model where the local model is coupled to the regional model; or using another method approved by the BLM. The BLM will utilize the basin-specific models and the regional groundwater model to conduct a more detailed NEPA evaluation of potential project-related pumping impacts once the location and pumping schedules for the production wells have been defined by SNWA. Additionally, the BLM will use the basin-specific models to critically evaluate the effectiveness of the proposed mitigation measures, ACMs, and other proposed adaptive management processes. The basin-specific models also will be recalibrated at least every 5 years (after pumping is initiated) or sooner if the BLM identifies major differences between the model simulations and monitoring results and determines that model recalibration is necessary.

The regional groundwater flow model and basin-specific models will be maintained through the life of the project. The BLM will establish a Technical Review Team to review the model on a periodic basis to provide recommendations to improve the calibration and predictive ability of the numerical groundwater flow model(s). The BLM, with input from their Technical Review Team, will determine if periodic updates of the groundwater flow model are no longer necessary or if other groundwater flow models or predictive tools should be used.

Vegetation Resources

28. **ROW-VEG-1: Native Seed Collection**. The SNWA, in consultation with the BLM, will develop a seed collection program for native plant species found within the ROW. These native plant seeds will be used along the ROW corridor in revegetation and reclamation activities, to the extent feasible, to enhance the rate and quality of recovery. Seed from locally adapted native sources will likely provide the greatest rates of establishment and subsequent growth, increasing the success of reclamation efforts. Target species and collection methods will be identified in the Restoration Plan.

29. **ROW-VEG-2: Temporary Fencing or Closure to Livestock Grazing.** The SNWA will conduct pre-construction surveys to determine areas of livestock use within and adjacent to the construction ROW where application of temporary fencing or closure will be needed for revegetation species establishment. The results of these surveys will be provided to the BLM for review and approval. Revegetation areas will be rested from grazing for two full years or until BLM determines that reclamation meets BLM Resource Management Plan standards.

30. **ROW-VEG-3: Green Stripping**. SNWA, in consultation with the BLM, will develop a green stripping revegetation prescription where BLM and SNWA preventive and control measures may be inadequate to mitigate risks of weed invasion and wildfire. Green stripping is defined as ROW revegetation with fast-growing herbaceous species that can outcompete annual and perennial weeds and can provide a green firebreak. Locations where this measure may be applied will be identified in the Restoration Plan, Integrated Weed Management Plan, and Fire Prevention Plan, and approved by the BLM Authorized Officer. For example, it will be applied primarily to Great Basin Desert low elevation bottomlands, with limited applications to open evergreen woodlands (due to low risk for weed invasion) and Mojave Desert lowlands (due to low risk as a fire disturbance ecosystem).

31. **ROW-VEG-4: Special Status Plant Species Establishment**. In addition to salvaging and transplanting special status species found in the ROW for tier 1 or subsequent tier construction activities, the SNWA will grow additional plants from seed (collected from individuals prior to salvage) or by grafting (from the salvaged plants) to enhance the new, transplanted populations. Seed collection for this effort will occur over multiple years prior to plant salvage. Specific special status plant species and collection methods will be identified in the Restoration Plan.

32. **ROW-VEG-5: Blaine's Fishhook Cactus Surveys**. The SNWA will begin Blaine's fishhook cactus (*Sclerocactus blainei*) surveys as soon as possible after project design and engineering is complete; conducting the surveys within known and potential habitat during the next appropriate season for plant identification. The goal of this mitigation measure is to allow for a minimum of two to three years of surveys, since this species may stay underground for several years. A 3-meter exclusion area will be established around any individuals found during the surveys.

33. **ROW-VEG-6: Blaine's Fishhook Cactus Transplantation**. If found during surveys, Blaine's fishhook cactus (*Sclerocactus blainei*) individuals will be transplanted to undisturbed BLM land that is as similar as possible to the habitat from which it was removed. Site selection requirements and details will be provided in the Restoration Plan.

34. **ROW-VEG-7: Blaine's Fishhook Cactus Compensation**. If enhancement measures fail to restore Blaine's fishhook cactus (*Sclerocactus blainei*) where it is found in the ROW prior to construction, SNWA will establish a compensatory mitigation fund for direct, indirect, and cumulative impacts to the species. A single payment of $10,000 will be made by the project applicant (SNWA) to the Center of Plant Conservation or other agency/entity as determined appropriate by the BLM. This funding will specifically be used for preserving the genetic material of this species in perpetuity. Details regarding the definition of success with regard to *Sclerocactus blainei* will be determined, in coordination with the USFWS and the BLM, in the COM Plan.

35. **GW-VEG-3: Wetlands Monitoring.** Prior to completion of subsequent NEPA analyses for groundwater production in Cave, Dry Lake, Delamar or Spring valleys, the SNWA will develop a wetlands monitoring plan. This plan will specify monitoring requirements and metrics for vegetation, soils, and hydrology to provide adequate data to provide input to an early warning system designed to distinguish between the effects of project pumping, natural variations, and other non-project related groundwater pumping activities. This measure is in concert with GW-WR-3a. Monitoring will be conducted for wetlands (as defined using USACE wetlands delineation criteria, irrespective of whether they are jurisdictional) in areas that contain sensitive Federal resources which have a moderate or high risk of being potentially affected by groundwater pumping. Specific monitoring locations would be identified in the COM Plans associated with subsequent NEPA tiers.

36. **GW-VEG-4: Phreatophytic Vegetation Monitoring.** Prior to completion of subsequent NEPA analyses for groundwater production in Cave, Dry Lake, Delamar or Spring valleys, the SNWA will develop a phreatophytic vegetation monitoring plan. This plan will specify monitoring requirements for quantifying the extent and

distribution of phreatophytic vegetation at sufficient resolution to detect changes in density and cover in areas that may be affected by groundwater pumping. Data derived from monitoring would provide input to an early warning system designed to distinguish between the effects of project pumping, natural variations, and other non-project related groundwater pumping activities. Specific monitoring locations would be identified in the COM Plans associated with subsequent NEPA tiers. This measure is in concert with GW-WR-3a.

Terrestrial Wildlife

37. **ROW-WL-1: Big Game Key Habitat Priority Restoration and Habitat Improvement**. If surface disturbing activities impact key big game habitats (crucial summer and winter ranges for antelope, Rocky Mountain elk, or mule deer, or occupied desert bighorn sheep habitat), the SNWA will improve 2 acres of comparable habitat for every 1 acre of disturbed habitat. The SNWA will coordinate with the BLM and NDOW to determine the specific areas for big game key habitat improvements.

38. **ROW-WL-2: USFWS Concurrence on Plans**. The SNWA will obtain concurrence from USFWS on any plans developed as part of the POD (ACM A.1.1 [Stipulation 142]) that address species protected under the MBTA or the BGEPA.

39. **ROW-WL-3: Raptor Nest Survey and Avoidance**. If SNWA requests to conduct surface disturbing construction activities (variance request) during raptor breeding and nesting seasons (as determined by the NDOW and the BLM), surveys for active raptor nests will be conducted by them within suitable habitat, within 2 weeks prior to the anticipated start the activities. Raptor nests found during surveys will be addressed under the Ely Resource Management Plan (RMP) SS-4 management action, as well as protected under provisions of the MBTA and BGEPA, as appropriate. (SS-4: Where appropriate, restrict permitted activities from May 1 through July 15 within 0.5 mile of raptor nest sites unless the nest site has been determined to be inactive for at least the previous 5 years.)

40. **ROW-WL-4: Specific Lek Avoidance – Burying Power Lines**. For the power line in Cave Valley, the SNWA will bury the portion of the 25-kV line within the 4-mile buffer of the active leks in Cave Valley. For the power line in Snake Valley, the portion of the 25-kV line within the 4-mile buffer of the active lek will be buried. If technology at the time of construction allows, lines greater than 25-kV will also be buried.

41. **ROW-WL-5: Specific Lek Avoidance –Siting of Power Lines**. Outside the LCCRDA corridor, the SNWA will site 230-kV power lines west of active leks at sufficient distances to avoid line-of-sight with leks.

42. **ROW-WL-6: Habitat Restoration to Benefit Greater Sage-grouse for Permanently Converted Habitat**. Restore greater sage-grouse habitat on public lands at a ratio of 2 acres for every acre of preliminary priority habitat (PPH) or preliminary general habitat (PGH) (or designated priority or general habitat) that is permanently converted. The SNWA will coordinate with the BLM and the NDOW to determine the specific areas and timing for restoration activities.

43. **ROW-WL-7: Habitat Restoration to Benefit Greater Sage-grouse for Other Disturbed Habitat**. Restore greater sage-grouse habitat on public lands for PPH and

PGH (or designated priority or general habitat) that is avoided by greater sage-grouse because of temporary habitat loss due to construction and presence of above ground structures. The SNWA will coordinate with the BLM and the NDOW to determine the specific areas, acres, and timing for restoration activities.

44. **ROW-WL-8: Greater Sage-grouse Monitoring**. In consultation with BLM, NDOW, and USFWS, SNWA will implement a monitoring program before, during, and after the construction phase for greater sage-grouse in the project area that addresses demographics, vital rates, and seasonal movement patterns, as recommended by the Nevada Energy and Infrastructure Standards to Conserve Greater Sage-Grouse (NGSCT 2010) or the most recent standards document approved prior to the start of the monitoring effort. The project area that is relevant to greater sage-grouse will be determined based on best available science at the time of the start of the monitoring effort. Currently, it will include birds using leks within 4 miles of the project area.

45. **ROW-WL-9: Greater Sage-grouse Timing Restriction Breeding, Nesting, and Early Brood-Rearing**. Restrict permitted activities within 4 miles of active greater sage-grouse leks during the breeding, nesting, and early brood-rearing periods (generally March 1 through July 31).

46. **ROW-WL-10: Greater Sage-grouse Timing Restriction Winter Range**. Restrict permitted activities from November 1 through March 31 within greater sage-grouse winter range.

47. **ROW-WL-11: Fence Marking for Greater Sage-grouse**. Fencing used by the project in greater sage-grouse habitat will be adequately marked following accepted methods and approved by BLM prior to installation.

48. **ROW-WL-12: Co-location of Power Lines**. Co-locate proposed utility lines where technically feasible.

49. **ROW-WL-13: Eagle Nest Avoidance.** Construction activities will be restricted within a 1-mile buffer zone, if a pair of breeding/nesting eagles is observed during raptor surveys. Construction may resume after eagles have fledged or the nest is abandoned.

50. **ROW-WL-14. Pygmy Rabbit Surveys and Passive Relocation**. Surveys will be conducted by qualified biologists prior to mowing and initial ground disturbance. Mowing to encourage passive relocation will be conducted between October 1 and February 15. Survey design will use the most recent BLM-approved pygmy rabbit survey and relocation protocol, and in coordination with NDOW and USFWS, include three key components: potential habitat survey; a subsequent pygmy rabbit sign survey conducted during best season for detection in Nevada; and a timeline for completion of these surveys that allows for passive relocation of rabbits ahead of initial ground-disturbing activities between October 1 and February 15.

51. **ROW-WL-15. Pygmy Rabbit Habitat Improvement**. For the direct loss of occupied pygmy rabbit habitat, 2 acres of comparable habitat for every 1 acre of disturbed habitat will be improved. SNWA will coordinate with the BLM and NDOW to determine the specific areas for pygmy rabbit habitat improvements.

52. **ROW-WL-16. Priority Reclamation Efforts in Pygmy Rabbit Habitat**. Areas of disturbance along the ROW where passive relocation activities are conducted will be

evaluated by the BLM in coordination with NDOW. Based on this evaluation, SNWA will prioritize reclamation, including but not limited to the planting of sagebrush seedlings, within the areas of disturbance to facilitate movement of rabbits across the ROW. These areas will be specifically identified in the Restoration Plan (ACM A.1.69; Stipulation 210) and considered in conjunction with efforts under ACM A.5.53 (Stipulation 301 -Enhance restoration for greater sage-grouse).

53. **ROW-WL-17. Unanticipated Nesting Pygmy Rabbits**. If nesting pygmy rabbits are found during construction despite efforts of passive relocation, construction activities will be restricted within an appropriate buffer zone as approved by BLM in coordination with NDOW and USFWS.

54. **ROW-WL-18: Coordination with NDOW on Conservation Measures for Dark Kangaroo Mouse**. The SNWA, prior to being issued the Notice to Proceed, will work with NDOW on developing research objectives, protocols, and implementation plan(s) to identify conservation measures for the SNWA project's potential effects on the dark kangaroo mouse and its habitat. The implementation plan(s) must address mitigation, minimization, or avoidance of impacts from this project on dark kangaroo mouse and its habitat for the duration of construction, maintenance, and operation. A Notice to Proceed will be issued upon receipt of confirmation by NDOW that this process has been completed and that conservation measures for the dark kangaroo mouse and its habitat have been developed.

55. **ROW-WL-19: Coordination with NDOW on Conservation Measures for Banded Gila Monster**. The SNWA, prior to being issued the Notice to Proceed, will work with NDOW on developing research objectives, protocols, and implementation plan(s) to identify conservation measures for the SNWA project's potential effects on the banded Gila monster and its habitat. The implementation plan(s) must address mitigation, minimization, or avoidance of impacts from this project on banded Gila monster and its habitat for the duration of construction, maintenance, and operation. A Notice to Proceed will be issued upon receipt of confirmation by NDOW that this process has been completed and that conservation measures for the gila monster and its habitat have been developed.

56. **ROW-WL-20: Banded Gila Monster Surveys**. Within potential habitat for banded Gila monster and chuckwalla, pre-construction surveys of the ROW will be conducted by qualified biologists to find and move individuals from project disturbance areas. The surveys will be conducted in accordance with NDOW's most current banded Gila monster survey protocol. All occupied burrows found in the construction zone will be examined and excavated as described for the desert tortoise. If a banded Gila monster is found, NDOW will be immediately contacted.

Aquatic Biological Resources

57. **ROW-AB-2: Avoidance of Instream Disturbance**. Construction of the power line at the Steptoe Creek crossing will avoid instream disturbance from equipment and vehicles.

Recreation

58. **ROW-REC-1: Enforce Recreational OHV Travel Restrictions**. (see Mitigation Measure ROW-T-1 under Transportation[Stipulation 61]) Identify construction zone

and construction vehicle access areas where restrictions to unauthorized off highway vehicle (OHV) travel shall be enforced.

59. **ROW-REC-2: Avoid Recreational Use Conflicts with Construction Activities.** SNWA ACM 1.28 (Stipulation 169) notes that a Construction Traffic Management Plan will be developed that takes into account recreation activities. The plan shall schedule construction activities (pipeline and aboveground ancillary facilities) to minimize conflicts with recreation activities such as race events, hunting, and elk viewing.

60. **ROW-REC-3: Avoid Recreational Trail Location Conflicts.** SNWA will coordinate with the BLM regarding future trail use where Special Recreation Management Areas (SRMAs) and Special Recreation Permit (SRP) areas are crossed.

Transportation Resources

61. **ROW-T-1: Traffic Management Plan.** SNWA has committed in ACMs A.1.1 and A.1.28 (Stipulations 142 and 169) to prepare a detailed Traffic Management Plan that addresses operating procedures and coordination approaches with the BLM and other appropriate agencies to minimize traffic congestion, roads needing improvement and repair, and safety measures during construction. The Plan also will include:

- An assessment of public road bridge weight restrictions and measures to reduce the risk of damage to existing bridges and road culverts.
- A commitment to monitor and repair Federal, state, and county roads that are used for delivering construction materials.
- Communication procedures for notifying the public and responsible agencies of anticipated construction-related traffic and transportation issues such as temporary road closures, movement of major equipment on public roadways, and unusual levels of construction-related traffic.
- Measures to manage recreational OHV use during construction, information on how closed roadways will be managed (including signage), and how roadways will be restored to prevent unauthorized OHV uses.
- Submittal of the Traffic Management Plan for review and approval by the BLM and responsible county and state agencies.

Rangelands and Grazing

62. **ROW-GRA-1: Temporary Fencing or Closure In Livestock Use Areas.** The SNWA will conduct pre-construction surveys to determine areas of livestock use in and adjacent to the construction ROW where application of temporary fencing or closure will be needed for revegetation species establishment. The results of these surveys will be provided to the BLM for review and approval. Reseeded areas that are temporarily fenced or closed will be monitored by the SNWA on a yearly basis until the BLM determines that reseeded areas are self-sustaining, and fencing removed. The time frame for reclamation monitoring is a minimum of two growing years or until the BLM determines that reclamation meets BLM Best Management Practices (BMP) standards.

Wild Horse and Burro Herd Management Areas

63. **ROW-WH-1: Shrub/tree Removal.** In the Eagle and Silver King Herd Management Areas (HMAs), where feasible, shrubs and trees within the power line ROW will be avoided during selection of power pole position and spur access road routes.

64. **ROW-WH-2: Pre-construction Consultation**. Pre-construction consultation with the BLM will occur to identify construction avoidance areas in HMAs between April and July.

65. **ROW-WH-3: Existing Water Supplies**. Pre-construction consultation with the BLM will occur to ensure that wild horses have access to existing water supplies or that temporary supplemental water is supplied until access to existing water supplies is restored.

Special Designations and Lands with Wilderness Characteristics

66. **ROW-SD-1: Construction Area Siting.** To the degree possible, avoid siting temporary construction areas within the boundaries of special designations and within designated ROW corridors.

Visual Resources

67. **ROW-VR-1: ROW Width Reduction**. SNWA, in consultation with the BLM, will reduce the width of permanent ROW and temporary construction ROW to the smallest width feasible in Pahranagat Canyon, Visual Resource Management (VRM) Class II areas, and within 1,000 feet adjacent to scenic byways (U.S. 50/6/93) to minimize visual contrasts where feasible. The permanent and temporary ROW width shall be reduced through narrower roads within the ROW, steeper trench walls, vertical trenching and/or trench boxes, and reducing the ROW width in relation to the size of the pipeline (e.g., a 16-inch pipeline would require less ROW than an 84-inch pipeline).

68. **ROW–VR-2: Power Line Structure Design**. Where locating new power lines adjacent to existing lines, the existing pole type, color, and span length will be matched to the extent feasible. In areas where there are no existing power lines, SNWA will consult with the BLM during project design to select the most appropriate structure design from the following: wood H-frame structures or single steel poles for 230-kV power lines and single wood poles or single steel poles for 69-kV and 25-kV. All steel poles will be surfaced with Shadow Grey paint in sage/creosote plant communities and self-weathering Corten in pinyon pine plant communities.

69. **ROW–VR-3: Power Line Conductor and Insulator Design**. Conductors will be non-specular and non-reflective. Insulators will be porcelain or polymer material to reduce reflection and refraction.

70. **ROW–VR-4: Surface Treatment of Project Structures and Buildings**. SNWA will consult with BLM on surface treatments. All aboveground, non-electric project structures and buildings will utilize architectural details and be painted or constructed of colored block to blend with the colors of the surrounding landscape, per BLM Manual 8400 – Visual Resources Management. Shadow Grey for sagebrush shrub and shrubland cover types and Beetle for pinyon-juniper woodland shall be selected from the BLM Standard Environmental Colors Chart CC-001. Ground surfaces of permanent storage yards that will not be revegetated shall have a top-dressing of 2 inches of dark colored aggregate to minimize color contrast. Non-reflective and non-glare paints will be utilized with proper treatment maintenance for the life of the project.

71. **ROW–VR-5: Facility Siting**. SNWA will review facility site locations with the BLM to determine if design features or adjustments shall be made to limit the visibility of

non-linear facilities. The colocation of facilities has been incorporated into the POD; however, further adjustments for the colocation of non-linear facilities with related project facilities or existing facilities will be reviewed with the BLM. Distance, terrain, and vegetation screening will be utilized to limit the visibility of non-linear facilities. Facility siting to minimize visibility will be subject to engineering and safety requirements that may constrain siting.

Native America Traditional Values

72. **ROW-NAM-1: Tribal Monitors**. In accordance with the Programmatic Agreement, tribal monitors will be appointed to monitor pipeline construction in the area of a site in which an Indian tribe attaches religious and cultural significance. The BLM will identify these sites in consultation with interested Indian tribes.

Public Safety and Health

73. **ROW-PS-1: Hazardous Material Surveys**. SNWA will conduct BLM-approved hazardous materials-contaminant surveys of the ROW before establishing final pipeline locations.

74. **ROW-PS-2: Five-year Review of Leak Detection Methodologies**. SNWA will review and implement best industry practices for leak detection.

BIOLOGICAL OPINION TERMS AND CONDITIONS

Impacts to Desert Tortoises (BO Reasonable and Prudent Measure 1)

75. 1-A: Applicant-committed measures—The BLM shall ensure that the SNWA and their contractors implement all the applicant-committed measures, as modified by the Service and BLM, and the BLM terms and conditions of the ROW grant, including those required in the Ely RMP (BLM 2008).

76. 1-B: Timing of construction—The BLM shall ensure that when possible, the SNWA schedules and conducts construction, operation, and maintenance activities within desert tortoise habitat during the less-active season (generally October 31 to March 1) and during periods of reduced desert tortoise activity (typically when ambient temperatures are less than 15.5 or greater than 35 °C [less than 60 or greater than 95 °F]).

    All vehicles and equipment that are not in areas enclosed by desert tortoise exclusion fencing will stop activities in desert tortoise habitat during rainfall events in the more-active season (generally March 1 to October 31), and if temperatures are above 15.5 but below 35 °C (above 60 but below 95 °F) for more than 7 consecutive days. The Field Contact Representative (FCR) or designee will determine, in coordination with the BLM and Service, when it is appropriate for project activities to continue.

77. 1-C: Field Contact Representative—The BLM shall ensure an FCR (also called a Compliance Inspection Contractor, or CIC) is designated for each contiguous stretch of construction activity. The FCR will serve as an agent of the BLM and the Service to ensure that all instances of noncompliance or incidental take are reported. The BLM has discretion over approval of potential FCRs; however, those who will also be acting as authorized desert tortoise biologists must also be approved by the Service (see Term and Condition 1D [Stipulation 78]).

The FCR and authorized desert tortoise biologist (see Term and Condition 1-D) shall have a copy of all stipulations when work is being conducted on the site and will be responsible for overseeing compliance with terms and conditions of the ROW grant, including those for listed species. The BLM shall ensure the FCR and authorized desert tortoise biologists have authority to halt any activity that is in violation of the stipulations. The FCR shall be on-site year-round during all project activities.

Within 3 days of employment or assignment, the SNWA and BLM shall provide the Service with the names of FCRs.

78. 1.D: Authorized desert tortoise biologist— In accordance with *Procedures for Endangered Species Act Compliance for the Mojave Desert Tortoise* (USFWS 2009a), an authorized desert tortoise biologist shall possess a bachelor's degree in biology, ecology, wildlife biology, herpetology, or a closely related field. The biologist must have demonstrated prior field experience using accepted resource agency techniques to survey for desert tortoises and desert tortoise sign. In addition, the biologist shall have the ability to recognize and accurately record survey results. Potential authorized desert tortoise biologists must submit their statement of qualifications to the Service's Nevada Fish and Wildlife Office for approval, allowing a minimum of 30 days for Service response. The statement form is available on the Internet at http://www.fws.gov/nevada/desert_tortoise/auth_dt_form.htm.

During the desert tortoise more-active season (generally March 1 to October 31), and if temperatures are above 15.5 but below 35 °C (above 60 but below 95 °F) for more than 7 consecutive days, an authorized desert tortoise biologist shall be on-site. He/she will be assigned to each piece/group of large equipment (e.g., front-end loader, backhoe, excavator, water truck) engaged in activities that may result in take of desert tortoises (e.g., clearing, watering roads, blasting, grading, lowering in pipe, hydrostatic testing, backfilling, recontouring, and reclamation activities).

An authorized desert tortoise biologist and FCR (see Term and Condition 1-C [Stipulation 77]) shall be responsible for 1) conducting and supervising desert tortoise clearance surveys; 2) enforcing the litter-control program; 3) ensuring that desert tortoise habitat disturbance is restricted to authorized areas; 4) ensuring that all equipment and materials are stored within the boundaries of the construction zone or within the boundaries of previously disturbed areas or designated areas; 5) ensuring that all vehicles associated with construction activities remain within the proposed construction zones; and 6) ensuring compliance with the conservation measures of this biological opinion and reporting actual take (see Reasonable and Prudent Measure (RPM) 4 [Stipulations 103-108]).

An authorized desert tortoise biologist will serve as a mentor to train desert tortoise monitors (see Term and Condition 1.e.) and shall approve monitors to conduct specific activities based on the monitor's demonstrated skills, knowledge, and qualifications. An authorized desert tortoise biologist is responsible for errors committed by desert tortoise monitors.

Biologists and monitors shall be visibly identifiable on the project site, wearing, for example, a uniquely designated hard hat color or safety vest color.

79. 1-E: Desert tortoise monitor—Desert tortoise monitors assist an authorized desert tortoise biologist during surveys and serve as apprentices to acquire experience. Desert tortoise monitors assist on project activities to ensure proper implementation of protective measures, and record and report desert tortoises and sign observations in accordance with Term and Condition 1-D. They will report incidents of noncompliance in accordance with RPM 4 (Stipulations 103-108).

    If a desert tortoise is immediately in harm's way (e.g., certain to immediately be crushed by equipment), desert tortoise monitors will move the desert tortoise and place it in a designated safe area until an authorized desert tortoise biologist assumes care of the animal.

    Desert tortoise monitors will not conduct field or clearance surveys or other specialized duties of an authorized desert tortoise biologist unless directly supervised by an authorized desert tortoise biologist; "directly supervised" means an authorized desert tortoise biologist has unaided direct sight of and unaided voice contact with the desert tortoise monitor.

    Within 3 days of employment or assignment, the SNWA and the BLM shall provide the Service with the names of desert tortoise monitors who will assist an authorized desert tortoise biologist.

80. 1-F: Desert tortoise education program—A desert tortoise education program shall be presented by an authorized desert tortoise biologist to all personnel on-site during construction activities. The Service, BLM, and appropriate State agencies shall approve the program. At a minimum, the program shall cover desert-specific Leave-No-Trace guidelines, the distribution of desert tortoises, general behavior and ecology of this species, sensitivity to human activities, threats including introduction of exotic plants and animals, legal protection, penalties for violation of State and Federal laws, reporting requirements, and the project measures presented in this Opinion. All field workers shall be instructed that activities must be confined to locations within the approved areas; they shall also be informed of their obligation to walk around and check underneath vehicles and equipment before moving them. In addition, the program shall include fire prevention measures to be implemented by employees during project activities. The program shall instruct participants to report all observations of desert tortoise and their sign during construction activities to the FCR and authorized desert tortoise biologist.

81. 1-G: Vehicle travel—Project personnel shall exercise vigilance when commuting to the project area to minimize risk for inadvertent injury or mortality of all wildlife species encountered on paved and unpaved roads leading to and from the project site. Speed limits will be clearly marked, and all workers will be made aware of these limits. On-site, personnel shall carpool to the greatest extent possible.

    During the desert tortoise less-active season, vehicle speed on project-related access roads and in the work area will not exceed 40 kph (25 mph). All vehicles and construction equipment will be tightly grouped.

    During the more-active season (generally March 1 to October 31), and if temperatures are above 15.5 but below 35 °C (above 60 but below 95 °F) for more than 7 consecutive

days, vehicle speed on project-related access roads and in the work area will not exceed 24 kph (15 mph). All vehicles and construction equipment will operate in groups of no more than 3 vehicles. An authorized desert tortoise biologist and desert tortoise monitor will escort or clear ahead of vehicles and equipment for ROW travel. The escort will be on foot and clear the area of tortoises in front of each traveling construction equipment group (see Term and Condition 1-I [Stipulation 83]). The escort will use a recreational/nonpassenger vehicle with ground visibility (e.g., utility terrain vehicle); however, at least 1 authorized desert tortoise biologist and 1 desert tortoise monitor must ride together and survey both sides of the vehicle. The speed/pace will be determined by an authorized desert tortoise biologist. The speed shall be slow enough to ensure adequate inspection.

New access road and spur road locations will be sited to avoid potentially active tortoise burrows to the maximum extent practicable.

82. 1-H: Unauthorized access—The BLM shall ensure that unauthorized personnel, including off-duty project personnel, do not travel on project-created access roads.

During the more-active season (generally March 1 to October 31), and if temperatures are above 15.5 but below 35 °C (above 60 but below 95 °F) for more than 7 consecutive days, project- and nonproject-related activities on all access roads that intersect the ROW will be monitored and logged. During construction, the ROW will be fenced at public roads that intersect the ROW. Signs will say that access on the ROW is strictly prohibited except by authorized personnel and that violators will be prosecuted.

83. 1-I: Desert tortoise clearance—Prior to surface-disturbing activities, an authorized desert tortoise biologist, potentially assisted by desert tortoise monitors, shall conduct a clearance survey to locate and remove all desert tortoises from harm's way or from areas to be disturbed (including areas of hydrostatic testing), using techniques that provide full coverage of all areas (USFWS 2009a). No surface disturbing activities shall begin until 2 consecutive surveys yield no individuals.

During the less-active season, clearance surveys will be conducted within 7 days prior to any surface-disturbing activity.

During the more-active season (generally March 1 to October 31), and if temperatures are above 15.5 but below 35 °C (above 60 but below 95 °F) for more than 7 consecutive days, clearance surveys will be conducted the day of any surface-disturbing activity.

An authorized biologist shall excavate all burrows that have characteristics of potentially containing desert tortoises in the area to be disturbed, with the goal of locating and removing all desert tortoises and desert tortoise eggs. During clearance surveys, all handling of desert tortoises and their eggs and excavation of burrows shall be conducted solely by an authorized desert tortoise biologist in accordance with the most current Service-approved guidance. If any tortoise active nests are encountered, the Service must be contacted immediately, prior to removal of any tortoises or eggs from those burrows, to determine the most appropriate course of action. Unoccupied burrows shall be collapsed or blocked to prevent desert tortoise re-entry. Outside of unfenced construction work areas, all potential desert tortoise burrows and pallets within 15 m (50 feet) of the edge of the construction work area shall be flagged. If the

burrow is occupied by a desert tortoise, the tortoise shall be temporarily penned (see Term and Condition 1-L [Stipulation 86]). No stakes or flagging shall be placed on the berm or in the opening of a desert tortoise burrow. Desert tortoise burrows shall not be marked in a manner that facilitates poaching. Avoidance flagging shall be designed to be easily distinguished from access route or other flagging, and shall be designed in consultation with experienced construction personnel and authorized biologists. All flagging shall be removed following construction activities.

An authorized desert tortoise biologist will inspect areas to be backfilled immediately prior to backfilling.

84. 1-J: Desert tortoise in harm's way—Any project-related activity that may endanger a desert tortoise shall cease if a desert tortoise is found on the project site. Project activities may resume after an authorized desert tortoise biologist or desert tortoise monitor (see restrictions in Term and Condition 1.E [Stipulation 79]) removes the desert tortoise from danger or after the desert tortoise has moved to a safe area on its own.

During the more-active season (generally March 1 to October 31), and if temperatures are above 15.5 but below 35 °C (above 60 but below 95 °F) for more than 7 consecutive days, at least 1 monitor shall be assigned to observe spoil piles prior to excavation and covering.

85. 1-K: Handling of desert tortoises— Desert tortoises shall only be moved by an authorized desert tortoise biologist or desert tortoise monitor (see restrictions in Term and Condition 1.E [Stipulation 79]) solely for the purpose of moving the tortoises out of harm's way. During construction, operation, and maintenance, an authorized desert tortoise biologist shall pen, capture, handle, and relocate desert tortoises from harm's way in accordance with the most current Service-approved guidance.

Desert tortoises that occur aboveground and need to be moved from harm's way shall be placed in the shade of a shrub, 50 to 100 m (150 to 300 feet) from the point of encounter. If desert tortoises need to be moved at a time of day when ambient temperatures could harm them (less than 5 °C [40 °F] or greater than 35 °C [95 °F]), they shall be held overnight in a clean cardboard box. These desert tortoises shall be kept in the care of an authorized biologist under appropriate controlled temperatures and released the following day when temperatures are favorable. All cardboard boxes shall be discarded after 1 use and never hold more than 1 tortoise at a time. If any tortoise active nests are encountered, the Service must be contacted immediately, prior to removal of any tortoises or eggs from those burrows, to determine the most appropriate course of action.

During the less-active season (typically October 31 to March 1), desert tortoises located in the project area sheltering in a burrow will be temporarily penned at the discretion of an authorized biologist. Desert tortoises shall not be penned in areas of moderate-to-heavy public use; rather, they shall be moved from harm's way in accordance with the most current Service-approved guidance.

Equipment that contacts desert tortoises shall be sterilized or changed before contacting another tortoise to prevent the spread of disease. If a tortoise contacts clothing, those clothes shall be washed before coming into contact with another desert tortoise. All

tortoises shall be handled using disposable surgical gloves, and each pair of gloves shall be disposed of after handling 1 tortoise. An authorized biologist shall document each tortoise handling with the following information: 1) narrative describing circumstances; 2) vegetation type; 3) dates of observations; 4) general conditions and health; 5) any apparent injuries and state of healing; 6) if the tortoise was moved, the global positioning system (GPS) location where it was captured and the location where it was released; 7) maps; 8) whether animals voided their bladders; and 9) diagnostic markings (e.g., identification numbers marked on lateral scutes).

86. 1-L: Penning—Penning shall be accomplished by installing a circular fence, approximately 7 m (20 feet) in diameter, to enclose and surround the tortoise burrow. The pen shall be constructed with 5-cm (2-inches) hardware cloth or 3-cm (1-inch) horizontal by 5-cm (2-inches) vertical, galvanized welded wire. Steel Tposts or rebar 0.5 to 1 m (2 to 3 feet) high shall be placed every 1.5 to 2m (5 to 6 feet) to support the pen material. Pen material will extend 0.5 m (18 inches) aboveground. The bottom of the enclosure will be buried 15 to 30 cm (6 to 12 inches) deep or bent toward the burrow, with soil mounded along the base, and other measures implemented to ensure zero ground clearance. Care shall be taken to minimize public visibility of the pen. An authorized desert tortoise biologist or desert tortoise monitor shall check the pen at least daily and ensure that 1) the desert tortoise is in the burrow or pen, 2) the tortoise is healthy, and 3) the pen is intact. Because this is a new technique, all instances of penning or issues associated with penning shall be reported to the Service within 3 days.

87. 1-M: Temporary tortoise-proof fencing—All construction areas, including open pipeline trenches, hydrostatic testing locations, and tie-in work, shall be fenced with temporary tortoise-proof fencing (e.g., silt fencing) or inspected by an authorized desert tortoise biologist periodically throughout the day, at the end of the day, and immediately the next morning.

    Fencing will be designed in a manner that reduces the potential for desert tortoises and hatchlings to access the construction areas. Thus, the lower 15 to 30 cm (6 to 12 inches) of fencing will be folded outward (i.e., away from the construction area) and covered with enough soil, rocks, and staking to maintain zero ground clearance and secure the bottom section of material. After the fencing is erected and secure, the work area inside the fencing will be cleared by an authorized biologist. The fencing must remain closed during any construction activities.

    During the more-active season (generally March 1 to October 31), and if temperatures are above 15.5 but below 35 °C (above 60 but below 95 °F) for more than 7 consecutive days, an authorized biologist will check the integrity of the fencing every 2 hours to ensure that no breaches in the fencing have occurred and no desert tortoises are pacing the fence.

88. 1-N: Permanent tortoise-proof fencing—Tortoise-proof fencing shall be installed around the boundary of permanent aboveground facilities that require regular monitoring and maintenance. Fence specifications will be consistent with those approved by the Service (USFWS 2009a). Tortoise guards shall be placed at all road access points, where desert tortoise-proof fencing is interrupted, to exclude desert tortoises from the facility. Gates shall provide minimal ground clearance to deter ingress by desert tortoises. Permanent

tortoise-proof fencing along the project area shall be appropriately constructed, monitored, and maintained.

During the desert tortoise less-active period and after major storm events, fencing will be checked at least monthly.

During the more-active season (generally March 1 to October 31), and if temperatures are above 15.5 but below 35 °C (above 60 but below 95 °F) for more than 7 consecutive days, fencing will be checked at least once per day during construction activities to ensure that tortoises are not pacing the fence, litter and sediment has not piled up, breaches or holes have not occurred in the fence, and no tortoises are caught in the fence.

Following project construction, the fence, tortoise guards, and gates shall be inspected at least quarterly unless the timing is modified by the Service. Maintenance shall include regular removal of trash and sediment accumulation and restoration of zero ground clearance between the ground and the bottom of the fence, including re-covering the bent portion of the fence if it is no longer buried.

During the desert tortoise less-active period repairs to damaged fence or gates will be completed within 7 days.

During the more-active season (generally March 1 to October 31), and if temperatures are above 15.5 but below 35 °C (above 60 but below 95 °F) for more than 7 consecutive days, repairs to damaged fence or gates will be completed within 72 hours.

89. 1-O: Open trenches—Earthen plugs, with wildlife escape ramps on either side of each plug, will be provided in open trench segments at intervals of no more than 0.8 km (0.5 miles). These distances will be reduced if the FCR and authorized desert tortoise biologist determine that the plug/escape ramp spacing is insufficient to facilitate animal escape from the trench. Any tortoise that is found in a trench or excavation shall be promptly removed by an authorized desert tortoise biologist in accordance with the most current Service-approved guidance. If the authorized desert tortoise biologist is not allowed to enter the trench for safety reasons, the alternative method of removal must have prior approval by the Service. During the more-active season (generally March 1 to October 31), and if temperatures are above 15.5 but below 35 °C (above 60 but below 95 °F) for more than 7 consecutive days, the amount of open trench, at any one time, will not exceed 5 km (3 miles). An authorized desert tortoise biologist or desert tortoise monitor will be responsible for monitoring each 1,000-foot section of open trench (on both sides) during daylight hours. In sections of the project where the desert tortoise observations increase, the FCR will appropriately increase the number of monitors and authorized desert tortoise biologists. Adjacent to open trenches, an authorized desert tortoise biologist or desert tortoise monitor will thoroughly check under sections of propped pipeline to inspect for tortoises that may be taking advantage of the shade.

90. 1-P: Dust control—Water applied to the construction ROW and topsoil piles for dust control shall not be allowed to pool outside tortoise-proof fencing areas, because it can attract desert tortoises. Similarly, leaks on water trucks and water tanks will be repaired to prevent pooling water. During the more-active season (generally March 1 to October 31), and if temperatures are above 15.5 but below 35 °C (above 60 but below 95 °F) for

more than 7 consecutive days, an authorized biologist will be assigned to patrol each area being watered, both immediately after the water is applied and at approximate 60-minute intervals, until the ground is no longer wet enough to attract tortoises.

91. 1-Q: Blasting—If blasting is required in desert tortoise habitat, detonation shall only occur after the area has been surveyed and cleared by an authorized desert tortoise biologist. A 61-meter (200-foot) radius area around the blasting site shall be surveyed, and all desert tortoises aboveground within this 61-meter (200-foot) radius of the blasting site shall be moved 150 meter (500 foot) from the blasting site, placed in unoccupied burrows, and temporarily penned (see Term and Condition 1-L [Stipulation 86]) to prevent tortoises from returning to the site. Tortoises in burrows will be left in their burrows. All burrows, regardless of occupied status, will be stuffed with newspapers, flagged, and recorded using a GPS unit. Immediately after blasting, newspaper and flagging will be removed. If a burrow or coversite has collapsed and there is a possibility that it could be occupied, it shall be excavated to ensure that no tortoises have been buried and are in danger of suffocation.

Predator Control (BO Reasonable and Prudent Measure 2)

92. 2-A: Litter control—A litter-control program shall be implemented to reduce the attractiveness of the area to opportunistic predators such as desert kit foxes, coyotes, and common ravens. Trash and food items will be disposed of properly in predator-proof containers with predator-proof lids. Trash containers will be emptied and construction waste will be removed daily from the project area and disposed of in an approved landfill.

93. Deterrence—The applicant will implement BMPs to discourage the presence of predators on-site (coyotes, ravens, etc.). Measures will include eliminating available water sources, designing structures to discourage potential nest sites, and using hazing to discourage raven presence.

94. Monitoring and predator control—The applicant will inspect structures annually for nesting ravens and report observations of raven nests to the Service. If sign of predation is found under a nest, a control plan will be implemented. All raven nests will be removed from the transmission line by authorized personnel when desert tortoises are least active, and the nesting material will be disposed of.

95. Pets—Dogs will be prohibited in all project work areas.

Impacts to Desert Tortoise Habitat (BO Reasonable and Prudent Measure 3)

96. 3-A: Habitat protection plans—The BLM shall ensure that the applicant develop and implement an approved fire prevention and response plan, an erosion control plan, and a weed management plan.

97. 3-B: Interim reclamation and restoration plan—The BLM shall ensure that the applicant develop and implement a restoration plan. The plan will adaptively manage the area to restore the physical or biological features essential to the conservation of the species (Primary Constituent Elements [PCEs]). The plan must be approved by the Service. The plan will describe objectives and methods to be used, species of plants and/or seed mixture to be used, time of planting, success standards, and follow-up monitoring. The

plan will be prepared within 60 days following completion of the surface disturbance phase of the project. Reclamation will be addressed on a case-by-case basis.

98. 3-C: Minimizing new disturbance—Cross-country travel and travel outside designated areas shall be prohibited. All equipment, vehicles, and construction materials shall be restricted to the ROW, and new disturbance will be restricted to the minimum necessary to complete the task (e.g., construction of 1-lane access roads with passing turnouts every mile rather than a wider, 2-lane road). All work area boundaries shall be conspicuously staked, flagged, or otherwise marked to minimize surface disturbance activities.

99. 3-D: Weed prevention—Vehicles and equipment shall be cleaned with a high-pressure washer prior to arrival on the ROW and prior to departure from areas of known invasive weed and nonnative grass infestations to prevent or at least minimize the introduction or spread of these species.

100. 3-E: Chemical spills—Hazardous and toxic materials such as fuels, solvents, lubricants, and acids used during construction will be controlled to prevent accidental spills. Any leak or accidental release of hazardous and toxic materials will be stopped immediately and cleaned up at the time of occurrence. Contaminated soils will be removed and disposed of at an approved landfill site.

101. 3-F: Residual impacts from disturbance—The BLM shall ensure remuneration fees are paid to offset residual impacts to desert tortoises from project-related disturbance to desert tortoise habitat.

    Remuneration fees will be used for management actions expected to promote recovery of the desert tortoise over time, including management and recovery of desert tortoise in Nevada. Actions may involve habitat acquisition, population or habitat enhancement, research to increase knowledge of the species' biological requirements, reducing loss of individual animals, documenting the species' status and trend, and preserving distinct population attributes. Fees will be used to fund the highest-priority recovery actions for desert tortoises in Nevada.

    The current rate is $810 per acre of disturbance, as indexed for inflation. The fee rate will be indexed for inflation based on the Bureau of Labor Statistics Consumer Price Index for All Urban Consumers (CPI-U) on January 31 of each year. Fees assessed or collected for projects covered under this biological opinion will be adjusted based on the current CPI-U for the year they are collected. Information on the CPI-U can be found on the Internet at http://stats.bls.gov/news.release/cpi.nws.htm.

102. 3-G: Green stripping—BLM shall avoid using crested wheatgrass (*Agropyron cristatum*) and forage kochia (*c*) as reclamation candidates for degraded habitats and green stripping. In emergency circumstances, such as severe erosion and headcutting, the BLM may use crested wheatgrass and forage kochia to stabilize soil. A detailed rationale for potential seeding with selected nonnative species must be submitted to the BLM and approved by the Service. Once the soil is stabilized, the BLM shall overseed with native seed.

Compliance and Reporting (BO Reasonable and Prudent Measure 4)

103. 4-A: Desert tortoise deaths— The deaths of desert tortoises shall be investigated as thoroughly as possible to determine the cause of death. The Service and appropriate State wildlife agency must be informed immediately verbally and within 5 business days in writing (electronic mail is sufficient). See *Care for Dead or Injured Desert Tortoises* (section 6.5.4) and Table 6-5 of the Biological Opinion.

104. 4-B: Noncompliance—Any incident occurring during project activities that was considered by the FCR, authorized desert tortoise biologist, or desert tortoise monitor to be in noncompliance with this Opinion shall be immediately documented by an authorized desert tortoise biologist and immediately reported to the BLM and the Service at (702) 515-5230.

105. 4-C: Fence inspection—Quarterly reports for monitoring and repair of tortoise-proof fencing shall be submitted to the Service's Nevada Fish and Wildlife Office in Las Vegas. Reports are due within the first 10 days of the beginning of each quarter.

106. 4-D: Phase completion—Within 60 days following completion of each phase of construction, a written assessment report shall be submitted to the Service, outlining the schedule that was followed for implementing the minimization measures. The report shall also include biological observations and the general success of each of the minimization measures and the maintenance activities that occurred over that phase of construction. The following information will be included in the report: location (Geographic Information System [GIS] shapefile); date and time of observation; documentation of desert tortoise handling (see Terms and Conditions 1-D and 1-K [Stipulations 78 and 85]); any actions taken to protect the desert tortoise, such as penning or temporarily holding; unique physical characteristics of each desert tortoise; raven and predator monitoring; fence monitoring; reports of noncompliance; chemical spills; unauthorized access; GIS shapefiles; acreage of final habitat disturbance; and any other information useful to the Service.

    See Table 6-5. Example compliance reporting table in the Biological Opinion.

107. 4-E: Construction completion—A comprehensive final construction report shall be submitted to the Service's Nevada Fish and Wildlife Office in Las Vegas within 90 days of completion of construction of all phases of the project.

108. 4-F: Operation—A written assessment report shall be submitted to the Service, outlining the maintenance activities that occurred over the past year. It will include frequency of implementation of minimization measures, biological observations, general success of each of the minimization measures and Terms and Conditions, and recommendations for future minimization measures. All deaths, injuries, and illnesses of endangered or threatened species within the project area, whether associated with project activities or not, will be summarized in the annual report, which is due April 1 of each year. We recognize that the procedures we are likely to develop in the future, in close cooperation with the BLM and SNWA, will include a more efficient way of collecting this information; we welcome recommendations to improve the reporting method, provided that any new method meets the requirements of the implementing regulations for section 7(a)(2) of the ESA (50 CFR 402.14(i)(3)).

RISK ASSESSMENT FOR NOXIOUS AND INVASIVE WEEDS

109. Continue to use integrated weed management to treat weed infestations and use principles of integrated pest management to meet management objectives and to reestablish resistant and resilient native vegetation communities. This includes at a minimum, annual treatments for any noxious weed infestations.

110. Develop weed management plans that address weed vectors, minimize the movement of weeds within public lands, consider disturbance regimes, and address existing weed infestations.

111. When manual weed control is conducted, remove the cut weeds and weed parts and dispose of them in a manner designed to kill seeds and weed parts.

112. All straw, hay, straw/hay, or other organic products used for reclamation or stabilization activities, must be certified that all materials are free of plant species listed on the Nevada noxious weed list or specifically identified by the Ely District Office.

113. Where appropriate, inspect source sites such as borrow pits, fill sources, or gravel pits used to supply inorganic materials used for construction, maintenance, or reclamation to ensure they are free of plant species listed on the Nevada noxious weed list or specifically identified by the Ely District Office. Inspections will be conducted by a weed scientist of qualified biologist.

114. Where appropriate, vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities; for emergency fire suppression; or for authorized off-road driving will be free of soil and debris capable of transporting weed propagules. Vehicles and equipment will be cleaned with power or high pressure equipment prior to entering or leaving the work site or project area. Vehicles used for emergency fire suppression will be cleaned as a part of check-in and demobilization procedures. Cleaning efforts will concentrate on tracks, feet and tires, and on the undercarriage. Special emphasis will be applied to axels, frames, cross members, motor mounts, on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out and refuse will be disposed of in waste receptacles. Cleaning sites will be recorded using global positioning systems or other mutually acceptable equipment and provided to the Ely District Office Weed Coordinator or designated contact person.

115. Prior to entry of vehicles and equipment to a planned disturbance area, a weed scientist or qualified biologist will identify and flag areas of concern. The flagging will alert personnel or participants to avoid areas of concern.

116. To minimize the transport of soil-borne noxious weed seeds, roots, or rhizomes, infested soils or materials will not be moved and redistributed on weed-free or relatively weed-free areas. In areas where infestations are identified or noted and infested soils, rock, or overburden must be moved, these materials will be salvaged and stockpiled adjacent to the area from which they were stripped. Appropriate measures will be taken to minimize wind and water erosion of these stockpiles. During reclamation, the materials will be returned to the area from which they were stripped.

117. A site-specific weed survey and a weed risk assessment were completed as part of the NEPA process. The Weed Risk Assessment for this Project is provided in the Final EIS, Appendix F3.5 beginning on page F3.5-15. The Weed Risk Assessment should be reviewed and updated as new data, guidance and regulations become available, as described on page 2 of the assessment. Monitoring by BLM will be conducted for a period no shorter than the life of the permit or until release by BLM and monitoring reports will be provided to the Ely District Office. If the presence and/or spread of noxious weeds is noted, appropriate weed control procedures will be determined in consultation with Ely District Office personnel and will be in compliance with the appropriate BLM Handbook sections and applicable laws and regulations. All weed control efforts on BLM-administered lands will be in compliance with BLM Handbook H-9011, H-90111 Chemical Pest Control, H-90 14 Use of Biological Control Agents of Pests on Public Lands, and H-9015 Integrated Pest Management. **Submission of Pesticide Use Proposals and Pesticide Application Records will be required.**

118. Determine seed mixes on a site specific basis dependent on the probability of successful establishment. Use native and adapted species that compete with annual invasive species or meet other objectives.

119. For soil disturbing actions which will require reclamation, salvage and stockpile all available growth medium prior to surface disturbances. Seed stockpiles if they are to be left for more than one growing season. Re-contour all disturbance areas to blend as nearly as possible with the natural topography prior to re-vegetation. Rip all compacted portions of the disturbance to an appropriate depth based on site characteristics. Establish an adequate seed bed to provide good seed-to-soil contact.

120. Prior to use on lands administered by the Ely District Office, all fire suppression equipment from outside the planning area utilized to extract water from lakes, streams, ponds, or spring sources (e.g. helicopter buckets, draft hoses, and screens) will be thoroughly rinsed to remove mud and debris and then disinfested to prevent the spread of invasive aquatic species. Rinsing equipment with disinfectant solution will not occur within 100 feet of natural water sources (i.e. lakes, streams, or springs). Ely suppression equipment utilized to extract water from water sources known to be contaminated with invasive aquatic species, as identified by the USFWS and NDOW, also will be disinfected prior to use elsewhere on lands administered by the Ely District Office.

121. Conduct mixing of herbicides and rinsing of herbicide containers and spray equipment only in areas that are a safe distance from environmentally sensitive areas and points of entry to bodies of water (storm drains, irrigation ditches, streams, lakes, or wells).

122. Keep removal and disturbance of vegetation to a minimum through construction site management (e.g. using previously disturbed areas and existing easements, limiting equipment/materials storage and staging area sites, etc.).

123. Generally, conduct reclamation with native seeds that are representative of the indigenous species present in the adjacent habitat. Document rationale for potential seeding with selected nonnative species. Possible exceptions would include use of nonnative species for a temporary cover crop to out-compete weeds. Also for green stripping to prevent weed spread and fire. In all cases, ensure seed mixes are approved by the BLM Authorized Officer prior to planting.

124. Certify that all interim and final seed mixes, hay, straw, and hay/straw products are free of plant species listed on the Nevada noxious weed list.

125. Respread weed-free vegetation removed from the ROW to provide protection, nutrient recycling, and seed source.

126. When managing in areas of special status species, carefully consider the impacts of the treatment on such species. Wherever possible, hand spraying of herbicides is preferred over other methods.

127. Do not conduct noxious and invasive weed control within 0.5 mile of nesting and brood rearing areas for special status species during the nesting and brood rearing season.

128. When maintaining unpaved roads on BLM-administered lands, avoid the unnecessary disturbance of adjacent native vegetation and spread of weeds. Grade roads shoulders or barrow ditches only when necessary to provide for adequate drainage. Minimize the width of grading operations. The BLM Authorized Officer will meet with equipment operators to ensure that they understand this objective.

129. Consider nozzle type, nozzle size, boom pressure, and adjuvant use and take appropriate measures for each herbicide application project to reduce the chance of chemical drift.

130. All applications of approved pesticides will be conducted only be certified pesticide applicators or by personnel under the direct supervision of a certified applicator.

131. Prior to commencing any chemical control program, and on a daily basis for the duration of the project, the certified applicator will provide a suitable safety briefing to all personnel working with or in the vicinity of the herbicide application. This briefing will include safe handling, spill prevention, cleanup, and first aid procedures.

132. Store all pesticides in areas where access can be controlled to prevent unauthorized/untrained people from gaining access to chemicals.

133. Do not apply pesticides within 440 yards (0.25 mile) of residences without prior notification of the resident.

134. Areas treated with pesticides will be adequately posted to notify the public of the activity and of safe re-entry dates, if a public notification requirement is specified on the label of the product applied. The public notice signs will be at least 8.5" x 11" in size and will contain the date of application and the date of safe re-entry.

135. No noxious weeds will be allowed on the site at the time of reclamation release. Any noxious weeds that become established will be controlled.

136. Prior to entering public lands, the contractor, operator, or permit Holder will provide information and annual training regarding noxious weed management and identification to all personnel who will be affiliated with the implementation of the project. The importance of preventing the spread of weeds to uninfested areas and importance of controlling existing populations of weeds will be explained.

137. Whenever possible, hand spraying of herbicides is preferred over other methods at heavily used recreation sites (i.e. campgrounds, railheads, etc.).

138. Proponent would be responsible for weeds within the right of way, and any infestations spreading from the ROW including costs for treatments, reclamation, surveys, monitoring, compliance inspections and regulatory requirements.

139. Utilize new technologies and treatments as they become available and are approved by BLM to minimize pad/road/pipeline/ancillary facility footprints with regard to noxious and invasive weeds.

140. Green stripping needs to be considered as part of an integrated weed management plan. Green stripping would prevent wildfires caused on the ROW, and prevent other wildfires from reaching the ROW. It would also help prevent annual invasives from spreading, since the species used for green stripping usually outcompete the annuals for resources. Per Mike Pellant -History and Application of the Intermountain Green Stripping Program, greenstripping can reduce loss of plant diversity and shrub cover on sagebrush-steppe and salt-desert shrub lands. Reduce loss of private structures and properties..... Reduced fire suppression and rehabilitation costs. There are visual impacts that can be reduced by avoiding straight-line seedings and increasing plant and structural diversity in greenstrip plantings." Grazing by wildlife, horses and livestock can be discouraged and reduced on greenstrips by using plants less desirable for grazing. Green stripping should also be considered for the Mojave landscapes to prevent the spread of fire and the impacts of the increases of red brome.

PROTECTION OF SURVEY CORNER AND BOUNDARY LINE MARKERS

141. Evidence of the Public Land Survey System (PLSS) and related Federal property boundaries[1,2] will be identified and protected prior to commencement of any ground-disturbing activity[3]. This will be accomplished by contacting Bureau Land Management (BLM) Cadastral Survey to coordinate data research, evidence examination and evaluation, and locating, referencing or protecting monuments of the PLSS and related land boundary markers from destruction. In the event of obliteration or disturbance of the Federal boundary evidence the responsible party shall immediately report the incident, in writing, to the Authorizing Official. BLM Cadastral Survey will determine how the marker is to be restored. In rehabilitating or replacing the evidence the responsible party will be instructed to use the services of a Certified Federal Surveyor (CFedS), procurement shall be per qualification based selection[4], or reimburse the BLM for costs. All surveying activities will conform to the Manual of Surveying Instructions (Manual) and appropriate State laws and regulations. Local surveys will be reviewed by Cadastral Survey before being finalized or filed in the appropriate State or county office. The responsible party shall pay for all survey, investigation, penalties, and administrative costs.[5]

[1] The costs to replace PLSS monuments can vary substantially, and in extreme cases could cost as much as $10,000 per single monument. One PLSS corner can determine the location of boundary lines from 2 to 2 dozen parcels (in developed and high value areas more than 2 dozen separate land parcels). It is difficult to quantify damages because a PLSS corner is obliterated or lost to public and private landowners when transactions or projects are based on approximate boundaries. The damage done is

usually in direct proportion to the amount of capital investment/value of natural resources and capital investment on each parcel.

[2] As directed in 43 CFR 3809.420 - Surface Management - (b)(9) Protection of survey monuments. To the extent practicable, all Holders shall protect all survey monuments, witness corners, reference monuments, bearing trees and line trees against unnecessary or undue destruction, obliteration or damage. If, in the course of operations, any monuments, corners, or accessories are destroyed, obliterated, or damaged by such operations, the Holder shall immediately report the matter to the authorized officer. The authorized officer shall prescribe, in writing, the requirements for the restoration or reestablishment of monuments, corners, bearing and line trees.

[3] It is unlawful for the unauthorized alteration or removal of any Government survey monument or marked trees: "Whoever willfully destroys, defaces, changes, or removes to another place any section corner, quarter-section corner, or meander post, on any Government line of survey, or willfully cuts down any witness tree or any tree blazed to mark the line of a Government survey, or willfully defaces, changes, or removes any monument or bench mark of any Government survey, shall be fined under this title or imprisoned not more than six months, or both" (108 Stat. 1796, 2146; 18 U.S.C. 1858). The willful destruction of monuments and corners of an official mineral survey is within the purview of this statute.

[4] Procurement of surveying services shall be per the Federal Acquisition Regulations and the Brooks Act governing Federal procurement of certain architectural and engineering services.

[5] Applicable to collection of costs from responsible parties is indirect costs. Each year a new indirect cost rate is determined that typically ranges from 17-19%. This cost is applied to all collections related to unauthorized use.

APPLICANT-COMMITTED MEASURES

General Construction Practices

Planning and Permitting

142. A.1.1: SNWA will complete a detailed POD for the final project approved by the BLM. More than one POD may be developed if the project is constructed in phases. The detailed POD(s) will incorporate mitigation contained in the ROD and provide detailed project design and construction specifics, including but not limited to construction contract timing and phasing, construction access roads and ROW entry points, locations of refueling and equipment maintenance, hydrostatic discharge locations, areas of fencing for special status species, and other details. The POD(s) shall contain detailed plans, including, but not limited to, those listed below. The BLM will review and approve the POD(s) prior to notice to proceed for any surface disturbance activity, and will coordinate with other agencies (NDOW, USFWS), as relevant to their agency responsibilities.

- Agency Coordination Plan –primary contacts including BLM authorized officer, SNWA, construction management, environmental compliance inspection contractor, and construction contractors; identification of reporting procedures and frequency.
- Bird Conservation Strategy – measures to reduce impacts to migratory birds, bald and golden eagles, and other sensitive birds; the plan will identify measures to be implemented during construction, including, but not limited to, the identification of critical nesting periods for bird species anticipated to be within the ROW, pre-construction surveys to be conducted for nesting raptors and migratory birds, and the construction avoidance buffer size and time duration for active raptor and migratory bird nests; the plan will also identify design features and measures to be implemented during operation, including description of design standards (see measure A.5.66 [Stipulation 314]), any post-construction monitoring, and adaptive measures such as marking of power lines to avoid or minimize impacts; the bird conservation strategy will be developed in coordination with the USFWS for compliance with MBTA and BGEPA.
- Blasting Plan – identification of areas where blasting may be needed, blasting procedures, control of explosives, necessary permits, pre-blasting noticing, and reporting.
- Construction Plan – construction schedule and sequencing, temporary use areas, maintenance and refueling areas, access roads, borrow pits, handling of unanticipated discoveries, BMPs, vehicle/equipment washing locations, etc.
- Construction Traffic Management Plan – measures to reduce and manage construction traffic.
- Dust Control Plan – air quality standards and permits, dust control measures, water sources, air quality monitoring, and reporting.
- Emergency Response Plan – emergency contacts, notification procedures, available resources, and emergency procedures.
- Fire Prevention Plan – measures to prevent accidental fire during all phases of construction, and initial response actions.
- Hydrostatic Discharge Plan – sources and volumes of water, discharge locations and quantities, erosion and flow control measures, necessary permits, and reporting.
- Integrated Weed Management Plan – identification of areas with noxious/invasive weeds, treatment and control measures, monitoring, and reporting.
- Mitigation Plan – summary of environmental commitments and mitigation measures, responsible parties, timing, and reporting.
- Public Information Plan – public notification measures.
- Restoration Plan – topsoil (growth medium) and vegetative cover salvage, stockpiling and replacement; plant salvage, maintenance and replacement, seeding, soil stabilization, and post-construction monitoring.
- Spill Prevention, Control, and Countermeasure Plan – procedures for storage and handling of hazardous and toxic materials, necessary permits, spill response and cleanup.
- Stormwater Pollution Prevention Plan – erosion and sediment control measures, compliance inspections and reporting.

The Construction Plan shall describe a process under which changes from the POD can be requested in the field during construction. SNWA may make a written request to the BLM for a site-specific variance, and BLM shall respond to SNWA's request for a variance within five business days. Changes may require additional clearances and environmental compliance to be completed, and would be authorized by BLM's Authorized Officer.

143. A.1.2: SNWA will provide a CIC for the project. The CIC will provide environmental oversight and compliance/regulatory activities on behalf of the BLM during construction activities of the project. The CIC will be responsible for ensuring that the ROW Holder complies with all terms, conditions, stipulations and other measures required for the project, and will have the authority to halt activities that are in non-compliance. A pre-construction meeting between the BLM, SNWA, CIC, and construction contractor will be required prior to any surface disturbing activity occurring. The CIC will provide reports to the BLM on a schedule deemed appropriate by the BLM based upon the type of ongoing construction activity, and as described in the approved Agency Coordination Plan.

144. A.1.3: All activities directly or indirectly associated with the construction, operation, and maintenance of the project on Federal lands will be conducted within the authorized limits of the ROW grant. Any facility relocation, additional construction area, or other use that is not in accord with the ROW grant will not be initiated without prior written approval of the BLM. Cross-country vehicular travel outside of the ROW is prohibited, unless prior approval is obtained from the BLM.

145. A.1.4: In accordance with the Ely BLM RMP (Ely RMP) (2008), SNWA will notify the BLM at least 10 days before initiation of the project. Notification will be made to the designated BLM representative as well as the BLM biologists in the Las Vegas, Caliente, and Ely BLM offices.

146. A.1.5: A worker education program will be developed by SNWA and used during construction and operation. It will be presented to all personnel who will be onsite, including but not limited to contractors, contractors' employees, supervisors, inspectors, and subcontractors. A handout will be developed addressing environmental protection measures incorporated into the proposed project, and the responsibility of each worker in environmental protection. Each worker will be briefed on his or her environmental compliance responsibilities, provided a handout, and required to sign a certification that he or she understands and will comply with those environmental protection measures. Specifics of the program will include, but are not limited to:

- General site maintenance (i.e., trash disposal),
- Prohibiting driving off the cleared corridor or existing roads,
- Importance of speed limits and other traffic regulations on access roads
- Prohibiting dogs or hunting on the construction and facility sites
- Terms and conditions of project Biological Opinion
- Desert tortoise conservation measures, including:
  - -Biology, distribution, and identification
  - -Legal status and occurrence in the project area
  - -Prevention of desert tortoise handling

-Checking under vehicles for desert tortoises and adhering to vehicle speed limits
-Purpose of desert tortoise fencing and reporting procedures for damaged fencing
-Reporting procedures if a desert tortoise is observed in a work area
-Reporting procedures if a desert tortoise injury occurs
-Procedure if a desert tortoise is in harms way (imminent danger)
-Definition of "take", consequences of harassment, and the penalties for violation of state and Federal laws

- Identifying and reporting procedures for other sensitive wildlife, including Gila monster, chuckwalla, western burrowing owl, kit fox, greater sage-grouse, pygmy rabbit, and migratory birds (including raptors)
- Cultural and paleontological resource identification and protection
- Noxious weed management and identification
- Prohibiting collection of wildlife, plants, or cultural/paleontological resources, unless the collection is part of a mitigation plan approved by the BLM
- Workers will receive a sticker or certificate that they have completed the training; a laminated card that can be used for reference, including applicable contact phone numbers, may also be used
- Training seasons will be held for new contractors throughout the life of the project

147. A.1.6: A Public Information Plan will be developed by SNWA in coordination with the BLM to notify the public and appropriate agencies in advance of the start of each construction phase. Measures that will be implemented to inform the public may include public notices, public meetings, letters to nearby residents, road signs, and other measures.

Surveying

148. A.1.7: To the extent possible, SNWA will protect all survey monuments found within the ROW. Survey monuments include, but are not limited to General Land Office and BLM Cadastral Survey Corners, reference corners, witness points, US Coast and Geodetic Survey benchmark and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments.

149. A.1.8: In the event disturbance or destruction of survey monuments is unavoidable, SNWA will report the incident, in writing, to the BLM and the installing authority, if known. If General Land Office or BLM ROW monuments or references are destroyed during operations, SNWA will secure the services of a registered land surveyor to restore the disturbed monuments and references, using surveying procedures found in the Manual of Instructions for the Survey of the Public Lands of the United States, latest edition. SNWA will record such survey in the appropriate office and send a copy to the authorized officer.

150. A.1.9: SNWA will conduct boundary surveys of the edges of the ROW prior to the start of construction. The outer boundaries will be clearly marked with stakes and colored flagging, placed about 100 feet apart or within sight of each adjacent flag. All ground-disturbing activities will be confined to the designated ROW.

151. A.1.10: If any exclusion zones within the ROW are required by the BLM for resource protection (i.e. biological or cultural resources, protected plants, nesting birds, etc.),

those areas will be staked, flagged or fenced, and signed to ensure avoidance during construction, and if necessary during operation and maintenance.

152. A.1.11: Survey crew vehicles will remain on existing roads or within the previously cleared construction ROW. If off-road travel within the designated ROW is necessary, a biologist will first clear the proposed route. In desert tortoise habitat, a BLM and USFWS approved biological monitor will accompany survey crews into the field. Off-road travel for surveying will be restricted to the ROW, and be the minimum necessary to complete the task. Survey crews traveling on foot must have attended the worker education program, but are not required to be accompanied by a biologist.

Fencing

153. A.1.12: Temporary security fencing may be used to enclose staging areas, nursery sites, and facility sites during construction. This fencing will consist of standard 6 to 8 foot high chain-link fencing and it will be removed at the completion of construction activities. Security fencing of the entire pipeline ROW during construction is not anticipated, but may be used in specific areas for security or safety concerns.

154. A.1.13: Permanent site security fencing will be used to enclose facility sites, including water treatment facility, buried storage reservoir, pumping stations, regulating tanks, and pressure reducing stations. This fencing will generally consist of standard 6 to 8 foot high chain-link fencing. Block walls may be constructed at some facility sites instead fencing, depending on site requirements.

155. A.1.14: Within desert tortoise habitat, temporary desert tortoise exclusion fencing will be used to enclose active pipeline, staging area, and facility site construction areas. The tortoise exclusion fencing may be installed with site security fencing or separately, and may be installed in phases to match construction activity; unless it is determined by the BLM authorized officer and/or the USFWS that the project area should not be fenced. In accordance with current specifications (USFWS, 2009), fencing will consist of 1-inch horizontal by 2-inch vertical galvanized welded wire, 36 inches in width. The mesh will extend at least 12 inches below ground, leaving 22-24 inches above ground. In situations where it is not feasible to bury the fence (bedrock or caliche substrate), the lower 12 inches of the fence will be bent at a 90 degree angle towards potentially approaching tortoises and covered with cobble or other suitable material to ensure that tortoise or other animals cannot dig underneath. Gates with tortoise-proof guards of no more than one-inch ground clearance will be installed at all access points. The temporary desert tortoise exclusion fencing will be maintained in place for the duration of construction, until initial restoration activities (replacement of cactus and yucca) are completed.

156. A.1.15: Temporary tortoise exclusion fencing will be routinely inspected and promptly repaired. During the desert tortoise active season from March 1 through October 31, the fence will be inspected at least twice daily and any repairs completed within 3 days. During the desert tortoise inactive season from November 1 through February 28/29, the fence will be inspected at least monthly and any repairs completed within 7 days. The biological monitor(s) will also inspect the fencing after major precipitation events to ensure zero ground clearance. Monitoring and maintenance will include regular removal of trash and sediment accumulation and restoration of zero ground clearance

between the ground and the bottom of the fence, including re-covering the bent portion of the fence if not buried. Fencing will be removed upon termination and reclamation of the project, or when it is determined by the BLM authorized officer and USFWS that the fence is no longer necessary. The biological monitor(s) will update their daily field notes with dates of inspections and conditions found. The results will be sent to the BLM on a quarterly basis.

157. A.1.16: Permanent tortoise exclusion fencing will be installed along with site security fencing around the above-ground facility sites within desert tortoise habitat, including the water treatment facility/buried storage reservoir and Coyote Spring Valley pressure reducing station. In accordance with current specifications (USFWS, 2009), permanent tortoise exclusion fencing will consist of the same fencing material as described above for temporary tortoise fencing, with the tortoise exclusion fencing being attached to the site security fencing. Permanent tortoise exclusion fencing will be inspected on an at least quarterly basis, and any repairs completed within 3 days from March 1 through October 31, and within 7 days from November 1 through February 28/29.

158. A.1.17: For active construction areas not enclosed by site security or tortoise-exclusion fencing, 4-foot high orange plastic snow fencing will be used to enclose the work area. This fencing will provide construction site visibility for public safety, and also will ensure construction activities stay within the authorized ROW. Wildlife escape opportunities will be provided at an interval of approximately every 1,000 feet, depending on terrain, for linear exclusion areas and at the corners of staging areas.

159. A.1.18: Fencing may be installed along segments of open trench in areas of seasonal big game movement. The type and location of fencing will be coordinated with the NDOW and the BLM.

Clearing and Grading

160. A.1.19: Within desert tortoise habitat, clearing will occur only within the fenced boundaries of the permanent and temporary ROWs. Clearing will include removal of materials that will interfere with construction activities, create hazards or unsafe conditions, or impair subsequent site work. Outside of the desert tortoise habitat, clearing will only occur after boundaries of the permanent and temporary ROW have been staked.

161. A.1.20: Where possible, vegetation within the ROW will be crushed instead of removed by blading, to minimize impacts to vegetation and soils.

162. A.1.21: Trash and debris will be removed from the ROW before clearing and grading activities begin, and properly disposed of in a permitted landfill facility. This is limited to existing surface debris foreign to the natural, native community.

163. A.1.22: Boulders greater than 18 inches in diameter found on the soil surface will be moved to the edge of the ROW. This will be done carefully to leave as much of the natural patina or desert varnish on the boulders as possible. The boulders will be placed back on the ROW at the completion of construction as part of restoration activities. Boulders uncovered during construction will either be placed within the ROW if it can be done in a natural manner as part of the restoration activities or used as part of trench or borrow pit backfill.

164. A.1.23: For soil disturbing actions which will require reclamation, all available growth medium (topsoil) will be salvaged prior to surface disturbances. After completion of clearing and plant salvage activities, the available growth medium and remaining plant material will be windrowed along the edge of the ROW or placed in stockpiles no greater than 6 feet in height. Vegetation will be ground or chipped to a mulching consistency and stockpiled adjacent to the topsoil. Topsoil stripped from areas with different surface conditions will be stockpiled separately and later used to restore the same areas. Topsoil left in place over 120 days will be fenced and signed, and a tackifier, water, or other BLM-approved erosion control measure will be applied to prevent wind or rain erosion.

165. A.1.24: If a tackifier is used, it will be derived from natural organic plant sources containing no growth- or germination-inhibiting materials. The tackifier will be designed to become inactive in the soil after a period of time, so as not to otherwise affect the success of transplanting and seeding efforts. Tackifiers will be approved by BLM prior to use.

166. A.1.25: Stockpiled soil will be seeded with an interim seed mix if it is left for more than one growing season. The seed mix and application rate will be approved by the BLM. The seed mixture: 1) will be obtained from a BLM-approved commercial seed vendor, 2) will not include any species specifically identified by the BLM, and 3) will be certified free of plant species listed on the Nevada noxious weed list. Vegetable-based soil binders and/or hydromulch may be used on stockpiled soil to reduce seed movement and erosion.

167. A.1.26: For areas within the ROW where noxious and non-native invasive weed infestations are noted, topsoil and cleared vegetation will be stockpiled separately and signed, to avoid mixing with topsoil salvaged from other areas. During restoration this topsoil and cleared vegetation will be placed in the area from which it was removed. If topsoil and cleared vegetation are removed from an area with noxious weed infestations, the stockpiled topsoil will be treated with herbicides prior to seeding the area. Areas with noxious and non-native invasive weeds will be treated and/or monitored in accordance with the BLM-approved Integrated Weed Management Plan.

168. A.1.27: A record will be maintained of when construction-related major ground-disturbing activities begin and are completed, and when restoration activities are initiated. SNWA will provide this information in annual reports to the BLM.

Access Roads

169. A.1.28: A Construction Traffic Management plan will be developed and coordinated with the BLM and other relevant state and local authorities prior to the start of construction for each major phase of the project. The plan will include measures to reduce the number of construction trips by use of car-pooling and/or construction shuttles, scheduling of work shifts and materials deliveries, designation of access routes, and other measures to minimize traffic effects. The plan will also take into account active seasons for hunting, camping, and/or other recreational activities that occur within the same time and place as each phase of construction.

170. A.1.29: While driving on paved roads or marked dirt roads, posted speed limits will be maintained. While driving within the construction area, on un-posted dirt roads, and

within desert tortoise habitat a maximum speed limit of 25 miles per hour will be maintained to reduce dust and allow for observation and avoidance of desert tortoise, livestock, wild horses, visitors to the public land, or other wildlife in the road.

171. A.1.30: Public access routes within or crossing the ROW will be maintained or detour routes will be identified during construction activities. Detours needed for temporary road closures due to safety concerns will be established in coordination with the BLM and local authorities.

172. A.1.31: Signing and traffic controls will be placed well in advance of the construction area to warn motorists of detour routes available during construction.

173. A.1.32: Signs and persons with flags will be used within the construction area as necessary to direct traffic in accordance with all applicable Nevada Department of Transportation, county, and local rules and ordinances.

174. A.1.33: Designated construction entry locations into the ROW will be identified from existing roads. These entry locations will be stabilized with crushed rock underlain by geotextile filter fabric, or temporary asphalt pavement to prevent sediment from being tracked onto asphalt, concrete, or improved road surfaces and to limit other damage such as road shoulder rutting.

175. A.1.34: Sediment transported onto a public paved road surface by construction equipment or other vehicles will be removed immediately by shoveling and sweeping. This material will be disposed at an approved area, within the ROW. Road washing will be allowed only after the sediment is removed in the above manner.

176. A.1.35: Wheel washers will be installed at vehicles ingress and egress locations between unpaved roads (within the permanent and temporary ROW) and paved roads (outside the permanent and temporary ROW). Trucks and all equipment will be washed every time they leave the site. Excess dirt on the wheels, undercarriage, and bodies of trucks exiting work areas will be removed prior to allowing the trucks to exit onto paved roads, to reduce track-out of soils, debris, and invasive and noxious weeds. SNWA's Construction Inspector and the Environmental Compliance Representative will supervise and monitor use of the wheel washing stations.

177. A.1.36: During construction, all unpaved access roads used by construction personnel, equipment, and materials deliveries will be maintained in coordination with local county and BLM requirements. This maintenance may include use of additional road base materials to maintain road integrity.

178. A.1.37: At the completion of construction, previously existing access roads will be restored to pre-construction conditions or better. Improvements made for construction will be left in place. In areas of silty soils, the roads will be restored to pre-construction conditions or better.

Construction

179. A.1.38: Construction contractors will provide site security for equipment and materials, and to limit access to construction sites to authorized personnel. This may be accomplished through use of security personnel, signage, and/or fencing of facility sites as needed.

180. A.1.39: Firearms and domestic dogs will be prohibited from the ROW, except as used by authorized law enforcement personnel.

181. A.1.40: The ROW will be kept free from any accumulation of construction waste, trash, and debris, to reduce the attractiveness of the area to opportunistic predators such as desert kit fox, coyotes, and common ravens. Food-related trash, also including cigarettes, cigars, gum wrappers, tissue, cans, paper, and bags, will be disposed of promptly in predator-proof containers with resealable lids. Trash containers will be removed regularly (following the close of each work day). Trash, debris, and/or waste will not be buried or burned. Disposal of trash and debris will be off-site, at a State of Nevada approved sanitary landfill site. Upon construction completion, all construction refuse, including but not limited to broken equipment parts, wrapping material, cords, cables, wire, rope, strapping, twine, buckets, metal or plastic containers, and boxes will be removed from the ROW and disposed of properly.

182. A.1.41: Sanitary waste will be contained within portable toilet facilities. Portable toilets will be obtained by construction contractors and sited in designated locations in the construction area. The toilets will be maintained and serviced as needed for the duration of construction, and removed at the completion of construction.

183. A.1.42: In areas not enclosed by security fencing, escape ramps will be placed at each end and every ¼-mile of any trench or other excavation deeper than one foot to allow escape of wildlife, wild horses, or livestock that may become entrapped. The spacing of escape ramps may be adjusted upon approval of the CIC to ensure ramps are placed in areas near water sources and visible livestock/wildlife trails. The escape ramps will consist of loose dirt at a 2:1 or shallower slope. Excavation areas that are left open overnight will be checked by a biological monitor every morning and evening, prior to backfilling. They will also be checked periodically throughout the day as the biological monitor patrols the construction zone.

184. A.1.43: Hazardous and toxic materials such as fuels, solvents, lubricants, and acids used during construction will be controlled to prevent accidental spills. Toxic and hazardous materials will be stored in secondary containment structures to prevent any spilled material from leaving the area. Specific areas for equipment maintenance and refueling will be designated and identified in the detailed POD(s). Vehicle and equipment refueling and hazardous materials storage will not be allowed within 100 feet of any jurisdictional wash or stream.

185. A.1.44: Spill cleanup kits will be available on equipment and maintained so that any spill of fuels, solvents, lubricants, or acids can be quickly cleaned up. Construction and maintenance personnel will be trained in the proper use of the spill kit materials and correct disposal procedures.

186. A.1.45: Any leak or accidental release of hazardous and toxic materials will be stopped immediately and cleaned up at the time of occurrence. Contaminated soils will be removed and disposed of at a State of Nevada approved landfill site.

187. A.1.46: Any release of hazardous and/or toxic materials in excess of a reportable quantity established by 40 CFR, Part 117 will be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, Section

102b. A copy of any report required or requested by any Federal agency or state government as a result of a reportable release or spill of any toxic substances will also be submitted to the BLM.

188. A.1.47: For every active phase of construction, a water truck and other fire suppression equipment such as extinguishers and shovels will be available on-site during construction. A designated individual on each construction site will be responsible for fire watch and fire suppression. For welding crews, one team member will be responsible for fire watch, in addition to the individual designated for the construction site fire watch and fire suppression. When welding at field locations, all flammable materials (i.e., brush, litter) will be cleaned for a distance of 15 feet around the area.

189. A.1.48: Where the construction ROW crosses beneath existing power lines, warning signs will be installed with identified height restrictions. A construction watchman will be designated during construction activities beneath power lines, to ensure equipment keeps specified distances from the power line conductor cables.

190. A.1.49: When construction practices overlap with a previously authorized ROW on BLM land, at the request of the other ROW Holder, SNWA will notify the ROW Holder of construction specifics as they relate to the authorized ROW.

191. A.1.50: If blasting is determined to be necessary based on project design, a Blasting Plan will be prepared and submitted to the BLM for approval in advance of construction. Any blasting will be conducted as unobtrusively as possible and managed to avoid damage to nearby facilities or properties. Blast noise monitoring will be conducted if blasting will be in the vicinity of occupied properties or sensitive public uses such as campgrounds or visitor facilities.

192. A.1.51: Dewatering is not anticipated to be required for project construction. If subsequently determined to be needed based on detailed geotechnical investigations, a dewatering plan will be prepared and submitted to the BLM for approval in advance of construction. Should dewatering be necessary, discharge water will be directed to prevent flow from entering streams, wetlands, or sensitive environmental areas. Erosion and sediment control will be conducted the same as described for stormwater practices.

193. A.1.52: When crossing intermittent, ephemeral, or perennial drainages, pipeline construction will follow industry standards and permit requirements, as well as BLM's guidance practices laid out in the document titled Hydraulic Considerations for Pipelines Crossing Stream Channels (ftp://ftp.blm.gov/pub/nstc/TechNotes/TechNote423.pdf).

Stormwater and Erosion Control

194. A.1.53: A General Permit for Stormwater Discharges Associated with Construction Activity (NVR100000) will be obtained prior to any surface disturbance that includes clearing, grading, excavation, and/or stockpiling.

195. A.1.54: A site specific Stormwater Pollution Prevention Plan (SWPPP) will be prepared and implemented for each construction contract. The SWPPP will identify all potential sources of pollution which could affect the quality of stormwater discharges from the construction site, describe the construction activities that disturb soils at the site,

provide an estimate of the total disturbance area, and identify waters of the United States within 1 mile of the site. A copy of the SWPPP will be kept on site and updated as needed to manage pollutants or reflect changes in site conditions.

196. A.1.55: A Spill Prevention, Control and Countermeasure Plan (40 CFR 112) will be prepared and submitted to the BLM. The plan will describe measures that will be taken to properly store, handle, and prevent hazardous materials from being picked up in stormwater and transported offsite. It will also contain measures related to clean up procedures and time frames, notification procedures, and restoration efforts for the affected area.

197. A.1.56: Construction sequencing will be designed and scheduled to create the shortest construction window practicable and the least amount of potential stormwater runoff. Construction, cleanup, and reclamation will be sequenced to minimize the time between ground disturbance and final restoration.

198. A.1.57: Erosion and sediment control will be implemented using both non-structural and structural BMPs. Non-structural BMPs are methods or programs such as education, management and development practices, good housekeeping, and construction sequencing. Structural BMPs are physical devices or means for removing, reducing, retarding, or preventing targeted stormwater runoff constituents, pollutants, and contaminants from reaching receiving waters, and will be identified in the detailed POD(s).

199. A.1.58: Temporary erosion and sediment controls will be installed as necessary prior to initial soil disturbance activities and will be maintained throughout construction and reclamation. These controls will be designed to retain sediment on site to the maximum extent practicable. Typical erosion and sediment control BMPs include:

- Siltation or filter berms;
- Filter or silt fencing;
- Sediment barriers, e.g., sand bags, hay bales, straw wattles (straw bound into rolls or bales);
- Rock or gravel mulches, wood chip, straw & bark mulches; and
- Jute and synthetic netting.

Any hay or straw used for erosion control will be certified weed-free. Temporary erosion and sediment controls will be inspected after major precipitation events, and will be removed after construction and/or when they are no longer needed.

200. A.1.59: During construction, broken structural erosion controls will be replaced or restored as soon as practicable but before the next forecasted precipitation event. Sediment will be removed from structures when sediment reaches 50 percent of the barrier capacity.

201. A.1.60: For construction activities crossing a dry wash, soil and spoil stockpiles will be pushed away from jurisdictional dry washes and stored a minimum of 10 feet above the ordinary high-water mark if silt fencing is used to limit sedimentation of these areas; otherwise, stockpiles will be located 100 feet away from dry washes. All stockpiles will be kept within project ROW.

202. A.1.61: At a minimum, a 10-foot long vegetation buffer strip or other erosion control measure such as straw bales or wattles (certified weed free) will be maintained between the cleared ROW and an adjacent drainage high-water mark of jurisdictional drainages if the time between clearing/grading and trenching/pipe installation is expected to exceed 10 days or if a precipitation event is forecast. The length of the buffer strip will cover the disturbance length, plus an additional 10 feet on each end, or longer as determined by the construction contractor, SNWA, or the BLM, to be necessary.

203. A.1.62: Non-stormwater discharges, including water from pipeline and facility hydrostatic testing and trench dewatering if needed, will be directed into existing dry washes or other downstream project facilities as feasible. BMPs such as diffusers or other energy dissipaters, straw bales (certified weed free), or minor earthwork impoundments within the ROW will be used to control the flow of water and reduce erosion. Discharges will be managed and monitored so that they do not exceed the typical 2 to 5 year flood event of the existing washes. Water used for vehicle washing and similar purposes will be contained within designated areas using berms and allowed to percolate into the ground surface.

204. A.1.63: Stormwater compliance inspections will be conducted by SNWA throughout construction to ensure compliance with the SWPPP and Nevada Division of Environmental Protection (NDEP) permits. Inspections will include disturbed areas of the project that have not been stabilized, material and equipment storage areas that are exposed to precipitation, all erosion and sediment control measures installed within the ROW, all structural control measures, and all locations where vehicles enter and/or exit the ROW. Inspectors will notify the construction manager to suspend or redirect work activities where requirements of the SWPPP are not being followed, and implement corrective action as required to achieve compliance. Inspection reports will be maintained on file and submitted to the BLM and NDEP upon request.

205. A.1.64: A Hydrostatic Discharge Plan will be submitted to the BLM for approval, prior to the start of any discharges at the completion of construction.

206. A.1.65: Water quality of the non-stormwater discharges will be tested prior to discharge in accordance with NDEP permit requirements. If the hydrostatic testing water is not discharged into a body of water, the water will be tested for chlorine residual. If chlorine is found, it will be treated prior to discharge in accordance with discharge permit requirements. If the hydrostatic testing water is discharged into a water body with designated beneficial uses, the water quality standards to maintain those beneficial uses will be tested for. These standards are specific to each particular water body, and will be tested for accordingly. If there is a constituent that exceeds the water quality standard, the water will be treated in accordance with National Pollutant Discharge Elimination System permit requirements or hauled off site for disposal.

207. A.1.66: At the completion of construction, all non-natural berms, ditches, temporary erosion and sediment controls, bales, wattles, and other energy dissipating/filtering devices not required for protection of facilities will be removed, and drainages restored to their original form. Soils used for erosion control structures and soils captured by those structures will be utilized in the ROW for permanent facilities construction, or disposed in the borrow pits that are approved for the project. Bales, wattles, and other

energy dissipating/filtering devices will be disposed of in approved trash receptacles. The ground surface will be graded to match the surrounding topography and/or slopes as closely as possible.

208. A.1.67: Desert washes and ephemeral drainages will be restored to pre-existing conditions. Soils will be compacted, and additional stabilization measures such as rip rap may be required to protect the facilities and prevent increased erosion in the wash. If armoring of the channel crossing with rip-rap or concrete due to high erosion potential is necessary, those areas would be identified in the POD for BLM approval.

209. A.1.68: Post-construction stormwater management will consist of permanent erosion control measures installed as necessary at the completion of construction to protect areas disturbed by SNWA activities. These could include vegetation restoration, tracking and matting of steep slopes to maintain stability, berming, and/or placement of riprap. Final stabilization of soil disturbed areas will be achieved when vegetation restoration is completed in accordance with the BLM-approved Restoration Plan and NDEP stormwater permit requirements.

Restoration

210. A.1.69: A detailed Restoration Plan will be prepared and submitted to the BLM for approval prior to the start of construction. The portion of the plan pertaining to restoration in listed species or technical assistance species habitat will also be submitted to the USFWS for approval. The Restoration Plan will describe reclamation and rehabilitation objectives and methods to be used, species of plants and/or seed mixture to be used, time of planting, success standards, and follow-up monitoring. Reclamation will range from re-contouring, to rehabilitation and restriction of access points, to intensive reclamation over the entire area of surface disturbance.

211. A.1.70. Vegetation conditions of the ROW and adjacent reference site locations will be documented in the Restoration Plan prior to construction, to establish baseline conditions for restoration. SNWA shall use the Nevada Guidelines for Successful Revegetation prepared by the Nevada Division of Environmental Protection, the BLM, and the U.S. Department of Agriculture Forest Service (or most current revision or replacement of this document) to determine if revegetation is successful, unless otherwise approved by the BLM. Restoration will focus on restoring pre-existing habitat conditions, with the exception of pinyon-juniper habitat which has encroached on sagebrush habitat within some portions of the ROW. Soil data maps from the Natural Resources Conservation Service will be used, in consultation with BLM, to determine which ecological pinyon-juniper sites will be restored to sagebrush habitat.

212. A.1.71: All cacti and yucca within the ROW that will be disturbed in the Mojave Desert habitat portion of the project will be salvaged, with the following exceptions:

- Cholla, including silver or golden cholla (*Opuntia echinocarpa*) and pencil cholla (*Opuntia ramosissima*), equal to or greater than 3 feet tall or less than 1 foot tall (i.e., only these species of cholla between 1 foot and less than 3 feet tall will be salvaged)

- All cacti and yucca whose vegetative mass is more than 40% dead (i.e., apical leaves, brown or significantly chlorotic, stems rotten or significantly desiccated, etc.)
- All cacti and yucca less than 1 foot tall (excluding barrel cactus [*Ferocactus cylindraceus*], cottontop cactus [*Echinocactus polycephalus*], and hedgehog cactus [*Echinocereus* sp.])
- All yucca, including Joshua tree (*Yucca brevifolia*), that are over 6 feet in height
- Any cacti or yucca that cannot be accessed safely due to steep slopes or very rocky areas
- All cacti and yucca not salvaged will be left on-site to become part of the vegetative mulch.

213. A.1.72: Within the portion of the ROW located within special designation areas (e.g., critical habitat, areas of critical environmental concern) identified in BLM RMPs or other Federal policies or directives, additional shrub salvage or enhanced seed application will be conducted to enhance restoration efforts. Additional shrub salvage may be accomplished by either 1) salvaging from BLM lands within the ROW, 2) salvaging from an approved off-site harvest site, and/or 3) propagation of shrubs from native seed in an approved nursery.

214. A.1.73: Salvaged cacti, yucca, and shrubs will be transported to designated temporary nursery sites within the ROW until restoration activities commence. Upon approval from the BLM, salvaged vegetation may also be stored at designated off-site nurseries. Salvaged plants from the same general areas will be grouped together and identified for future replanting in the areas from which they were salvaged. All salvaged plant material will be approved by the BLM or on-site biologist prior to transplanting into the nursery sites. A list will be developed for each nursery site to verify that the quantities of plant material match what and where it was extracted.

215. A.1.74: Plant salvage will occur only within the permanent and temporary ROW, as indicated in Restoration Plan. Salvaging will not begin until the permanent and temporary ROW has been clearly staked and flagged. As feasible, salvage operations will not be performed during periods of high temperatures or other unfavorable environmental conditions. All salvaged plants will be documented and catalogued.

216. A.1.75: Prior to commencing any plant salvage operations, a Free Use Permit, Flora transportation tags, or any other required permits will be obtained to transport salvaged plants as part of restoration activities.

217. A.1.76: Salvaged plants will be maintained for the duration of construction activities, until replanted within the ROW as part of site restoration. Maintenance will include necessary watering and other care to ensure reasonable survival of the salvaged plants.

218. A.1.77: At the completion of construction, in areas where there are no above-ground facilities, permanent access roads, or facilities no less than 12 inches below the ground surface, the ground surface will be ripped to an appropriate depth based on site characteristics to help relieve compaction, to establish an adequate seed bed to provide good seed-to-soil contact, and facilitate water penetration and plant establishment. Topsoil, mulched vegetation and boulders salvaged at the start of construction will be

re-spread across the ROW at the completion of construction. Boulders will be respread in density and patterns similar to adjacent undisturbed areas.

219. A.1.78: Upon the completion of topsoil replacement, salvaged plants will be removed from the nursery sites and transplanted within the ROW, in areas not occupied by above-ground facilities or access roads. Efforts will be taken to restore plants to the same general area from which they were salvaged. Plants will be replanted in a random and non-uniform pattern, in an effort to mimic the adjacent non-disturbed native plant communities. Planting holes will be two times the size of the plant material to be transplanted and will be pre-watered. All backfill will be free of debris, foreign objects, rocks large enough to obstruct root growth or watering, and noxious weeds. As feasible, transplanting will not occur during periods of high temperatures or other unfavorable environmental conditions.

220. A.1.79: A comprehensive seeding program will be applied after completion of topsoil and plant replacement. The seed mix, application rate, and application method will be described in the Restoration Plan and approved by the BLM. Vegetable-based soil binders and/or hydromulch may be used on steep slopes to reduce seed movement and erosion. Seeds for restoration will be obtained from native local seed and/or a BLM-approved commercial seed vendor, and will be certified free of plant species listed on the Nevada noxious weed list or specifically identified by the BLM.

221. A.1.80: A final watering will be conducted approximately 2 weeks after completion of seeding, to help remove air pockets and compact soils in and around the roots of transplanted vegetation. Additional supplemental watering may be conducted, if practicable based on access, and if needed to enhance restoration.

222. A.1.81: Signs indicating restoration activities are being conducted may be installed where needed to deter public off-road vehicular damage to restored areas. Placement and design of signs will be coordinated with the BLM and identified in the Restoration Plan.

Noxious Weeds

223. A.1.82: An Integrated Weed Management Plan will be prepared and submitted to the BLM for approval prior to the start of construction. The portion of the plan pertaining to restoration in listed species or technical assistance species habitat will also be submitted to the USFWS. Noxious weed control will be implemented to minimize the spread of noxious weeds during and following construction activities. All weed control efforts on BLM-administered lands will be in compliance with BLM Handbook H-9011, H-9011-1 Chemical Pest Control, H-9014 Use of Biological Control Agents of Pests on Public Lands, and H-9015 Integrated Pest Management.

224. A.1.83: Areas within the ROW that have pre-existing noxious weed infestations will commence to be treated with a BLM-approved control method (i.e., chemical, mechanical, and/or biological controls) two to three years prior to the start of construction activities, as feasible.. If noxious weed infestations still exist within the ROW at the start of construction, topsoil and fill will be kept segregated and not transported to other areas within the ROW.

225. A.1.84: Prior to the import of borrow or fill from outside the ROW, the source material location will be inspected by a qualified biologist or weed scientist to ensure it is free of noxious weeds or specifically identified in the BLM approved Integrated Weed Management Plan for the project.

226. A.1.85: Any hay, straw, or other organic products used during construction, restoration, operations, maintenance, or for stabilization will be certified free of plant species listed on the Nevada noxious weed list or specifically identified in the BLM approved Integrated Weed Management Plan for the project.

227. A.1.86: Vehicles and equipment will be cleaned with a high pressure washer prior to arrival on the ROW and prior to departure from areas of known noxious weed infestations to prevent or at least minimize the introduction or spread of noxious weeds. Cleaning efforts will concentrate on tracks, tires, and vehicle undercarriage, with special emphasis on axles, frames, cross members, motor mounts, on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out and refuse will be disposed of in waste receptacles. Cleaning sites will be recorded using global positioning systems or other mutually acceptable equipment and provided to the BLM Weed Coordinator or designated contact person.

228. A.1.87: Specific vehicle washing stations will be designated within the ROW for vehicle and equipment washing. These areas will be identified in the detailed POD(s) and approved by the BLM. Cleaning areas will be monitored for growth of noxious weeds and treated accordingly.

229. A.1.88: SNWA or its certified licensed contractor will submit a Pesticide Use Proposal to the BLM prior to the planned application of any herbicide and a Pesticide Application Record after the planned application of the herbicide. The pesticide use proposal will identify areas of planned herbicide application for BLM use in consultation with Native American tribes, if necessary. No herbicide mixing or rinsing of containers or application equipment will occur within 100 feet of natural water sources (i.e., lakes, streams, or springs). An annual report on herbicide application on public lands within the ROW will be provided to the BLM.

230. A.1.89: Herbicides will not be sprayed within or around an exclusion area containing sensitive resources. These areas will be delineated with orange snow fencing during construction or by GPS data. Removal of noxious and invasive weeds in these areas shall be accomplished by alternative method(s) approved by the BLM.

General Operation Practices

231. A.2.1: Facility inspection and maintenance will only use established access roads, and no off-road travel will be allowed. While driving on paved roads or marked dirt roads, posted speed limits will be maintained. While driving on un-posted dirt roads, a maximum speed limit of 25 miles per hour will be maintained to reduce dust and allow for observation of desert tortoise, livestock, wild horses, or other wildlife in the road.

232. A.2.2: The ROW will be maintained in a clean condition, and any waste material, including human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment that may be deposited in the ROW will be disposed of promptly at a State of Nevada approved landfill site.

233. A.2.3: Hazardous materials at the WTF will be stored in secondary containment structures, in compliance with Clark County and Occupational Safety and Health Administration (OSHA) standards.

234. A.2.4: Pipelines and facilities will be equipped with pressure and flow sensors that will immediately indicate a major system failure or break. The system will begin an automatic shutdown process to isolate the affected area. Valve placement and storage capacity are planned to allow isolation of pipeline segments to minimize drainage volumes as much as possible. Personnel will be promptly mobilized to evaluate and repair any failure as quickly as possible.

235. A.2.5: Stormwater discharges will be managed during facility operation by conducting regular inspection and maintenance of any permanent erosion control structures. Inspections will be conducted prior to and immediately following a rain event. Maintenance will be performed on the permanent structures as needed.

236. A.2.6: Pipeline or other facility repairs that may be needed will be accomplished within the ROW, following all environmental requirements of this plan. If additional temporary ROW is required for pipeline or facility repair, prior written approval will be obtained from the BLM. If additional area is required for emergency repairs, such as in the case of a major system failure or break, SNWA will obtain BLM verbal or written permission prior to any disturbance outside of the permitted ROW.

237. A.2.7: Limit maintenance of existing roads to the existing disturbance, and perform maintenance in accordance with specifications provided by the Ely District Office in consultation with the USFWS.

238. A.2.8: If major infrastructure replacements or improvements are required, additional temporary ROWs may be required. Notification and prior approval for said additional temporary ROWs will be obtained from the BLM as required.

Restoration Monitoring

239. A.2.9: Vegetation restoration success will be monitored by SNWA and reported to the BLM, as defined in the approved Restoration Plan for BLM lands. Monitoring will include both qualitative and quantitative data collection and analysis. Restoration will be considered successful when the area meets a specified percentage of vegetation cover and species density compared to adjacent reference sites. Vegetation restoration success on non-BLM lands will be coordinated with the respective landowners.

240. A.2.10: Annual restoration monitoring reports will be submitted to the BLM for seven years documenting post-construction monitoring, and will include but not be limited to activities conducted, current status, recommended future activities, and lessons learned. Along with the annual report in the fifth and seventh years, SNWA will include a quantitative analysis, to allow opportunity following the fifth-year report to correct any issues that may prevent restoration site release within the subsequent two years. If monitoring indicates that restoration is not trending towards meeting or has not met designated success criteria, the restoration activities may be revised and remedial measures implemented, subject to BLM approval. Restoration activities and annual reporting shall continue until the restoration fulfills the requirements of the BLM-approved Restoration Plan, and SNWA receives written release from BLM. Since

successful restoration may be achieved in some areas more quickly than other sites, written approval shall identify the area released.

241. A.2.11: In the unlikely event of a major system rupture resulting in discharge of water greater than 5,000 gallons or off-site erosion, SNWA will notify BLM and other appropriate government entities as identified in the Emergency Response Plan. SNWA will coordinate with the BLM to develop and implement incident-specific restoration measures as directed by the BLM.

242. A.2.12: The ROW and primary unpaved access routes used for facility inspections will be monitored for noxious weeds from the start of construction until termination of the ROW. Noxious weeds will be treated with a BLM-approved control method (i.e., chemical, mechanical, and/or biological controls) as needed. A Pesticide Use Proposal will be submitted to the BLM prior to any planned noxious weed herbicide application, and a Pesticide Application Record will be submitted after weed herbicide use. All applications of herbicides shall comply with BMPs, Standard Operating Procedures (SOPs), and Conditions from the Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States Programmatic EIS (BLM, 2007).

243. A.2.13: An annual report on noxious weeds conditions and control activities within the ROW will be submitted to the BLM.

Geologic Hazards and Soils

244. A.3.1: If fault crossings of the pipeline are identified during detailed geotechnical investigations, additional design features will be added to ensure pipeline integrity (e.g., flexible couplings, increased pipe wall thickness, pipe sleeves).

245. A.3.2: In the "fissures" area of Dry Lake Valley, in addition to design features, over-excavation of existing soils and replacement with engineered fill, grouting of fissures, and/or use of geo-textile fabric will be utilized as needed to ensure pipeline stability.

246. A.3.3: Soils unsuitable for use as pipeline backfill will be used to refill borrow pits identified as part of the project and will not be exported from Federal lands.

Water Resources

247. A.4.1: In accordance with Clean Water Act permitting requirements, BMPs will be implemented for the pipeline crossing of perennial water flows. The BMPs will utilize industry-accepted procedures.

248. A.4.2: The project has been sited to avoid wetlands, and no construction is currently planned to occur in wetlands.

Biological Resources

249. A.5.1: The portion of the project within private property in Clark County, will comply with the Clark County Multiple Species Habitat Conservation Plan. SNWA will pay applicable fees and obtain necessary permits prior to the start of construction.

250. A.5.2: Qualified biologists will act as biological monitors and be present on-site during project-related actions that may impact sensitive biological resources. The authorized BLM officer will approve the selected consulting firm/biologists to be used to implement the terms and conditions of the Biological Opinion or other agreements between SNWA, the BLM, and other Federal or state agencies. Any biologist and/or

firm not previously approved will submit a curriculum vitae and be approved by the BLM authorized officer. Other personnel may assist with implementing terms and conditions that do not involve tortoise handling, monitoring, or surveys, but only under direct field supervision of the BLM-approved biologists.

251. A.5.3: All necessary Federal and state handling permits will be obtained and will comply with Nevada Revised Statutes (NRS) 503.597.

252. A.5.4: The biological monitors will be responsible for determining compliance with measures as defined by the Biological Opinion or other agreements between SNWA, the BLM, and other Federal or state agencies. Biological monitors will have the authority to halt non-emergency construction activities that are not in compliance with these measures. Stop work directives will be effective long enough to remedy the immediate situation, and will be limited to the equipment and parties involved in the situation. All action of non-compliance or conditions of threat to protected species will be recorded immediately by the biological monitor and reported to SNWA. SNWA will immediately report all such action and conditions to BLM for reporting to the USFWS and/or NDOW.

253. A.5.5: No intentional harassment or harming of animals will be allowed. Animals found entrapped in open holes, open pipes/culverts, or excavations will be reported to the biological monitor. Before any pipe with a diameter of 3 inches or greater is buried, capped, or moved it will first be inspected for animals. If the wildlife is unable to escape on its own, it will be moved from the construction area by the biologists, in accordance with applicable Federal and state guidelines. The Environmental Compliance Representative will report to the BLM and other Federal or state agencies, in accordance with permit requirements, any entrapment, death, or injury to Federal or state listed threatened or endangered, or special status species.

254. A.5.6: Prior to discharge of water used for hydrostatic testing of the pipeline and other facilities, all appropriate discharge and biological permits will be obtained and the drainage locations will be surveyed for special status species and nesting migratory birds. BLM will be notified of any special status species or nesting migratory birds found in the drainage area, and will determine whether additional measures need to be implemented prior to the discharge, beyond those identified in project permits and any other applicable agreements or requirements between SNWA and the BLM, USFWS, or NDOW.

255. A.5.7: Biological resource monitoring and compliance updates will be provided to the BLM throughout the construction period for record keeping and project documentation purposes. These will include information on ongoing construction activities, monitoring, wildlife and special status species observations, species relocations, entrapped special status species, and any other pertinent biological issues. Updates may be written or oral, as agreed upon by the BLM and SNWA biologists. An annual written report will be provided to the BLM.

256. A.5.8: Perch discouraging devices will be installed on new power lines in areas identified by the BLM and USFWS as having increased predation risk to sensitive species from perching raptors and Corvids (birds of the crow family). Perch

discouraging devices will manage where the birds perch, but cannot entirely prevent perching (APLIC, 2006).

Special Status Plants

257. A.5.9: In areas where sensitive plant species were identified in previous surveys either within or adjacent to the ROW, pre-construction surveys will be conducted during the blooming or fruiting season as needed to verify plant identification. Specific locations of sensitive plants, based on the BLM sensitive plant list in effect at the time, will be recorded for subsequent salvage or seed collection. To date, sensitive plant species that have been identified within the ROW include:

- Rosy twotone beardtongue (*Penstemon bicolor* spp. R*oseus)*,
- Blaine's fishhook cactus (*Sclerocactus spinosior* ssp. *Blainei)*,
- Eastwood milkweed (*Asclepias eastwoodiana*),
- Las Vegas buckwheat (*Eriogonum corymbosum* var. *nilesii)*,
- Long-calyx egg milkvetch (*Astragalus oophorus* var. *lonchocalyx*),
- Nachlinger catchfly (*Silene nachlingerae)*,
- White bearpoppy (*Arctomecon merriamii*).

258. A.5.10: SNWA will adjust construction activities as feasible to avoid any identified sensitive plant populations within the ROW. Orange snow fencing will be used to mark the avoidance area including a reasonable buffer, alerting construction personnel to avoid the area. The onsite Environmental Compliance Representative will ensure these areas are properly monitored and protected. When individual sensitive plant locations are known (coordinates have been surveyed with GPS equipment) prior to construction drawings being prepared, the sensitive plants will be included in the construction drawings.

259. A.5.11: If the sensitive plant species cannot be avoided, SNWA will implement plant or seed salvage prior to the start of construction. Seeds will be collected from sensitive plants that are located within the ROW. Collection, storage, and handling of seeds will be in accordance with commonly accepted scientific practices. Collected sensitive plant seed will be applied with the seeding program as part of restoration at the completion of construction, and in the same general area as the seeds were initially collected, as appropriate.

260. A.5.12: If previously unknown special status plant species are discovered within the ROW prior to start of construction, SNWA will consult with the BLM on appropriate plant and/or seed salvage.

261. A.5.13: If Federal or state protected plant species are discovered within the ROW during construction, the on-site biological monitor will have the authority to temporarily halt non-emergency construction activities in order to: 1) mark the area with orange snow fencing, including a reasonable buffer, to alert construction personnel to avoid the area, or 2) allow time for SNWA to consult with the BLM on appropriate plant and/or seed salvage.

262. A.5.14: SNWA will avoid exclusion areas created for sensitive plants when spraying herbicides.

263. A.5.15: Construction practices such as steeper trench walls, narrower roads within the ROW, and adjusting power pole spacing will be employed to avoid to the extent feasible Blaine's fishhook cacti identified within the ROW in Dry Lake Valley based upon pre-construction surveys (currently 10 known plants are anticipated to be avoidable). Orange snow fencing will be used to delineate a 3 meter exclusion area around the plants. Other Blaine's fishhook cacti which cannot be reasonably avoided will be salvaged and transplanted (currently 3 known plants anticipated to be unavoidable and requiring salvage). Salvage and transplant methodology, location, and subsequent monitoring will be identified in the Restoration Plan (see measure A.1.69 [Stipulation 210]) approved by the BLM and USFWS. Transplant will be into either suitable adjacent habitat on BLM land that will not be disturbed by construction activities, or captive propagation. Salvage will use a wet rootball method, or other method with a higher success rate based upon current research. If these measures cannot be feasibly implemented, SNWA will consult with BLM and USFWS on appropriate additional measures.

Desert Tortoise

The applicant-committed measures for desert tortoise listed below (Stipulations264-284) were developed prior to completion of the USFWS's Biological Opinion. If there is any conflict between these measures and those associated with the USFWS' Biological Opinion (Stipulations75-108), the measures associated with the Biological Opinion will apply.

264. A.5.16: Appropriate state and Federal permits or letters of authorization will be acquired prior to handling desert tortoises and their parts, and prior to initiation of any activity that may require handling tortoises. Desert tortoise will only be handled by BLM and USFWS approved biologists and solely for the purpose of moving them out of harm's way. If a tortoise is found onsite during project activities, which may result in take of the tortoise (i.e., in harm's way), such activities shall cease until the tortoise moves, or is moved, out of harm's way.

265. A.5.17: Biologists, monitors, or anyone responsible for conducting desert tortoise monitoring or desert tortoise field activities associated with the project will complete the USFWS's Qualifications Form and submit it to the USFWS for review and approval as appropriate. The USFWS should be allowed 30 days for review and response.

266. A.5.18: For construction of desert tortoise exclusion fencing (measure A.1.14), the biologists will survey the fence construction area for desert tortoises and their burrows using USFWS approved protocols. If construction occurs during the desert tortoise active season (March 1 through October 31), or when temperatures and environmental conditions are conducive to tortoise activity as determined by an authorized biologist, two surveys would occur. The first survey would be conducted within 7 days prior to surface-disturbance; and the second survey would occur within 24 hours of surface disturbance. A biological monitor will remain onsite during construction of the tortoise exclusion fencing to ensure that no tortoises are harmed. If the fence is constructed during the inactive season (November 1 through February 28/29, except as noted above) when conditions are not conducive to tortoise activity as determined by an authorized biologist, one survey would occur within 72 hours of surface disturbance. Tortoise

burrows that occur immediately outside of the fence alignment that can be avoided by fence construction activities will be clearly marked to prevent crushing.

267. A.5.19: For areas within desert tortoise habitat not enclosed by tortoise exclusion fencing, prior to ground disturbing activities within the ROW, the biologists will survey for desert tortoises and their burrows using USFWS approved protocols. If construction occurs during the desert tortoise active season (March 1 through October 31), or when temperatures and environmental conditions are conducive to tortoise activity as determined by an authorized biologist, two surveys would occur. The first survey would be conducted within 7 days prior to surface-disturbance; and the second survey would occur within 24 hours of surface disturbance. During the inactive season (November 1 through February 28/29, except as noted above) when conditions are not conducive to tortoise activity as determined by an authorized biologist, one survey would occur within 72 hours of surface disturbance. All potential desert tortoise burrows will be examined to determine occupancy of each burrow by desert tortoises in accordance with USFWS-approved protocol.

268. A.5.20: For areas enclosed by tortoise exclusion fencing, clearance surveys will be conducted no more than 7 days before the start of any construction activity. These clearance surveys will follow standard USFWS protocol, to facilitate discovery of all burrows, regardless of orientation.

269. A.5.21: All burrows found in the construction area, whether occupied or vacant, will be excavated by the biologists and collapsed or blocked to prevent desert tortoise re-entry. All burrows will be excavated by hand, with hand tools, to allow removal of desert tortoises or desert tortoise eggs. All desert tortoise burrows, other species' burrows, and natural excavations that may be used by tortoises where the burrow end cannot be seen or occupancy cannot be determined, will be examined with a fiber-optic scope or miniature closed-circuit video probe to determine occupancy by desert tortoises.

270. A.5.22: All desert tortoises and desert tortoise eggs found within the construction area will be relocated by the biologists 300 to 1,000 feet from the construction area into adjacent, undisturbed habitat. Tortoises and nests that are found will be handled and moved out of harm's way by the biologists in accordance with USFWS-approved protocol. Burrows containing tortoises or nests will be excavated by hand, with hand tools, to allow removal of the tortoise or eggs. Desert tortoises moved during the tortoise inactive season or those in hibernation, regardless of date, will be placed into an adequate burrow; if one is not available, one will be constructed in accordance with Desert Tortoise Council protocol. During mild temperature periods in the spring and early fall, tortoises removed from the site may not necessarily be placed in a burrow; if not placed in a burrow, tortoises will be placed under a shrub or other shelter. Tortoises and burrows will only be relocated to Federally managed lands. All burrows found in the construction area, whether occupied or vacant, will be excavated by the biologists and collapsed or blocked to prevent desert tortoise re-entry.

271. A.5.23: Desert tortoises moved in the winter (i.e., November 1 through February 28/29), or those in hibernation regardless of date, will be placed into an adequate burrow; if one is not available, one will be constructed utilizing the protocol for burrows in Section B.5.f. of the USFWS-approved guidelines (same as Desert Tortoise Council protocol).

272. A.5.24: Tortoises found above ground will be placed under a shrub in the shade. Desert tortoises moved during inactive periods will be monitored for at least two days after placement in the new burrows to ensure their safety. The biologists will be allowed sufficient judgment and discretion to ensure that survival of the desert tortoise is likely.

273. A.5.25: Desert tortoises will be treated in a manner to ensure that they do not overheat, exhibit signs of overheating (e.g., gaping, foaming at the mouth, etc.), or are placed in a situation where they cannot maintain surface and core temperatures necessary to their well-being. Desert tortoises will be kept shaded at all times until it is safe to release them. No desert tortoise will be captured, moved, transported, released, or purposefully caused to leave its burrow for whatever reason when the ambient air temperature is above 95°F. Ambient air temperature will be measured in the shade, protected from wind, at a height of 2 inches above the ground surface. No desert tortoise will be captured if the ambient air temperature is anticipated to exceed 95°F before handling and relocation can be completed. If the ambient air temperature exceeds 95°F during handling or processing, desert tortoises will be kept shaded in an environment that does not exceed 95°F and the animals will not be released until ambient air temperature declines to below 95°F.

274. A.5.26: Any desert tortoise found within one hour before nightfall or when ambient temperatures reach or exceed 95° F will be placed in a separate clean cardboard box and kept upright in a predator-free location under appropriately controlled temperatures to minimize stress to the desert tortoise. Each box will be used once and then disposed of properly. The desert tortoise will be released the following day in the area from which it was collected and using the procedures described above.

275. A.5.27: Each desert tortoise will be handled with a different pair of disposable latex gloves. After each use, the gloves will be properly discarded and a fresh set used for each subsequent desert tortoise handling.

276. A.5.28: If the biologists identify any desert tortoises to be at high risk for death or injury, they will contact the USFWS for translocation direction. High risk conditions may include crushed or injured limbs or shell, signs of overheating, or disease.

277. A.5.29: Where appropriate, restrict permitted activities from March 1 through October 31 within desert tortoise habitat (Ely RMP measure SS-32).

278. A.5.30: BLM and USFWS approved biologists will monitor construction activities in desert tortoise habitat using techniques approved by the USFWS and BLM. The level of monitoring will depend upon whether the area is enclosed by tortoise exclusion fencing or not, and whether the activity is taking place within the tortoise active period (March 1 through October 31) or inactive period (November 1 through February 28/29).

- If any construction-related activities occur in an area not totally enclosed by tortoise exclusion fencing during the active tortoise period, a biological monitor will be assigned to each work crew or piece of ground-disturbing equipment and will clear the vehicle ingress/egress path and parking or work areas before allowing the construction activity to commence. Prior to starting operations each day, the biological monitor will inspect the following locations: around and under all equipment and vehicles; in and around all disturbed areas including stockpiles and

reject materials areas; in and around all routes of ingress and egress; and in and around all other areas where the operation might expand to during that day.

- If any construction-related activities occur in an area not totally enclosed by tortoise exclusion fencing during the inactive tortoise period, a clearance survey will be conducted (as described in measure A.5.19 [Stipulation 267]). Subsequent desert-tortoise monitoring will not be required, however, biological monitoring for compliance with other environmental stipulations will still occur.
- If construction activities are completely enclosed by tortoise exclusion fencing, biological monitoring will not be required other than periodic inspections of the exclusion fencing.
- For access roads outside the ROW, other than state and Federal highways which are not enclosed by tortoise exclusion fencing, a biological monitor will be assigned to every 5 miles of access road during the active season.

279. A.5.31: If any construction pipe, culverts, or similar structures with a diameter of 2 inches or greater are stored in areas of desert tortoise habitat not enclosed by tortoise exclusion fencing, they will be inspected by a biological monitor for the presence of tortoises before the material is moved, buried, or capped. Alternatively, all such structures may be capped before being stored.

280. A.5.32: In desert tortoise habitat, any time a vehicle is parked in an area not enclosed by tortoise exclusion fencing, whether the engine is engaged or not, the ground around and under the vehicle will be inspected for desert tortoise prior to moving the vehicle. If a desert tortoise is observed, a biologist will be contacted to safely move the animal. If possible, the desert tortoise will be left to move on its own. If the desert tortoise does not move within 15 minutes, the desert tortoise will be removed and moved out of harm's way by the biologist. Checking under parked vehicles is also recommended, but not required, for areas enclosed by tortoise exclusion fencing.

281. A.5.33: The biologists will record each observation of handled desert tortoises. Data will be collected, including: GPS location, date, time of observation, whether the tortoise was handled, the general health of the tortoise, whether it voided its bladder, the location the tortoise moved from and the location it moved to, and any unique physical characteristics. This information will be provided to the BLM in an annual report.

282. A.5.34: In the event that blasting is required in desert tortoise habitat, a 200-foot-radius area around the blasting site would be surveyed for desert tortoises prior to blasting, using 100-percent-coverage survey techniques. All tortoises found above ground or in pallets within this 200-foot-radius of the blasting site would be moved 500 feet from the blasting site. Additionally, tortoises in burrows within 75 feet of the blasting would be placed into an artificial or unoccupied burrow 500 feet from the blasting site. This would prevent tortoises that leave their burrow upon translocation from returning to the blasting site. Tortoises in burrows at a distance of 75 to 200 feet from the blasting site would be left in their burrows. Burrow locations would be flagged and recorded using a GPS unit and burrows would be stuffed with newspapers. Immediately after blasting, newspaper and flagging would be removed. Detonation would only occur after an area has been cleared by a biologist and within a short enough time period to prevent tortoises that have been relocated from returning to the site prior to the completion of

detonation. Effects of blasting on desert tortoise and their burrows shall be reported to the BLM and USFWS.

283. A.5.35: BLM's wildlife staff in Caliente or Ely and the USFWS's Southern Nevada District Office will be notified of any desert tortoise death or injury resulting from project activities by close of business on the following work day.

284. A.5.36: SNWA will submit a document to the BLM within 30 days of completion of the project, showing the number of acres disturbed, remuneration fees paid, and the number of tortoises taken during project activities, which includes capture and displacement, killed, injured, and harassed by other means, during project activities.

Banded Gila Monster and Chuckwalla

285. A.5.37: Within potential habitat for Gila monster and chuckwalla, pre-construction surveys of the ROW will be conducted by qualified biologists to find and move individuals out of harm's way. These surveys may be conducted in accordance with NDOW's Gila monster protocol. All occupied burrows found in the construction zone will be examined and excavated as described for the desert tortoise. If a Gila monster is found, NDOW will be immediately contacted.

286. A.5.38: Gila monster and chuckwalla will be moved only by qualified biologists and solely for the purpose of moving them out of harms way. The onsite biologists will follow the NDOW Gila monster protocol and specifically will know how to: 1) identify Gila monsters and be able to distinguish it from other lizards such as chuckwallas and western banded geckos, 2) report any observations of Gila monsters to NDOW, 3) be alerted to the consequences of a Gila monster bite; and 4) be aware of protective measures provided under state law.

287. A.5.39: All Gila monster and chuckwalla observed by project workers will be reported immediately to the biological monitor. A report of the Gila monster sighting will be filed with NDOW. The report will include information on the animal's size and condition, location (with GPS coordinates), date and time, habitat (including plant species present), photo-documentation (if possible), and circumstances under which it was found.

Burrowing Owls and Kit Fox

288. A.5.40: Burrowing owls are migratory birds. As such, the measures presented in the migratory bird section are in addition to the ones listed here.

289. A.5.41: Surveys of suitable habitat in the ROW for active burrowing owl will be conducted by qualified biologists during nesting season (March 1 through August 31) and no more than 30 days prior to the start of construction. Surveys for active kit fox burrows can be conducted at the same time. The presence of active burrows or dens will be verified through non-invasive means including motion cameras, fiber-optic scope or miniature closed-circuit video probe; the surveys will consider that dens can be very diverse with several tunnels and entrance and exit burrows. The locations of active burrows within the ROW will be determined using a GPS unit to enable accurate relocation during subsequent mitigation actions.

290. A.5.42: If feasible, active nesting burrows or natal dens within the ROW will be avoided by modifying construction activities in the immediate area. Orange construction fencing will be used to mark the avoidance area, which will include a buffer of at least 250 feet. The fencing will be installed in a manner to allow for ingress and egress of the animals. The avoidance area will also be signed to inform construction personnel to avoid the area.

291. A.5.43: When destruction of occupied burrowing owl burrows within the ROW is unavoidable, existing unsuitable burrows on adjacent BLM land outside of the ROW will be enhanced (enlarged or cleared of debris) or new burrows created (by installing artificial burrows) at a ratio of 2 enhanced or new burrows to each 1 active burrow that will be destroyed.

292. A.5.44: Burrowing owls in active burrows which cannot be avoided will be passively relocated during the fall to winter season prior to the start of construction, in coordination with BLM, NDOW, and USFWS. One-way doors (e.g., modified dryer vents) will be installed at active burrow entrances, and left in place for at least 48 hours to ensure all owls have left the burrow. The project area should be monitored daily for one week, to confirm the owls' use of enhanced or new replacement burrows. If burrowing owls need to be handled for relocation, a permit will be obtained from the USFWS.

293. A.5.45: When destruction of occupied kit fox dens within the ROW is unavoidable, kit fox will be encouraged to leave the dens on their own volition (passive relocation). Occupied dens will be collapsed after kit fox emerge.

294. A.5.46: After burrowing owl and kit fox have been removed from harm's way, their burrows or dens located within the ROW will be excavated using hand tools and refilled to prevent reoccupation. Clearing and collapsing of burrows or dens within the ROW will be done by qualified biologists prior to the start of construction.

295. A.5.47: Occupied burrowing owl burrows will not be disturbed during the active nesting season (February 1 to August 31) unless a qualified biologist verifies through non-invasive means that either: 1) the birds have not begun egg laying and incubation, 2) juveniles from the occupied burrows are foraging independently and are capable of independent survival, or 3) the birds are no longer displaying evidence of nesting (i.e., mated pairs, territorial defense, carrying nesting material, transporting food).

296. A.5.48: Occupied kit fox dens will not be disturbed during the active denning and weaning season (February 15 to May 15), unless a qualified biologist verifies through non-invasive means that either: 1) there are no newborn pups in the den, or 2) pups have been weaned and are capable of independent survival. Alternatively, upon approval of the BLM and in coordination with NDOW, pups may be relocated to an adjacent natural or man-made den.

Greater Sage-Grouse

297. A.5.49: In accordance with the National Greater Sage-Grouse Conservation Measures report (2011), the Project facilities will be sited as much as possible to limit disturbance in priority sage grouse habitat, be within designated utility corridors, and be co-located along existing ROWs including power lines and roads.

298. A.5.50: In consultation with BLM, NDOW, and USFWS, implement a monitoring program for sage-grouse in priority habitat in the project area that addresses demographics vital rates, and seasonal movement patterns, as recommended by the Nevada Energy and Infrastructure Standards to Conserve Greater Sage-Grouse (2010).

299. A.5.51: As feasible, limit activities within 4 miles of active sage-grouse leks during the breeding, nesting, and early brood-rearing periods (generally March through June).

300. A.5.52: If placement of an electrical transmission line within 3 miles of an active sage-grouse lek cannot be avoided, the line will be sited and designed in accordance with the Nevada Energy and Infrastructure Standards to Conserve Greater Sage-Grouse (2010), including:

- Place the line within the least suitable habitat within a 3-mile radius of the nearest active lek
- Consider placing the line to the west of the nearest active lek so that avian predators are at a disadvantage in the early morning hours
- Construct structures with the least amount of perching or nesting substrate possible by avoiding things such as external ladders and platforms
- Use tubular tower designs with pointed tops rather than lattice designs
- Use perch and nesting deterrents (measure A.5.8 [Stipulation 256])
- Avoid removing sagebrush cover whenever feasible, especially in identified winter habitats
- Avoid use of guy wires whenever possible.

301. A.5.53: For the portion of the disturbed ROW within greater sage-grouse priority habitat areas, enhanced restoration efforts specifically tailored to restore sagebrush habitat as quickly as possible will be implemented. These restoration measures will be identified in consultation with the BLM, NDOW, and USFWS, and be specifically identified in the Restoration Plan (measure A.1.69 [Stipulation 210]).

302. A.5.54: Supporting the National Greater Sage-Grouse Conservation Measures report (2011) goals and objectives, which identified the need for collaborative conservation efforts among private and Federal partners to conserve sage-grouse, SNWA will enhance greater sage-grouse habitat on its private properties in Spring Valley by managing of agricultural and livestock operations. Measures will be developed in consultation with the BLM, NDOW, and USFWS and may include:

- Maintaining and cutting existing alfalfa fields in a manner to avoid harm to greater sage-grouse.
- Managing livestock operations to promote riparian area and meadow utilization by greater sage-grouse, which could include developing alternate water sources for livestock, and placing supplements and conducting supplemental feeding outside of high quality greater sage-grouse habitat.
- Control predator populations (e.g., ravens) on SNWA properties to minimize predation on greater sage-grouse, in coordination with Nevada State predator control program and in accordance with Nevada State and Federal regulations.

303. A.5.55: SNWA will coordinate with BLM, NDOW, and USFWS on greater sage-grouse habitat enhancement measures within grazing allotments held by SNWA. In

accordance with the National Greater Sage-Grouse Conservation Measures report (2011), measures may include:

- Design new structural range improvements and location of supplements to conserve, enhance, or restore sage-grouse habitat; consider, monitor and treat potential for invasive species establishment or increase following construction of new range improvements
- Use BMPs to mitigate potential impacts from West Nile virus when developing or modifying water developments
- Evaluate existing structural range improvements and location of supplements to make sure they conserve, enhance, or restore sage grouse habitat, such as: 1) remove, modify, or mark fences in high risk areas within priority sage-grouse habitat based on proximity to lek, lek size, and topography; and 2) monitor for and treat invasive species associated with existing range improvements

304. A.5.56: In addition to habitat enhancements made on SNWA private lands (measure A.5.54 [Stipulation 302]), SNWA will assist with BLM habitat treatments to benefit greater sage-grouse on Federal lands outside of the ROW, equal to the acreage of sagebrush habitat disturbed by construction of the Project. Habitat treatments could include, but are not limited to sagebrush shrublands restoration, pinyon-juniper removal by mechanical or herbicide treatments methods, and/or seeding. This treatment will also benefit other sagebrush-dependent species, such as pygmy rabbit.

Pygmy Rabbit

305. A.5.57: For areas of the ROW where pygmy rabbit have been recently documented or their sign observed, surveys will be conducted by qualified biologists prior to initial ground disturbance. The surveys will be conducted according to the Ely RMP guidelines for pygmy rabbits (SS-43). Survey data on pygmy rabbit (habitat, type and construction of burrow, etc.) will be collected and made available to the BLM and NDOW for the advanced understanding of the species.

306. A.5.58: For the direct loss of occupied pygmy rabbit habitat, 2 acres of comparable habitat for every one acre of lost habitat will be improved. SNWA will coordinate with the BLM and NDOW to determine the specific areas for pygmy rabbit habitat improvements.

307. A.5.59: SNWA may enhance pygmy rabbit habitat on its private properties and permitted grazing allotments in Spring, Lake, Patterson, and Dry Lake valleys by managing of livestock operations. Measures may include:

- Managing livestock operations to promote upland sage brush community utilization by pygmy rabbit, which could include developing alternate water sources for livestock, installation of new fences, modification of grazing time and duration, and placing supplements and conducting supplemental feeding outside of high quality pygmy rabbit habitat.
- Controlling coyote and other predator populations on SNWA properties to minimize predation on pygmy rabbits, in accordance with Nevada State and Federal regulations.

308. A.5.60: For the portion of the disturbed ROW which had higher densities of pygmy rabbit as determined by preconstruction surveys, passive relocation efforts in accordance with NDOW protocols would be implemented as feasible prior to construction; following construction, a seed mix with a higher concentration of plants preferred by pygmy rabbit will be used and restoration efforts specifically tailored to restore sagebrush habitat as quickly as possible will be implemented.

Desert Valley Kangaroo Mouse

309. A.5.61: For areas within the ROW in Dry Lake Valley with documented desert valley kangaroo mouse occurrence, silt fencing will be placed along the edges of the ROW for the duration of active construction activities to keep the mouse out of the ROW. BLM and NDOW will be consulted on the efficacy of relocating desert valley kangaroo mice within the construction ROW out of harm's way. After consideration of territorial affects to other mice, if movement out of harm's way is determined appropriate, live trapping will be conducted within the ROW after the fence is installed, to remove the mice prior to construction. Mice, or any other animal captured by the live trapping will be relocated onto adjacent BLM land.

Migratory Birds (which include Raptors)

310. A.5.62: A predictive model created by the Great Basin Bird Observatory will be used to predict the probability of occurrence of migratory birds on BLM's list, Bird Species of Conservation Concern List (IM2008-050_att2[1].pdf). The predictive model will be applied to individual project construction segments to determine species with the highest probability of occurrence in the construction areas, and to identify the critical nesting periods for those bird species. Critical nesting periods for bird species anticipated to be within the ROW will be identified in the Bird Conservation Strategy (see measure A.1.1).

311. A.5.63: As feasible, SNWA will conduct initial ground clearing outside of the critical nesting period for migratory birds.

312. A.5.64: If initial ground clearing will occur during the critical nesting period, pre-construction surveys for nesting migratory birds will be conducted by qualified biologists no more than 5 days prior to the start of ground clearing; the surveys will include a buffer adjacent to the areas to be disturbed by ground clearing; the adjacent buffer area will be identified in the Bird Conservation Strategy (see measure A.1.1 [Stipulation 142]).

313. A.5.65: If nesting migratory birds are found during the pre-construction surveys, SNWA will follow measures identified within the Bird Conservation Strategy (see measure A.1.1 [Stipulation 142]). If feasible, the bird nests will be avoided until the birds have fledged. Orange construction fencing will be used to mark the avoidance areas, which will also be signed to inform construction personnel to avoid the area. If avoidance is not feasible, SNWA will consult with the BLM to avoid take of migratory birds.

314. A.5.66: Power poles and lines will be designed and constructed in accordance with the recommendations of the Avian Power Line Interaction Committee (APLIC, 2006), in order to reduce the potential to electrocute or otherwise harm raptors.

315. A.5.67: SNWA will continue working with NDOW through Partners in Flight and other associated monitoring programs to support on-going surveys for eagles, ferruginous hawks, and other raptors within the general project vicinity.

316. A.5.68: If trees located within the ROW cannot be avoided and must be removed for construction, the trees will be removed outside of the nesting period for raptors or other migratory birds, as feasible. If removal of a tree during the nesting period is required, the tree will first be surveyed by a qualified biologist to ascertain the presence of any nests. Should active nests of raptors or migratory birds be present, the tree will not be removed until the birds have fledged. If active or inactive bald or golden eagle nests are identified within the ROW, SNWA will follow measures identified within the Bird Conservation Strategy (see measure A.1.1 [Stipulation 142]); no bald or golden eagle nests would be removed without obtaining any necessary permits and in compliance with all applicable regulations.

317. A.5.69: Where appropriate, restrict permitted activities from May 1 through July 15 within 0.5 mile of raptor nest sites unless the nest site has been determined to be inactive for at least the previous 5 years (Ely RMP measure SS-4); the specific avoidance buffer distance and time period for raptor species may be refined in the Bird Conservation Strategy (see measure A.1.1 [Stipulation 142]).

Big Game and Wild Horses

318. A.5.70: There will be no permanent site fencing along the pipeline alignment, in order to avoid restricting seasonal movement patterns of big game and the free-roaming behavior of wild horses. If temporary barbed wire or electric fencing is used to protect wild horses and wildlife, the new fences will be flagged every 16 feet with white flagging that is at least 1 inch wide and has at least 12 inches hanging free from the top wire of the fence (Ely RMP BMP measure Wild Horses No. 1).

319. A.5.71: SNWA will coordinate with ranchers and land permittees within the project hydrographic basins to ensure that existing water sources continue to be available during construction for big game and wild horses. In consultation with BLM and NDOW, a plan will be developed to either turn existing sources of water on or off to aid in animal distribution away from active construction areas. If construction is within two miles of an existing water source, supplemental temporary stock water tanks will be placed in a suitable location away from the construction area. The location of the temporary stock water tanks will be selected in consultation with appropriate ranchers and land permittees, BLM, and NDOW. Water tanks will be filled using water trucks, and maintained for the duration of construction in this area.

320. A.5.72: For the duration of pipeline construction through Lake and southern Spring valleys, two temporary water hauls will be established. The water hauls will consist of placement of an aluminum water trough (with escape ramps for small wildlife and bats, with a design approved by the BLM), which will be filled as needed by water truck. The water hauls will be sited in southeast Spring Valley and the foothills of the west side of the Fortification Range. This will provide water for wild horses in the Eagle Herd Management Area whose migration patterns through the construction area may be temporarily disrupted. Specific sites for the water hauls will be selected in conjunction with BLM, NDOW, and interested grazing permittees.

321. A.5.73: For the duration of pipeline construction through northern Dry Lake Valley, two temporary water hauls as described above will be established. The water hauls will be sited on the west side of the pipeline, in the Muleshoe Use Area, to provide water for wild horses in the Silver King Herd Management Area whose access to existing water sources may be temporarily disrupted by construction.

322. A.5.74: Where appropriate, restrict permitted activities in big game calving/fawning/kidding/lambing grounds and crucial summer range from April 15 through June 30 (Ely RMP measure WL-6).

323. A.5.75: Where appropriate, restrict permitted activities in crucial winter range from November 1 through March 31 (Ely RMP measure WL-7).

324. A.5.76: Where appropriate, restrict permitted activities within occupied bighorn sheep habitat from March 1 through May 31 and from July 1 through August 31 (Ely RMP measure WL-13).

Game Fish

325. A.5.77: During pipeline construction, BMPs will be implemented to minimize effects to fish from the temporary rerouting of perennial flow if construction occurs in a high water year and water is present. Practices will comply with NDOW and Clean Water Act permitting requirements.

326. A.5.78: Two acres of comparable habitat for every 1 acre of lost habitat will be improved if construction across Big Wash occurs in a high water year and water is present, potentially resulting in a loss of aquatic habitat as a result of project construction.

Paleontological Resources

327. A.6.1: A field survey will be conducted of areas within the ROW identified as having a high potential for paleontological resources, based upon a paleontological records search (following BLM Instruction Manual 2008-009, Potential Fossil Yield Classification System for Paleontological Resources on Public Lands). The field survey will identify if there are any surface exposures containing visible fossils and if there is a potential for buried fossils within the construction footprint. If any important fossils or middens are found during the field survey, a program will be developed and implemented to remove any exposed fossils prior to construction.

328. A.6.2: Areas identified as having a high potential for buried paleontological resources based upon the field survey will be monitored by a qualified paleontologist during construction activities involving ground disturbance, including grading, excavation, and trenching.

329. A.6.3: Any fossils recovered during the field survey or construction monitoring will be prepared in accordance with standard professional paleontological techniques. The fossils will be curated in a BLM-approved facility. A report on the findings and significance of the salvage program, including a list of the recovered fossils, will be prepared following completion of the program. A copy of this report will accompany the fossils, and a copy will be submitted to the Nevada State Museum.

Cultural Resources

330. A.7.1: A Class I literature review will be conducted to identify cultural resources within one mile of the Project centerline. The findings will be incorporated into a report and submitted to the BLM for review and approval.

331. A.7.2: A Class III (intensive) pedestrian survey will be conducted of the Area of Potential Effects for direct effects (Project ROW) to identify cultural resources. Indirect effects will be considered as outlined in the Programmatic Agreement. Cultural resources identified as a result of the survey will be incorporated into a report and submitted to the BLM for review and submittal to the Nevada State Historic and Preservation Officer.

332. A.7.3: All ranch complexes located in the project APEs for visual and direct effects that are more than 40 years old will be inventoried and recorded. SNWA will provide treatment for each such ranch complex that the BLM determines will be adversely affected by the project and meets the criteria for National Register of Historic Places (NRHP) eligibility for state or local significance.

333. A.7.4: Effects on properties eligible to the NRHP will be avoided, as feasible. If effects cannot be avoided, a historic properties treatment plan will be developed to minimize or mitigate Project-related effects. Treatment will be implemented prior to the initiation of construction, upon BLM approval of the plan and consultation in accordance with the Programmatic Agreement.

334. A.7.5: All records and materials resulting from identification and treatment efforts will be curated in accordance with Federal requirements in BLM-approved facilities.

335. A.7.6: If previously unidentified cultural resources, except isolates as identified by a qualified archaeologist, are discovered during construction of the Project, all project ground-disturbing activity within 100 meters (325 feet) of the discovery will cease immediately. SNWA or its Environmental Compliance Representative will secure the location of the discovery to prevent vandalism or other damage. Ground-disturbing activity in that area will be suspended until BLM has evaluated the discovery and, for sites eligible for the NRHP, assured the completion of any necessary mitigation or treatment measures and issued a written Notice to Proceed. Discovered isolates will be reported to BLM in the final monitoring report. Native American human remains found as a result of construction activities, including grading, excavation, and trenching, will be guided by Native American Graves Protection and Repatriation Act procedures and by measures outlined in the Programmatic Agreement.

336. A.7.7: BLM will be notified if Native American human remains, funerary objects, items of cultural patrimony, or sacred objects are encountered during construction or operations. The BLM will ensure that the findings are treated with the respect due such materials. Native American human remains and associated grave offerings found on public land will be handled according to the provisions of Native American Graves Protection and Repatriation Act and its implementing regulations (43 CFR 10). Native American human remains and associated grave offerings found on state or private land will be handled according to the provisions of NRS Chapter 383. All other instances of discovered human remains not addressed by Federal or state laws will be managed as

determined by BLM, in consultation with Nevada State Historic and Preservation Officer, ensuring treatment with respect due such materials.

337. A.7.8: SNWA will ensure that any treatment work that is initiated for adversely affected historic properties will be fully completed, including post-fieldwork analysis, reports, documentation, and curation of artifacts, regardless of the status of the Project. SNWA will provide assurance acceptable to the BLM that such treatment work will be completed, prior to BLM issuance of a Notice to Proceed allowing start of the relevant construction.

Land Use and Range Management

338. A.8.1: SNWA will coordinate in advance of construction with BLM and grazing permit Holders that will be affected, to minimize access conflicts. This coordination will allow for advance planning of grazing practices to ensure continued use of the range.

339. A.8.2: Range improvements, including fence lines and cattle guards, located within the ROW and along designated access roads will be documented prior to the start of construction. If range improvements are temporarily removed or damaged as a result of construction, they will be repaired to BLM standards and be functional upon completion of construction.

340. A.8.3: If livestock is struck by a vehicle directly associated with construction activities, SNWA will ensure that the property owner is compensated for the livestock at market value.

341. A.8.4: If access to livestock watering sources or facilities is temporarily restricted during construction, alternate water source(s) will be made available for the duration that access is restricted. If livestock watering sources or facilities are damaged during construction, they will be repaired to BLM standards and be functional upon completion of construction.

Noise

342. A.9.1: All construction equipment will be equipped with manufacturer's standard noise control devices (i.e., mufflers, acoustical lagging, and/or engine enclosures). All construction equipment will be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices.

343. A.9.2: Pumping stations will be enclosed and utilize design features to minimize operational noise levels. Pressure reducing station valves will be fully enclosed in vaults. Potential facility noise levels will be estimated during facility design, and features incorporated to minimize normal operational noise levels with an objective of 70 dBA or less at 500 feet from the facility.

344. A.9.3: Equipment will be operated conservatively, which means the operator will take special care not to throttle the engine excessively and will keep engine speed as low as possible. In addition, the operator will not leave the equipment running or idling needlessly.

345. A.9.4: When construction occurs in the vicinity of an occupied residence located within 0.5 mile of the project, the occupant will be notified of the construction schedule with a written letter. To the extent possible, construction will occur during daytime hours within 0.5 mile of the residence to minimize the impacts from construction noise.

Although there are no existing campgrounds within 0.5 mile of the project, if a new campground is established signage will be posted indicating the construction schedule.

Air Quality

346. A.10.1: Dust control permits will be obtained for each construction contract in accordance with local, county and/or state requirements. These will be a Dust Control Permit in Clark County, and a Surface Area Disturbance permit in Lincoln and White Pine Counties. The permits will contain a Dust Control Plan listing all construction activities that will occur and the BMPs that will be used to mitigate construction dust. The BMPs will include site-specific dust control measures that are based on each project soil type, specific construction activities, phases and stages. They may include:

- Watering, pre-watering to maintain moisture or to form crust,
- Applying clean gravel, paving, applying and maintaining a dust palliative or dust suppressant, covering or enclosing material,
- Covering or stabilizing soil with vegetation,
- Using phased construction,
- Limiting size of ingress and egress points,
- Limiting size of staging areas,
- Limiting vehicle speeds on the work site,
- Cessation of operations when winds make fugitive dust control difficult,
- Berming or fencing to prevent unauthorized access to disturbed areas, and
- Application of track-out controls.

347. A.10.2: In accordance with dust control permits, SNWA will conduct air quality readings (wind speed, emissions, etc.). The readings will occur on an as-need be basis, as defined by the appropriate permits. Generally, it is anticipated that measurements will be taken during windy periods and construction practices altered as needed to stay within attainment.

348. A.10.3: Any dust palliative, dust suppressant, or tackifier used within threatened and endangered species habitat or active drainages will be approved by the BLM and USFWS prior to use.

349. A.10.4: Operating permits will be obtained for stationary sources as necessary, such as aggregate rock handling equipment, rock crushers, conveyors, and screening equipment which may emit particulate matter. The operating permit will be obtained from the local county and/or the state, and will include operating requirements, reporting requirements and pollutant emission limits. Fugitive dust control measures will be used during material transfer operations, such as pre-watering, water sprays at drop points and covered conveyors.

350. A.10.5: Operating permits will be obtained for combustion equipment such as stationary internal combustion engines (greater than 250 horsepower) used during construction or operation of the project. The Operating Permit will include operating requirements, reporting requirements and pollutant emission limits.

351. A.10.6: Active construction sites and unpaved roads used for construction will be watered daily or chemical dust suppression approved by the BLM will be applied, as needed, to maintain effective dust control.

352. A.10.7: In periods of excessive wind speed (sustained over 40 miles per hour), excavation and grading activities will be suspended or additional watering applied to maintain dust control.

353. A.10.8: Soil stockpiles will be covered, and a tackifier, water, or other BLM-approved erosion control measure will be applied as needed to maintain effective dust control.

Visual Resources

354. A.11.1: Pumping stations, the water treatment facility/buried storage reservoir, and pressure reducing stations will utilize architectural details and be painted or constructed of colored block to blend with the colors of the surrounding landscape, per BLM Manual 8400 – Visual Resources Management. Architectural details will be approved as part of local building permit approvals.

355. A.11.2: Lighting needed to conduct construction at night will be limited to the basic requirements to conduct the work. Lighting will be shielded, and directed down towards the site and not into surrounding areas or onto roads.

356. A.11.3: Nighttime lighting during project operations at the pumping stations, pressure reducing stations, regulating tanks, and electrical substations will either be manually controlled and used only when occupied or be motion activated if needed for safety and security. Lighting will be shielded and directed downwards and towards the facility site.

357. In the Pahranagat Canyon area, rock faces within the ROW that are cut for construction will be painted with an artificial desert varnish, such as Permeon®, to reduce the visual contrast and restore the appearance of natural desert varnish. Application rates and color tint will be site-specific. Any artificial desert varnish used for visual resource purposes will be approved by the BLM prior to use.

Socioeconomics

358. A.12.1: SNWA will hire local companies and utilize local community resources as available for construction management support services. Bidding of work or services will be in compliance with NRS 332 and 338.

359. A.12.2: SNWA will pay White Pine County for property taxes and other lost revenue associated with purchase of private property in Spring Valley, as identified in an August 2008 agreement. SNWA will provide for a one-time payment in lieu of the County's portion of real property transfer tax on ranches acquired by SNWA, as well as an annual payment to cover other potential revenue impacts. SNWA will pay $69,000 annually for property tax, a one-time $77,000 payment for real-property transfer tax, and $10,000 annually, indexed for inflation to replace any additional revenues.

360. A.12.3: SNWA will use a Project Labor Agreement to cover the construction of the pipeline. Under the Project Labor Agreement, SNWA will require contractors to pay Clark County prevailing wage rates and a ratio of use of union employees as defined.

361. A.12.4: SNWA will work with labor unions and rural governments to encourage development of trade apprenticeship programs, with the objective of developing a local skilled trade base that could be utilized during construction of the project.

Future Groundwater Development

362. B.3.2: Groundwater development in Cave Valley would be subject to staged development, construction of additional monitoring wells, and the establishment of trigger levels.

1) Staged groundwater development in Cave Valley: SNWA would develop its 5,235 afy of permitted water rights in Cave Valley in staged development. A staged-development approach of the Cave Valley permits would allow for the collection of data while ensuring that pumping effects are confined to Cave Valley and do not propagate across the hydrographic basin boundary to springs supporting habitat for the White River spinedace. Specific details regarding the staged development, such as production well locations, would be developed in consultation with, and approved by, the BLM and the USFWS prior to and as part of future tiered Section 7 consultations and NEPA processes. Development phases would be implemented essentially as follows:

a. Stage 1 Development: Pumping pursuant to the water right permit shall be limited to 2,600 afy, which is approximately one-half of the permitted rights. This would provide for a pumping stress that will allow for the collection of reliable transient-state data and effective calibration of a groundwater flow model. Before the increase in pumping associated with Stage 2 development can occur, SNWA would pump at least 85% but not more than 100% of the Stage 1 development amount (2,210 - 2,600 afy) for a period of five years. Data from those five years of pumping would be submitted to the BLM and the USFWS as part of the annual hydrologic-monitoring report prepared by SNWA. The data would be reviewed by the BLM and the USFWS, and SNWA may increase pumping to the Stage 2 development at the end of the fifth year of pumping if the BLM and the USFWS determine the risk to the White River spinedace remains at an acceptable level and/or can be mitigated.

b. Stage 2 Development: Pumping pursuant to the water right permits shall be limited to a total of 3,900 afy, which is the Stage 1 development level plus 1,300 afy. The 1,300 afy is approximately one half of the permitted amount of 2,635 afy remaining after Stage 1 development. This pumping would provide additional pumping stresses that would allow for collection of more reliable transient-state data and continued calibration of the groundwater flow model. SNWA would be required to pump at least 85% but not more than 100% of the combined Stage 1 and Stage 2 development amounts (3,315- 3,900 afy) for a period of five years. Data from those five years of pumping would be submitted to the BLM and the USFWS as part of the annual hydrologic-monitoring report prepared by SNWA. The data would be reviewed by the BLM and the USFWS, and SNWA may increase pumping to the Stage 3 development at the end of the fifth year of pumping if the BLM and the USFWS determine the risk to the White River spinedace remains at an acceptable level and/or can be mitigated.

c. Stage 3 Development: Pumping pursuant to the water right permits shall be limited to the full permitted amount of 5,235 afy. SNWA would continue to conduct monitoring and provide information as required under the Delamar, Dry Lake, and Cave valleys (DDC) Stipulated Agreement, Section 7 consultations, and NEPA processes. Hydrologic and biological monitoring data collected

from the beginning and throughout the life of the project would continue to be provided to the BLM and the USFWS as required by the BLM and USFWS in future tiered NEPA and ESA processes and as described in the DDC Stipulated Agreement.

2) Additional monitoring wells: SNWA would install two (2) additional groundwater monitoring wells to monitor for the potential of groundwater drawdown propagating from southern Cave Valley towards Flag Springs and other springs supporting habitat for the White River spinedace in White River Valley. The specific location of, and details for these wells, would be determined following input by the DDC Stipulated Agreement Technical Review Panel (TRP), and would be approved by the BLM and USFWS.

   These two additional monitoring wells would be in addition to the monitoring well required under the Stipulated Agreement, which has been sited by the TRP near Shingle Pass, but has not yet been installed. The above three monitoring wells would be installed such that baseline data could be collected for a minimum of five years prior to the initiation of groundwater pumping in Cave Valley.

   This commitment is not intended to preclude the potential for additional monitoring wells, and/or other hydrologic monitoring such as discharge monitoring, that may be determined necessary by the BLM and/or USFWS as part of future tiered NEPA or ESA processes. SNWA anticipates that the BLM and USFWS would conduct site-specific analyses of future groundwater production locations during the tiered NEPA and ESA processes and, as part of those processes, would review existing monitoring to determine if it is adequate or whether additional monitoring is needed.

3) Establishment of trigger levels: SNWA would agree to develop and commit to triggers (early warning indicators) for management action associated with Project pumping in Cave Valley, to ensure the long-term protection of the White River spinedace. These triggers would be developed in consultation with, and approved by, the BLM and USFWS, and would be developed prior to and included in future Section 7 consultations and NEPA analyses prior to initiation of groundwater pumping in Cave Valley. The triggers would apply to any level of groundwater development, from the initiation of groundwater development through the life of the project.

   The purpose of the triggers would be to ensure that groundwater pumping would be modified, reduced, or ceased if necessary to ensure the long-term protection and survival of the White River spinedace. Other management actions could include biological measures, or other site- and species-specific measures as determined necessary and as approved by the BLM and the USFWS. SNWA understands that the triggers may include an agreed process to receive input from external parties with specific expertise, such as the USGS or NDOW.

PROGRAMMATIC AGREEMENT

AMONG
THE DEPARTMENT OF THE INTERIOR,
BUREAU OF LAND MANAGEMENT, NEVADA,
THE NEVADA STATE HISTORIC PRESERVATION OFFICER,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, AND
THE SOUTHERN NEVADA WATER AUTHORITY

REGARDING NATIONAL HISTORIC PRESERVATION ACT SECTION 106
COMPLIANCE for the

GROUNDWATER DEVELOPMENT PROJECT

in CLARK, LINCOLN, and WHITE PINE COUNTIES, NEVADA

WHEREAS, the Southern Nevada Water Authority ("SNWA" or "proponent"), a joint powers authority and political subdivision of the State of Nevada, proposes to construct and operate a system of regional water supply and distribution facilities in central and eastern Nevada, through a project known as the Clark, Lincoln, and White Pine Counties Groundwater Development Project ("GWD Project" or "Project" or "Undertaking"); and

WHEREAS, the effects of the Project on historic properties cannot be fully determined prior to approval of the Undertaking, and the Bureau of Land Management ("BLM"), as the lead federal agency, is using the regulations at 36 C.F.R. 800.14(b)(1)(i)–(ii) to create this Programmatic Agreement ("Agreement"), and the signatories hereto have determined that the review of this Project under section 106 of the National Historic Preservation Act of 1966 ("NHPA") (16 U.S.C. § 470f) ("section 106") and the regulations implementing section 106 at 36 C.F.R. Part 800, may properly and appropriately be governed by this Agreement, negotiated and executed as authorized by 36 C.F.R. § 800.14(b); and

WHEREAS, a substantial portion of the GWD Project will be located on public lands managed by the Ely District Office ("BLM Ely") and the Southern Nevada District Office ("BLM Southern Nevada") of the Nevada Bureau of Land Management of the U.S. Department of the Interior ("BLM Nevada") (together, "BLM"); and

WHEREAS, SNWA has applied to BLM Nevada for issuance of rights-of-way ("ROWs") over said BLM-managed lands in order to construct and operate the main conveyance pipeline, power line, and associated facilities which are described as "Tier 1" of the GWD Project; and

WHEREAS, SNWA has indicated details of future phases ("Future Tiers") of the Project, including future groundwater development and the necessary number and locations of wells, are currently unknown and cannot be determined at this time; and

WHEREAS, the BLM has determined that, because Tier 1 and Future Tiers of the GWD Project will require BLM-issued ROWs, this Project is a federally permitted undertaking subject to the requirements of section 106; and

WHEREAS, in accordance with the National Environmental Policy Act ("NEPA"), the BLM is evaluating SNWA's request for ROW for Tier 1 of the GWD Project along with a range of alternatives which are described in the Draft Environmental Impact Statement (DEIS) for the GWD Project and in Appendix B of this Agreement, and the particular alternative the agency will select is unknown at the time this Agreement was executed and thus effects on historic properties cannot be fully determined prior to the approval of the Tier 1 of the Project; and

WHEREAS, BLM has determined that a phased process for compliance with section 106 is appropriate for the GWD Project, as specifically allowed under 36 C.F.R. § 800.4(b)(2) and 36 C.F.R. § 800.5(a)(3), such that completion of the identification and evaluation of historic properties, determinations of effect on historic properties, and consultation concerning measures to avoid, minimize, or mitigate any adverse effects will be carried out in phases, as set forth in this Agreement, as part of planning for and prior to any Notice to Proceed ("NTP") and Undertaking implementation; and

WHEREAS, the BLM is the lead federal agency for compliance with the requirements of section 106 for the GWD Project and BLM has identified the BLM Nevada State Director as the agency official for the Project, having jurisdiction over the Undertaking, and having taken legal and financial responsibility for section 106 compliance in accordance with the Advisory Council on Historic Preservation's ("ACHP") regulations, and further, who may delegate to one or more appropriate BLM officials any responsibility or action required or allowed of an agency official under those regulations; and

WHEREAS, BLM has determined that construction, installation, operation or maintenance of the GWD Project may cause effects to historic properties and accordingly, prior to issuing to the proponent any ROW over BLM-managed lands, BLM will take into account such effects and comply with section 106, through the procedures described in this Agreement, as authorized by and consistent with the BLM's nationwide programmatic agreement titled *Programmatic Agreement Among The Bureau of Land Management, The Advisory Council On Historic Preservation, And the National Conference of State Historic Preservation Officers Regarding the Manner In Which BLM Will Meet Its Responsibilities Under the National Historic Preservation Act*, dated February 9, 2012 ("BLM 2012 NPA"), and the Nevada Protocol Agreement titled *The State Protocol Agreement Between the Bureau of Land Management Nevada and the Nevada State Historic Preservation Office for Implementing the National Historic Preservation Act Protocol (as amended 2012),* dated February 3, 2012 (the "Nevada Protocol") between the BLM Nevada and the Nevada State Historic Preservation Officer ("SHPO"), all of which documents, or any valid successor to any of these documents, are incorporated herein by reference; and

WHEREAS, BLM acknowledges that it has consultation responsibilities to Indian tribes regardless of whether the tribe(s) execute concurrence to this Agreement; and

WHEREAS, although no part of the GWD Project will be located on tribal lands, in developing this Agreement in compliance with 36 C.F.R. § 800.14(b)(2)(i) and (f), BLM has made a reasonable and good faith effort to identify and seek consultation with every federally recognized Indian tribe that has religious or cultural ties to, or whose direct ancestors had historic or pre-historic religious or cultural ties to the Project area, and that, because of such ties, may attach religious and cultural significance to historic properties that may be affected by the GWD

Project, (16 U.S.C. § 470a(d)(6)(A) ("Properties of traditional religious and cultural importance to an Indian tribe . . . may be determined to be eligible for inclusion on the National Register.")), and BLM has identified under those criteria the following tribes: Chemehuevi Indian Tribe, Colorado River Indian Tribes, Confederated Tribes of the Goshute Reservation, Death Valley Timbisha Shoshone Band, Duckwater Shoshone Tribe, Ely Shoshone Tribe, Fort Mojave Indian Tribe, Hualapai Indian Tribe, Kaibab Band of the Paiute Indians, Las Vegas Tribe of Paiute Indians, Moapa Band of Paiute Indians, Paiute Indian Tribe of Utah (consisting of the Cedar City Band of Paiutes, Kanosh Band of Paiutes, the Koosharem Band of Paiutes, Indian Peaks Band of Paiutes, and Shivwits Band of Paiutes), Shoshone-Paiute Tribes of the Duck Valley Reservation, Te-Moak Tribe of Western Shoshone Indians (consisting of the Battle Mountain Band, Elko Band, South Fork Band, and Wells Band), and Yomba Shoshone Tribe (the "Identified Indian Tribes"); and

WHEREAS, on February 23, 2007, BLM sent to each of the Identified Indian Tribes a letter explaining the nature of the proposed GWD Project, asking each of those tribes to provide any information they have about properties of traditional religious and cultural significance ("PRCSs"), cultural resources, and historic properties which might be affected by the construction and operation of the GWD Project, and providing with that letter Project maps and contact information for the appropriate BLM contacts; and

WHEREAS, the BLM has initiated formal government-to-government section 106 consultation with each Identified Indian Tribe through the appropriate BLM manager(s) contacting that tribal government, or a person authorized by such government to speak for the tribe on section 106 compliance, offering meetings between a BLM manager and that tribe's designated tribal representative and/or governing body to discuss any concerns the tribe may have regarding: (1) the GWD Project; (2) any historic properties and cultural resources, including PRCSs, that may be affected by the Project; and (3) the tribe's desires to protect any such property(ies) from imprudent or unnecessary public identification or disclosure; and

WHEREAS, the BLM reaffirms its offer to consult regarding the GWD Project with each Identified Indian Tribe that desires to do so, in a manner respectful of both tribal sovereignty and the unique government-to-government relationship between Indian tribes and the United States government; and

WHEREAS, in order to assist BLM's tribal consultation and preparation of the DEIS for the Project, BLM had an ethnographic assessment prepared for the GWD Project by persons meeting the Secretary of the Interior's Standards for ethnography, which included interviews and targeted site visits with the assistance and cooperation of the Identified Indian Tribes, in order to identify cultural resources, PRCSs, and potential PRCSs located in the Project's potential Areas of Potential Effects ("APEs") for direct and indirect effects, as described in the Ethnographic Report, the consultants having conducted such studies, interviews and site visits in 2008 and 2009, and prepared an Ethnographic Report on their work, which has been circulated among the Identified Indian Tribes; and

WHEREAS, BLM has provided to each Identified Indian Tribe a draft copy of this Agreement and has invited each such tribe to comment on and suggest changes to any part of the draft, prior to its being finalized or executed; representatives of several tribes having met with BLM

managers to discuss this Agreement at duly noticed Project-specific consultation meetings on January 12, 2011 in Ely, Nevada, and February 15, 2011 in Las Vegas, Nevada; BLM received comment letters regarding this Agreement from several Identified Indian Tribes during the public comment process for the DEIS for the Project, and has considered those comments during the development of this Agreement; and the Identified Indian Tribes have each been afforded a reasonable opportunity to participate in the development and finalization of this Agreement as it may apply to historic properties of religious and cultural significance to each of those tribes; and

WHEREAS, BLM has invited and encouraged each Identified Indian Tribe to be a concurring party ("Concurring Party") for this Agreement; and

WHEREAS, BLM recognizes that (i) BLM has separate duties (apart from those under the NHPA) to consult with Indian tribes regarding a broad range of traditional religious and cultural locations and resources, including gathering areas, prayer sites, and sacred/ceremonial places, which might be affected by the GWD Project; (ii) such duty to consult exists without regard to eligibility of such properties or resources for inclusion on the National Register of Historic Places (NRHP); and (iii) formal and informal consultation regarding the same has occurred and will continue to occur apart from the consultation and other activities contemplated in this Agreement; and

WHEREAS, BLM sought the views of the public in the development of this Agreement by providing notice and information regarding the Undertaking and its anticipated effects on historic properties, solicited public comment and input on the Agreement during and concurrent with the public comment process for the DEIS for the Project, and has considered those public comments during the development of this Agreement; and

WHEREAS, BLM, in consultation with the SHPO, has identified organizations and agencies with a demonstrated interest in the GWD Project and its potential effects to historic properties, and has invited these organizations and agencies to participate in this section 106 compliance, the following organizations and agencies having responded and expressed their desire to participate: Archeo-Nevada Society, Bureau of Indian Affairs, Great Basin National Heritage Area, National Park Service, Nevada Division of State Lands, Nevada Rock Art Foundation, Preserve Nevada, U.S. Fish and Wildlife Service, and White Pine County, and BLM therefore having designated those organizations and agencies as consulting parties in this review ("Invited Consulting Parties"), consulted with them in the development of this Agreement, and invited them to sign this Agreement as Concurring Parties; and

WHEREAS, BLM has invited representatives of local governments with jurisdiction over the area in which direct effects to historic properties caused by the Undertaking may occur to participate in the development of this Agreement, and invited them to sign this Agreement as Concurring Parties; and

WHEREAS, pursuant to the Nevada Protocol, BLM has consulted with the SHPO in the development of this Agreement, and SHPO will be a signatory ("Signatory"); and

WHEREAS, BLM has invited the ACHP to consult in the development of this Agreement and the ACHP has agreed to participate, has consulted on and been involved in the development hereof, and will be a Signatory; and

WHEREAS, this Agreement assigns substantial section 106 compliance duties to Project proponent SNWA, and the BLM has invited SNWA both to consult in the development of this Agreement and to be an invited signatory ("Invited Signatory"); and

WHEREAS, SNWA will ask the U.S. Army Corps of Engineers ("Corps") to issue permits under the Clean Water Act for the GWD Project, the Corps has designated BLM as the lead agency for section 106 compliance of the GWD Project, the Corps will require as part of permit conditions that section 106 compliance for the GWD Project be discharged by the BLM under this Agreement, and the Corps has consulted in the development of this Agreement; and

WHEREAS, SNWA has identified known historic and prehistoric cultural resources within the areas of the Project's APEs for visual and direct effects for Tier 1 of the Project by completing and providing to the BLM a Class I inventory of such areas, the report for which is titled "*The Class I Cultural Resources Inventory for the Southern Nevada Water Authority, Clark, Lincoln, and White Pine Counties Groundwater Development Project, Nevada*" (ICF Jones and Stokes, August 2008) ("Class I Inventory"); and

WHEREAS, this Agreement covers all aspects of the construction, installation, operation and maintenance of the facilities of the Tier 1 and Future Tiers of the GWD Project, as such facilities are referenced herein in Stipulation B and more fully described in Appendix B attached hereto, including facilities identified but not yet designed, or whose location has yet to be determined, and those that may be added in the future, all of which facilities will be treated as described herein;

NOW THEREFORE, the Signatories and Invited Signatory agree that the GWD Project shall be implemented in accordance with the following stipulations in order to take into account the effect of the GWD Project on historic properties.

STIPULATIONS

BLM shall ensure that the following measures are carried out:

A. Roles and Responsibilities

1. Reports. BLM will be responsible for reviewing reports, including but not limited to, inventory reports, recommendations of eligibility for the NRHP, treatment options, and assessments of effects and for completing section 106 compliance for the GWD Project, regardless of the ownership of the lands on which portions or facilities of the Project may be located.

2. Eligibility, Effect, and Treatment/Mitigation. BLM will make determinations of eligibility and findings of effect, and will consult with Identified Indian Tribes, Invited Consulting Parties, and other consulting parties (as defined in Stipulation A.4, below) as part of that process. BLM will document its findings and determinations per 36 C.F.R. § 800.11(e).

BLM will also oversee all cultural resource work; assemble and make all submissions to the SHPO, including reports, determinations of eligibility and effect, and treatment or mitigation, such as data recovery plans; submit copies thereof to Identified Indian Tribes and Invited Consulting Parties as appropriate, and seek SHPO concurrence with all compliance determinations.

a. BLM Ely and BLM Southern Nevada will make determinations regarding NRHP eligibility, Project effects and treatment for their respective areas.

b. BLM Southern Nevada will convey its determinations to BLM Ely.

c. BLM Ely will ensure that all data are compiled and submitted to the appropriate parties and otherwise assure proper conduct of actions described in Stipulations A.1 to A.4.

3. Tribal Consultation. BLM is responsible for consultation with Indian tribes in connection with the GWD Project, including: (1) identifying each federally recognized Indian tribe that attaches religious and cultural significance to historic properties potentially affected by the GWD Project; (2) consulting with all Identified Indian Tribes willing to do so concerning historic properties, including the tribe's eligible PRCSs potentially affected by the GWD Project, and with any other tribes that the BLM identifies in the future; and (3) through consultation, providing all Identified Indian Tribes a full opportunity to identify any concerns about the Project, their views on identification and NRHP eligibility for any historic properties including PRCSs, and allowing that tribe to express its views on the assessment of effects and resolution of adverse effects to such PRCS's that are NRHP eligible, consistent with the procedures contained in the BLM Manual 8120 and the BLM Manual Handbook, H-8120-1: Guidelines for Conducting Tribal Consultation (together, the "BLM 8120 Manual and Handbook"), and, if the BLM 8120 Manual and Handbook are revised or replaced, then consistent with the revised or replaced procedures beginning on their effective date.

4. Other Consulting Parties. BLM will be responsible for identifying individuals and organizations with a demonstrated or known interest and expertise in historic properties and preservation issues in the Project area and consulting with them about the section 106 compliance of the Project ("Other Consulting Parties"). BLM shall invite such persons or organizations it identifies to comment on the Project and participate in the section 106 compliance. BLM may grant consulting party status to any such person or organization that requests such in writing, according to BLM's evaluation of the nature of their legal or economic relation to the Project or affected properties, or their concern for the Project's effects on historic properties.

5. SNWA. SNWA will be responsible for funding, supporting, assisting and conducting, either directly or through qualified consultants or contractors, the procedures for section 106 compliance of the GWD Project as those procedures are provided herein and as directed by BLM, including identification and evaluation of historic properties, records research, inventory, archaeological and above-ground surveys, assessments of effects, treatment as set forth in Stipulation H, required monitoring of construction, and ensuring that all such activities are conducted in a professional manner, consistent with this Agreement and the Nevada Protocol.

a. SNWA will ensure that persons supervising cultural resources work on SNWA's behalf for the Project hold a Nevada BLM cultural resources use permit as appropriate for archaeological inventory and other archaeological investigations.

b. As appropriate, personnel must meet the Secretary of the Interior's Professional Qualifications Standards for Archaeology and Historic Preservation in the relevant area(s) of expertise, such as for archaeology, architectural history, or cultural anthropology.

6. Phased Evaluation. As more fully set forth in Appendix B and the DEIS for this Project, the GWD Project consists of Tier 1 facilities and facilities to be built in Future Tiers. Consequently, SNWA may apply for ROWs, NTPs, or other land-use or Project approvals, for individual GWD Project facilities, or groups or portions of facilities, on a phased basis. The BLM may initiate and complete section 106 compliance for any such phase, and thereafter issue NTPs therefore, separately from, and regardless of the initiation or completion of the section 106 compliance of any other phase of the Project, so long as all such activities are conducted in accordance with this Agreement.

7. Signatories and Concurring Parties. As provided in the ACHP's regulations and herein, the Signatories shall have authority to execute, amend or terminate this Agreement. The Invited Signatory has authority to amend or terminate this Agreement as provided herein. Concurring Parties will concur in the terms of this Agreement and may participate in and benefit here from. The failure or refusal of any party invited to become a Concurring Party will not invalidate or otherwise affect this Agreement. Upon and after execution of this Agreement, each Signatory, Invited Signatory, and Invited Consulting Party, and Identified Indian Tribes that signed or signs this Agreement is a signing party hereto, collectively referred to as the "Signing Parties."

8. Definitions. The definitions set forth in 36 CFR § 800.16 are incorporated herein by reference and apply throughout this Agreement. Any terms not defined in 36 CFR § 800.16 shall carry the meaning provided in Appendix A attached hereto, or if not defined therein then in the BLM 2012 NPA and Nevada Protocol, or if not defined in any of these sources, the BLM Manual 8100 Series.

B. The GWD Project

1. Tier 1. Tier 1 of the GWD Project consists of the main pipeline and associated facilities, as more particularly described in Appendix B attached hereto. The majority of these facilities will be located on public lands managed by the BLM, while some will be located on state-owned or privately-owned lands.

2. Future Tiers. Future Tiers of the Project include groundwater development that will include the installation of groundwater wells, collector pipeline facilities, distribution power lines, and other facilities.

3. Definition of Undertaking. The Undertaking for the GWD Project is defined as the construction, installation, operation and maintenance of those Tier 1 and Future Tier facilities described in Appendix B.

C. Areas of Potential Effects ("APEs")

1. Tier 1 APEs. The BLM, in consultation with the SHPO, has determined the APEs for Tier 1 of the Project.

2. Future Tier APEs. The BLM, in consultation with the SHPO, will determine the APEs for Future Tiers of the Project. For Future Tiers, the BLM will also, as it deems appropriate, seek information from Invited and Other Consulting Parties likely to have knowledge of, or concerns with, historic properties in the Future Tier APEs, as provided in Stipulation A. In addition, for Future Tiers, the BLM will seek to gather information from Identified Indian Tribes, as provided in Stipulation A.3, to assist in identifying PRCSs, recognizing that such Indian tribes may be reluctant to divulge specific information regarding the location, nature or activities associated with such sites or properties.

3. Types of APEs. This Agreement addresses the following four types of effects that may be deemed adverse to historic properties: (1) direct effects; (2) visual, audible, or atmospheric effects; (3) indirect effects; and (4) cumulative effects. Examples of adverse effects in 36 C.F.R. § 800.5(a)(2) could be considered as either direct or indirect as defined in this Agreement. The APEs for the GWD Project cover all areas where the GWD Project may directly, visually, indirectly, or cumulatively cause an adverse effect as defined in this Agreement to one or more historic properties.

4. The APE for Direct Effects. The APE for direct effects, including determination of the APE for direct effects as Future Tiers of the Project are defined, will include the areas within the temporary and permanent ROWs granted by the BLM over public lands, or any area of easement, lease, purchase or ROW granted to SNWA on state, private or other federal lands, where any element of the GWD Project is to be located, or where ground-disturbing activities or construction are planned for the GWD Project, which may include but are not limited to: (1) newly constructed or graded access roads; (2) areas identified for the staging of materials or storage of heavy equipment; and (3) areas identified for the excavation or deposition of borrow material.

5. The APE for Visual Effects. The APE for visual effects, including determination of the APE for visual effects as Future Tiers of the Project are defined, to historic properties will be the area from which above-ground Project facilities less than 100 feet in height may be visible,[1] measured as follows: (1) for linear facilities or roads, an area extending outward one mile on either side of the centerline of the ROW, easement or other right of possession granted for such facility or road; and (2) for non-linear facilities, a circular area with a radius of one mile from the center point of such facility.

[1] No structures in excess of 100 feet in height are currently in the plans for the GWD Project, and none are expected in the future.

6. The APEs for Indirect and Cumulative Effects. The APEs for any indirect or cumulative effects (e.g., areas of possible subsidence caused by groundwater pumping), including determination of the APE for indirect or cumulative effect as Future Tiers of the Project are defined, shall be determined by the BLM, in consultation with the SHPO, taking into account the nature, scope and intensity of the potential indirect or cumulative effects to historic properties.

7. Changes to APEs. In consultation with SHPO, the BLM may modify the APE for a given GWD Project facility as BLM determines is reasonable and appropriate under the terms of this Agreement, consistent with the standards of the BLM 2012 NPA, the Nevada Protocol, and the BLM Manual 8100 Series. BLM will provide reasonable prior notification of such action to all Signing Parties and Identified Indian Tribes.

D. Indian Tribes, Consulting Parties and Public Participation

1. Indian Tribes. The BLM has made a reasonable and good faith effort to identify each Indian tribe that has cultural ties to, or whose direct ancestors had historic or prehistoric ties to, GWD Project areas, such that the tribe may attach religious and cultural significance to historic properties in Project APEs as determined by BLM in accordance with the BLM 8120 Manual and Handbook, and the BLM has listed the tribes identified in a Whereas clause above.

a. BLM shall continue to consult with any Identified Indian Tribe, irrespective of whether or not such tribe(s) signed this Agreement, with regard to any historic property(ies) to which such tribe attaches religious and cultural significance that may be affected by the Project. Such consultations may include site visits that BLM determines are reasonably necessary in the scope of this section 106 compliance.

b. BLM will designate those BLM managers who are authorized to speak for and commit the BLM and consult with Indian tribes for section 106 compliance for the Project. Designated BLM managers will contact the Identified Indian Tribes and request that each such tribe identify to the BLM in writing one or more tribal members whom the tribal government authorizes to speak for and commit the tribe and consult with BLM for section 106 compliance involving the Project.

c. The BLM will seek to determine, with the assistance of each Identified Indian Tribe, whether such Identified Indian Tribe attaches religious and cultural significance to one or more historic properties, including PRCSs that may be affected by the GWD Project, and will further seek in consultation with such tribe to identify and assess the eligibility of each such property.

d. The BLM in its discretion may designate as a consulting party any Indian tribe, even if such tribe does not attach religious and cultural significance to a historic property that may be affected by the Project, pursuant to 36 C.F.R. § 800.2(c)(5). Any Indian tribe that is not designated a consulting

party may nevertheless participate in the section 106 compliance by submitting comments to the BLM regarding the Project, by discussing the Project with BLM representatives, by responding to inquiries from BLM managers or staff, or by providing information and the views of that tribe concerning cultural resources or historic properties that will or may be affected by the Project. Any Indian tribal government, or its authorized representative, that expresses to BLM in writing that the tribe does not wish to participate as a consulting party in the section 106 compliance for the GWD Project shall thereafter not be a consulting party for the Project, except that the tribe may rejoin the section 106 compliance as a consulting party at any time by written notice to the BLM.

e. BLM recognizes that Indian tribes may be reluctant to divulge specific information regarding the location, nature or activities associated with historic, prehistoric or spiritual sites and properties. BLM shall address concerns raised by any tribe about confidentiality pursuant to section 304 of the NHPA (16 U.S.C. § 470w-3). BLM will protect such information from public release to the extent allowed by law.

f. Subject to prior BLM authorization, and as allowed by the relevant Indian tribe(s), SNWA, or cultural resource consulting firms working for SNWA, may make contacts with tribes in order to collect information from such tribes for purposes such as identification of historic properties, including PRCSs, for section 106 compliance, but neither SNWA nor any of its consulting firms shall negotiate or make commitments for the BLM, or otherwise exercise, or give the appearance of exercising, BLM's tribal consultation authority, without BLM having obtained express written consent from the relevant tribal government.

g. BLM has invited all Identified Indian Tribes to execute this Agreement as Concurring Parties. Execution of this Agreement as a Concurring Party does not imply endorsement or approval of the GWD Project itself, or limit or restrict in any way the Concurring Party's right to object to, petition against, litigate against or in any other way express or advance critical or negative comments toward, the GWD Project or its proponent.

2. Other and Invited Consulting Parties. BLM will identify and notify persons and organizations interested in the Project's effects to historic properties as provided in Stipulation A.4. In addition, pursuant to the Nevada Protocol (Section IV.F.), and the regulations at 36 C.F.R. § 800.3(f), and in coordination with the processes of Project review under NEPA, the BLM shall: (1) consider all written requests from such individuals and organizations to participate as Other Consulting Parties; and (2) determine which should become Invited Consulting Parties and the scope of consultation, considering the scale of the Undertaking, the intensity and scope of the Project's effects to identified historic properties of expressed interest to the individual or organization, and the scope of federal involvement in the relevant portion or facility of the Project.

3. Public Participation. The public will be afforded an opportunity to participate in the section 106 compliance of the GWD Project, and the BLM shall seek and consider the views of the public when considering effects to historic properties in this review. The public participation process and any release of information shall be conducted in strict conformance with the confidentiality requirements of section 304 of the NHPA (16 U.S.C. § 470w-3), as well as 36 C.F.R. §§ 800.2(d)(1)–(2) and 800.11(c)(1), (3).

a. Development of this Agreement. The BLM directed SNWA to publish at least once per week for two successive weeks a public notice for the GWD Project in the Las Vegas Review Journal and the Ely Times, newspapers of general circulation in the State of Nevada, describing the general nature and scope of the Project, identifying a contact person from whom copies of this Agreement and detailed descriptions of the GWD Project could be obtained, and sought comment from the public on: (1) this Agreement; (2) the identification and assessment of any historic properties that may be affected by the construction or operation of the GWD Project; and (3) potential effects to any historic properties there from. BLM also included a copy of this Agreement and solicited for public comments in the DEIS for this Project (76 Fed. Reg. 34,097). BLM has considered comments received in the development of this Agreement.

b. Sharing Sensitive Information. At the discretion of the BLM, proprietary or sensitive location or other information about historic properties discovered in connection with the GWD Project may be shared with appropriate parties. The BLM shall ensure appropriate protection of sensitive information deemed confidential in accordance with section 304 of the NHPA (16 U.S.C. § 470w-3). BLM may withhold such information. BLM may also enter into information-sharing agreements with any person, group, Indian tribe or entity prior to the release to that party of sensitive information determined to be entitled to such confidential treatment.

E. Identification of Historic Properties

1. Research Design and/or Historic Context. BLM, in consultation with the SHPO, shall ensure that consulting archaeologists and other qualified professionals perform all necessary section 106 identification activities for the GWD Project, and SNWA or its consultant(s) shall prepare a research design and/or historic context consistent with the Secretary of the Interior's Standards and Guidelines.

2. Role of Tribal Consultation in Identification. The BLM will gather information from each Identified Indian Tribe to assist in identifying PRCSs which may be eligible for the NRHP and which may be affected by the GWD Project, or a portion thereof.

3. Role of Other Consultation in Identification. The BLM will solicit information from Other Consulting Parties likely to have knowledge of, or concerns with, historic properties in the APE that may be affected by the GWD Project, or a portion thereof.

4. Class I Inventory. SNWA has identified known historic and prehistoric resources within the APEs for Tier 1 of the Project by completing the Class I Inventory. BLM will ensure that additional or updated Class I inventory is conducted as necessary for the APEs for Future Tiers or phased identification of historic properties in compliance with this Agreement.

5. Ranch Complexes. BLM will ensure that SNWA will inventory and record all ranch complexes more than 40-years old located in the Project APEs for visual and direct effects. For each such ranch complex that the BLM determines, in consultation with the SHPO, will be adversely affected by the Project and meets the criteria for NRHP-eligibility for state or local significance (Class I surveys have not identified any ranch complex in the Tier 1 GWD Project APEs that is of national significance), SNWA will provide treatment by producing full descriptions and photo documentation per standards in Appendices D and/or G of the Nevada Protocol, as may be applicable. Information obtained as a result of the inventory of ranch complexes will be compiled in a stand-alone report.

6. Class III Survey. To build on the identification efforts from the Class I inventory performed by SNWA, BLM, in consultation with the SHPO, shall ensure that SNWA will complete a Class III survey of the Project APEs for direct effects prior to initiation of construction of a given Project facility or phase.

a. Facilities added to the GWD Project in the Future Tiers that will be located completely within areas previously inventoried by a Class III survey for the Project will not require additional survey or identification work, provided the age of such Class III survey is consistent with the requirements of the Nevada Protocol, except for any assessment of effects, mitigation and treatment that may be required or in discovery situations.

b. Facilities added to the GWD Project in the Future Tiers that will be located partially or totally outside of areas previously covered by a Class III survey for the Project must be the subject of a full Class III survey and section 106 compliance under the terms of this Agreement (including development and implementation of evaluation and treatment options, as appropriate) prior to construction of the relevant facilities.

7 Other Types of Identification. BLM may require that SNWA conduct other types of identification, such as field reconnaissance, windshield surveys, and historical research, within the APEs for indirect and cumulative effects for Future Tiers, in consultation with the SHPO.

8. Geomorphology. During the Class III surveys, in areas within the Project APEs for direct effects, a qualified archaeologist with professional experience in geomorphological analysis will assess the potential for buried cultural materials in areas that will be impacted by construction of any GWD Project facility or other planned excavation deeper than two feet. The assessment will attempt to identify areas that contain thick sequences of post-14,000 B.P. deposits that are of a suitable geologic character to bury and preserve cultural zones and thick enough to hide any surface evidence, considering geomorphological evidence and other surface indicators. If the qualified archaeologist determines that a given area showed indication of a high likelihood of buried significant cultural deposits, the archaeologist will make

recommendations to the BLM for additional geomorphological evaluation, or archaeological testing, as may be reasonably indicated. The BLM, in consultation with the SHPO, will determine if additional geomorphological evaluation or archaeological testing is warranted.

9. Private Ownership. Section 106 compliance and reasonable identification efforts shall be performed regardless of the ownership (public or private) of the lands involved, and SNWA shall be responsible for attempting to gain access to non-BLM lands. Where SNWA cannot gain access to such lands for purposes of identification of historic properties in any of the Project's APEs, identification efforts on those lands shall be deferred until access is gained. Failure to gain access to accomplish necessary or appropriate identification, treatment or mitigation may require BLM to consider alternative treatment or mitigation, or to allow deferral of such until access is gained, as provided in 36 C.F.R. § 800.4(b)(2).

10. Disturbed or Dangerous Conditions. In any area in the APEs for direct effects where the ground has been heavily disturbed, or in areas where access is prevented or may be dangerous to survey personnel, the BLM may exempt those portions of the APEs from Class III survey requirements. Notification of these exempted areas will be submitted to SHPO for their information.

11. Non-Linear Sites. Non-linear sites extending out of the APEs for direct effects shall be recorded in their entirety with the exception of very large sites such as town sites, mining complexes, continuous stream/lake terrace sites, or extensive prehistoric quarries or habitation sites. These exceptions shall be approved in advance by BLM Ely and BLM Southern Nevada districts, which will consult with other BLM districts as appropriate.

12. Linear Resources. Linear resources (e.g., railroads, roads, trails, ditches, utility lines, etc.) crossing and extending beyond the APEs for direct effects shall be inventoried 100 meters beyond the project boundaries in each direction, and shall be either recorded or not according to the following criteria:

a. Roads or linear features with: (i) no mention in the BLM Field Office records or not shown on General Land Office ("GLO") plats or other historic maps; (ii) no associated features or dateable artifacts; or (iii) which have lost all integrity through extensive blading, will not be recorded;

b. Roads, linear features, or other resources included on GLO plats but which are not associated with features or dateable artifacts, and do not appear to be significant on the basis of archival data shall be treated as "isolated linear segments." These resources shall be recorded in tabular form and collected data shall include a minimum of two (2) separate GPS points at each end of the linear feature within the APE. Additional data regarding specific "isolated linear segments" encountered during report preparation will be recorded on Intermountain Antiquities Computer System ("IMACS") site forms;

c. Roads or other linear features included on GLO plats (especially named roads) or features known from other archival data to be potentially significant, or which have associated features or dateable artifacts, shall be recorded on IMACS site forms.

13. Crew Chiefs and Supervisors. Archeological crew chiefs and higher-level supervisors will be familiar with the inventory research design and locations of expected historic resources identified in the Class I overview. SNWA will document in the Class III reports efforts made to locate expected but not-encountered sites.

14. Phased Identification and Evaluation. The BLM may use a phased process to conduct identification and evaluation efforts for the review of this Project, because alternatives under consideration for the Project consist of corridors and large land areas, because Future Tiers of the Project as described in Appendix B have not been defined, and because access to some properties is restricted. All identification and evaluation efforts determined and required by BLM as provided in Stipulation K for a given Project portion or area shall be completed prior to issuance of a NTP for construction on that portion or in that area.

15. Deferral of Final Identification and Evaluation. BLM may defer final identification and evaluation of historic properties for alternatives or inaccessible areas as provided herein. SNWA shall first establish the likely presence of historic properties within the APEs for each such alternative or inaccessible area through background research, appropriate consultation and an appropriate level of field investigation as determined by BLM, taking into account the number of alternatives under consideration, the magnitude of the Undertaking and its likely effects, and the views of the SHPO. As specific aspects or locations of an alternative are refined, or as access is gained to an inaccessible area, BLM shall proceed with the identification and evaluation of historic properties in accordance with this Agreement. All identification and evaluation efforts for a given Project portion or area that are deferred under this Stipulation shall be completed prior to issuance of a NTP for construction for that portion or area as provided in Stipulation K.

a. BLM may also use a phased process for identifying and evaluating PRCSs. The Ethnographic Assessment, which BLM used as a resource in the agency's efforts to identify historic properties including PRCSs, identified 76 such locations, 48 of which are in the vicinity of a Project alternative (Appendix B). BLM recognizes that additional PRCSs may be identified during ongoing consultation or through additional research. BLM will further identify and evaluate those locations for NRHP eligibility using a phased process, if the location is in the APE(s) of an alternative ultimately selected for additional Project facilities.

b. Four PRCSs identified in the Ethnographic Assessment or otherwise are within the Tier 1 APEs: Snake Creek Burial Cave, Spring Creek Spring, *Basonip* Village, and Kane Springs. If these PRCSs are in the alternative selected by BLM, these sites must be further defined and be evaluated for NRHP eligibility. No NTP for activities affecting these sites will be

issued until the section 106 compliance process, as set forth in this Agreement, is complete.

F. Evaluation of NRHP Eligibility

1. Evaluation Prior to Ground Disturbance. BLM, in consultation with the SHPO, shall ensure that all cultural resources identified within the ROW are evaluated for eligibility to the NRHP prior to the initiation of ground-disturbing activities that may affect those historic properties. Eligibility will be determined in a manner compatible with the Nevada Protocol.

2. Evaluation of Properties Visually Affected. For those resources within the APE for visual effects, which have not previously been evaluated for eligibility in the NRHP, except for resources that are or may be eligible for the NRHP only under eligibility Criterion D, SNWA will document, assess, and make recommendations to the BLM regarding the eligibility of such inventoried resources for the NRHP under Criteria A, B and C.

3. Evaluation Data. To the extent practicable, eligibility determinations shall be based on inventory information. If the information gathered in the inventory for archaeology is inadequate to determine eligibility, BLM or GWD Project contractors may conduct limited subsurface probing, or other evaluative techniques, to determine eligibility. Subject to approval by BLM, evaluative testing of archaeological sites is intended to provide the minimum data necessary to define the nature, density, and distribution of materials in potential historic properties, to make final evaluations of eligibility, and to devise treatment options responsive to the information potential of the property.

4. Withdrawal or Disapproval of Project. Should the BLM disapprove Tier 1 or Future Tiers ROW applications, or should SNWA abandon the GWD Project and withdraw the ROW application(s) prior to BLM approval, then any further evaluative testing shall cease, except for completing all post-fieldwork activities that are ongoing as of the date of the withdrawal or disapproval, as determined by BLM.

5. Tribal Consultation. BLM shall seek to consult with each Identified Indian Tribe in accordance with the BLM 8120 Manual and Handbook, concerning the NRHP eligibility of any potentially eligible cultural resource that would be affected by the Project, to which that Indian tribe attaches religious and cultural significance.

6. Eligibility. If BLM determines, in consultation with SHPO, that a property not already listed in, or determined eligible for, the NRHP meets the criteria for NRHP eligibility that property shall be considered eligible for purposes of this section 106 compliance. If BLM determines, in consultation with SHPO, that the eligibility criteria are not met for a given property, that property shall be considered not eligible for the NRHP.

7. Disagreements Regarding Eligibility. Any disagreements regarding eligibility shall be handled in accordance with Stipulation O.3.

8. Consulting Party and Public Comments. Other Consulting Parties and members of the public may at any time submit to BLM comments regarding conclusions,

recommendations or consensus determinations made pursuant to this Stipulation F regarding NRHP eligibility for properties potentially affected by the GWD Project.

G. Assessment of Effects

1. Assessment. BLM, in consultation with the SHPO and any Identified Indian Tribe, shall apply the criteria of adverse effect to historic properties within the Project APEs in accordance with the terms of 36 C.F.R. § 800.5. BLM shall consider any views concerning such effects that have been provided by Other Consulting Parties and the public.

2. Phased Assessment. BLM may use a phased process in applying the criteria of adverse effect, consistent with phased identification and evaluation efforts provided in Stipulations E.14 and 36 C.F.R. § 800.5(a)(3), because alternatives under consideration in this review consist of corridors and large land areas, the alternative for Tier 1 of the Project has not yet been selected, Future Tiers of the Project as described in Appendix B have not yet been defined, and access to some potentially affected properties may be restricted.

H. Treatment of Adversely Affected Historic Properties

1. Consultation. In avoiding, minimizing or mitigating adverse effects to historic properties from the GWD Project, or any facility or portion thereof, BLM, in consultation with SHPO, any Identified Indian Tribe that attaches religious and cultural significance to the adversely affected historic property, and Invited and/or Other Consulting Parties, shall develop and evaluate alternatives or modifications to the undertaking that could avoid, minimize or mitigate adverse effects on historic properties consistent with the terms of 36 C.F.R. § 800.6. All treatment for adversely affected historic properties shall be done in a manner consistent with the Nevada Protocol.

2. Preference for Avoidance. BLM, in consultation with the SHPO, shall ensure that, to the extent reasonably practicable, SNWA will avoid effects to historic properties through project design, redesign, relocation of facilities, or by other means.

3. Historic Properties Treatment Plan ("HPTP"). When avoidance is not feasible or reasonably practicable, BLM, in consultation with the SHPO and in coordination with SNWA, affected Identified Indian Tribes and Invited and/or Other Consulting Parties, shall ensure that an appropriate historic properties treatment plan ("HPTP") is developed to minimize, mitigate or otherwise resolve Project-related effects to historic properties.

a. Consistent with this Agreement, the HPTP will establish an overall approach for mitigation and treatment, identifying key aspects and issues, including programmatic NRHP eligibility issues, post-construction data recovery, tribal consultation and participation, and reporting measures, that will prove crucial in its implementation. The HPTP will review site significance issues and research domains for both prehistoric and historic-era resources, and will identify data recovery treatment options based on site type for prehistoric resources, and theme-specific property type for historic-era resources. The HPTP will present both pre- and post-construction data recovery plans, the latter recognizing that post-

construction data recovery is appropriate for historic properties or portions of historic properties that will not be directly impacted by the Project. The HPTP will propose field and laboratory methods, and will also address cultural resources monitoring procedures and unanticipated discovery situations. The discovery plan in the HPTP will be consistent with, but may expand on, the procedures provided herein and describe the identification, protection, recording, treatment, notification, and reporting procedures associated with unanticipated archaeological finds. The discovery plan will provide a separate discussion for discovery situations involving human remains.

b. For properties eligible under Criteria A through C (36 C.F.R. § 60.4), mitigation and treatment activities other than archaeological data recovery will be considered in the HPTP including, but not limited to, Historic American Building Survey/Historic American Engineering Record/Historic American Landscapes Survey (HABS/HAER/HALS) or other appropriate recordation or preparation of an oral history, historic markers, exhibits, interpretive brochures or publications, or similar historic or educational materials. Where appropriate, the HPTP shall include provisions describing the content and number of copies for a publication of treatment materials for the general public.

4. Criteria for Data Recovery. When data recovery is required as a condition of approval, BLM, in consultation with SHPO, shall develop, or ensure that SNWA develops treatment plans that are consistent with the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation, as revised and updated and *Section 106 Archaeology Guidance* (ACHP, 2009).

5. Curation. BLM shall ensure that all records and materials resulting from identification and treatment efforts are curated in accordance with 36 C.F.R. Part 79, in BLM-approved facilities in Nevada if possible, or if applicable, in accordance with NAGPRA regulations set forth in 43 C.F.R. Part 10, or any Plan of Action ("POA") pursuant to and in accordance with those regulations that may be executed after this Agreement. All materials slated for curation will be maintained in accordance with 36 C.F.R. Part 79 until the relevant final treatment report is complete and collections are curated or returned to their owners. The BLM and SNWA shall encourage private owners to donate collections obtained from their lands to an appropriate BLM-approved curation facility in Nevada if possible. For ease of future research, BLM will encourage all artifacts collected from this Project to be curated at the same facility in Nevada if possible.

6. Treatment of Properties Visually Affected. For those historic properties which are in the visual APE that the BLM determines, in consultation with the SHPO, are eligible for the NRHP under one or more of those three criteria and are either previously undocumented or insufficiently documented, SNWA will record each such property with full descriptions and photo documentation to current standards, including SHPO standards or Appendices D and/or G of the Nevada Protocol, as may be applicable.

7. Tribal Consultation. BLM shall consult with each Identified Indian Tribe in accordance with the BLM 8120 Manual and Handbook, and with the SHPO, to develop treatment options for adversely affected historic properties, including PRCSs.

8. Final Reports. BLM shall ensure that all final reports resulting from treatment will be provided to the SHPO, and made available to Identified Indian Tribes that attach religious and cultural significance to the treated property, and to Concurring Parties. All such reports shall be consistent with contemporary professional standards and the Department of Interior's Format Standards for Final Reports of Data Recovery Programs (42 Fed. Reg. 5,377–79).

I. Unanticipated Discoveries

1. Construction-Related Unanticipated Discoveries.

a. Authorized Personnel. Prior to initiating construction of the GWD Project or portion thereof, SNWA will provide to BLM, and to other Signing Parties that so request, a list of its employees and contractors authorized to halt ground-disturbing activities in specified areas in discovery situations. At least one such authorized person will be present in the area during all ground-disturbing activities for the GWD Project, and that person will be responsible for notifying BLM of any qualifying discoveries.

b. Cessation of Activities. If previously unidentified cultural resources, other than isolates as identified by a qualified archaeologist, are discovered during construction of the GWD Project, all Project ground-disturbing activity within 100 meters (325 feet) of the discovery shall cease immediately, SNWA or its authorized representative shall immediately secure the location of the discovery to prevent vandalism or other damage. Ground-disturbing activity in that area shall be suspended until BLM has evaluated the discovery, notified Signing Parties, assured the completion of any necessary mitigation or treatment measures for historic properties, and issued a written NTP.

c. Notification. SNWA shall notify BLM of the discovery immediately either by written or electronic communication (email or fax), or orally followed by written or electronic confirmation.

d. Evaluation. Upon notification of a discovery, BLM shall make an assessment of the discovery's significance, integrity and eligibility for the NRHP (including pertinent criteria) within 48 hours of notification, or sooner if feasible. The BLM may make the eligibility assessment, and a determination of appropriate course of action, based upon a concise preliminary description and recommendation for the discovery from a qualified archaeologist. Alternatively, the BLM, in consultation with SHPO, may assume the newly discovered property is eligible for the NRHP and will specify the pertinent NRHP significance criteria.

i. If BLM determines the discovery is not a historic property, BLM shall notify SHPO and Identified Indian Tribes that the BLM determines may attach traditional religious and cultural significance to the affected property of the discovery by email, fax or telephone within 48 hours of discovery, including BLM's determination of non-eligibility for the NRHP. The SHPO and Identified Indian Tribe(s) shall have 48 hours to respond to BLM to notification with any objections. The BLM must take any objections received during that time into account in determining how to proceed.

ii. If BLM determines the discovery is a historic property, BLM shall notify SHPO and Identified Indian Tribes that the BLM determines may attach traditional religious and cultural significance to the affected property of the discovery by email, fax or telephone within the 48 hours of discovery including BLM's determination of eligibility for the NRHP (including significance criteria, if eligible), and of BLM's determination of options for avoidance, minimization of adverse effects and proposed actions to resolve adverse effects to historic properties. The SHPO and Identified Indian Tribe(s) shall have 48 hours to respond to the notification from BLM. The BLM shall take into account comments and recommendations received within the specified time period from SHPO and Identified Indian Tribe(s) regarding eligibility and proposed actions, and then determine the appropriate actions to avoid, minimize or resolve adverse effects.

e. Implementation of Measures to Avoid, Minimize or Resolve Adverse Effects. The BLM shall ensure those measures it deems appropriate to avoid, minimize or resolve adverse effects are implemented. The SHPO and Identified Indian Tribes that the BLM determines may attach traditional religious and cultural significance to the affected property shall be provided with a report of actions taken after completion.

f. Resumption of Activities. After notification and consideration of comments from SHPO, SNWA, and affected Identified Indian Tribes, the BLM shall ensure actions to resolve adverse effects to any discovered historic property are implemented. The BLM shall provide to the SHPO and Identified Indian Tribe(s) a report of the actions after completion.

i. After notification and consideration of comments from SHPO and affected Identified Indian Tribes, if BLM determines the discovery does not involve a historic property, the BLM shall issue written authorization for resumption of activities.

ii. BLM may request or gather additional information as it deems necessary, and may approve the restarting of some or all suspended

activities based upon the information and recommendation received, and BLM may condition the restarting of suspended activities as it deems appropriate.

iii. Suspended construction activities in the area of the discovery may resume when BLM notifies SNWA either by written or electronic communication (email or fax), or orally followed by written or electronic confirmation, that objectives of the fieldwork phase of mitigation are achieved and activities can resume.

g. Reporting.

i. For discovered isolates, SNWA will provide documentation to BLM in the final monitoring report.

ii. For unanticipated discoveries, the reporting archeologist will prepare and transmit to BLM a written report of the discovery and recommendations within 30 days or as otherwise determined by the BLM.

iii. BLM shall require that reports of mitigation efforts are completed in a timely manner and that they conform to the standards of the Department of Interior's Format Standards for Final Reports of Data Recovery Program (42 Fed. Reg. 5,377–79). Drafts of such reports shall be submitted to the SHPO, for a 45-day review and comment period as stipulated in Stipulation J and as provided in the Nevada Protocol. BLM shall submit final reports to the SHPO, Identified Indian Tribes that attach traditional religious and cultural significance to the affected property, and Concurring Parties for informational purposes.

2. Post-Construction-Related Unanticipated Discoveries.

a. Maintenance and Repair. If previously unidentified cultural resources, except isolates as identified by a qualified archaeologist, are discovered as a result of ground-disturbing maintenance and repair within the GWD Project ROWs, the process identified in paragraphs I.1.a through I.1.g above will be implemented.

b. Groundwater Development. If unanticipated indirect effects to cultural resources known or determined to be historic properties are indicated from SNWA's groundwater development (e.g., possible subsidence caused by groundwater pumping), BLM shall determine whether such effects are reasonably attributable to the GWD Project. If adverse effects to cultural resources known or determined to be historic properties are determined by BLM to be attributable to the GWD Project, BLM shall conduct consultation seeking to avoid, minimize, mitigate or resolve those adverse effects.

J. Procedures and Time Frames

1. SNWA Submissions to BLM. BLM shall review and comment on any report submitted by SNWA within 35 calendar days of receipt, unless BLM agrees to comment in a shorter time, or requests additional time. BLM may issue a NTP for a given GWD Project element or portion immediately after BLM finds that the conditions in Stipulation K are met.

2. Final Report Deadlines. Unless otherwise agreed, SNWA shall submit final reports to BLM by the following deadlines:

a. A draft final report of all identification/inventory and evaluation efforts within nine (9) months of the completion of the fieldwork associated with the activity.

b. A draft final report of all supplementary evaluation activities within twelve (12) months of the completion of the fieldwork associated with the activity.

c. A draft final report of all treatment or other treatment activities within twenty-four (24) months of the completion of the fieldwork associated with the activity.

3. SHPO Consultation. Except for unanticipated discovery situations, BLM shall submit the results of all identification or evaluation reports, treatment plans, and final draft reports to the SHPO for a 45-calendar day review and comment period, measured from the date of SHPO receipt. This review period includes 10 calendar days for SHPO to review and consider comments provided by Identified Indian Tribes and Concurring Parties, as identified in Stipulation J.4, below.

4. Identified Indian Tribes and Concurring Parties. Concurrent with any SHPO submission (except in unanticipated discovery situations), BLM shall provide copies of draft reports to Identified Indian Tribes and Concurring Parties which have information-sharing agreements with BLM Nevada and attach religious and cultural significance to the affected property, for a 35-calendar day review and comment period. BLM will consider any comments received within the 35-calendar-day comment period, and will provide copies of those comments to SHPO. BLM shall provide to all Identified Indian Tribes and Concurring Parties copies of the final report within 45 days after it is received from SNWA, consistent with Stipulation D.3.b.

5. Timeline for Curation. Materials and artifacts to be curated (defined in Stipulation H.5) will be sent to a facility in Nevada, if possible, approved by the BLM that reasonably meets the procedural, security and quality standards in 36 C.F.R. Part 79, or to the owner, within 15 days of when the final report associated with that activity is accepted by the BLM. If materials and artifacts are subject to NAGPRA, BLM will manage those materials and artifacts in accordance with 43 C.F.R. Part 10, or according to any applicable POA executed after this Agreement. SNWA will provide to BLM copies of records confirming curation or transfer of possession within five business days of acceptance by the curatorial facility or owner.

K. Notices to Proceed ("NTPs")

When the BLM issues a ROW for the GWD Project or for any facility, element or portion thereof, the ROW issued for such application shall provide for the issuance of a NTP. The NTP may be issued for the entire Project or portions thereof, after fulfillment of one of the following conditions:

1. BLM, in consultation with the SHPO, determines that no historic properties will be affected by construction of the facility or project portion described in the ROW application; or

2. BLM, in consultation with the SHPO, determines that construction of the GWD Project facility or Project portion described in the ROW application will have no adverse effect to historic properties; or

3. BLM, in consultation with the SHPO, Identified Indian Tribes, and Concurring Parties, determines that an appropriate treatment plan for the facility or portion described in the ROW application has been implemented, and the following have all occurred:

   a. The fieldwork phase of the treatment plan has been completed; and

   b. BLM has accepted a summary description of the fieldwork performed and a reporting schedule for that work; and

   c. BLM shall provide a copy of the summary to SHPO; and

   d. The SHPO shall review the summary. If the SHPO concurs or does not respond within two working days of receipt, BLM shall assume concurrence and issue the NTP.

L. Monitoring and Tribal Monitoring

1. BLM/SHPO Monitoring. BLM and the SHPO may monitor actions carried out pursuant to this Agreement. BLM at its discretion may also allow monitoring by Invited or Other Consulting Parties.

2. Archaeologist Monitoring. BLM, in consultation with the SHPO, may identify areas of construction for facilities or portions of the Project that will require monitoring by a BLM-approved archaeologist. Areas requiring archeological monitoring shall be identified in the Class III survey and the geomorphological study. Work in areas so identified cannot proceed without a monitor in place, and the monitor shall be empowered to stop work as necessary to protect historic properties.

3. Tribal Monitoring. In recognition of requests by several Identified Indian Tribes in the development of this Agreement to provide for tribal monitoring, an Identified Indian Tribe which attaches religious and cultural significance to a historic property in the APEs for direct effects, including eligible PRCSs that may be directly and adversely affected by construction of the GWD Project in Tier 1 or Future Tiers, will be provided an opportunity to monitor that construction. A tribal monitor shall be designated by an Identified Indian Tribe which attaches

religious and cultural significance to a historic property in the APEs, and shall satisfy safety requirements and other appropriate qualifications. Tribal monitors shall report any concerns to the on-site archaeologist or the SNWA employee or contractor authorized to halt ground-disturbing activities. Tribal monitors shall provide weekly written reports to the BLM.

M. Contact Persons

BLM will maintain a current list of contact persons for the Signing Parties and Identified Indian Tribes and will provide it to any of the parties if requested.

N. Other Considerations

1. Qualified Persons to Perform or Supervise Work. BLM shall ensure that historic, architectural, ethnographic, and archaeological work conducted pursuant to this Agreement is carried out by, or under the direct supervision of, persons meeting qualifications set forth in the Secretary of the Interior's Professional Qualification Standards or who have been permitted for such archaeological work on public lands by the BLM.

2. Personnel Shall Not Engage in Illegal Collection or Damage to Historic Resources. SNWA, in cooperation with BLM and the SHPO, shall ensure that all its personnel, and all the personnel of its contractors and their subcontractors, that will perform work on the GWD Project, including any visitors, are directed not to engage in the illegal collection, damage or vandalism of historic and prehistoric resources. SNWA shall cooperate with the BLM to ensure compliance with Archaeological Resources Protection Act (ARPA) for facilities and portions of the Project located on public lands, and with Nevada Revised Statutes 381.195 to .227 (Nevada State Antiquities Law of 1959) for facilities and portions of the Project located on state lands.

3. Mitigation Costs and Possible Enforcement Action for Unauthorized Damage to Historic Properties. Should damage to historic properties occur during the period of construction, installation, operation or maintenance of the Project due to any unauthorized intentional, inadvertent or negligent actions on the part of the SNWA, their employees, contractors or any other Project personnel, SNWA shall be responsible for costs of required rehabilitation or mitigation. In addition, BLM may refer or pursue any investigative or enforcement action allowed or required under federal law, including under ARPA.

4. SNWA's Responsibilities in Case of ROW Application Withdrawal Prior to Decision. If the BLM disapproves an application(s) for a ROW, or if SNWA abandons or withdraws any pending application for ROW prior to a BLM decision, then SNWA shall incur no further expense for evaluation or treatment for any cultural properties, except SNWA must complete, and submit a report for any inventory, treatment or post-fieldwork activities already initiated and ongoing at the time of the withdrawal, termination or disapproval, as identified by the BLM. In the case of inventory, a complete report with completed site forms would be required. For evaluation, mitigation or treatment, a report on the completed work with full analysis and curation of materials would be required.

5. SNWA's Responsibilities in Case of Project Termination after Issuance of NTP(s). In the event SNWA terminates the GWD Project after BLM has issued one or more

NTPs, SNWA shall complete and submit reports for any inventory or treatment activity already initiated and ongoing for a given Project portion at the time of termination where such completion is expressly required under the terms of the applicable NTP.

6. Activities Outside the ROW. Identification, evaluation, assessment, mitigation and treatment efforts may extend beyond the geographic limits of the ROW as described herein when the historic property being considered extends beyond the ROW, and that area is reasonably, legally and safely accessible to SNWA and its consultants for any such activity. In most cases, no identification, evaluation, assessment, mitigation or treatment efforts will be required in areas outside of the ROW, beyond that necessary to review records and gather historic data for the completion of the section 106 compliance process as provided herein. In cases involving historic properties eligible for the NRHP under Criteria A, B, or C, mitigation may extend beyond the ROW or easement boundary, but only as provided herein, and such treatment or mitigation may be conducted after commencement or conclusion of construction, as BLM in its discretion may approve.

7. Discovered Human Remains or NAGPRA Cultural Items. The BLM shall ensure that any human remains, funerary objects, items of cultural patrimony, or sacred objects, encountered during the GWD Project are treated with the respect due such materials. Native American human remains and associated grave offerings found on federal land will be handled according to the provisions of NAGPRA and its implementing regulations (43 C.F.R. Part 10), or any applicable POA pursuant to and in accordance with those regulations executed after this Agreement. Native American human remains and associated grave offerings found on state or private land will be handled according to the provisions of Nevada Revised Statutes Chapter 383 (Historic Preservation and Archaeology). All other instances of discovered human remains not addressed by Federal or state laws will be managed as determined by BLM, in consultation with SHPO, ensuring treatment with respect due such human remains and related materials.

O. Dispute Resolution

1. Consultation to Resolve Disputes. If any Signing Party to this Agreement objects to any activities proposed pursuant to the terms of this Agreement, BLM shall consult with the objecting party, SNWA, and the other Signatories to resolve the issue.

2. State Director. The BLM Nevada State Director will have the authority to make a final determination for any objection (except for disagreements on NRHP eligibility, findings of effect, or treatment) that cannot be resolved by local consultation.

3. Keeper of the National Register ("Keeper"). Disagreements on recommendations, conclusions or consensus determinations, of NRHP eligibility that cannot be resolved through the dispute resolution process will be resolved by the Keeper. The Signatories acknowledge that any Identified Indian Tribe that disagrees with the BLM and SHPO determination regarding NRHP eligibility may ask the ACHP to request BLM obtain a determination by the Keeper.

4. ACHP. Issues relating to BLM's findings of effect, resolution of adverse effects or their treatment, which cannot be resolved with BLM to the satisfaction of the disputing party(ies), may be referred to the ACHP for review and comment.

5. Pending Resolution. Pending resolution of a dispute addressed under this stipulation, the Signatories shall continue with those actions under this PA that are not the subject of dispute.

P. Two-Year Review Discussions

1. Schedule of Review Discussions. BLM shall invite the Signing Parties to discuss this Agreement at least once every two years on or about the anniversary of the effective date of this Agreement, or more frequently as may be determined by the BLM to be necessary or appropriate. At the request of a Signing Party, the BLM may convene a discussion in less than two years. Discussions may be deferred if there are no active cultural resources-related activities associated with the Project, as agreed by the Signatories.

2. Purpose of Review Discussions. Each such discussion will assess and evaluate the performance of this Agreement in: (1) completing the section 106 compliance process for the GWD Project as provided in this Agreement; (2) identifying and protecting historic properties, including historic properties or PRCSs of religious and cultural significance to one or more Identified Indian Tribes, potentially affected by the Project; and (3) facilitating the participation and involvement of Identified Indian Tribes, interested parties and the public, and further, such discussion may address the possible improvement or streamlining of procedures under this Agreement, or any other issues of concern or implementation regarding this Agreement.

Q. Amending This Agreement

Any Signing Party that determines that any term of this Agreement will not be, is not being, or cannot be carried out, or that sees the need for an amendment to improve or clarify the functioning of this Agreement or for any other reason, may consult with the Signatories to attempt to develop an amendment or agree on another way to resolve the issue. If after 30 days from initiation of consultation, agreement among the Signatories on an amendment cannot be reached, consultation on the amendment may be abandoned with no effect on this Agreement, or any Signatory or Invited Signatory may terminate the Agreement upon 30-day's written notification to the other Signatories as provided in Stipulation R. This Agreement will remain in effect, and the section 106 compliance process for the GWD Project will be unaffected, during the period of consideration of a proposed but unadopted amendment.

R. Terminating This Agreement

Any Signatory or Invited Signatory to this Agreement may terminate the Agreement by providing 30-days written notice to the other Signatories and Invited Signatory, provided that the Signatories and Invited Signatory shall consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination.

S. Execution and Duration

1. Effect. Execution and implementation of this Agreement evidences that the BLM has satisfied its section 106 responsibilities for all actions associated with the construction, installation, operation or maintenance of the GWD Project.

2. Alternative. In the event that the Signatory or Invited Signatory does not carry out the requirements of this Agreement, or if it is terminated, section 106 compliance for any portion of the GWD Project requiring a BLM ROW shall be governed by the provisions of the Nevada Protocol.

3. Effective and Expiration Dates. This Agreement shall become effective on the date on which the Agreement has been executed by all Signatories, and shall remain in effect up to a term of 50 years, or until terminated as provided in Stipulation R. This Agreement shall be reviewed a minimum of every 10 years as described in Stipulation S.8 below. The failure or refusal of any Invited Indian Tribe or Invited Consulting Party to sign this Agreement will not invalidate or otherwise affect this Agreement.

4. Signatures in Counterpart. This Agreement may be signed in counterparts and the executed Agreement, and each signature, will be effective and binding just as if all Signing Parties had signed the same document. Each Signatory and the Invited Signatory shall transmit five counterpart copies of the respective signature page signed by that party to BLM. BLM will provide the ACHP with the Agreement and an original copy of other Signatories and the Invited Signatory signature pages. The ACHP may then execute the Agreement and shall transmit four copies of its signature page signed by the ACHP to BLM.

5. Copies of Signature Pages. After all Signatories and the Invited Signatory have signed the final Agreement, BLM shall prepare and distribute to each Signatory, other than the ACHP, and to the Invited Signatory one copy of the final Agreement containing the original counterpart signatures of all Signatories and the Invited Signatory.

6. Signatures by Concurring Parties. Each Concurring Party may sign a counterpart copy of the final Agreement and transmit one copy of the Agreement originally signed by that party to BLM. BLM will notify each Signing Party when any Identified Indian Tribe or Invited Consulting Party becomes a Concurring Party by signing this Agreement. BLM will transmit to each Signing Party a copy of this Agreement containing photocopy(ies) of the signatures of all Signing Parties as of that time. A Concurring Party can terminate its participation and concurrence in this Agreement by notifying BLM in writing. BLM will notify each Signing Party of that termination.

7. Master Copy. BLM will maintain at least one master copy (or set of copies) of this executed Agreement with all of the original signatures of all Signing Parties. BLM shall prepare and distribute to all Signing Parties a copy of the full Agreement containing a copy of each signed signature page of any of the Signing Parties.

8. Review. The Signatories shall review this Agreement at a minimum of every ten (10) years to determine if any amendments are necessary. Six months before each tenth anniversary of the execution of this Agreement, BLM will invite the Signing Parties, Identified Indian Tribes, and Concurring Parties to discuss this Agreement. If changes to this Agreement are necessary, it shall be amended as described in Stipulation Q or can be terminated as described in Stipulation R.

9. Renewal. The Signatories may renew this Agreement, either with or without any amendments that may be adopted as provided in Stipulation Q, by written agreement executed by the Signatories. SNWA will be invited to be an Invited Signatory for any renewal of this Agreement. All Signing Parties, Identified Indian Tribes, and Invited Consulting Parties will be invited to concur in any renewal of this Agreement. One year prior to the end of the term of this Agreement, BLM will invite the Signing Parties, Identified Indian Tribes, and Concurring Parties to discuss whether this Agreement should be renewed.

SIGNATORIES

BUREAU OF LAND MANAGEMENT

By: _____ Date: June 8 2017
Name: Amy Lueders
Title: BLM Nevada State Director

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: John M. Fowler Date: 6/29/12

Name: John M. Fowler

Title: Executive Director

NEVADA STATE HISTORIC PRESERVATION OFFICER

By: _____ Date: 6-15-2012
Name: Ronald M. James
Title: Nevada State Historic Preservation Officer

INVITED SIGNATORY

SOUTHERN NEVADA WATER AUTHORITY

By: P Mulroy Date: 5-17-12
Name: Pat Mulroy
Title: General Manager

APPROVED AS TO FORM:

Dana Walsh
Dana Walsh, Deputy Counsel

CONCURRING PARTIES

BLM has invited the Identified Indian Tribes and Invited Consulting Parties to concur in this Agreement. Those that agree to do so will sign this Agreement and be acknowledged as a Concurring party.

ARCHAEO-NEVADA SOCIETY

By: Kevin Rafferty Date: 9/5/12

Name: Kevin Rafferty

Title: Chair

REC'D - BLM - NSO
9:00 A.M. SEP 10 2012

BUREAU OF INDIAN AFFAIRS, WESTERN REGIONAL OFFICE

By: _____ Date: _____
Name: Bryan Bowker
Title: Regional Director

CHEMEHUEVI INDIAN TRIBE OF THE CHEMEHUEVI RESERVATION

By: _____ Date: _____
Name: Charles Wood
Title: Chair

COLORADO RIVER INDIAN TRIBES OF THE COLORADO RIVER INDIAN RESERVATION

By: _____ Date: _____
Name: Eldred Enas
Title: Chair

CONFEDERATED TRIBES OF THE GOSHUTE RESERVATION

By: _____ Date: _____
Name: Ed Naranjo
Title: Chair

DEATH VALLEY TIMBISHA SHOSHONE BAND OF CALIFORNIA

By: _____ Date: _____
Name: George Gholson
Title: Chair

DUCKWATER SHOSHONE TRIBE OF THE DUCKWATER RESERVATION

By: _____ Date: _____
Name: Virginia Sanchez
Title: Chairwoman

ELY SHOSHONE TRIBE OF NEVADA

By: _____ Date: _____
Name: Alvin Marques
Title: Chair

FORT MOJAVE INDIAN TRIBE OF ARIZONA, CALIFORNIA AND NEVADA

By: _____ Date: _____
Name: Tim Williams
Title: Chair

GREAT BASIN NATIONAL HERITAGE AREA PARTNERSHIP

By: Dan Gooch Date: 7-16-2012

Name: Dan Gooch

Title: Director

GREAT BASIN NATIONAL PARK

By: _____ Date: 7/18/12

Name: Andrew Ferguson

Title: Park Superintendent

HUALAPAI INDIAN TRIBE OF THE HUALAPAI INDIAN RESERVATION, ARIZONA

By: _____ Date: _____
Name: Wilfred Whatoname, Sr.
Title: Chair, Hualapai Tribal Council

KAIBAB BAND OF THE PAIUTE INDIANS OF THE KAIBAB INDIAN RESERVATION

By: _____ Date: _____
Name: Manuel Salva
Title: Chair

LAS VEGAS TRIBE OF PAIUTE INDIANS OF THE LAS VEGAS INDIAN COLONY

By: _____ Date: _____
Name: Tonia Means
Title: Chair

MOAPA BAND OF PAIUTE INDIANS OF THE MOAPA RIVER INDIAN RESERVATION

By: _____ Date: _____
Name: William Anderson
Title: Chair

NEVADA DIVISION OF STATE LANDS

By: _____ Date: _____
Name: James R. Lawrence
Title: Administrator

NEVADA ROCK ART FOUNDATION

By: _____ Date: 9/13/12

Name: Angus Quinlan

Title: Executive Director

REC'D - BLM - NSO
9:00 A.M. SEP 14 2012

PAIUTE INDIAN TRIBE OF UTAH

By: _____ Date: _____
Name: Jeanine Borchardt
Title: Chairwoman

PRESERVE NEVADA

By: _____ Date: _____
Name: Senator Richard Bryan
Title: Chair

SHOSHONE-PAIUTE TRIBES OF THE DUCK VALLEY RESERVATION

By: _____ Date: _____
Name: Robert Bear
Title: Chair

TE-MOAK TRIBE OF WESTERN SHOSHONE INDIANS OF NEVADA

By: _____ Date: _____
Name: Bryan Cassadore
Title: Chair

U.S. FISH AND WILDLIFE SERVICE

By: _____ Date: 7/6/12

Name: Ted Koch

Title: Nevada State Supervisor

YOMBA SHOSHONE TRIBE OF THE YOMBA RESERVATION

By: _____ Date: _____
Name: David Smith
Title: Vice-Chair

WHITE PINE COUNTY

By: _____ Date: 8/21/12
Name: Gary Perea
Title: Commissioner

Appendix A

Glossary of Terms

1. **Adverse effect.** An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP.

2. **Archaeological site.** *See* "Site."

3. **Area of potential effects (APE).** The geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

4. **ARPA.** The Archaeological Resources Protection Act of 1979 (16 U.S.C. §§ 470aa–470mm).

5. **Class I Inventory.** A Class I inventory comprises a review of agency and SHPO database records (including the Nevada Cultural Resources Inventory System ("NVCRIS")), GLO plat maps, the BLM's Master Title Plats/Historic Index, the National and State Registers of Historic Places, National Historic Trails and historic maps, and an intensive review of agency archives, pertinent historic records and publications.

6. **Class III survey.** A continuous, intensive survey of an entire target area, aimed at locating and recording all archaeological properties that have surface indications, by walking close-interval parallel transects until the area has been thoroughly examined. Class III methods vary geographically, conforming to the prevailing standards for the region involved.

7. **Concurring Party/Parties.** Singularly or collectively, any Identified Indian Tribe and Invited Consulting Party that has chosen to sign this Agreement.

8. **Consultation.** The process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the section 106 compliance process.

9. **Cultural resource.** A definite location of human activity, occupation, or use identifiable through field inventory (survey), historical documentation, or oral evidence. The term includes archaeological, historic, or architectural sites, structures, or places with

important public and scientific uses, and may include definite locations (sites or places) of traditional cultural or religious importance to specified social and/or cultural groups (Cf. "traditional cultural property"; see "definite location"). Cultural resources are concrete, material places and things that are located, classified, ranked, and managed through the system of identifying, protecting, and utilizing for public benefit described in the BLM Manual. They may be but are not necessarily eligible for the NRHP. (*See* "historic property.")

10. **Cumulative effects.** Effects on a historic property which result from the incremental impact of an undertaking, such as the GWD Project, when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

11. **Definite location.** Having discernible, mappable, more or less exact limits or boundaries, on a scale that can be established by a survey crew using conventional sensing and recording equipment, by an informant's direct on-the-ground indication, or by precise placement in a documentary source (*see* "cultural resource").

12. **Effect.** An alteration of the characteristics of a historic property qualifying it for inclusion in or eligibility for the NRHP.

13. **Direct effects.** Effects that are caused by an undertaking such as the GWD project and which occur at the same time and place.

14. **Historic property.** Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of religious and cultural importance to an Indian tribe that meet the NRHP criteria for eligibility.

15. **HPTP.** Historic Properties Treatment Plan.

16. **Identified Indian Tribe.** A federally recognized Indian tribe that that has religious or cultural ties to, or whose direct ancestors had historic or pre-historic religious or cultural ties to, GWD Project areas, and based on such ties, may attach religious and cultural significance to historic properties, including PRCSs that may be affected by the GWD Project.

17. **Indian tribe.** An Indian tribe, band, nation or other organized group or community, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

18. **Indirect effects.** Effects that are caused by an undertaking, such as the GWD Project, and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate.

19. **Invited Consulting Party/Parties.** Organizations and agencies having responded and expressed their desire to participate in this Agreement, including Archeo-Nevada Society, Bureau of Indian Affairs, Great Basin National Heritage Area, National Park Service, Nevada Division of State Lands, Nevada Rock Art Foundation, Preserve Nevada, U.S. Fish and Wildlife Service, and White Pine County.

20. **Invited Signatory.** SNWA.

21. **Isolate artifact.** A single artifact or pieces from a single artifact, i.e., ten pieces of glass from a single bottle. An isolate artifact is considered single and unassociated when separated by 30 meters or more from any other artifact. For example, two flakes of the same or different raw material separated by 29 meters would be documented as a site. Ten pieces of glass from a single bottle spread across 31 meters would be an isolate. Isolates will not be recorded on a site form, but will be listed in a table designated by number, description, and location.

22. **Isolated or unassociated feature.** A single feature unassociated with other features or artifact scatters that are undateable; e.g., a prospect pit, a claim marker, an adit, or a shaft. An isolated or unassociated feature is considered single and unassociated when separated by 30 meters or more from any other feature or artifact. If these features are elements to a historic district, they are not isolated or unassociated. In addition, if an isolated feature is unique because of its construction (elaborate stonework claim marker) or distinctive qualities, the feature has to be evaluated for eligibility. Isolated features that have potential data (fire hearth) need to be evaluated for eligibility. Isolated or unassociated features need not be recorded on a site form, but will be listed in a table designated by number, description, and location.

23. **Keeper.** The Keeper of the National Register of Historic Places. The Keeper is the individual who has been delegated the authority by the Secretary of the Interior to list properties and determine their eligibility for the NRHP.

24. **NAGPRA.** The Native American Graves Protection and Repatriation Act (25 U.S.C. §§ 3001–3013).

25. **NRHP.** The National Register of Historic Places maintained by the Secretary of the Interior.

26. **NRHP criteria.** Criteria developed by the Secretary of the Interior for use in evaluating the eligibility of properties for the National Register (36 C.F.R. § 60.4).

27. **NHPA.** The National Historic Preservation Act of 1966 (16 U.S.C. § 470 *et seq.*).

28. **NTP.** Notice to Proceed.

29. **Other Consulting Parties.** Individuals and organizations with a demonstrated or known interest and expertise in historic properties and preservation issues in the Project area.

30. **PRCS.** A property of religious and cultural significance.

31. **Property of Religious and Cultural Significance.** A property identified by a tribe as having religious and cultural significance to that tribe.

32. **Secretary.** The Secretary of the United States Department of the Interior.

33. **SHPO.** *See* State Historic Preservation Officer.

34. **Signatories.** BLM, ACHP, and SHPO.

35. **Signing Party/Parties.** Singularly or collectively, the Signatories, Invited Signatory, Invited Consulting Parties, and Identified Indian Tribes that sign this Agreement.

36. **Site.** A location where one can reasonably infer from physical remains or other physical evidence that a purposeful human activity took place. The minimum criterion for defining archaeological sites, requiring use of the IMACS site record, is that sites should contain remains of past human activity that are at least 50 years old.

37. **State Historic Preservation Officer ("SHPO").** The official appointed or designated pursuant to section 101(b)(1) of the NHPA to administer the State historic preservation program or a representative designated to act for the State historic preservation officer.

38. **THPO.** Tribal Historic Preservation Officer.

39. **Traditional cultural property ("TCP").** A historic property that is eligible for inclusion in the NRHP because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. A traditional cultural property may qualify for the NRHP if it meets the criteria and criteria exceptions at 36 C.F.R. § 60.4. *See* National Register Bulletin 38.

40. **Tribal Historic Preservation Officer ("THPO").** The tribal official appointed by the tribe's chief governing authority, or designated by a tribal ordinance or preservation program, who has assumed the responsibilities of the SHPO for purposes of section 106 compliance on tribal lands in accordance with section 101(d)(2) of the NHPA.

37. **Undertaking.** (1) A project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license or approval; (2) The undertaking for the GWD Project is generally defined as the construction, installation, operation and maintenance of those Tier 1 and Future Tier facilities described in Appendix B. The particular facilities will be defined in conjunction with site-specific agency actions.

Appendix B

Proposed GWD Project Facilities and Anticipated Future Facilities

The following lists summarize the currently proposed and anticipated future facilities that are part of the GWD Project and covered under this Agreement.

Tier 1: Proposed GWD Project Facilities

SNWA has requested ROWs from the BLM to construct the following proposed facilities:

- Pipelines – approximately 306 miles of buried water pipelines, between 30 and 96 inches in diameter
- Pumping Stations – 5 pumping station facilities
- Regulating Tanks – 6 regulating tanks, each approximately 3 to 10 million gallons in capacity
- Pressure Reducing Stations - 3 facilities
- Buried Storage Reservoir – a 40 million gallon buried storage reservoir
- Water Treatment Facility– a 165 million gallon per day facility
- Power Facilities – approximately 323 miles of 230 kilovolt (kV), 69 kV, and 25 kV overhead power lines, 2 primary electrical substations (230 to 69 kV), 5 secondary substations (69 to 25 kV)
- Temporary and permanent access roads
- Alternatives to Tier 1 of the Proposed Project that are being considered by BLM are described in the attached map.

Future Tiers: Anticipated Future GWD Project Facilities

Future facilities will be required to develop permitted groundwater rights and convey them to the primary conveyance facilities. The final locations of the groundwater production wells and associated facilities to convey water into the primary system have not yet been determined. The wells will be located based on several factors, which include but are not limited to geology, hydrology, well interference studies, environmental issues, existing senior water rights, and proximity to main and lateral pipelines. Production well locations are also subject to approval by the Nevada Division of Water Resources, Office of the State Engineer (Nevada State Engineer). Since the specific location of these facilities cannot currently be identified, SNWA has not yet requested ROW for them from the BLM. However, assumptions regarding the number of wells, length of collector pipelines, and other needed facilities have been made by SNWA so that BLM can conduct a programmatic-level environmental impact analysis of construction and operation of future facilities in addition to the site-specific analysis of proposed ROWs for primary facilities.

SNWA anticipates that future facilities will include:

- Groundwater Production wells – estimated between 144 and 174 wells
- Collector Pipelines – estimated between 177 and 434 miles, 10 to 30 inches in diameter
- Pumping Stations - 2 facilities
- Power Facilities – estimated between 177 and 434 miles of 25kV overhead power lines, 2 secondary substations, and 3 hydroturbine energy recovery facilities.

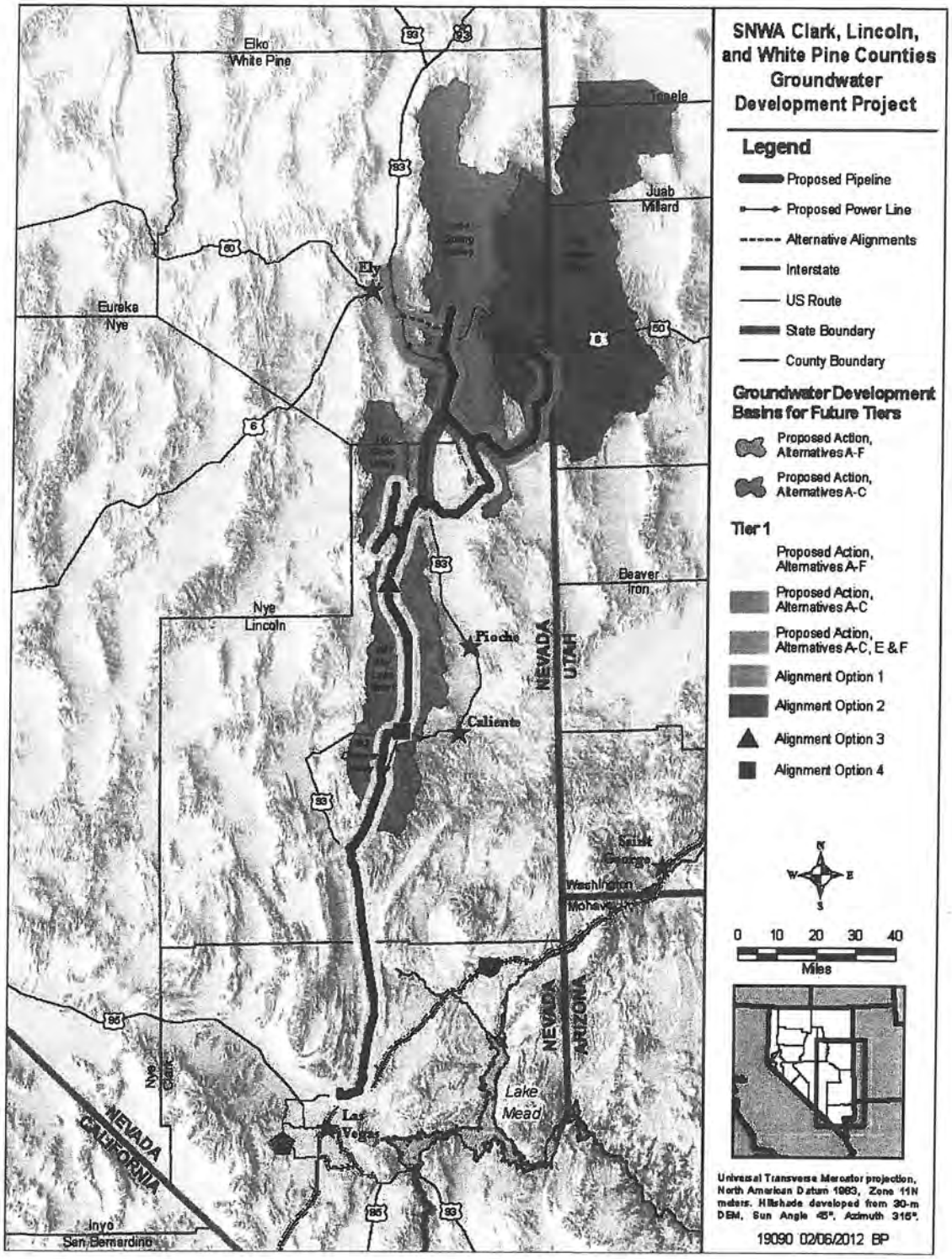
SNWA Clark, Lincoln, and White Pine Counties Groundwater Development Project
Legend
Proposed Pipeline
Proposed Power Line
Alternative Alignments
Interstate
US Route
State Boundary
County Boundary
Groundwater Development Basins for Future Tiers
Proposed Action, Alternatives A-F
Proposed Action, Alternatives A-C
Tier 1
Proposed Action, Alternatives A-F
Proposed Action, Alternatives A-C
Proposed Action, Alternatives A-C, E & F
Alignment Option 1
Alignment Option 2
Alignment Option 3
Alignment Option 4
0 10 20 30 40
Miles
Universal Transverse Mercator projection, North American Datum 1983, Zone 11N meters. Hillshade developed from 30-m DEM, Sun Angle 45°, Azimuth 315°.
19090 02/06/2012 BP
Elko
White Pine
Tooele
Juab
Millard
Eureka
Nye
Ely
Nye
Lincoln
Beaver
Iron
Pioche
Caliente
NEVADA
UTAH
Washington
Mohave
NEVADA
ARIZONA
Lake Mead
Las Vegas
Nye
Clark
NEVADA
CALIFORNIA
Inyo
San Bernardino

Exhibit E

COM Plan Framework

1. Introduction

The project requirements [Attachment C of the Record of Decision (ROD)] were developed through the National Environmental Policy Act (NEPA) process and are attached to the ROW as terms and conditions. As stated in the ROD, after the ROW is issued, a COM Plan will be developed based on the approved Plan of Development (POD). The process and components to be used in developing an integrated and comprehensive COM Plan are described here. This plan will encompass all proposed surface disturbance activities and facilities for the Tier 1 NEPA action analyzed in the Final Environmental Impact Statement (EIS) and will set the stage for monitoring, management, and mitigation for future development addressed by subsequent NEPA tiers. The objectives of the COM Plan are to protect federal resources and federal water rights that may be impacted by construction, operation, and maintenance of the GWD Project-related facilities.

The Council on Environmental Quality (CEQ) issued a Memorandum on January 14, 2011, titled "Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact." This CEQ guidance is intended to assist agencies with the development and review of their NEPA procedures. The guidance addresses mitigation that an agency has committed to implement as part of project design and mitigation commitments informed by the NEPA review process by specifically recommending:

- How to ensure that mitigation commitments are implemented;
- How to monitor the effectiveness of mitigation commitments;
- How to remedy failed mitigation; and
- How to involve the public in mitigation planning.

The Bureau of Land Management (BLM) COM Plan framework described in this section is consistent with the CEQ Memorandum and the Department of the Interior (DOI) and BLM policy and procedures related to identifying and implementing project mitigation and monitoring.

1.1 Resource Protection Measure Sources

The protection measure framework and sources of resource protection are discussed below and shown in **Figure 1**.

NEPA Monitoring and Mitigation Measures – Based on the resource-specific impact analyses provided in Chapter 3 of the Final EIS, resource-specific monitoring and mitigation measures for the Tier 1 ROW are listed in Attachment C of the ROD ("Project Terms and Conditions"). These measures also may be applied to future groundwater development facilities (e.g., impacts related to placement of future wells, collection pipelines, power lines, and access roads). **Table 1** at the end of this document provides monitoring and mitigation to address impacts from future groundwater development and pumping analyzed at a programmatic level (subsequent NEPA tiers) in Chapter 3 of the Final EIS. In particular, these monitoring and mitigation measures are based on currently available information that will be applied to the future activities. These measures are necessarily general in nature, since they are based on the programmatic NEPA analysis for the groundwater development and related facilities. However, until they are replaced by more specific measures resulting from future NEPA analyses, these measures will apply to the future activities.

Chapter 3.20 of the Final EIS also identified mitigation measures recommended for consideration by other agencies, but are not within the jurisdiction of the BLM. These measures have been addressed with the SNWA through the letter dated October 31, 2012, and Attachment C of the ROD.

BLM Resource Management Plans – All actions approved or authorized by the BLM must conform to the existing land use plans (43 Code of Federal Regulations [CFR] 1610.5-3, 43 CFR 2920.2-5). The BLM Ely District Resource Management Plan (RMP) (BLM 2008) and the BLM Las Vegas District RMP (BLM 1998) provide management direction for all BLM-managed lands that would be occupied by the GWD Project facilities.

BLM Best Management Practices – The 2008 BLM Ely District RMP identified Best Management Practices (BMPs) and United States Fish and Wildlife Service (USFWS) Biological Opinion (BO) terms and conditions that apply to all land use decisions including this GWD Project. The Ely BMP measures also apply to land use authorizations related to this GWD Project in the BLM Southern Nevada District. Attachment C of the ROD contains the specific terms and conditions that apply to the GWD Project.

Biological Opinion – The USFWS delivered to the BLM a BO for the ROW on November 19, 2012, that includes terms and conditions to maintain and protect the threatened desert tortoise as required under section 7 of the Endangered Species Act (ESA). It also included a programmatic BO with conservation recommendations related to future development associated with this project. The BO is Attachment E to the ROD. The ROD Attachment E also includes a letter from BLM, dated December 7, 2012, which explains to the USFWS how the conservation recommendations within the BO were incorporated into the ROD and COM Plan Framework. If section 7 consultation is reinitiated during the life of the project, new terms and conditions, and/or conservation recommendations would be incorporated into the COM Plan. New terms and conditions and/or conservation recommendations would also be incorporated into the COM Plan, based on section 7 consultations for future site-specific components of the GWD Project. Both the desert tortoise terms and conditions and the incorporated conservation recommendations will be made a condition of the right-of-way (ROW).

Applicant-committed Protection Measures – SNWA has committed to Applicant-committed Protection Measures (ACMs) that will be implemented as part of the construction and operation of the GWD Project. The ACMs include design features, monitoring, standard operating procedures, and other resource protection practices. They also include measures SNWA previously agreed to in stipulations or other agreements with federal, state, or local agencies and entities, as well as those required by the Nevada State Engineer (NSE) water right permit conditions. As part of the ACMs, SNWA has committed to implementing an adaptive management approach. The SNWA ACMs are attached to the ROD as Attachment B and will be made a condition of the ROW.

Section 106 Programmatic Agreement – A Programmatic Agreement (PA) was completed under the provisions of section 106 of the National Historic Preservation Act (NHPA) and was executed by the BLM, the Advisory Council on Historic Preservation (ACHP), the State Historic Preservation Office (SHPO), and the SNWA. The PA (Attachment G of the ROD) describes procedures for mitigating impacts to cultural resources. The ROW will be subject to the terms and conditions of the PA.

Clean Water Act Section 404 Mitigation – The United States Army Corps of Engineers (USACE) has jurisdiction related to this project under the authority of section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the U.S. Project features that result in the discharge of dredged or fill material into waters of the U.S. would require prior USACE authorization. Currently, Nationwide Permit #12 applies to this project. However, the USACE may exert discretionary authority and require an alternative permitting mechanism in cases where activities will result in more than minimal individual and cumulative impacts. During review of the Draft EIS, the USACE stated that they had not yet made a final determination on whether an individual permit may be required. Upon the final determination, the USACE may require additional mitigation measures to ensure section 404 compliance. Those measures will be included in the COM Plan.

Stipulated Agreements (Stipulations) – SNWA has entered into several stipulations with DOI Bureaus (i.e., Bureau of Indian Affairs [BIA], BLM, USFWS, and National Park Service [NPS]). The stipulations apply to the SNWA water rights in Spring, Cave, Dry Lake, and Delamar valleys. The stipulations are intended to manage the development of groundwater by the SNWA in various hydrologic basins without causing injury to federal water rights or unreasonable adverse effects to federal resources and special status species. These stipulations are provided in Appendix C of the Final EIS.

The stipulations are currently being acted upon and the following requirements are being conducted: installation of monitoring well systems in both carbonate and basin fill aquifers; constant-rate aquifer tests; groundwater chemistry

sampling; spring and stream discharge measurements; and annual monitoring reports. Both the Delamar, Dry Lake, and Cave valleys and the Spring Valley stipulations require a biological resource monitoring program. The stipulations recommend that teams be established to guide the implementation of monitoring activities; these teams have established and have approved baseline monitoring plans. Two years of baseline monitoring have been completed in Spring Valley.

The stipulation process contributes to development of the COM Plan by providing information from established monitoring, management, and mitigation processes. The BLM is a participant in the stipulations, but does not have sole authority over the processes; however, the BLM can influence the monitoring, management, and mitigation measures implemented pursuant to the stipulations. Also, as a signatory to the stipulations, the BLM has access to all of the information and decisions developed under the stipulations.

1.2 COM Plan Development

This section describes a comprehensive monitoring, management, and mitigation program that addresses all hydrographic areas and all facilities associated with the SNWA groundwater development project with the intent of protecting federal resources and federal water rights that may be impacted by construction, operation, and maintenance of the project.

The BLM, working in conjunction with other federal, state, local, and tribal agencies/governments (hereinafter collectively referred to as agencies) and operating as defined by a future Memorandum of Understanding (MOU) between the BLM and the agencies, will develop the COM Plan. The BLM also will coordinate with the USFWS relative to listed and selected BLM sensitive species. The COM Plan will include a monitoring schedule and plan for BLM cost recovery, and establish reporting requirements for SNWA, including provisions for annual meetings to review construction and operation of the ROW. The BLM expects to establish key working groups to develop sections of the COM Plan related to water resources, biologic resources and air resources. The COM Plan will reflect an adaptive approach to implement monitoring, management, and mitigation activities and will include the use of statistically rigorous methods when developing monitoring sampling designs and protocols, as appropriate.

The process described in this subsection would be followed for submittal by SNWA of future ROW requests related to groundwater development. Future groundwater development may require a new COM Plan or amendment of the existing COM Plan. The COM Plan may be supplemented and amended upon approval of future groundwater development ROWs and related PODs (subject to subsequent NEPA). The COM Plan will be developed to meet the goals and objectives described below.

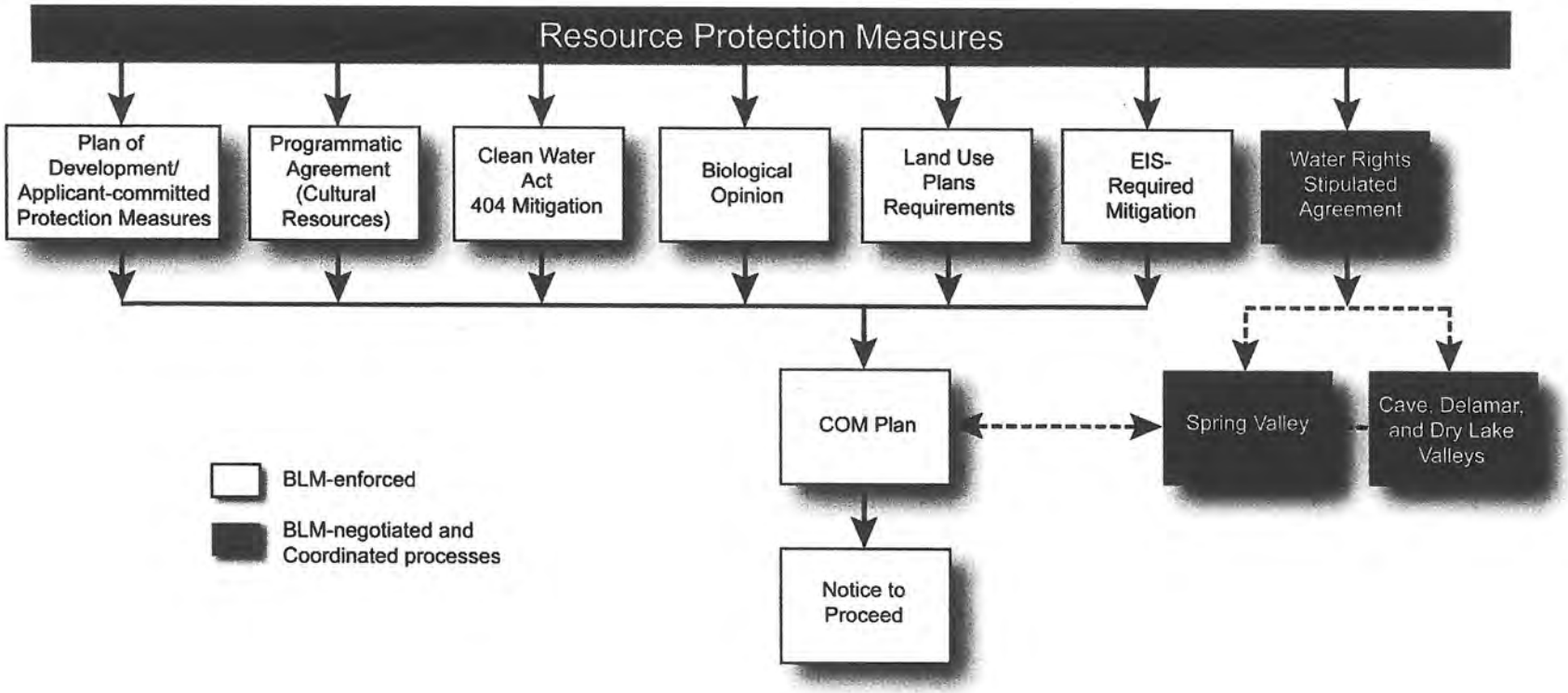

Figure 1 Protective Measure Framework

COM Plan Goals and Objectives

Goals

- Ensure that the GWD Project complies with the Federal Land Policy and Management Act (FLPMA), Sec. 504. [43 United States Code (USC) 1764] (a)(4), which states that the ROW would do no unnecessary damage to the environment;
- Ensure compliance with the BLM's other resource protection requirements, as described in Section 3.20.1 (e.g., RMPs, watershed plans, resource policy and regulations);
- Identify all mitigation, monitoring, and management requirements for the GWD Project main conveyance pipeline Tier I ROW grant in one document;
- Outline a process, including schedules, sources of funding, and performance standards, for developing additional mitigation, monitoring, and management requirements for future ROW grants; and
- Provide agencies with insight concerning the integration of the resource issues and importance of regional monitoring and mitigation for subsequent tiered NEPA processes, as the GWD Project is developed.

Objectives

- Protect federal resources that may be impacted by construction, operation, and maintenance of the project;
- Protect federal water rights managed by federal agencies;
- Avoid, minimize, or mitigate the effects of actions that could contribute to the need to list species as threatened or endangered under the ESA, and incorporate conservation recommendations (as appropriate) provided by the USFWS in their BO;
- Avoid adverse environmental impacts that could cause jeopardy to listed species or destruction or adverse modification of designated critical habitats;
- Avoid, minimize, or mitigate adverse environmental impacts to groundwater-dependent ecosystems and biological communities, impacts to habitat for fish and wildlife, degradation of visibility and air quality due to potential increases in airborne particulates and loss of surface vegetation; and impacts to cultural and visual resources
- Provide a process for mitigating impacts;
- Prior to completion of subsequent NEPA, identify triggers for early warning of potential adverse impacts, including an analysis of whether early-warning indicators for groundwater withdrawal thresholds have been reached or whether data trends indicate early warning thresholds would likely be reached in the near future under current conditions and whether SNWA groundwater withdrawals are the likely cause of or contributor to this, based on the best scientific information available;
- Allow flexibility to implement management and mitigation measures;
- Monitor the effectiveness of mitigation measures in achieving expected outcomes and reducing impacts to resources; and
- Implement adaptive management as needed to achieve the goals stated above.

The Tier 1 COM Plan will be written based on the goals and objectives written above, as applicable. As future COM plans are developed, the goals and objectives listed above would be utilized along with additional monitoring from the subsequent NEPA review to develop site-specific management, monitoring, and mitigation required for the GWD Project.

COM Plan Conceptual Outline

The main water conveyance pipeline (tier I) will be developed using the following conceptual outline. It is anticipated that groundwater development-specific COM Plans (subsequent NEPA tiers) also would be developed using this conceptual outline. Modifications of the outline may occur during COM Plan preparation. In addition, some sections may be deferred and completed at an appropriate time in the future.

The following is the conceptual outline:

- **Introduction**
  - Relationship with Other Environmental Documents/ Protective Measure Processes, Authorization, Permits, Reviews, and Approvals, etc.
- **Project Management**
  - Roles and Responsibilities, Communication Procedures, and Protocols
- **Project Construction**
  - Pre-construction Activities
    - Biological and cultural resource surveys
    - Identification of existing monitoring sites needed in establishing baseline conditions
    - Identification of additional monitoring needed to build full sets of baseline data
    - Development of triggers or environmental indicators and adaptive management thresholds
  - Construction Activities
    - Mitigation Activities
    - Restoration
  - Variance Process
- **Project Operation and Maintenance**
  - Inspections and Maintenance
  - Ongoing Studies – Baseline and Data Gaps
    - Processes for sharing monitoring data with interested parties
    - Description of interrelated monitoring, management, and mitigation activities that would begin at later stages of project development

1.1.1 Development and Implementation Process

Background

The SNWA submitted a Conceptual POD (November 2012; Attachment B of the ROD) complete with its ACMs. The BLM has conducted a NEPA review on the proposed project, including consideration of the ACMs, and has prepared the ROD based on that review. The ROD contains the appropriate monitoring and mitigation from the Final EIS; resource-specific monitoring and mitigation that apply to Tier 1 are provided in the Project Terms and Conditions (Attachment C of the ROD), while monitoring and mitigation to address future impacts from groundwater development and pumping are provided in **Table 1**. The BLM authorized officer will issue a ROW grant based on the ROD. The integration of the COM Plan into the project is shown in **Figure 2**.

The ROW grant for the main conveyance pipeline and associated facilities (Tier 1) will require that SNWA submit a final POD(s) to the BLM for approval. The BLM will only approve a POD(s) that incorporates mitigation identified in Attachment C of the ROD. The POD also must include a construction and operation schedule and all design and reports required through the NEPA process. These include, but are not limited to the reclamation plan, transportation plans, construction plans, resource-specific monitoring plans, weed management plan, health and safety plans, and biological survey protocols. Prior to approval of the POD(s), the BLM will coordinate with the USFWS regarding portions of the POD(s) relating to their regulatory role under the ESA, the Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act. BLM will issue the Notice to Proceed (NTP) once all terms and conditions of the ROW grant are fulfilled.

The final POD(s), while initially focused on the main conveyance pipeline, will include potential baseline/data gap monitoring for subsequent NEPA tiers as appropriate. The BLM will coordinate with the partner agencies to refine baseline and data gap information needs to better inform subsequent NEPA analysis as follows:

- Conducting surveys for northern leopard frog in pertinent springs in the GWD Project Region of Study for the purpose of identifying new locations of populations.
- Investigating important aspects of northern leopard frog ecology and demographics.
- Conducting surveys for special status springsnails in pertinent springs in the GWD Project Region of Study for the purpose of identifying new locations of populations.
- Defining ecological water requirements for the groundwater-dependent ecosystems that special status species depend upon.
- Conducting supplemental baseline water resource monitoring including collecting water quantity (i.e. flow) and quality data to characterize baseline water resource conditions at locations where special status species are known to exist.
- Conducting additional surface water and groundwater monitoring hydrogeologic characterization studies, and aquifer testing to improve the predictive abilities of the numerical groundwater flow models.
- Completing wetland inventory using Cowardin (or currently accepted method) classification of wetlands to ensure necessary information is available for the development areas and areas expected to be impacted by groundwater pumping. Based upon this assessment, SNWA could set up a mitigation bank to offset any expected loss of wetland acres.
- Investigating important aspects of White River spinedace ecology, life history, demographics, and limiting factors for the purpose of understanding how this species might respond to changes in habitat caused by decreased spring flow, developing a flow-ecological response relationship for this species at Flag Springs, and setting decision-making triggers.
- Assisting in the development of an ecological model or other appropriate tools to help understand and predict potential effects of reduced flow and water levels to White River spinedace and its habitat. If appropriate and related directly to the project, investigate long-term viability of the species based on predicted habitat changes due to decreased flow or water levels in Flag Springs.
- Investigating important aspects of Pahrump poolfish life history for the purpose of informing subsequent NEPA analyses (including developing triggers and mitigation and monitoring requirements).
- Conducting surveys for Ute ladies'-tresses in areas of potential habitat at risk from groundwater pumping, in accordance with appropriate protocol. If this species is found during the surveys, known locations will be reported to the USFWS and the appropriate State natural heritage program.

Other activities, data, or information as may be identified through the subsequent NEPA process.

COM Plan Implementation

The steps for integrating the COM Plan into the project are outlined in **Figure 2**. A discussion of the roles and responsibilities of the BLM and other involved parties, as well as the overall concept of adaptive management to allow management changes in response to the results of environmental monitoring programs follows.

- **BLM COM Plan Authority**

  Upon approval of the first and subsequent ROW grants, the BLM will implement the COM plans including regularly scheduled interaction with the MOU partners and other involved parties. The BLM will serve as the lead federal agency, and will designate a BLM Project Manager (authorized officer) who will provide oversight for the project. The BLM Project Manager will, on behalf of the BLM, be responsible for administering and enforcing ROW grant and permit provisions for the BLM, including the mitigation measures and project terms and conditions contained in the ROD and its attachments. The BLM Project Manager also will be responsible for written stop-and-resume work orders, and resolving any conflicts that arise relating to the project on land administered by the BLM. Compliance will be monitored by the BLM

Project Manager and other BLM resource specialists, as needed, in conjunction with the Compliance Inspector Contractor (CIC). The CIC likely will be a third-party contractor selected by the BLM.

- **Project Implementation**

  Actual project implementation may require a series of PODs reflecting different phases of the project (e.g., water treatment plant at Apex or main pipeline to Delamar Valley) or various functional elements (e.g., worker transportation to and from work sites or class III survey for cultural resources). Accordingly, the COM Plan will be a dynamic document, designed to be revised over the duration of construction and operation of the GWD Project, as data are collected and facilities are proposed. The NTPs will reflect authorization for only those portions of the project for which an approved POD and COM Plan have been finalized. Shortly after the ROW is issued, the BLM will meet with SNWA to determine an appropriate strategy to assure that project components are scheduled and coordinated appropriately.

- **Adaptive Management**

  The adaptive management process is expected to be used to minimize future environmental impacts. This includes periodic review and revision of programmatic policies and BMPs; comprehensive site monitoring programs; including metrics for measuring impacts; and protocols for incorporating monitoring observations and new mitigation measures into standard operating procedures and project specific stipulations. As part of the adaptive management process, evaluation factors will be developed to determine and measure the effectiveness of the overall adaptive management strategy. These evaluation factors could include such items as mitigation and monitoring measures and their ability to respond to the potential impacts.

  It is also important to note that adaptive management is an available tool, but it does not replace the BLM authority and duties under FLPMA to protect and manage federal resources.

- **Variance Process**

  Surface disturbance locations and acreages identified in the Final EIS represent reasonable estimates for the construction, operation, and maintenance of the project. However, route and other project refinements often continue past the project review phase and into the construction phase. As a result, work location and disturbed acres documented in the Final EIS may change after project approval. These changes frequently involve minor route realignments or moving approved temporary workspaces, adding new temporary workspaces, adjusting workspaces based on site-specific conditions and adding access routes to work areas. When work areas different from those evaluated in the Final EIS are needed, additional inventory and evaluation would be required to ensure that impacts on biological, cultural, and other resources are avoided or minimized to the extent practicable. New workspace location and survey results would be documented and forwarded to the BLM in the form of a "variance request." The request would be reviewed by the BLM, consultations would be conducted, and other approvals would be obtained before the BLM would approve the variance. At the conclusion of the project, as-built drawings would be provided to the BLM. In addition, the SNWA, when working with specific requirements of the ROW (e.g., a 0.5-mile buffer from a raptor nest), could make a "variance request" if circumstances warranted (e.g., the nest is not within line of sight of the construction). The BLM would address these requests on a case-by-case basis.

Interagency Input

The agencies and key working groups comprised of resource specialists with expertise related to resources of concern will participate in development and implementation of the COM Plans. The agencies and key working groups will have an active role in the review process to ensure BLM resource management standards and goals are upheld and will assist in the identification of areas where the COM plans need to be strengthened or modified. In addition, the agencies will periodically review project monitoring reports and data made available by SNWA and BLM. All parties recognize that additional data collection for a variety of resources is necessary. Prior to initiating the subsequent NEPA tiers, the BLM will coordinate with the agencies to define data gaps and obtain input on strategies to remedy the data issues. BLM will determine how to resolve the data gaps and inform SNWA.

The BLM will consider the interagency input as it makes future decisions on implementation of the COM Plan (**Figure 2**). Because project-related impacts may not become evident for many years after implementation of

groundwater development, the BLM intends to maintain the required COM plans and periodic interagency review for the life of the project.

Public Disclosure

The public will be kept informed of the development and implementation of the COM Plans. Copies of the COM plans, compliance and monitoring reports, supporting documents, and data will be made available to the public via the BLM GWD Project website and BLM will respond to public inquiries regarding mitigation and monitoring.

1.3 Enforcement of Decisions

The BLM, as the Federal Land Manager, enforces the ROW grant through terms and conditions. Throughout the life of the project it will be the BLM's responsibility to conduct compliance reviews of the project to ensure the terms and conditions of the ROW grant have been met. Any noncompliance issues will be brought to SNWA's attention and they will have appropriate time to resolve the notice of noncompliance. If SNWA does not bring the ROW into compliance to BLM's satisfaction, the BLM may initiate actions under its authority to suspend SNWA's ROW until SNWA can remedy the issues of non-compliance. Depending upon the non-compliance issue, SNWA would not be allowed to operate the ROW until the issues of non-compliance are remedied and the BLM issues a NTP. If non-compliance continues, SNWA would not be granted any further ROWs, permits, or other land use authorizations from BLM until all non-compliance issues are resolved.

In the case of adverse impacts to federal water rights or federal resources, the BLM enforcement authority includes the ability to require:

- Geographic redistribution of groundwater withdrawals;
- Reduction or cessation in groundwater withdrawals;
- Augmentation of water supply for federal resources and federal water rights; and
- Use of recharge projects to offset local groundwater drawdown.

Compliance with the FLPMA

The BLM manages surface and mineral resources for federal lands it administers under the FLPMA and applicable regulations. The COM Plan is developed and implemented in compliance with the FLPMA, which is a mechanism through which project performance can be comprehensively reviewed and corrective actions implemented. When a ROW grant is issued for a project, FLPMA requires the following:

"Each right-of-way shall contain–(b) such terms and conditions as the Secretary concerned deems necessary to (i) protect Federal property and economic interests; (ii) manage efficiently the lands which are subject to the right-of-way or adjacent thereto and protect the other lawful users of the lands adjacent to or traversed by such right-of-way; (iii) protect lives and property; (iv) protect the interests of individuals living in the general area traversed by the right-of-way who rely on the fish, wildlife, and other biotic resources of the area for subsistence purposes; (v) require location of the right-of-way along a route that will cause least damage to the environment, taking into consideration feasibility and other relevant factors; and (vi) otherwise protect the public interest in the lands traversed by the right-of-way or adjacent thereto." SEC. 505. [43 USC 1765]

The BLM also is generally obligated to avoid unnecessary or undue degradation of the public lands. [43 U.S.C. § 1732].

ROW Regulations under FLPMA

The regulations (43 CFR 2805.12) outline the terms and conditions that are to be included in the grant and are the proponent's responsibilities. The regulation states: "By accepting a grant, you agree to comply with and be bound by the following terms and conditions. During construction, operation, maintenance, and termination of the project ..." Section 43 CFR 2805.12(i) provides that the proponent must "Comply with project-specific terms, conditions, and stipulations, including requirements to: (1) Restore, revegetate, and curtail erosion or conduct any other rehabilitation measure BLM determines necessary; (2) Ensure that activities in connection with the grant comply with air and water

quality standards or related facility siting standards contained in applicable Federal or state law or regulations; (3) Control or prevent damage to: (i) Scenic, aesthetic, cultural, and environmental values, including fish and wildlife habitat; (ii) Public and private property; and (iii) Public health and safety; ... (p) Comply with all other stipulations that BLM may require."

Compliance Inspector Contractor

The CIC is anticipated to be a third-party contractor selected by the BLM that leads an interdisciplinary team conducting onsite compliance inspections and monitoring for the project during construction. The CIC interdisciplinary team will consist of appropriate specialists such as botanists, weed management specialists, wildlife biologists, archaeologists, and soil scientists. This service will promote environmental protection and ensure compliance with the lead federal agency's requirements based on the commitments, as established in the COM Plan. The CIC will report directly to the BLM, who will coordinate with other federal, state, local, and tribal agencies/governments, as appropriate. The duties of the CIC are to:

- Prepare a project compliance plan;
- Coordinate the NTP meeting(s);
- Prepare and maintain the project Key Contacts List;
- Schedule periodic meetings with the BLM Project Manager and resource specialists;
- Conduct daily field inspection of the project areas;
- Complete a daily compliance inspection report and submittal of a weekly summary report to the BLM and Project Proponent;
- Attend construction meetings;
- Review variance requests; and
- Complete the End of Construction Project Report.

After project construction is complete, the CIC will periodically monitor compliance with operational and mitigation requirements, and report back to BLM.

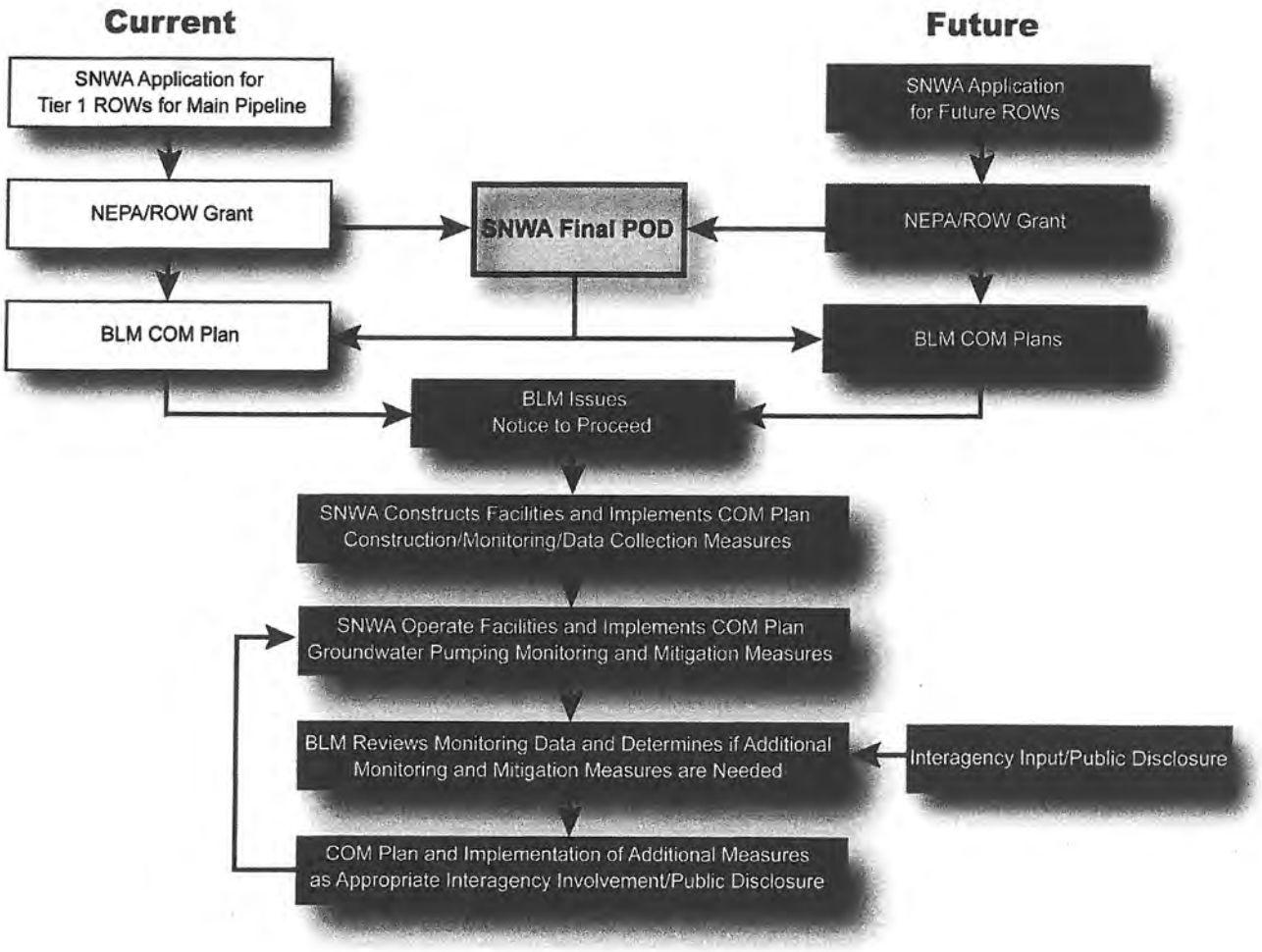

Figure 2 Integration of the COM Plan into the Project

1.4 Summary

It is anticipated that the COM Plan monitoring measures for the ROW grant in Tier I will incorporate resource protection measures from multiple regulatory processes and allow for robust interagency input. This Tier 1 COM Plan also is expected to address baseline data collection for subsequent NEPA analyses and establish a process to address potential impacts from future groundwater development consistent with mitigation and monitoring measures provided in **Table D.1-1**. However, since groundwater development presumes some level of vegetation change and reduction in groundwater levels, not all impacts may be avoided. In addition, triggers designed to provide early warning of potentially adverse impacts to federal water rights and federal resources and provide time and flexibility to implement management measures to mitigate those impacts will be developed prior to completion of subsequent NEPA, and will be included in future COM Plans. The COM Plan may include mitigation measures offered by SNWA to mitigate impacts that occur to lands, water rights, and water-dependent resources owned by private parties, local governments, and state governments. However, the BLM cannot enforce mitigation measures on lands owned by other parties, and cannot ensure that the funding and land access necessary to implement these measures would be made available. The Tier 1 COM Plan and COM Plans for subsequent tiers are designed to be adaptive over the course of the project.

1.5 Monitoring and Mitigation Measures Applied to Future NEPA:

These monitoring and mitigation measures (**Table 1**) were developed through the NEPA process and will be applied to future activities, unless they are replaced by more specific measures from future NEPA analyses.

Table 1 Monitoring and Mitigation Measures for Future NEPA

Air and Atmospheric Values
GW-AQ-3: Monitoring, Mitigation, and Management Plan for Air Quality. The SNWA will develop an air monitoring plan approved by the BLM, which will detail the siting and operation of at least three collocated air monitoring stations measuring particulate matter of less than or equal to10 microns, and 2.5 microns in size (PM_{10} and $PM_{2.5}$, respectively) , one of which will be upwind of the project area. Recommended monitoring locations include Snake, Spring, and Lake valleys. These valleys are selected for consideration based on predicted changes to the bare soil/sparse vegetation evapotranspiration (ET) unit, which has the greatest potential for windblown dust impacts. Baseline air measurements will be initiated at least a year prior to groundwater pumping construction activities, since these activities may increase measured particulate values. Once baseline air quality levels are established, monitoring will continue for the duration of groundwater pumping activities. Finally, the monitoring plan will comply with U. S Environmental Protection Agency (USEPA) monitoring guidance when selecting the site locations and instruments, developing the data management plan, and establishing quality assurance criteria.
Geologic Resources
GW-G-1: Cave Protection. Prior to ground disturbing or drilling activities in areas close to identified cave resources, the conditions of approval will require appropriate site specific measures for the protection of caves that may be at risk such as, but not limited to, the following: • Reasonable and appropriate setbacks and buffers around caves. • Limitations on blasting. • Requirements for the storage and handling of hazardous materials such as fuels. Other measures that may be appropriate for wells including procedures when encountering subsurface voids while drilling, closed drilling fluid (mud) systems (no earthen mud pits), use of freshwater mud, directional drilling, and special casing programs.
GW-G-2: Underground Voids. If underground voids are unexpectedly encountered during facility construction or drilling, the following measures will apply: • Work will be halted and the BLM will be notified immediately. • The BLM, in consultation with the permittee, will assess the risk of further drilling or siting of surface facilities in the area where the voids are encountered. Risk assessment may require the use of appropriate geotechnical methods to gather relevant data on the extent of karst features.
GW-G-3: Subsidence Monitoring. Subsidence monitoring is recommended in current and proposed water withdrawal areas in order to provide baseline data before build out begins. As groundwater extraction occurs in full production, monitoring will be needed to assess the magnitude and extent of subsidence in order to take actions that would mitigate subsidence where necessary.
Water Resources
GW-WR-1: Spring Inventories. A spring inventory will be conducted in all groundwater development areas to verify and map the location of all springs prior to construction. Construction and development of the groundwater development areas will avoid ground disturbance in the vicinity (i.e., 0.5 mile) of all verified spring locations.

Table 1 Monitoring and Mitigation Measures for Future NEPA

GW-WR-2: Stream Crossing Plans. A site-specific plan will be developed to detail the construction procedures, erosion control measures, and reclamation that would occur for pipeline construction across live (flowing) stream reaches. The plan also will incorporate information from BLM Technical Reference 423, for hydraulic considerations in designing pipeline stream crossings (DOI 2007). The plan will include site-specific designs using either open cut or jack and bore techniques and site-specific measures to minimize disturbance of the stream bed, and release of sediment from the construction area into the downstream stream reach. The plan will be reviewed and approved by the BLM and Nevada Department of Wildlife (NDOW) prior to initiation of any construction activities within the stream corridor.
Water Resources continued
GW-WR-5: Shoshone Ponds. Drawdown is likely to impact the source of water that supports important aquatic resources for Shoshone Ponds (as discussed in Section 3.7, Aquatic Biological Resources). The SNWA will develop a surface water and groundwater monitoring plan specific to providing an early warning system for effects to flow at Shoshone Ponds. The site specific monitoring plan will likely include monitoring discharge at the Shoshone ponds; and monitoring artesian pressures in the aquifer that controls discharge to the ponds. The general requirements for development, approval, implementation, and reporting for the Shoshone ponds monitoring plan will be the same as outlined in GW-WR-3a. Impacts to Shoshone Ponds that are attributable to the SNWA's groundwater pumping will be mitigated by improving the existing well or drilling a new well, and installing a pump such that the well, pump, and water conveyance system are designed to maintain the flow to the ponds for the foreseeable future regardless of the groundwater drawdown. Any new wells should be designed to pump groundwater from the same aquifer system to maintain the same general water quality and temperature characteristics currently used as the source of water for the ponds and sufficient to support the federally listed and special status species that inhabit the ponds, as described in Section 3.7, Aquatic Biological Resources. The SNWA will be responsible for all cost associated with the implementation, operation, and maintenance of the source of water required to offset the effects of SNWA's groundwater pumping activities.
GW-WR-7: Groundwater Development & Drawdown Effects to Federal Resources and Federal Water Rights. If the results of the monitoring or modeling information provided in accordance with GW-WR-3a indicate that undue and unnecessary impacts to federal resources or federal water rights from groundwater withdrawal are occurring or are likely to occur, and the groundwater development project is the likely cause of or contributor to the impacts, the following measures will be initiated: 1. The BLM will evaluate the available information and determine if emergency action and/or a mitigation plan is required. 2. If the BLM determines that emergency action is required to avoid, minimize, or offset the impact, the BLM will serve an immediate Temporary Suspension Order identifying the actions to be taken, including whether SNWA would be required to concurrently develop a mitigation plan as required in bullet 3 below. 3. If the BLM determines that a mitigation plan is required, the SNWA will prepare a detailed, site- specific plan that (a) identifies the magnitude and timing of the drawdown or associated impacts to federal resources or federal water rights; and (b) provides detailed site-specific measures that will be used to avoid, minimize the magnitude of, or offset the identified impacts. The mitigation plan will be submitted to BLM for approval within 30 days of BLM's determination that a site-specific mitigation plan is required (unless a longer timeframe is approved by BLM). 4. The BLM-approved, site-specific mitigation plan will be implemented by the SNWA. The BLM could require that specific measures be implemented per the schedule specified in the mitigation plan to avoid, minimize, or offset the impacts to federal resources or federal water rights. The specific mitigation measures may include but are not limited to the following: – Reduction or cessation in groundwater withdrawals; – Geographic redistribution of groundwater withdrawals; – Recharge projects to offset local groundwater drawdown; – Flow augmentation to maintain flow in specific water sources; or – Other on-site or off-site improvements. Monitoring of the surface water resources and groundwater elevations required under Mitigation Measure GW-WR3a will be used in addition to other specified monitoring in the approved mitigation plan to document the effectiveness of the implemented measures. If the initial implementation of the mitigation plan does not provide the desired results within the time frame specified by the BLM, the BLM may require implementation of additional measures.
Vegetation Resources
GW-VEG-1: Joshua Tree Avoidance. Mature Joshua trees (*Yucca brevifolia*) will be avoided to the extent possible when laying out access roads in Delamar Valley.
GW-VEG-2: Monitoring within Ute Ladies'-tresses Habitat. In concert with GW-WR-3a, and on BLM lands, biological and hydrologic monitoring will be required for Ute Ladies'-tresses (*Spiranthes diluvialis*) groundwater-dependent habitats in areas that may be affected by groundwater pumping. New occurrences of this species found during monitoring efforts will be reported to the USFWS and appropriate State natural heritage program.

Table 1 Monitoring and Mitigation Measures for Future NEPA

GW-VEG-5: Swamp Cedar Monitoring. In concert with GW-WR-3a, and on BLM lands including Areas of Critical Environmental Concern (ACECs), biological and hydrologic monitoring will be required for swamp cedar (*Juniperus scopulorum*) groundwater-dependent habitats in areas that may be affected by groundwater pumping. Monitoring of these communities will include the determination of groundwater requirements necessary to maintain viable populations, and metrics to assess the health of individual swamp cedars. The goal of monitoring will be to ensure the long-term survival and continued existence of these populations.
Terrestrial Wildlife
GW-WL-1: Avoid Siting Facilities in Key Big Game Habitats. Avoid locating wells, new roads, or other linear facilities within key big game habitats including crucial summer and winter ranges, and occupied bighorn sheep habitats. Where avoidance is not practicable, the SNWA will improve 2 acres of comparable habitat for every 1 acre disturbed.
GW-WL-2: Avoid Siting Facilities Within Buffers of Active Sage-grouse Leks. The SNWA will avoid siting facilities within 4 miles of active sage-grouse leks. Where avoidance is not possible, all power lines 33 kilovolts (kV) or smaller within 4 miles of active greater sage-grouse leks must be buried. If technology at the time of construction allows, lines greater than 33 kV will also be buried.
Terrestrial Wildlife continued
GW-WL-3: Pre-construction Surveys and Avoidance of Active Burrowing Owl Burrows. Prior to siting future facilities, SNWA will conduct pre-construction surveys for burrowing owl based on habitat, known range, and previous occurrences within areas being considered for facilities. Well and other facility siting will avoid active burrows during breeding and nesting season to the extent practicable.
GW-WL-4: Pre-construction Survey and Avoidance of Pygmy Rabbit Occupied Habitat. Prior to siting future facilities, the SNWA will conduct pre-construction surveys for pygmy rabbits based on habitat, known range, and previous occurrences within areas being considered for facilities. Well and other facility siting will avoid occupied habitat to the extent practicable.
GW-WL-5: Pre-construction Survey and Avoidance of Dark Kangaroo Mouse Occurrences. Prior to siting future facilities, the SNWA will conduct pre-construction surveys for dark kangaroo mouse based on habitat, known range, and previous occurrences within areas being considered for facilities. Well and other facility siting will avoid occurrences to the extent practicable. Where impacts cannot be avoided, measures similar to those proposed by the applicant for ROW construction will be followed.
GW-WL-6: Avoid Siting Facilities within the Baking Powder Flat ACEC. The SNWA will avoid siting groundwater development facilities within the Baking Powder Flat ACEC.
GW-WL-7: Pre-construction Surveys and Avoidance of Baking Powder Flat Blue Butterfly Occurrences and Habitat. Prior to siting future facilities, SNWA will conduct pre-construction surveys for Baking Powder Flat blue butterfly based on habitat, known range, and previous occurrences within areas being considered for facilities. Well and other facility siting will avoid occurrences and habitat.
GW-WL-8: Artificial Water Sources for Big Game. If groundwater pumping by the SNWA results in the loss of existing water sources used by big game, the SNWA, in coordination with the BLM or NPS and NDOW, will develop and maintain artificial water sources to maintain current distribution of big game. Water would come from SNWA allocations.
GW-WL-9: Greater sage-grouse monitoring in Hamlin Valley. The SNWA and BLM will coordinate with the USFWS, Utah Department of Wildlife Resources (UDWR), and NDOW to develop monitoring of the greater sage-grouse using leks in Hamlin Valley. Goals of the monitoring program will include, but not be limited to, determining if birds using Hamlin Valley leks are migratory and what, if any, groundwater dependent habitats the birds may be using.
GW-WL-10: Monitoring on BLM Lands within Greater Sage-grouse Habitat. In concert with GW-WR-3, on BLM lands, require biological and hydrologic monitoring of greater sage-grouse groundwater-dependent habitats in areas that may be affected by groundwater pumping. Hydrologic monitoring will be continuous (e.g., piezometers and soil tensiometer/piezometers) at all sites where sage-grouse habitat is being monitored.
Aquatic Biological Resources
GW-AB-1: Avoid Disturbance to Springs. Avoid direct disturbance to springs and wetlands in Spring valley with known special status aquatic species by establishing a 0.5-mile buffer around these areas.
GW-AB-2: Avoid Disturbance to Streams. Avoid locating wells, new roads or other linear facilities within 0.5 mile of or parallel to perennial streams and riparian areas with game fish and special status species.
GW-AB-3: Flow Change Mitigation. The BLM would identify specific mitigation measures during subsequent NEPA for those springs or streams with game fish or special status aquatic species where flow or water level changes are identified during modeling or monitoring. Mitigation ideas are identified as part of SNWA ACMs under adaptive management (provided in the SNWA POD, Attachment B of the ROD). Mitigation options are identified in the COM Plan Framework (above), ACMs under adaptive management, and water resource measure GW-WR-7.

Table 1 Monitoring and Mitigation Measures for Future NEPA

GW-MN-AB-1: Stream Flow and Aquatic Biology Monitoring. Monitor flows in game fish streams with moderate and high risks where potential pumping effects could occur. The selected perennial streams will include but is not limited to: 1) Geyser Creek in Lake Valley; 2) Big Wash, Big Springs Creek, and Snake Creek in Snake Valley; 3) Bassett Creek, Bastian Creek, Eightmile Creek, Indian creek, McCoy Creek, Meadow Creek, Muncy Creek, Negro Creek, Odgers Creek, Piemont Creek, Pine Creek, Ridge Creek, Shingle Creek, Siegel Creek, South Taft Creek, Spring Valley Creek, Taft Creek, Vipont Creek, Willard Creek, and Williams Canyon Creek in Spring Valley (184), and 4) Pahranagat Creek in Pahranagat Valley. Monitoring measurements will include discharge and cross-sectional profiles. Cross-section data will be used to estimate flow changes on the wetted area of streams. Fish and macroinvertebrate surveys also will be conducted following methods approved by the DOI agencies and the NDOW.
GW-MN-AB-2: Spring and Aquatic Biology Monitoring. Monitor flows in moderate and high risk springs with game fish or special status species where potential pumping effects could occur. The selected springs, ponds, and lakes will include but is not limited to: 1) Butterfield Spring and Flag Springs in White River Valley; 2) Blind Spring, Cleveland Ranch Springs, Keegan Spring, Minerva Spring Complex, North Millick Spring, O'Neal/Frog Pond, Osborne Spring, Shoshone Ponds, South Millick Spring, Stonehouse Spring Complex, Swallow Spring, Unnamed Spring #5, Unnamed spring near Cleve Creek, and Willow Spring in Spring Valley (184); 3) Big Springs in Snake Valley; and 4) Wamboldt Springs in Lake Valley. Cross-sectional profile measurements will be taken in the springs. Biology surveys (fish, macroinvertebrates, springsnails, and amphibians) will follow methods described in the Spring Valley Stipulated Agreement. If monitoring indicates pumping effects, alternative diversion points would be considered.
Aquatic Biological Resources continued
GW-MN-AB-3: Flow/habitat Determination. Flow- or water level-habitat relationships will be studied in selected streams and springs to determine minimum flow or water levels needed to support critical life stage of aquatic species in these habitats. The streams or springs will be selected from the list being monitored as part of the Stipulated Agreements or additional waterbodies recommended for Measures GWD-MN-AB-1 and GWD-MN-AB-2. Methods for determining minimum flows in stream habitats will be based on existing procedures involving flow-habitat measurements and flow preferences for fish species. It is anticipated that methods will need to be developed for spring habitats due to a general lack of studies. The selected streams and springs will include but is not limited to: 1) Butterfield and Flag springs in White River Valley; 2) Shoshone Ponds , O'Neal/Frog Pond, and Blind, Cleveland Ranch, Keegan, Minerva, North Millick, South Millick, and unnamed # 5 springs in Spring Valley; 3) Big Springs in Snake Valley; and 4) Wambolt Spring in Lake Valley.
Wild Horse and Burro Herd Management Areas
GW–WH-1: Water Source Maintenance. In cooperation with the BLM, SNWA will identify key natural water sources and monitor those sources on a regular basis (frequency determined by the BLM). If impacts to those sources are observed, SNWA will consult with the BLM to identify locations where artificial water sources could be maintained to supply herds with adequate water supplies. This mitigation measure is not limited to impacts that are a result of the SNWA groundwater development activities.
Special Designations and Lands with Wilderness Characteristics
GW-SD-1: Avoid New Disturbance in ACECs. To the degree possible, avoid new surface disturbance in ACECs outside of utility corridors when planning well locations and roads.
Visual Resources
GW-VR-1: Avoid Siting Facilities on Slopes. Where determined necessary by BLM for visual resource protection, groundwater development facilities will not be located on slopes greater than 5 percent.
GW–VR-2: Install Distribution Power Lines Underground. Where determined necessary by BLM for visual resource protection reasons, distribution power lines (voltages less than 33 kV) will be placed underground, when not located within high voltage transmission corridors. Underground power lines can be located within the 100-foot ROW with a minimum separation in accordance with the National Electric Safety Code Standard 353. Underground power lines shall be located within the disturbed area of the permanent ROW to minimize soil disturbance and visual contrasts to the extent feasible.
GW-VR-3: Site Wellfield Facilities Away from Designated Viewing Locations. Where determined necessary by BLM for visual resource protection reasons, site groundwater development production wells, staging areas, and pumping stations more than 0.5 mile from designated viewing locations with high viewer sensitivity (e.g., scenic byways, key observation points, wilderness areas and national parks) except where they are within the temporary and permanent ROW for the main or lateral pipelines or colocated with ROW facilities. Utilize terrain to screen groundwater development facilities and avoid placing buildings on high land features and along "skylines" to conceal or reduce changes (see **Appendix F3.15** of the Final EIS for site-specific mitigation).
GW-VR-4: Site Groundwater Development Structures and Facilities in BLM VRM Class III or IV Areas. No well pads or roads will be constructed in Class I and II areas.

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

May 16, 2013

Subject: Memorandum of Understanding and Cost Recovery Agreement	**Director's Backup**
Petitioner: John J. Entsminger, Senior Deputy General Manager	

Recommendations:
That the Board of Directors approve a memorandum of understanding and cost recovery agreement between the Bureau of Land Management and the Authority for preparing the administrative record, environmental plans, tiered environmental compliance, and ancillary rights-of-way associated with the Clark, Lincoln, and White Pine Counties Groundwater Development Project for an amount not to exceed $575,730.

Fiscal Impact:
If the above recommendation is approved, the $575,730 will be added to New Expansion Bond Fund commitments.

Background:
On January 18, 2007, the Board of Directors approved a Memorandum of Understanding (MOU) and Cost Recovery Agreement (CRA) between the Bureau of Land Management (BLM) and the Authority for processing rights-of-way and preparing an Environmental Impact Statement (EIS) to comply with the requirements of the National Environmental Policy Act (NEPA) for the Clark, Lincoln, and White Pine Counties Groundwater Development Project (GWD Project). The MOU and CRA were amended on December 17, 2009, and October 20, 2011. The BLM completed the EIS in December 2012, and offered the rights-of-way for the GWD Project to the Authority in April 2013, thus completing the activities authorized under the previous MOU and CRA.

The attached MOU and CRA govern the next steps in the process for the rights-of-way for the GWD Project. It identifies that the Authority will reimburse the BLM for direct and indirect costs associated with finalizing the administrative record for the EIS; preparing environmental plans required under the right-of-way grant; preparing tiered NEPA analyses for groundwater production facilities as they are identified in the future; and for processing rights-of-way for ancillary facilities including monitoring wells, stream gaging stations, existing roads, ditches, and other facilities as needed.

This agreement is being entered into pursuant to 43 C.F.R. Part 2800, NRS 277.180, and Section 6(j) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved this agreement.

Respectfully submitted:

P Mulroy

Patricia Mulroy, General Manager
PM:JJE:ZLM:LML:df X0042
Attachment

AGENDA
ITEM # 8

MEMORANDUM OF UNDERSTANDING

AND COST RECOVERY AGREEMENT BETWEEN

SOUTHERN NEVADA WATER AUTHORITY AND

THE BUREAU OF LAND MANAGEMENT

CLARK, LINCOLN & WHITE PINE COUNTIES GWD PROJECT
[BASE RIGHT-OF-WAY N-78803]

I. Introduction

The Southern Nevada Water Authority (SNWA) is continuing to work with the Bureau of Land Management (BLM) on the permitting and environmental compliance process related to the issuance of a right-of-way for the Clark, Lincoln, and White Pine Counties Groundwater Development Project (GWD Project). The GWD Project will cross federal lands administered by the BLM. The BLM prepared a draft and final Environmental Impact Statement (EIS) and issued a Record of Decision (ROD) in December 2012 consistent with the requirements of the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. § 4321 et seq. The BLM anticipates issuing a right-of-way for the main water and power conveyance facilities in May 2013.

The BLM is required to make certain environmental documents available to the public. This is commonly done by an administrative record. The administrative record is a compilation of all materials used by the BLM in making its decision. It is desirable to finalize, categorize, and maintain the administrative record for trouble-free retrieval.

The ROD and right-of-way for the GWD Project main water and power conveyance facilities require implementation of terms and conditions, including preparation of various environmental plans under the umbrella of an overall Construction, Operation, Management, Monitoring and Mitigation Plan (COM Plan). The COM Plan must be completed and approved by the BLM prior to issuance of a notice to proceed with the main water and power conveyance facilities.

The GWD Project is being developed in phases. While the main water and power conveyance facilities have been identified, the final locations of groundwater production wells and other ancillary facilities have not yet been determined. Groundwater production wells and associated collector facilities which will connect into the main water and power conveyance system will be identified following completion of exploratory drilling and are contingent on approval by the Nevada State Engineer. Thus, groundwater production facilities were considered programmatically in the BLM's EIS, and will require subsequent tiered NEPA analysis for right-of-way applications.

Rights-of-way on federal land managed by the BLM are also required for ancillary facilities associated with the GWD Project, including but not limited to new and existing monitoring wells, stream gaging stations, existing roads, ditches, and other facilities as needed.

The purpose of this Memorandum of Understanding (MOU) and Cost Recovery Agreement (CRA) is to establish the roles and responsibilities between SNWA and BLM for administrative record completion and support, preparation of the COM Plan, tiered NEPA analysis, and processing of ancillary rights-of-way, and to provide for reimbursement of BLM costs for those efforts.

This MOU and Cost Recovery Agreement (CRA) updates and replaces a previous MOU and CRA for preparation of the EIS, between the BLM and SNWA dated January 18, 2007.

II. Authority

Title V of the Federal Land Policy and Management Act of 1976 (FLPMA), as amended, 43 U.S.C. §§ 1761-1771, authorizes the grant of rights-of-way over, upon, under, or through Federal public lands by the Secretary of the Interior (Secretary) for reservoirs, canals, ditches, flumes, laterals, pipes, pipelines, tunnels, and other facilities and systems for the impoundment, storage, transportation, or distribution of water. The Southern Nevada Public Land Management Act of 1998 (SNPLMA), Pub. L. No. 105-263; § 4(b)(2), 112 Stat. 2343 (1998), directs the Secretary to issue right-of-way grants on Federal lands in Clark County, Nevada, for all reservoirs, canals, channels, ditches, pipes, pipelines, tunnels, and other facilities and systems needed for the impoundment, storage, treatment, transportation, or distribution of water, in accordance with that Act, FLPMA, and other applicable law. Such right-of-way grants shall be valid in perpetuity and shall not require the payment of rental or cost recovery fees. The Lincoln County Conservation, Recreation, and Development Act of 2004 (LCCRDA), Pub. L. No. 108-424, § 301, 118 Stat. 2403 (2004) directs the Secretary to grant SNWA rights-of-way necessary for roads, wells, well fields, pipes, pipelines, pump stations, storage facilities, or other facilities and systems necessary for the construction of a water conveyance system in Lincoln and Clark Counties. Such rights-of-way shall be granted in perpetuity and do not require payment of a rental fee.

The BLM carries out these responsibilities on behalf of the Secretary. The regulations applicable to issuance and administration of FLPMA rights-of-way are found at 43 C.F.R. Part 2800. The BLM will process SNWA right-of-way applications in accordance with the provisions of the FLPMA, SNPLMA, LCCRDA, and the BLM's regulatory requirements, and make the final decision on whether to grant those rights-of-way.

In accordance with Sections 304(b) and 504(g) of FLPMA [43 U.S.C. §§ 1734(b) and 1764(g)]:

> Section 304(b): The Secretary is authorized to require a deposit of any payments intended to reimburse the United States for reasonable costs with respect to applications and other documents relating to such lands. The monies received for reasonable costs under this subsection shall be deposited with the Treasury in a special account and are hereby authorized to be appropriated and made available until expended. As used in this section "reasonable costs" include, but are not limited to, the costs of special studies, environmental impact statements; monitoring construction, operation, maintenance, and termination of any authorized facility; or other special activities. In determining whether costs are reasonable under this section, the Secretary may take into consideration actual

costs (exclusive of management overhead), the monetary value of the rights or privileges sought by the applicant, the efficiency to the government processing involved, that portion of the cost incurred for the benefit of the general public interest rather than for the exclusive benefit of the applicant, the public service provided, and other factors relevant to determining the reasonableness of the costs.

Section 504(g): The Secretary concerned may, by regulation or prior to promulgation of such regulations, as a condition of a right-of-way, require an applicant for, or holder of a right-of-way to reimburse the United States for all reasonable administrative and other costs incurred in processing an application for such right-of-way and in inspection and monitoring of construction, operation, and termination of the facility pursuant to such right-of-way: Provided, however, that the Secretary concerned need not secure reimbursement in any situation where there is in existence a cooperative cost share right-of-way program between the United States and the Holder of a right-of-way...The monies received for reimbursement of reasonable costs shall be deposited with the Treasury in a special account and are hereby authorized to be appropriated and made available until expended.

III. Purpose

It is the purpose of this MOU and CRA to establish an understanding between SNWA and BLM regarding responsibilities and conditions and procedures to be followed in supporting the administrative record, in preparation of the COM Plan, tiered NEPA analysis for groundwater production facilities, and other ancillary facilities rights-of-way, and to reimburse BLM for all actual costs incurred by BLM associated with these tasks.

This MOU and CRA shall be interpreted and enforced in accordance with appropriate federal laws and regulations. However, nothing contained herein shall preclude application of subsequently enacted and otherwise applicable federal legislation.

IV. Responsibilities

A. BLM Responsibilities. BLM shall:

1. Be responsible for overall compliance with NEPA, CEQ regulations, and other applicable federal laws and regulations, including preparation and maintenance of the administrative record.

2. Direct and monitor the work of SNWA and contractors in the preparation of materials to ensure compliance with the requirements of NEPA and CEQ regulations, as well as other federal laws and regulations, including preparation and maintenance of the administrative record.

3. Advise SNWA as to the nature and extent of all documents, studies and analyses needed to meet the GWD Project right-of-way terms and conditions and to process tiered and ancillary NEPA, and BLM will utilize studies prepared by SNWA personnel and consultants wherever such studies meet BLM standards and the requirements of the law.

4. Maintain confidentiality of information, documents and materials used in the development of NEPA documents and other federal regulatory processes in accordance with the Freedom of Information Act (FOIA) (43 CFR Part 2; Department of Interior 383 DM 15; 28 CFR Part 16), Privacy Act (43 CFR Part 2; Department of Interior 383 DM 7), BLM policies, and legal decisions pertinent thereto, and treat specific data provided by SNWA and identified as confidential, as confidential to the fullest extent permitted by FOIA and related regulations (43 C.F.R. § 2.11).

5. Determine and allocate the appropriate personnel to develop, review, and approve the COM Plan, NEPA compliance, right-of-way processing, and other matters as required.

6. Process right-of-way requests, conduct reviews, and provide data and other feedback as necessary in a timely fashion.

7. Provide all studies, data and reports, not otherwise exempt by law from disclosure, prepared in conjunction with this MOU and CRA to SNWA for use by SNWA to acquire or assist in acquiring other permit(s), right(s)-of-way, or for any other actions or purposes related to the GWD Project, subject to Paragraph IV. A. 4.

B. SNWA responsibilities. SNWA shall:

1. Comply with federal, state and local laws as applicable.

2. Prepare environmental plans, documents, and other material needed to complete the COM Plan.

3. Prepare Plans of Development for the GWD Project, and for tiered and ancillary right-of-way requests.

4. Provide to BLM any justifiable, necessary, or relevant technical or environmental information needed for the COM Plan and tiered and ancillary NEPA processes.

5. Provide materials, review comments, and other data as necessary in a timely fashion.

6. Be responsible for costs incurred by BLM, in connection with development and maintenance of the administrative record, and preparation of the COM Plan, tiered NEPA analysis for groundwater production facilities, and other ancillary facilities rights-of-way, consistent with this MOU and CRA, SNPLMA, and other applicable law, as further described in Paragraph V. A. 2.

7. To the extent allowed under Nevada law, SNWA shall hold harmless and indemnify the BLM, their officers, agents and employees with respect to any and all judgments or settlements arising from claims, demands, or causes of action which may arise from the performance of services by contractors utilized by BLM in the preparation of documents pursuant to this MOU and CRA. This indemnification by SNWA does not extend to costs associated with judgments, settlements, claims, demands, or causes of action by third-parties (other than contractors and subcontractors) against the BLM, including those involving the legality or adequacy of the BLM's compliance with NEPA or any other law or regulation.

8. Comply with all aspects of the Privacy Act (43 CFR Part 2; DOI's 383 DM 7), including safe-guarding individuals' names and addresses.

9. Hold all pre-decisional information (including meeting notes, data, draft documents, and working discussions) acquired from BLM, contractors, and other cooperating agencies confidential as required by law. BLM may share pre-decisional information with pertinent SNWA staff for purposes of review.

C. Joint BLM and SNWA Responsibilities.

1. BLM and SNWA shall establish and adhere to a mutually acceptable time schedule for NEPA processes and for the review of COM Plan components as it is being developed, as provided for by 40 C.F.R. § 1501.8.

2. Determine and allocate the appropriate personnel for right-of-way processing, reviewing/completing plans, studies, analyses, and other details as required.

3. Actively participate in all substantial phases of COM Plan and NEPA processes.

4. Ensure coordination of efforts and exchange of information between BLM and SNWA.

5. Attend regular and other meetings with federal, state, regional, and local agencies, and concerned environmental, conservation, landowner, water users, or other stakeholder groups, if any are held.

6. In executing this MOU, neither BLM nor SNWA waive any administrative or judicial rights it may otherwise have.

7. Appoint and maintain designated representatives as the primary contact for actions relating to the preparation of the COM Plan, tiered and ancillary NEPA. Representatives, at the time of this MOU signature, are:

BUREAU OF LAND MANAGEMENT	SOUTHERN NEVADA WATER AUTHORITY
Groundwater Projects Manager	Environmental Resources Manager
1340 Financial Blvd	100 City Parkway, Suite 700
Reno, NV 89520	Las Vegas, NV 89106

V. Cost Recovery

A. Costs.

1. SNWA agrees to pay the direct and indirect costs incurred by BLM associated with implementation of the GWD Project right-of-way terms and conditions, including the COM Plan,

and costs incurred by BLM for processing tiered and ancillary rights-of-way, including preparation and maintenance of the administrative record.

Direct costs are those costs that can be specifically identified with SNWA's right-of-way grant and tiered and ancillary right-of-way applications, and which are incurred for the benefit of SNWA. These costs would not have been incurred except for SNWA's right-of-way grant and applications, and are appropriate in order for BLM to monitor approval with terms and conditions and to process right-of-way applications. Examples of direct costs may include personnel costs in the form of wages paid to BLM personnel working on the applications, with allowances provided for fringe benefits and BLM's leave surcharge rate and any overtime associated with processing the application; travel expenses; and purchased services, such as printing, automated data processing services and photographic reproduction, if necessary; and any miscellaneous supplies and equipment of a specialized nature (purchased with the consent of the SNWA), the use of which is directly applicable to processing the applications.

Indirect costs are those that are incurred for the benefit of SNWA's project, but cannot be specifically identified with SNWA's applications but that provide the overall infrastructure that enables goods to be produced and services provided. Indirect costs include utilities, telecommunications, information technology, space rental, and a range of administrative support functions. These indirect costs have been calculated at 19.8 % of direct costs. This percentage figure has been developed in accordance with Department of the Interior procedures and represents those administrative and program costs, excluding management overhead, which can be attributed to processing the GWD Project.

Excluded from indirect costs and not attributed to SNWA are costs for managerial work, evaluations of field office activities, program coordination, technical program direction, environmental education, interagency planning, studies and research, preparation of environmental documents relating to general program planning, law enforcement and fire fighting.

2. BLM shall annually provide an estimate of actual costs that SNWA shall be obligated to reimburse BLM associated with the GWD Project. The estimated cost for May 2013 through June 2014 is $575,730, as identified on Exhibit 1. If actual costs are expected to exceed this amount, BLM shall notify SNWA as soon as practicable after it becomes aware of the potential.

3. By executing this MOU and CRA, SNWA waives consideration of reasonable costs under 43 CFR § 2804.14(f) and agrees to pay all actual costs incurred by the BLM. BLM agrees to use reasonable efforts to keep actual costs at a minimum.

4. SNWA accepts this MOU and CRA as a decision under 43 CFR § 2804.14 that the applications are appropriately a Category V applications and waives the right to appeal this decision to the Interior Board of Land Appeals in accordance with 43 CFR Part 4.

B. Cost Recovery Provisions.

1. No later than 60 days after receipt of BLM's annual estimate of actual costs, SNWA shall advance funds equal to BLM's estimate. However, the account balance for SNWA's funds

will be monitored and, at such time that the balance drops below $100,000, additional funds shall be requested by the Nevada BLM State Office, located in Reno, Nevada.

2. Statements of the expenditures by BLM will be furnished to SNWA quarterly. This will include the operational and labor expenditures and indirect costs, including individual-by-individual labor costs [computer printout].

3. BLM will not furnish services other than those identified in the MOU and CRA and any amendment thereto unless otherwise approved by SNWA.

4. Subject to SNWA approval, BLM may utilize and SNWA will fund assistance contractors. The assistance contractors could include, but are not limited to, technical experts, realty specialists, appraisers, clerical staff support, NEPA adequacy review, and reviews for staff resource specialists, persons to aid in assembling elements of the NEPA document and administrative record, and compliance inspectors. Quarterly expenses for assistance contractor(s) shall be included in the statements submitted to SNWA under Paragraph V.B. 2 above.

5. BLM will not furnish services pursuant to this MOU and CRA if the cost of such services is expected to exceed amounts deposited by SNWA (in conformity with this MOU and CRA) unless additional deposits are required for completing the scope of the project and approved by SNWA during the process of re-estimation of actual costs per 43 CFR § 2804.19(a)(5) and (d).

6. BLM will, to the best of its ability: a) administer this MOU and CRA so as to avoid unnecessary employment of personnel; b) limit expenditure of funds and minimize actual costs; and c) make every reasonable effort to process the application and process/grant authorizations in a timely and workmanlike manner.

7. BLM will be responsible for apportioning and applying reimbursable funds collected under this MOU and CRA to the services provided.

8. A lack of reimbursement funding will require that BLM cease providing services under this MOU and CRA.

9. If SNWA requests in writing that the BLM suspend or terminate further actions on the GWD Project or tiered or ancillary rights-of-way, SNWA will reimburse BLM for those processing costs incurred by BLM which are necessary and which cannot be reasonably avoided for BLM to suspend or terminate its review.

10. Any payments made by SNWA which are not required by or which are in excess of actual cost shall be refunded to SNWA within 45 days of completion, termination, or suspension of the actions under this MOU and CRA.

11. SNWA shall have the right to conduct, at their own expense, by auditors or accountants designated by SNWA reasonable audits of the books, records, and documents of BLM relating to the items on any accounting reports (located at BLM National Service Center in Denver, CO and the BLM Nevada State Office, as applicable). This information will be

provided by BLM in accordance with the procedures outlined below, at the place where such books, records, and documents are usually maintained and at reasonable times. However, written notice of a desire to conduct such an audit must be given to the BLM's Authorized Officer at least 15 days prior to such an audit and not later than the 90th day after the close of the GWD Project for which the books, records and documents are sought to be audited. Any such audits shall be completed within 60 days after receipt by SNWA of the accounting reports containing the items to be audited.

12. Nothing herein shall be deemed to require BLM to maintain books, records, or documents other than those usually maintained by government agencies, provided that such books, records, and documents reasonably segregate and identify the costs for which reimbursements are required or otherwise agreed to by the parties. BLM will preserve such books, records, and documents for a period of at least two years after BLM submits a statement for reimbursement based on such books, records, and documents. The auditors designated by SNWA shall have reasonable access to and the right to copy, at their expense, all such books, records, and documents, including all audit reports prepared by BLM, which result in costs for which reimbursement is required.

13. BLM shall have reasonable access to, and the right to copy, all audit reports prepared by SNWA together with supporting documents in the possession of SNWA.

VI. Modification and Amendment

This MOU may be modified or amended in writing by the mutual agreement of BLM and SNWA.

VII. Termination

This MOU and CRA may be terminated by either party upon giving 30-day advance written notice to the other party of its intention. During that 30-day period, BLM and SNWA agree to actively attempt to resolve any outstanding issues or disagreements.

In the event of termination of this MOU and CRA, it is agreed as follows:

A. This MOU and CRA shall be of no further force or effect as of 30 days after notice has been given.

B. Any and all obligations by BLM with regard to SNWA's right-of-way applications or other applications shall be governed by applicable provisions of FLPMA, SNPLMA, LCCRDA, and other applicable federal law.

C. If SNWA terminates this agreement, its future cost obligation will cease immediately upon its written notification. However, SNWA will reimburse BLM for processing costs incurred by BLM in closing its review of right-of-way applications and which are necessary and cannot reasonably be avoided after BLM receives written notice of termination of the agreement.

IX. Suspension

SNWA may at any time and for any reasons suspend performance by the BLM of the services provided under this agreement by giving reasonable notice to BLM and subject to Aricle V.B.9 above. At any time after the effective date of the suspension, SNWA may request BLM to resume performance of the services.

X. Effective Date

This MOU and CRA shall become effective when signed by all parties.

Dated: APR 1 5 2013

BUREAU OF LAND MANAGEMENT

By: Amy Lueders
Its: Nevada State Director

Dated:_____

SOUTHERN NEVADA WATER AUTHORITY

By: Shari Buck
Its: Chair

APPROVED AS TO FORM:

Dana Walsh
Dana R. Walsh, Deputy Counsel

Exhibit 1
Financial Plan

Below is a summary of projected costs through June 2014. Project management includes supervisory employees at both the Nevada State (Groundwater Projects Office) and District Offices (Ely and Southern Nevada District offices). The Interdisciplinary Team (ID Team) includes technical staff within the Ely District and Southern Nevada District offices. Operational costs include indirect costs (19.8% required surcharge) and direct costs not associated with labor (contract employees, Federal Register notice charges, supplies such as binders for the administrative record, air fare, rental cars, hotels, gas, government vehicle maintenance, etc.).

Staff	Estimated Cost
Project Management	$426,780
Support Staff	$3,600
ID Team	
Archaeology	$7,200
Tribal Consultation	$2,520
Hydrology	$3,000
Realty/Cadastral	$7,440
Wildlife	$5,400
ID Team Total	$25,560
TOTAL Labor	**$455,940**

FY 2012 Total Labor Costs:	$455,940
FY 2012 Operation Costs:	$119,790
FY 2012 Total	**$575,730**

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

May 16, 2013

Subject: Agreements	**Director's Backup**
Petitioner: Philip D. Speight, Deputy General Manager, Administration	

Recommendations:
That the Board of Directors approve the Service Agreement for Network Integration Transmission Service, Retail Access Transmission Service among Nevada Power Company doing business as NV Energy, the Colorado River Commission of Nevada, and the Authority, and the corresponding Letter of Agreement formalizing the Authority's Transmission Reduction Plan.

Fiscal Impact:
None by approval of the above recommendation.

Background:
The Authority's electrical loads are interconnected with NV Energy's transmission and distribution system. The Colorado River Commission of Nevada (CRC), NV Energy, and the Authority are parties to Network Integration Transmission Service (NITS) Agreements pursuant to which NV Energy provides transmission service in accordance with the rates, terms, and conditions contained in its Open Access Transmission Tariff on file with the Federal Energy Regulatory Commission. The NITS Agreements will expire on May 31, 2013. The new agreements extend the term of transmission service for an additional ten years, through May 31, 2023, and are necessary for the Authority to continue to receive NITS for the Authority's loads.

The CRC and the Authority are also parties to a Transmission Reduction Plan Letter Agreement, which preserves NV Energy's right to interrupt the delivery of energy to the Authority in emergency situations in order to maintain transmission system reliability; and it allows the Authority to select which electrical loads will be curtailed in order to minimize disruption to water operations. The current letter agreement will expire on May 31, 2013. The new letter agreement extends the contract term for an additional ten years, through May 31, 2023.

These agreements are being entered into pursuant to NRS 704.787 and Section 5(f) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved these agreements.

Respectfully submitted:

P Mulroy

Patricia Mulroy, General Manager
PM:JJE:PDS:SPK:GAB:cc
Attachment

AGENDA ITEM # 9

SERVICE AGREEMENT FOR NETWORK INTEGRATION

TRANSMISSION SERVICE

RETAIL ACCESS TRANSMISSION SERVICE

BETWEEN

NEVADA POWER COMPANY d/b/a NV ENERGY
(Transmission Provider)

AND

COLORADO RIVER COMMISSION of NEVADA
(Network Customer)

AND

SOUTHERN NEVADA WATER AUTHORITY
(End Use Customer)

DATED: June 1, 2013

Service Agreement For Network Integration Transmission Service
Retail Access Transmission Service

1.0 This Service Agreement, dated as of _____, 2013, is entered into, by and between Nevada Power Company d/b/a NV Energy ("Transmission Provider"),the Colorado River Commission of Nevada ("CRC" or "Network Customer"), and the Southern Nevada Water Authority("Authority" or "End-Use Customer") for the Authority's full Network Load (plus losses). Network Integration Transmission Service has been applied for on behalf of the Authority, the End-Use Customer. The Authority is an Eligible Customer as defined by Section 1.14 of the Tariff, pursuant to a Retail Open Access Program under which the Transmission Provider is required to offer unbundled retail transmission service.

2.0 The Transmission Provider has determined that a Completed Application for Network Integration Transmission Service under the Transmission Provider's Open Access Transmission Tariff ("Tariff") has been submitted on the Authority's behalf.

3.0 The Network Customer is taking service under Sections III and IV of the Tariff, Retail Access Transmission Service, as an agent for the End-Use Customer. The Transmission Provider has not required the Network Customer to post a security deposit pursuant to Section 36.6 because the End Use Customer is a local government and has an Approved Credit Rating.

4.0 Service under this agreement shall commence on the later of (l) Requested Service Date as indicated in the Specification for Network Integration Transmission Service, Section 2, or (2) the date on which construction of any Direct Assignment Facilities are completed, or (3) Network Upgrades are completed, (or in the alternative, a Temporary Release of Capacity, as set forth in the Specifications for Network Integration Transmission Service, if applicable), or (4) such other date as it is permitted to become effective by the Commission or (5) the date the End–Use Customer has satisfied all applicable state regulatory requirements associated with Nevada's Retail Open Access Program.

A Network Customer having point(s) of interconnection on Transmission Provider's Transmission System shall be required to have a Network Operating Agreement in place prior to commencement of transmission service hereunder. Service under this agreement shall terminate on May 31, 2023.

5.0 The Transmission Provider agrees to provide and the Transmission Network Customer agrees to take and pay for Network Integration Transmission Service in accordance with the provisions of Part III and Part IV of the Tariff, this Service Agreement, and the Network Operating Agreement as they may be amended from time to time.

6.0 Any notice or request made to or by either Party regarding this Service Agreement shall be made to the representative of the other Party as indicated below.

Transmission Provider:

NV Energy
Attention: Director, Transmission Policy & Contracts
P.O. Box 10100 M/S S3B40
Reno, NV 89520-0024

Network Customer:

Colorado River Commission of Nevada
Attention: Manager, Energy Services
555 E. Washington Ave. Suite 3100
Las Vegas, NV 89101

End-Use Customer:

Southern Nevada Water Authority
Attention: Director, Energy Management
P.O. Box 99956, MS 115
Las Vegas, NV 89193

7.0 The Tariff is incorporated herein and made a part hereof.

IN WITNESS WHEREOF, the Parties have caused this Service Agreement to be executed by their respective authorized officials.

End-Use Customer – Southern Nevada Water Authority:

By:_____
Patricia Mulroy
General Manager

Date:_____

APPROVED AS TO FORM:

Gregory J. Walch
General Counsel

Date: 5/8/13

Network Customer - CRC:

By: Jayne Harkins
Jayne Harkins, P.E.
Executive Director

APPROVED AS TO FORM:

Ann C. Pongracz
Deputy Attorney General

Date: 4/9/13

Date: 4/5/13

Transmission Provider:

By:_____
Mario Villar
Vice President, Transmission

Date:_____

SPECIFICATIONS FOR NETWORK INTEGRATION TRANSMISSION SERVICE

1.0 This Service Agreement, dated as of _____, 2013, is entered into, by and between Nevada Power Company d/b/a NV Energy ("Transmission Provider"), the Colorado River Commission of Nevada ("CRC" or "Network Customer), and the Southern Nevada Water Authority ("the Authority" or "End-Use Customer") for the Authority's full Network Load (plus losses). Network Integration Transmission Service has been applied for on behalf of the Authority, the End-Use Customer. The Authority is an Eligible Customer as defined by Section 1.14 of the Tariff, pursuant to a Retail Open Access Program under which the Transmission Provider is required to offer unbundled retail transmission service.

2.0 Term of Network Service: Ten years
Requested Start Date: June 1, 2013

Termination Date: May 31, 2023

3.0 Description of capacity and/or energy to be transmitted by Transmission Provider across the Transmission Provider's Transmission System (including electric control area in which the transaction originates):

(a) The Network Customer shall have the right to schedule deliveries of its Network Resources on a firm basis (subject to system reliability and operating nomograms as posted on OASIS) during all time periods through the Mead 230 kV Point of Receipt for the Authority's full Network Load requirements (plus losses).

(b) Such rights will become effective on the date that the Network Customer commences taking service under this Agreement and will continue in effect until terminated pursuant to Section 2 of the Specification of the Agreement, or until retail access distribution service is terminated pursuant to the Transmission Provider's state-jurisdictional retail tariffs, or until a Regional Transmission Organization ("RTO") in which the Transmission Provider is a participant is operational, whichever event occurs first.

If the Transmission Provider participates in an RTO which is not operational or is operational but does not have a congestion management system, then the rights granted by the Transmission Provider will continue until such time as the RTO has a congestion management system. On the congestion management system date the import rights granted by the Transmission Provider to the End-Use Customer shall not revert back to the Native Load energy provider unless the End-Use Customer elects to take its energy service from the Native Load energy provider. Instead, if the Transmission Provider participates in a RTO, such rights shall be converted into rights under the RTO's congestion management system and assigned to the End-Use Customer to the same extent the rights of other pre-existing Network Customers under this Tariff are assigned by the RTO.

(c) End-Use Customer Rights: The import rights to the Uncongested Grid released under this Agreement are granted to the End-Use Customer upon whose behalf the Network Customer is obtaining transmission service and will remain with the End-Use Customer. If the End-Use Customer chooses a new Scheduling Coordinator, the transmission rights will be transferred to the new Scheduling Coordinator on behalf of the End-Use Customer. If the End-Use Customer elects to return to bundled retail electric service, the rights granted by the Transmission Provider will revert back to the Native Load.

4.0 Network Resources

(1) Network Customer Generation Owned:

Source	Total Capacity (MW)	Capacity Designation as Network Resource
Sloan (Small Hydro)	0.9 MW	0.9 MW
Linden (Small Hydro)	0.5 MW	0.5 MW
Horizon Ridge (Small Hydro)	0.6 MW	0.6 MW

(2) Network Customer Generation Purchased:

Source	Total Capacity (MW)	Capacity Designation as Network Resource
NVEnergy Silverhawk Exchange	125 MW	28 MW

(3) End Use Customer's Generation Internal to the Control Area but external to the Uncongested Grid per Section 38A of the OATT.

Source	Total Capacity (MW)	Capacity Designation as Network Resource
N/A	0	0

(4) Total Network Resources: (1)+(2)+(3) 30 MW

5.0 Transmission Load:

(1) End-Use Customer's Network Load: End-Use Customer's Network Load measured at the Point(s) of Delivery listed below is its full load requirement as it changes from time to time, including load growth. End-Use Customer's estimated non-coincident peak load at Point(s) of Delivery is 30 MW.

Point(s) of Delivery	Delivery Voltage Level	MW or % of Load
Please see Attachment 1	Various	100%

Total Network Load (Without Losses) = 30 MW

6.0 Designation of party subject to reciprocal service obligation: The Scheduling Coordinator, Network Customer, End Use Customer or any affiliates of these parties.

7.0 Service under this Agreement may be subject to some combination of the charges detailed below. (The appropriate charges for individual transactions will be determined in accordance with the terms and conditions of the Tariff.)

(1) Monthly Demand Charge - Zone B per Attachment H of the Tariff.

(2) Facilities Study Charge: All study work has been completed for this Transmission Customer's request.

(3) Direct Assignment Facilities Charge: Including but not limited to, real time metering and communications costs and other costs yet to be determined, if any.

(4) Ancillary Services: Ancillary Services (other than Scheduling, System Control and Dispatch Service and Reactive Supply and Voltage Control Service) may be self-provided as provided in the Tariff.

(a) Scheduling System, Control and Dispatch Service: Zone B per Schedule 1 of the Tariff.

(b) Reactive Supply and Voltage Control from Generation Service: Zone B per Schedule 2 of the Tariff.

(c) Regulation and Frequency Response Service: Zone B per Schedule 3 of the Tariff.

(d) Energy Imbalance Service: Zone B per Schedule 4 of the Tariff.

(e) Operating Reserve - Spinning Reserve Service: Zone B per Schedule 5 of the Tariff.

(f) Operating Reserve - Supplemental Reserve Service: Zone B per Schedule 6 of the Tariff.

(g) Loss Compensation Service: Zone B per Schedule 10 of the Tariff.

(h) Distribution Loss Factor: Zone B per Attachment K-1 of the Tariff for the appropriate Point of Delivery voltage.

(5) Redispatch Charges: Pursuant to the Tariff.

(6) Power Factor Requirements: This will be billed for under the applicable Distribution Only Service Tariff for each Point of Delivery and is not included herein.

End-Use Customer – Southern Nevada Water Authority:

By:_____
Patricia Mulroy
General Manager

Date:_____

APPROVED AS TO FORM:

Gregory J. Walch
General Counsel

Date: 5/8/13

Network Customer - CRC:

By: Jayne Harkins
Jayne Harkins, P.E.
Executive Director

Date: 4/9/13

APPROVED AS TO FORM:

Ann C. Pongracz
Ann C. Pongracz
Deputy Attorney General

Date: 4/5/13

Transmission Provider:

By:_____
Mario Villar
Vice President, Transmission

Date:_____

Attachment 1 to Transmission Service Agreement No. 13-00020
Account Detail For
Southern Nevada Water Authority (End-Use Customer) and
CRC (Network Customer)

Facility Name	Facility Address	Premise Number
Pumping Plant #4	1 Sir Phillip St.	1651279
Pumping Plant #5	900 Judi Ln.	1651281
Simmons Plant A	2420 Simmons St.	1647254
Simmons Plant B	2420 Simmons St.	1647247
Pumping Plant #6	6690 Bonanza	1651275
Pumping Plant #3	830 Major Ave. #1	1651283
Hacienda	4100 E. Hacienda	1651284
Twin Lakes Pumping Plant	2125 Simmons St.	1231052
Lamb Pumping Station #1	4285 Elkhorn	1768922
Lamb Pumping Station #2	4285 Elkhorn	1769011
Sloan Pumping Station #1	590 No. Sloan Ln.	1782727
Sloan Pumping Station	590 No. Sloan Ln.	1782730
Decatur PPA1	8390 N. Decatur Rd.	1979234
Sloan Hydro-Turbine	590 No. Sloan Ln.	1782727
Horizon Ridge Hydro-Turbine	2393 W. Horizon Ridge	1739788
Linden Hydro-Turbine	590 No. Sloan Ln.	1782730
Decatur PPA2	8390 N. Decatur Rd.	2169842

Letter of Agreement

This Letter of Agreement ("LOA") formalizes the June 1, 2013 Transmission Reduction Plan ("Plan") for the Southern Nevada Water Authority which is attached as Attachment 4 and 4A to the Network Operating Agreement ("NOA"). This Plan will be Attachment 4 and 4A to the NOA and is incorporated therein. This agreement may only be modified and updated, as required, by mutual consent of all three parties.

In consideration of mutual promises and benefits, all parties agree to use best efforts to comply with and implement the Plan per the details listed in the Plan, and as they are modified from time to time and agreed to by all three parties.

The duly authorized representatives of the parties hereby affirm their agreement to the terms and conditions contained in this Letter of Agreement.

End-Use Customer – Southern Nevada Water Authority:

By:_____
Patricia Mulroy
General Manager

Date:_____

APPROVED AS TO FORM:

Gregory J. Walch
General Counsel

Date: 5/8/13

Network Customer - CRC:

By: Jayne Harkins
Jayne Harkins, P.E.
Executive Director

Date: 4/9/13

APPROVED AS TO FORM:

Ann C. Pongracz
Ann C. Pongracz
Deputy Attorney General

Date: 4/5/13

Transmission Provider:

By:_____
Mario Villar
Vice President, Transmission

Date:_____

Attachment 4 to Network Operating Agreement
June 1, 2013 Transmission Reduction Plan For
Southern Nevada Water Authority (End-Use Customer) and
CRC (Network Customer)

1. Purpose

The purpose of the Plan is to define the obligations and actions of the Transmission Provider (Nevada Power Co. d/b/a NV Energy), the Network Customer and the End-Use Customer to preserve system reliability in the event that the Network Customer is unable to obtain and schedule sufficient resources to the Transmission Provider to meet the End-Use Customer's electricity requirements or during a system emergency affecting the Transmission Provider's transmission system.

2. Compliance with Transmission Provider's Open Access Transmission Tariff

The Transmission Provider will act in accordance with the appropriate provisions of its OATT. The Network Customer is responsible for obtaining and scheduling sufficient resources and reserves to meet the electricity needs of the End-Use Customer. Reserves can be self-provided, purchased from a third-party, or purchased from the Transmission Provider, as agreed to by the Transmission Provider and the Network Customer. The following are references to specific sections of the Network Operating Agreement.

Section 10.1(ii) requires the Transmission Provider to offer to supply the ancillary services of spinning and supplemental reserves to Network Customers.

Section 10.4 indicates, following the loss of a Network Customer's resource(s), the Transmission Provider will provide resources to cover the loss for one hour from the occurrence of the event if that Network Customer has made prior arrangements to purchase operating reserves (spinning and supplemental) from the Transmission Provider.

Section 10.5 indicates, if the Network Customer is unable to replace its lost resource(s) during that one-hour period, the Transmission Provider shall continue to supply the Network Customer provided:

- The Network Customer has made prior arrangements to purchase Reserves (Spinning and Supplemental) from the Transmission Provider, and
- Resources can be procured by the Transmission Provider, and
- System reliability is not negatively impacted.

Section 10.5 also indicates, if the Network Customer or the Transmission Provider is unable to secure a replacement resource(s) and system reliability is negatively impacted, the Transmission Provider will direct the Network Customer to implement its Plan. This does not preclude the Network Customer from initiating its Plan on its own accord.

3. Plan Implementation

The Network Customer will initiate the Transmission Reduction Plan as directed by the Transmission Provider when the loss of the Network Customer's resource(s) or the failure of the Network Customer to schedule resources sufficient to match its load may impair system reliability, or when there is a system emergency affecting the Transmission Provider's transmission system.

Following the loss of the Network Customer's resource, the Network Customer has ten-minutes to replace its resource(s) if self-providing its reserves, or one-hour to replace its resource(s) if the Network Customer has made prior arrangements to purchase reserves from Transmission Provider. The Network Customer will use all available resources (including but not limited to resources available from Transmission Provider pursuant to Section 2 above) that can be delivered to the Transmission Provider's Control Area to replace the lost capacity.

If system reliability may be impacted and the Network Customer can not replace the lost capacity within the applicable time frame or fails to schedule sufficient resources to match its load, or if it is otherwise deemed necessary by the Transmission Provider to avoid impairing or degrading system reliability, the Network Customer will initiate the Transmission Reduction Plan to balance load(s) and resource(s). The Transmission Provider will contact the Network Customer to implement Tier Curtailments.

The End-Use Customer has identified multiple tier levels that will reduce the aggregate load of the End-Use Customer to zero if required. The details of the Transmission Reduction Plan are shown in Attachment 4A. The Network Customer will determine which Tier(s) are needed to reach the level of reduction required by the Transmission Provider. After being contacted by the Network Customer, the End-Use Customer will commence Plan implementation.

The End-Customer's load must be curtailed as directed by the Transmission Provider when system reliability is at stake.

The Transmission Provider, in an emergency affecting system reliability, also has the capability to curtail the End-Use Customer's load to balance their loads and resources, by opening breakers remotely at the substation interconnections, should the Network Customer and the End-Use Customer fail to balance loads and resources or should it otherwise be necessary for reliability purposes.

4. Curtailment Plan Operating Procedures

Implementation of Plan:

1. The Transmission Provider will contact the Network Customer to implement Tier Curtailments as necessary when the Transmission Reduction Plan is to be initiated.

2. Upon notification, the Network Customer will notify the End-Use Customer's 24-hour desk to implement Transmission Reduction Plan.

3. The End-Use Customer's Staff will implement the plan in accordance with the tiers identified in Attachment 4A.

4. The End-Use Customer's Staff at each facility will immediately begin load curtailment by ramping down loads and/or opening/operating circuit breakers/devices until reaching the level of reduction directed by the Transmission Provider.

5. After plan implementation, the End-Use Customer's Staff will report back to the Network Customer and the Network Customer will report back to the Transmission Provider.

In no event shall the implementation of this Transmission Reduction Plan by the Network Customer/End-Use Customer result in a level of reduction that is less than that which is directed by the Transmission Provider.

5. Contact Information

The Network Customer will maintain and update 24-hour contact information for the Transmission Provider, the Network Customer, and the End-Use Customer facility personnel that are required to implement the Plan.

The contact numbers are:

Entity	Contact Person	24 Hour Phone Number
Transmission Provider	NV Energy Control Center	(702) 862-7111
Network Customer	24 hour Operations	(702) 856-3624
Southern Nevada Water Authority	SNWS Operations	(702) 567-2056

Attachment 4A to Network Operating Agreement
Detail for the June 1, 2013 Transmission Reduction Plan For
Southern Nevada Water Authority (End-Use Customer) and
CRC (Network Customer)

TIER 1:

Facility Name	Facility Address	Premise Number
Pumping Plant #4	1 Sir Phillip St.	1651279
Pumping Plant #5	900 Judi Ln.	1651281
Simmons Plant A	2420 Simmons St.	1647254
Simmons Plant B	2420 Simmons St.	1647247
Pumping Plant #6	6690 Bonanza	1651275
Pumping Plant #3	830 Major Ave. #1	1651283
Hacienda	4100 E. Hacienda	1651284
Twin Lakes Pumping Plant	2125 Simmons St.	1231052
Lamb Pumping Station #1	4285 Elkhorn	1768922
Lamb Pumping Station #2	4285 Elkhorn	1769011
Sloan Pumping Station #1	590 No. Sloan Ln.	1782727
Sloan Pumping Station	590 No. Sloan Ln.	1782730
Decatur PPA1	8390 N. Decatur Rd.	1979234
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Horizon Ridge Hydro-Turbine	2393 W. Horizon Ridge	1739788
Linden Hydro-Turbine	590 No. Sloan Ln.	1782730
Decatur PPA2	8390 N. Decatur Rd.	2169842

Due to the critical nature of the water pumping loads listed and the fact they provide essential services that may impact the health, safety, and welfare of Southern Nevadans, the above loads are grouped in a single tier of highest priority. Upon plan implementation, the Network Customer and End-Use Customer will curtail loads listed in Tier 1 in a manner that is least disruptive to water system operations while complying with the Transmission Reduction Plan.

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

May 16, 2013

Subject: Interlocal Agreement	**Director's Backup**
Petitioner: Philip D. Speight, Deputy General Manager, Administration	

Recommendations:
That the Board of Directors authorize the General Manager to sign an interlocal agreement among the City of Las Vegas, the City of Henderson, the Clark County Water Reclamation District, and the Authority to correct a disproportionate allocation of certain quarter-cent sales tax revenues designated for wastewater by reallocating 96 months of distributions, or take other action as appropriate.

Fiscal Impact:
None to the Authority by approval of the above recommendation. The reallocation and distribution adjustment affects only the wastewater agencies' share (38 percent) of the remaining sales tax balance. The Authority's share (62 percent) is not affected by this adjustment.

Background:
On July 20, 2000, the Board of Directors approved the Sales Tax Allocation Cooperative Agreement (Cooperative Agreement) among the Authority and three wastewater agencies (Agencies) represented by the City of Henderson; the City of Las Vegas; and the Clark County Water Reclamation District (CCWRD), formerly the Clark County Sanitation District. As outlined in the Cooperative Agreement, beginning with the April 2001 receipts, the Authority shares 38 percent of the "remaining sales tax revenue" (the balance after deducting the allotment for the Las Vegas Wash Fund and the Rural Area Distribution) with the Agencies. Section B (6) of the Cooperative Agreement further defines the initial formula used to allocate the wastewater portion among the Agencies, primarily based on proportionate shares of the total Las Vegas Valley influent flows and cumulative equivalent residential units (ERU's) served.

Annually, the Agencies are required to verify and submit the base data necessary for the Authority to disburse the remaining sales tax revenue. In early 2011, a review by the Agencies determined that from April 2001 through May 2010, eligible ERU's serviced by the City of Las Vegas on behalf of the City of North Las Vegas were omitted. The Agencies also determined that monthly influent flows and ERU growth required updating. A corrected reconciliation was prepared and an independent examination was conducted by Piercy Bowler Taylor & Kern. The calculations revealed that the CCWRD was overpaid $3,579,806.56; the City of Henderson was overpaid $2,582,991.89; and the City of Las Vegas was underpaid $6,162,798.45.

To establish an equitable means of correcting the disproportionate allocation, the Agencies developed the attached Interlocal Agreement. As of March 2013, each of the Agencies' respective boards has approved the Interlocal Agreement.

AGENDA ITEM # 10

At this time, the Board is being asked to authorize the General Manager to sign the Interlocal Agreement, acknowledging that the reallocated distributions will occur over a period of 96 months, during which time the Authority will reduce the monthly allocation to CCWRD by $37,289.65; reduce the monthly allocation to the City of Henderson by $26,906.17; and increase the monthly allocation to the City of Las Vegas by $64,195.82.

This agreement is being entered into pursuant to NRS Chapter 377B and Section 6(p) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved the agreement.

Respectfully submitted:

P Mulroy

Patricia Mulroy, General Manager
PM:JJE:PDS:JRB:jw
Attachment

INTERLOCAL AGREEMENT BETWEEN
THE SOUTHERN NEVADA WATER AUTHORITY,
THE CITY OF LAS VEGAS, THE CITY OF HENDERSON
AND THE CLARK COUNTY WATER RECLAMATION DISTRICT

WHEREAS, the 1997 Nevada Legislature imposed a quarter (1/4) cent sales tax to pay for regional water and wastewater infrastructure improvements; and

WHEREAS, an Interlocal agreement was signed in 2000 between the Southern Nevada Water Authority (SNWA) and the member agencies of City of Henderson (Henderson), City of Las Vegas (CLV), and the Clark County Water Reclamation District (District) to distribute thirty eight (38%) percent of the 1/4 cent sales tax to the member agencies using a calculation based on influent flows and equivalent residential units (ERU); and

WHEREAS, a recent review of the distributions revealed an error in the original calculations that resulted in incorrect amounts distributed to the District, Henderson and CLV for Calendar Years 2001 through May, 2010; and

WHEREAS, the calculations revealed that the District was overpaid three million, five hundred seventy nine thousand, eight hundred six dollars and fifty six cents (3,579,806.56) which should have been paid to the CLV; and

WHEREAS, the calculations revealed that Henderson was overpaid two million, five hundred eighty two thousand, nine hundred ninety one dollars and eighty eight cents (2,582,991.88) which should have been paid to the CLV; and

WHEREAS, the parties desire to determine an equitable means by which the overpayment may be rectified;

NOW, THEREFORE, in consideration of the mutual terms and conditions, the parties agree as follows:

1. SNWA shall use the existing ¼ cent sales tax distribution mechanism to reallocate thirty seven thousand, two hundred eighty nine dollars and sixty five cents ($37,289.65) of the District's monthly share of the 1/4 cent sales tax distribution to the CLV for the next ninety six (96) months, with the first monthly share reallocation applied to the July 2011 distribution.

2. SNWA shall use the existing ¼ cent sales tax distribution mechanism to reallocate twenty six thousand, nine hundred six dollars and seventeen cents ($26,906.17) of Henderson's monthly share of the 1/4 cent sales tax distribution to the CLV for the next ninety six (96) months, with the first monthly share reallocation applied to the July 2011 distribution.

3. The CLV agrees to the payment schedule and acknowledges and agrees that no interest shall be paid on the tax distribution adjustment.

4. The parties agree that at the conclusion of the 96 months, the underpayment shall be deemed paid in full. The CLV further agrees that the terms set forth in this agreement resolve all claims, disputes, actions and remedies the CLV may assert and shall forever settle, adjust and discharge all claims and obligations arising out of the overpayment of Henderson and the District.

5. This Agreement shall not be construed as, nor deemed to be, an Agreement for the benefit of any third (3rd) party or parties, and no third (3rd) party or parties shall have a right of action hereunder for any cause whatsoever.

6. Should any section or any part of this Agreement be rendered void, invalid, or unenforceable by any Court of Law, for any reason, such a determination shall not render void, invalid or unenforceable any other section or any other portion of any section of this Agreement.

7. The drafting, execution and delivery of the Agreement by the parties have not been induced by representations, statements, warranties or agreements other than those expressed herein. The Agreement embodies the entire understanding of the parties, and there are no further or other agreements or understandings, written or oral, in effect between the parties relating to the subject matter hereof unless expressly referred to herein or expressly incorporated herein by reference thereto.

8. It is specifically recognized and agreed by all parties hereto, that this agreement is not to be interpreted or constructed as establishing a precedent for any further agreement, covenant or commitment on the part of any party hereto and should be considered a stand-alone document without establishing any future obligations, other than as described herein, on the part of any party hereto.

9. This Agreement may not be modified unless such modification is in writing and signed by all parties to this Agreement.

10. The laws of the State of Nevada will govern as to the interpretation, validity, and effect of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives, effective July 1, 2011.

SOUTHERN NEVADA WATER AUTHORITY

By: _____
Patricia Mulroy, General Manager Date

Approved as to legality and form:

By: _____ 5/2/13
for Brian Chally, Deputy Counsel Date

CLARK COUNTY WATER
RECLAMATION DISTRICT

By: Lawrence L Brown III
Lawrence Brown, Chairman

ATTEST:

By: _____
Diana Alba, Secretary

Approved as to legality and form:

By: Carolyn C. Campbell
Carolyn C. Campbell
Deputy District Attorney

CITY OF LAS VEGAS

By: _____
Oscar B. Goodman, Mayor

ATTEST:

By: _____
Beverly K. Bridges, MMC
City Clerk

Approved as to form:

By: _____
James B. Lewis
Deputy City Attorney

CITY OF HENDERSON

By: _____
Andy Hafen
Mayor

ATTEST:

By: _____
Sabrina Mercadante, CMC
City Clerk

Approved as to legality and form:

By: _____
Terri A. Williams
Assistant City Attorney

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

May 16, 2013

Subject: 2013 Bond Request Resolution	**Director's Backup**
Petitioner: Philip D. Speight, Deputy General Manager, Administration	
Recommendations: That the Board of Directors adopt a resolution approving the issuance of Las Vegas Valley Water District refunding bonds in the maximum principal amount of $382,000,000 to refinance outstanding bonds for the Authority.	

Fiscal Impact:
Under the Master Bond Repayment Agreement, upon a request of the Authority, the Las Vegas Valley Water District (District) may issue District general obligation bonds and loan the proceeds thereof to the Authority for the purpose of funding or refunding capital additions and expansions to the water system. The Authority has agreed in the Master Bond Repayment Agreement (Agreement) that it will maintain rates and charges for all services furnished by the Authority which will generate revenues sufficient to pay its operations and maintenance costs and all amounts due under the Agreement.

Background:
The 2013 Bond Request Resolution (Resolution) requests the District to refinance certain outstanding General Obligation (Limited Tax) (Additionally Secured by SNWA Pledged Revenues) Water Bonds, Series 2009C (Taxable Direct Pay Build America Bonds) (the 2009C BABs) on behalf of the Authority in an amount not to exceed $382,000,000. The 2009C BABs are taxable bonds and the refunding bonds will be issued as tax-exempt.

The level of savings will depend on the prevailing market rate. Tax-exempt rates have been volatile and so have the potential savings from this proposed refunding. Rates can move in a relatively short time period, and the Authority would like to be in a position to take advantage of rate improvements. Over the last six months, there have been multiple occasions of week-over-week MMD Index swings of an amount equal to and greater than 25 basis points.

The 2009C BABs were issued for additions, betterments and improvements to the Southern Nevada Water System and other Authority projects. In the current market, a tax-exempt refunding of the 2034 Term Bond of the 2009C BABs may generate approximately $2.2 million present value savings or 2.3 percent. It is not cost-effective to refund the 2039 Term Bond in the current market, but the Authority would like to be in the position to refund the 2039 Term Bond should the market improve and be prepared to aggregate the refunding to save on cost of issuance. Authority staff and its advisors will be monitoring evolving market conditions to assure sufficient savings are achieved before the completion of the refunding transaction.

AGENDA ITEM # 11

The proceeds of the 2013 Bonds will be used to achieve debt service savings and to pay the costs of issuing the 2013 Bonds. This will allow the Authority to realize lower future debt service costs and mitigate the Authority's exposure to the federal government.

The Resolution authorizes the 2013 Bonds to be sold via negotiated sale with Citigroup Global Markets, Inc., J.P. Morgan Securities LLC, Morgan Stanley, and Wells Fargo Securities as underwriters on the 2013 Bonds. The Resolution sets forth the details of the 2013 Bonds and delegates to the Chief Financial Officer/Finance Director, Deputy General Manager, or General Manager of the Authority to accept the final interest rates and terms.

This resolution is being entered into pursuant to NRS Chapter 350 and Section 6(l) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved this resolution.

Respectfully submitted:

P. Mulroy

Patricia Mulroy, General Manager
PM:JJE:PDS:JRB:kah
Attachment

RESOLUTION

A RESOLUTION APPROVING THE ISSUANCE BY THE LAS VEGAS VALLEY WATER DISTRICT OF REFUNDING BONDS IN THE MAXIMUM PRINCIPAL AMOUNT OF $382,000,000 TO REFINANCE CERTAIN OUTSTANDING BONDS FOR THE SOUTHERN NEVADA WATER AUTHORITY, AND PROVIDING THE EFFECTIVE DATE THEREOF.

WHEREAS, the Southern Nevada Water Authority, Nevada (respectively, the "Authority" and the "State") deems it advisable that bonds be issued to enable the Las Vegas Valley Water District, Nevada (the "District") to refinance certain outstanding bonds previously issued by the District, on behalf of the Authority, to finance the cost of acquiring and constructing improvements for water projects for the Authority as set forth in Chapter 631, Statutes of Nevada 1993 (the "Project"); and

WHEREAS, pursuant to Chapter 167, Statutes of Nevada 1947, as amended (the "Project Act") and Chapter 350 of the Nevada Revised Statutes (the "Bond Act"), the Board of Directors (the "Board") of the District is authorized, on behalf of the Authority and in the name of the District to issue general obligations of the District which are additionally secured by certain revenues as set forth in the Project Act (the "Southern Nevada Water Authority Revenues") for the purpose of financing the cost of the Project; and

WHEREAS, the Authority deems it advisable that general obligation refunding bonds additionally secured by pledged Southern Nevada Water Authority Revenues be authorized to refinance the cost of the Project.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE SOUTHERN NEVADA WATER AUTHORITY, NEVADA:

Section 1. This resolution shall be known as the "2013 Bond Request Resolution."

Section 2. The Board is hereby requested to take all necessary steps (and such steps previously taken by the Board are hereby ratified) towards the issuance of general obligation

(limited tax) refunding bonds additionally secured by Southern Nevada Water Authority Revenues (the "Bonds") in the maximum aggregate principal amount of $382,000,000, in one or more series, to be expended for the purposes of refinancing the cost of the Project as set forth in the preambles hereto.

Section 3. The Board is authorized to sell and issue the Bonds in one or more series by the adoption of a resolution or resolutions specifying the amount of each series of Bonds to be sold and issued. The Authority hereby authorizes the incurrence of an Authority Debt as such term is used in the interlocal agreement designated the "SNWA/LVVWD Master Repayment Agreement", dated as of July 1, 1996 as amended (the "Agreement"), to secure such Bonds. The Authority Debt is to be incurred under and repaid as provided in the Agreement.

Section 4. The Secretary to the Authority is hereby directed to certify a copy of this resolution to the Board thereby formally approving the steps (or ratifying such steps) for issuance of the Bonds of the District for the purposes set forth above.

Section 5. This resolution shall become effective on its passage and adoption.

PASSED, ADOPTED AND APPROVED with the approval of each board member appointed by an SNWS purveyor member (as defined in the SNWS Operating Agreement) on this May 16, 2013.

_____
Chairman

_____
Secretary

STATE OF NEVADA)
) ss.
COUNTY OF CLARK)
)
SOUTHERN NEVADA)
WATER AUTHORITY)

I, Patricia Mulroy, the duly chosen and qualified Secretary of the Southern Nevada Water Authority (the "Authority"), do hereby certify:

1. The foregoing pages constitute a true, correct, complete and compared copy of a resolution adopted by the Board of Directors of the Authority (the "Board") on May 16, 2013.

2. The original of the resolution has been approved and authenticated by the signatures of the Chairman of the Authority and the Board and myself as Secretary of the Authority and the Board, and sealed with the seal of the Authority, and has been recorded in the minute book of the Board kept for that purpose in my office which record has been duly signed by such officers and properly sealed.

3. All of the members of the Board present at the meeting voted on the passage of the resolution as follows:

Those Voting Aye: Sam Bateman
Susan Brager
Shari Buck
Bob Coffin
Duncan McCoy
Mary Beth Scow
Steve Sisolak

Those Voting Nay: _____
_____

Those Abstaining: _____
_____

Those Absent : _____
_____

4. All members of the Board were given due and proper notice of the meeting.

463004
463004-002206.052

5. Pursuant to NRS 241.020, written notice of the meeting was given by 9:00 a.m. at least three working days before the meeting, including in the notice the time, place, location and agenda of the meeting:

(a) By giving a copy of the notice to each member of the Board;

(b) By posting a copy of the notice on the Authority's website, if any; at the principal office of the Board, or if there is no principal office, at the building in which the meeting is to be held; and at least three other separate, prominent places within the jurisdiction of the Board, to wit:

(i) Las Vegas Valley Water District
1001 S. Valley View Boulevard
Las Vegas, Nevada

(ii) Clark County Government Center
500 South Grand Central Parkway
Las Vegas, Nevada

(iii) Clark County Water Reclamation District
5857 E. Flamingo Road
Las Vegas, Nevada

(iv) City of Las Vegas, City Hall
400 East Stewart Avenue
Las Vegas, Nevada

and

(c) By giving a copy of the notice to each person, if any, who has requested notice of the meetings of the Board in the same manner in which notice is required to be mailed to a member of the Board. Such notice was deposited with the postal service used by the Board no later than 9:00 a.m. at least three working days before the May 16, 2013 meeting.

6. A copy of the notice so given of the meeting of the Board held on May 16, 2013 is attached hereto as Exhibit A.

7. Upon request, the governing body provides, at no charge, at least one copy of the agenda for its public meetings, any proposed ordinance or regulation which will be discussed at the public meeting, and any other supporting materials provided to the members of the governing body for an item on the agenda, except for certain confidential materials and materials pertaining to closed meetings, as provided by law.

IN WITNESS WHEREOF, I have hereunto set my hand on behalf of the Southern Nevada Water Authority in Clark County, Nevada, this May 16, 2013.

_____

Secretary, Southern Nevada Water Authority

Exhibit A

(Attach Copy of Notice of Meeting)

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

May 16, 2013

Subject: IRPAC Update	**Director's Backup**
Petitioner: John J. Entsminger, Senior Deputy General Manager	
Recommendations: That the Board of Directors receive an update on the progress of the Integrated Resource Planning Advisory Committee (IRPAC), modify the composition of the Technical Review Committee, and direct the IRPAC to make suggestions on appointments to the Technical Review Committee in advance of Board action to appoint the Technical Review Committee.	

Fiscal Impact:
None by approval of the above recommendation.

Background:
On April 19, 2012, the Board of Directors established the Integrated Resource Planning Advisory Committee (IRPAC) to consider the interrelated aspects of many water issues and develop formal recommendations for Board consideration. Since June 2012, the IRPAC has met 12 times and has made significant progress in developing recommendations for meeting future funding requirements. The IRPAC process will be used for all major rate-design cases. The current IRPAC has defined guiding principles for rate design which will be reviewed and updated as appropriate by future IRPACs during the rate-making process.

On April 18, 2013, the Board approved the creation of a Technical Review Committee (TRC), which will review and verify data and model output being forwarded to IRPAC. The TRC will serve two principal functions: to review and verify inputs, assumptions and other key variables and factors involved in the rate design; and to validate that the impact analysis of the various options being considered by IRPAC reflect the full spectrum of impacts to various customer groups for each of the options. In this way, the IRPAC will be able to forward to the Board, and the Board subsequently consider and possibly adopt, a rate that is not unduly burdensome or disproportionate, and that any differences in rate structure between customer classes are not arbitrary, unreasonable, or unjustified. The TRC shall consist of five members appointed by the Board. Four members will be from the business or academic communities with qualifying credentials or experience in economics, public and/or business finance; one member will have experience with public water utilities and rate making design (which may be an employee or a retired professional from a non-Nevada comparably-sized utility).

The IRPAC is scheduled to meet next on June 24, 2013, to further refine rate recommendations under consideration. In addition, IRPAC members are expected to discuss the TRC and develop membership suggestions for consideration by the Board. The Board would then appoint the members to the TRC at its next meeting.

This action is authorized by Sections 6(c) and 6(p) of the SNWA 1995 Amended Cooperative Agreement. The office of the General Counsel has reviewed and approved this agenda item.

Respectfully submitted:

P Mulroy

Patricia Mulroy, General Manager
PM:JJE:PDS:JAW:AMB:LS:KH

AGENDA ITEM # 12

SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
AGENDA ITEM

May 16, 2013

Subject: Update on Water Resources	**Director's Backup**
Petitioner: Patricia Mulroy, General Manager	
Recommendations: That the Board of Directors receive an update from staff on water resources including, but not limited to, drought conditions in the Colorado River Basin, the results of the implementation of the Authority's Water Resource and Conservation Plans, activities on the Colorado River, the development of in-state water resources, and the status of the third intake project.	

Fiscal Impact:
None by approval of the above recommendation.

Background:
The Colorado River Basin has been experiencing a severe drought that began in 2000. The severity of these conditions has become increasingly evident in lake levels along the lower Colorado River Basin, where major reservoirs such as Lake Powell and Lake Mead are experiencing some of the lowest water levels in recent memory.

The nature of the drought in the Colorado River Basin has direct effects on water resources and future planning. The drought has prompted communities to launch major conservation initiatives to reduce water use among citizens and businesses, and has resulted in the development and implementation of the Authority's Water Resource and Conservation Plans.

In May 2005, the Board of Directors approved a project for design and construction of a third intake in Lake Mead with the primary objective of protecting southern Nevada's water supply from significant loss of system capacity resulting from a continuing decline in lake elevation. The project design and environmental approvals were completed by 2007. Construction began on the project in March of 2008.

This agenda item provides for an update from staff on the drought, the results of the implementation of the Authority's Water Resource and Conservation Plans, activities on the Colorado River, the development of in-state water resources, and the status of the third intake project.

The office of the General Counsel has reviewed and approved this agenda item.

Respectfully submitted:

P Mulroy

Patricia Mulroy, General Manager
PM:~~JJE:td~~

AGENDA ITEM # 13